REPUBLIC OF KENYA

MINISTRY OF LANDS, PUBLIC WORKS, HOUSING, AND URBAN DEVELOPMENT

STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

Tender Document

For

PROPOSED CONSTRUCTION OF CHUKA PW AHP PROJECT, CHUKA IGAMBANG'OMBE CONSTITUENCY, THARAKA NITHI COUNTY WITH ASSOCIATED INFRASTRUCTURE

TENDER NO.

MLPWHUD/SDHUD/AHP/345/ 2023-2024

Ministry of Lands, Public Works, Housing, and Urban Development,
State Department for Housing and Urban Development,
P.O Box 30119-00100
Nairobi, Kenya
Tel: +254-020-2713833

Closing Date: 17th May, 2024

PROJECT DATA SHEET

PROPOSED CONSTRUCTION OF CHUKA PW AHP PROJECT, CHUKA IGAMBANG'OMBE CONSTITUENCY, THARAKA NITHI COUNTY WITH ASSOCIATED INFRASTRUCTURE			
Item	**DETAILS OF SITE**	**PROJECT PARTICULARS**	
1	**Tender No**	MLPWHUD/SDHUD/AHP/345/ 2023-2024	
2	**Site location**	Igambang'ombe Constituency, Tharaka Nithi County	
3	**Land Size**	Approximately 2 Acres	
4	**Scope**	385No. of Units in 1No of blocks Type A, 2 No block Type B & 1 No block Type B distributed as follows 1 Room Social Housing : 10 Units 2 Room Social Housing : 18 Units 3 Room Social Housing : 10 Units Studio Apt Affordable Housing : 41 Units 2Br Apt Affordable Housing : 97 Units 3Br Apt Affordable Housing : 40 Units 2Br Apt Market Housing : 60 Units 3Br Apt Market Housing : 60 Units Shops : 9 Units ***Note: Bidders are notified that the Procuring Entity may make changes to the scope of works during evaluation of tenders***	
5	**Amenities**	Power House, Guard House, Garbage Receptacles, pitches	
6	**External works**	Roads & Parking works, Boundary wall, Landscaping,	
7	**Built area**	24,626.62sm	

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1) NAME AND CONTACT ADDRESSES OF PROCURING ENTITY

Ministry of Lands, Public Works, Housing, and Urban Development,
State Department for Housing and Urban Development,
P.O Box 30119-00100
Nairobi, Kenya

Tel: +254-020-2713833

2) Invitation to Tender (ITT) No: MLPWHUD/SDHUD/AHP /345/2023-2024

3) **Tender Name: PROPOSED CONSTRUCTION OF CHUKA PW AHP PROJECT, CHUKA IGAMBANG'OMBE CONSTITUENCY, THARAKA NITHI COUNTY WITH ASSOCIATED INFRASTRUCTURE**

INVITATION TO TENDER

PROCURING ENTITY: STATE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
CONTRACT NAME AND DESCRIPTION: **PROPOSED CONSTRUCTION OF CHUKA PW AHP PROJECT, CHUKA IGAMBANG'OMBE CONSTITUENCY, THARAKA NITHI COUNTY WITH ASSOCIATED INFRASTRUCTURE**

1. The **State Department for Housing and Urban Development** invites sealed tenders for the construction of Proposed **Construction of Chuka PW AHP Project, Chuka Igambang'ombe Constituency, Tharaka Nithi County with Associated Infrastructure**

2. Tendering will be conducted under open competitive method **(National)** using a standardized tender document. Tendering is open to Contractors Registered in the appropriate Category for Builders Works **(NCA Category 1 Only.** The tender is open to those who meet the requirements of eligibility as contained in this invitation and the tender documents

3. Qualified and interested tenderers may obtain further information and inspect the Tender Documents during office hours at the address given below.

4. A complete set of tender documents may be obtained, downloaded and viewed by interested tenderers for free from the website *www.housingandurban.go.ke*. Tenderers who download the tender document must forward their particulars immediately to the Principal Secretary, State Department for Housing and Urban Development to facilitate any further clarifications or addendum that may be issued. Further clarifications and Addendum shall be posted at *www.housingandurban.go.ke*.

5. Tender documents may be viewed and downloaded for free from the website *https://housingandurban.go.ke/tenders/*. Tenderers who download the tender document must forward their particulars immediately to **the Principal Secretary, State Department for Housing and Urban Development, *procurement@housingandurban.go.ke*** to facilitate any further clarification or addendum that may be issued. Further clarifications and Addendum shall be posted at www.housingandurban.go.ke.

6. Tenders shall be quoted be in Kenya Shillings and shall include all taxes. Tenders shall remain valid for **150 days** from the date of opening of tenders.

7. All Tenders must be accompanied by a by a **Tender Security as specified in the Tender Data Sheet Clause ITT 19.1**.

8. The Tenderer **shall** chronologically serialize all pages of the tender documents submitted in the numerical format i.e., 1, 2, 3, 4 ..... including the cover page. Tender Document must be tape bound and not Spiral bound. Spiral bound documents shall be automatically disqualified. In addition, bidders **MUST** submit a soft copy in PDF and excel format during bid opening which is a replica of the original bid document. **This instruction is issued pursuant to Section 74(1)(j) of the Public Procurement and Assets Disposal Act, 2015.**

9. Completed tenders must be delivered to the address below on or before, **17th May, 2024 at 9.00am (East African Time).** Electronic Tenders ***will not*** be permitted.

10. Tenders will be opened immediately after the deadline date and time specified above or any deadline date and times specified later. Tenders will be publicly opened in the presence of the Tenderers' designated representatives who choose to attend at the address below.

11. Late tenders will be rejected.

12. The addresses referred to above are:

A. ***Address for obtaining further information***

State Department for Housing and Urban Development
Room 606 B, 6th Floor, Ardhi House, 1st Ngong Avenue
P.O. Box 30119 -00100
NAIROBI.

B. ***Address for Submission of Tenders.***

State Department for Housing and Urban Development
Tender Box, 6th Floor, Ardhi House, 1st Ngong Avenue
P.O. Box 30119 -00100
NAIROBI.

C. ***Address for Opening of Tenders.***

State Department for Housing and Urban Development
Boardroom, 6th Floor, Ardhi House, 1st Ngong Avenue
P.O. Box 30119 -00100
NAIROBI.

Head, Supply Chain Management Services
For: PRINCIPAL SECRETARY

PART1: TENDERING PROCEDURES

SECTION I - INSTRUCTIONS TO TENDERERS

A GENERAL PROVISIONS

1.0 Scope of tender

1.1 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.

1.2 Throughout this tendering document:

a) The term "inwriting" means communicated in written form (e.g. by mail, e-mail, fax, including if specified in the TDS, distributed or received through the electronic-procurement system used by the Procuring Entity) with proof of receipt;

b) if the context so requires, "singular" means "plural" and vice versa.

c) "Day" means calendar day, unless otherwise specified as "Business Day". A Business Day is any day that is an official working day of the Procuring Entity. It excludes official public holidays.

2.0 Fraud and corruption

2.1 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.

2.2 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.

2.3 Tenderers shall permit and shall cause their agents (whether declared or not), subcontractors, sub-consultants, service providers, suppliers, and their personnel, to permit the Procuring Entity to inspect all accounts, records and other documents relating to any initial selection process, pre-qualification process, tender submission, proposal submission, and contract performance (in the case of award), and to have them audited by auditors appointed by the Procuring Entity.

2.4 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 in formation that would in that respect give such firm any unfair competitive advantage over competing firms.

3.0 Eligible tenderers

3.1 A Tenderer may be a firm that is a private entity, a state-owned enterprise or institution subject to ITT 3.8, or an individual or any combination of such entities in the form of a joint venture (JV) under an existing agree mentor with the intent to enter in to such an agreement supported by a letter of intent. 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. 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. The maximum number of JV members shall be specified in the **TDS.**

3.2 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.

3.3 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:

a) Directly or indirectly controls, is controlled by or is under common control with an other tenderer.

b) Receives or has received any director indirect subsidy from another tenderer.

c) Has the same legal representative as an other tenderer.

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

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

f) Any of its affiliates has been hired (or is proposed to be hired) by the Procuring Entity as a consultant for Contract implementation.

g) 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.

h) Has a close business or personal relationship with senior management or professional staff of the Procuring Entity who has the ability to influence the bidding process and:

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

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

3.5 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. Members of a joint venture may not also make an individual tender, be a sub-contractor in a separate tender or be part of another joint venture for the purposes of the same Tender. A firm that is not a tenderer or a JV member may participate as a subcontractor in more than one tender.

3.6 A Tenderer may have the nationality of any country, subject to the restrictions pursuant to ITT3.9. 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 sub-contractors or sub-consultants for any part of the Contract including related Services.

3.7 A 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.

3.8 A Tenderer that is a state-owned enterprise or a public institution in Kenya may be eligible to tender and be awarded Contract(s) only if it is determined by the Procuring Entity to meet the following conditions, i.e. if it is:

i) A legal public entity of 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 enterprisetoenableitcompetewithfirmsintheprivatesectoronanequalbasis.

3.9 Firms and individuals shall be ineligible if their countries of origin are:

(a) As a matter of law or official regulations, Kenya prohibits commercial relations with that country;

(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.

3.10 Foreign tenderers are required to source at least forty (40%) percent of their contract inputs (in supplies, local sub-contracts and labor) from citizen 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 for this purpose in *"SECTIONI II - EVALUATION AND QUALIFICATION CRITERIA, Item 9"*.

3.11 Pursuant to the eligibility requirements of ITT 3.10, a tender is considered a foreign tenderer, If it is registered in Kenya and has less than 51 percent ownership by nationals of Kenya and if it does not subcontract to foreign firms or individuals more than 10 percent of the contract price, excluding provisional sums. JVs are considered as foreign tenderers if the individual member firms registered in Kenya have less 51 percent ownership by nationals of Kenya. The JV shall not subcontract to foreign firms more than 10 percent of the contract price, excluding provisional sums.

3.12 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.

3.13 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.

4.14 A kenyan tenderer shall be eligible to tender if it provides evidence of having fulfilled his/her tax obligations by producing valid tax compliance certificate or tax exemption certificate issued by the Kenya Revenue Authority.

4.0 Eligible goods, equipment, and services

4.1 Goods, equipment and services to be supplied under the Contract may have their origin in any country that is not ineligible 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.

4.2 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.

5.0 Tenderer's responsibilities

5.1 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.

5.2 The tenderer, at the tenderer's own responsibility and risk, is encouraged to visit and examine and inspect 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 beat the tenderer's own expense.

5.3 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 again stall 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 examination and inspection.

5.4 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.

B. CONTENTS OF TENDER DOCUMENTS

6.0 Sections of Tender Document

6.1 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 10.

PART 1: Tendering Procedures
Section I – Instructions to Tenderers
Section II – Tender Data Sheet (TDS)
Section III- Evaluation and Qualification
Criteria Section IV – Tendering Forms

PART 2: Works' Requirements
Section V - Bills of Quantities
Section VI - Specifications
Section VII - Drawings

PART 3: **Conditions of Contract and Contract Forms**
Section VIII - General Conditions (GCC)
Section IX - Special Conditions of Contract
Section X- Contract Forms

6.2 The Invitation to Tender Notice 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 a pre-arranged site visit and those of the pre-Tender meeting (if any), or Addenda to the Tender document in accordance with ITT 10. Incase of any contradiction, documents obtained directly from the Procuring Entity shall prevail.

6.3 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.

7.0 Clarification of Tender Document, Site Visit, Pre-tender Meeting

7.1 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 if provided for in accordance with ITT 7.2. 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 p**rior 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 7.4, including a description of the inquiry but without identifying its source. If so 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 following the procedure under ITT 8 and ITT 22.2.

7.2 The Tenderer, at the Tenderer's own responsibility and risk, is encouraged to visit and examine and inspect the site(s) of the required contracts and obtain all information that may be necessary for preparing a tender. The costs of visiting the Site shall be at the Tenderer's own expense. The Procuring Entity shall specify in the **TDS** if a pre-arranged Site visit and or a pre-tender meeting will be held, when and where. The Tenderer's designated representative is invited to attend a pre-arranged site visit and a pre-tender meeting, as the case may be. The purpose of the site visit and the pre-tender meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.

7.3 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.

7.4 Minutes of a pre-arranged site visit and those of the pre-tender meeting, 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. Minutes shall not identify the source of the questions asked.

7.5 The Procuring Entity shall al so promptly publish anonymized (*no names*) Minutes of the pre-arranged site visit and those of the pre-tender meeting at the web page identified in the **TDS**. Any modification to the Tender Documents that may become necessary as a result of the pre-arranged site visit and those of the pre-tender meeting 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. Non-attendance at the pre-arranged site visit and the pre-tender meeting will not be a cause for disqualification of a Tenderer.

8.0 Amendment of Tender Documents

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

8.2 Any addendum issued shall be part of the Tender Documents and shall be communicated in writing to all who have obtained the Tender Documents from the Procuring Entity. The Procuring Entity shall also promptly publish the addendum on the Procuring Entity's website in accordance with ITT 7.5.

8.3 To give Tenderers reasonable time in which to take an addendum into account in preparing their Tenders, the Procuring Entity should extend the deadline for the submission of Tenders, pursuant to ITT 22.2.

C. PREPARATION OF TENDERS

9. 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.

10.0 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.

11.0 Documents Comprising the Tender

11.1 The Tender shall comprise the following:

a) Form of Tender prepared in accordance with ITT 12;
b) Schedules including priced Bill of Quantities, completed in accordance with ITT 12 and ITT 14;
c) Tender Security or Tender-Securing Declaration, in accordance with ITT 19.1;
d) Alternative Tender, if permissible, in accordance with ITT 13;
e) ***Authorization****:* written confirmation authorizing the signatory of the Tender to commit the Tenderer, in accordancewithITT20.3;
f) *Qualifications:* documentary evidence in accordance with ITT 17 establishing the Tenderer's qualifications to perform the Contract if its Tender is accepted;
g) *Conformity:* a technical proposal in accordance with ITT 16;
h) Any other document required in the **TDS.**

11.2 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 JV Agreement. Change of membership and conditions of the JV prior to contract signature will render the tender liable for disqualification.

12.0 Form of Tender and Schedules

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

12.2 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.

13. Alternative Tenders

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

13.2 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.

13.3 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.

13.4 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.

14.0 Tender Prices and Discounts

14.1 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.

14.2 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.

14.3 The price to be quoted in the Form of Tender, in accordance with ITT 12.1, shall be the total price of the Tender, including any discounts offered.

14.4 The Tenderer shall quote any discounts and the methodology for their application in the Form of Tender, in accordance with ITT 12.1.

14.5 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.

14.6 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 14.4, provided the Tenders for all lots (contracts) are opened at the same time.

14.7 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.

15.0 Currencies of Tender and Payment

15.1 The currency(ies) of the Tender and the currency(ies) of payments shall be the same**.**

15.2 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) A Tenderer expecting to incur expenditures in other currencies for inputs to the Works supplied from outside Kenya (referred to as "the foreign currency requirements") shall (if so allowed in the **TDS**) indicate in the Appendix to Tender the percentage(s) of the Tender Price (excluding Provisional Sums), needed by the Tenderer for the payment of such foreign currency requirements, limited to no more than two foreign currencies.

b) The rates of exchange to be used by the Tenderer in arriving at the local currency equivalent and the percentage(s) mentioned in (a) above shall be specified by the Tenderer in the Appendix to Tender and shall be based on the exchange rate provided by the Central Bank of Kenya on the date 30 days prior to the actual date of tender opening. Such exchange rate shall apply for all foreign payments under the Contract.

15.3 Tenderers may be required by the Procuring Entity to justify, to the Procuring Entity's satisfaction, their local and foreign currency requirements, and to substantiate that the amounts included in the unit rates and prices and shown in the Schedule of Adjustment Data in the Appendix to Tender are reasonable, in which case a detailed break down of the foreign currency requirements shall be provided by Tenderers.

16.0 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, insufficient detail to demonstrate the adequacy of the Tenderer's proposal to meet the work's requirements and the completion time.

17.0 Documents Establishing the Eligibility and Qualifications of the Tenderer

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

17.2 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.

17.3 If a margin of preference applies as specified in accordance with ITT 33.1, nation al tenderers, individually or in joint ventures, applying for eligibility for national preference shall supply all information required to satisfy the criteria for eligibility specified in accordance with ITT 33.1.

17.4 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 particular 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.

17.5 The purpose of the information described **in ITT 17.4** 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.

17.6 The Tenderer shall provide further documentary proof, information or authorizations that the Procuring Entity may request in relation to owner ship and control which in formation on any changes to the information which was provided by the tenderer under ITT 6.4. 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.

17.7 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.

17.8 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.

17.9 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:

i) If the procurement process is still ongoing, the tenderer will bed is qualified from the procurement process,

ii) if the contract has been awarded to that tenderer, the contract award will be set as depending on the outcome of (iii),

iii) the tenderer will be referred to the relevant law enforcement authorities for investigation of whether the tenderer or any other person shave committed any criminal offence.

17.10 If a tenderer submits information pursuant to these requirements that is in complete, in accurate or out-of-date, or attempts to obstruct the verification process, then the consequences ITT 17.8 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 tender.

18.0 Period of Validity of Tenders

18.1. 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 22). At ender valid for a shorter period shall be rejected by the Procuring Entity as non-responsive.

18.2 In exceptional circumstances, prior to the expiration of the Tender validity period, the Procuring Entity may requestTendererstoextendtheperiodofvalidityoftheirTenders.Therequestandtheresponsesshallbemadein writing. If a Tender Security is requested in accordance with ITT 19, 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 Tendersecurity.ATenderergrantingtherequestshallnotberequiredorpermittedtomodifyitsTender.

19.0 Tender Security

19.1 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.

19.2 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:

I) cash;

ii) a bank guarantee;

iii) a guarantee by an insurance company registered and licensed by the Insurance Regulatory Authority listed by the Authority;

(iv) a guarantee issued by a financial institution approved and licensed by the Central Bank of Kenya, from a reputable source, and an eligible country.

19.3 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 18.2.

19.4 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.

19.5 If a Tender Security is specified pursuant to ITT 19.1, 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 non-responsive or a bidder declines to extend tender validity period.

19.6 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.

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

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

b) if the successful Tenderer fails to: -

i) sign the Contract in accordance with ITT47; or

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

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

19.9 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.

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

20.0 Format and Signing of Tender

20.1 The Tenderer shall prepare one original of the documents comprising the Tender as described in ITT 11 and clearly mark it “ORIGINAL.” Alternative Tenders, if permitted in accordance with ITT 13, 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 origin a land the copies, the original shall prevail.

20.2 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.

20.3 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.

20.4 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 so as to be legally binding on all the members as evidenced by a power of attorney signed by their legally authorized representatives.

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

D. SUBMISSION AND OPENING OF TENDERS

21.0 Sealing and Marking of Tenders

21.1 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:

a) in an envelope or package or container marked “ORIGINAL”, all documents comprising the Tender, as

described in ITT 11; and

b) in an envelope or package or container marked "COPIES", all required copies of the Tender; and

c) if alternative Tenders are permitted in accordance with ITT 13, and if relevant:

   i) in an envelope or package or container marked "ORIGINAL –ALTERNATIVE TENDER", the alternative Tender; and

   ii) 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:

a) bear the name and address of the Procuring Entity,

b) bear the name and address of the Tenderer; and

c) bear the name and Reference number of the Tender.

21.2 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 misplaced or opened prematurely will not be accepted.

22.0 Deadline for Submission of Tenders

22.1 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**.

22.2 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.

23.0 Late Tenders

The Procuring Entity shall not consider any Tender that arrives after the deadline for submission of tenders, in accordance with ITT 22. 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.

24.0 Withdrawal, Substitution, and Modification of Tenders

24.1 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 20.3, (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:

a) prepared and submitted in accordance with ITT 20 and ITT 21 (except that withdrawals notices do not require copies), and in addition, the respective envelopes shall be clearly marked "WITHDRAWAL," "SUBSTITUTION," "MODIFICATION;" and

b) received by the Procuring Entity prior to the deadline prescribed for submission of Tenders, in accordance with ITT 22.

24.2 Tenders requested to be withdrawn in accordance with ITT 24.1 shall be returned unopened to the Tenderers.

24.3 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.

25. Tender Opening

25.1 Except in the cases specified in ITT 23 and ITT 24.2, 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 22.1, shall be as specified in the **TDS.**

252 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.

25.3 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.

25.4 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 authorizationtorequestthemodificationandisreadoutatTenderopening.

25.5 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.

25.6 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 Bill of Quantities (to be decided on by the tender opening committee) are to be initialed by the members of the tender opening committee attending the opening.

25.7 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 23.1).

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

a) the name of the Tenderer and whether there is a withdrawal, substitution, or modification;
b) the Tender Price, per lot (contract) if applicable, including any discounts;
c) any alternative Tenders;
d) the presence or absence of a Tender Security, if new as required;
e) number of pages of each tender document submitted.

25.9 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.

E. EVALUATION AND COMPARISON OF TENDERS

26. Confidentiality

26.1 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 43.

26.2 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.

26.3 Notwithstanding ITT 26.2, 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.

27.0 Clarification of Tenders

27.1 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 31.

27.2 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.

28.0 Deviations, Reservations, and Omissions

28.1 During the evaluation of tenders, the following definitions apply: -

a) *"Deviation"* is a departure from the requirements specified in the tender document;
b) *"Reservation"* is the setting of limiting conditions or withholding from complete acceptance of the requirements specified in the tender document; and
c) *"Omission"* is the failure to submit part or all of the information or documentation required in the Tender document.

29.0 Determination of Responsiveness

29.1 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 11.

29.2 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:

a) Affecting any substantial way, the scope, quality, or performance of the Works specified in the Contract;
b) limit in any substantial way, inconsistent with the tender document, the Procuring Entity's rights or the tenderer's obligations under the proposed contract;
c) if rectified, would unfairly affect the competitive position of other tenderers presenting substantially responsive tenders.

29.3 The Procuring Entity shall examine the technical aspects of the tender submitted in accordance with ITT 16, to confirm that all requirements of Section VII, Works' Requirements have been met without any material deviation, reservation or omission.

29.4 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.

30.0 Non-material non-conformities

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

30.2 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 of time, to rectify non-material 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.

30.3 Provided that a tender is substantially responsive, the Procuring Entity shall rectify quantifiable non-material 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.**

31.0 Arithmetical Errors

31.1 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.

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

a) 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.
b) Any errors in the submitted tender arising from a miscalculation of unit price, quantity, 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
c) if there is a discrepancy between words and figures, the amount in words shall prevail

31.3 Tenderers shall be notified of any error detected in their bid during the notification of award.

32.0 Conversion to Single Currency

For evaluation and comparison purposes, the currency(ies) of the Tender shall be converted in to a single currency as specified in the **TDS**.

33.0 Margin of Preference and Reservations

33.1 A margin of preference may be allowed only when the contract is open to international competitive tendering where foreign contractors are expected to participate in the tendering process and where the contract exceeds the value/threshold specified in the Regulations.

33.2 A margin of preference shall not be allowed unless it is specified so in the **TDS**.

33.3 Contracts procured on basis of international competitive tendering shall not be subject to reservations exclusive to specific groups as provided in ITT 33.4.

33.4 Where it is intended to reserve a contract to a specific group of businesses (these groups are Small and Medium Enterprises, Women Enterprises, Youth Enterprises and Enterprises of persons living with disability, as the case may be), and 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 or firms belonging to the specified group are eligible to tender. No tender shall be reserved to more than one group. If not so stated in the Invitation to Tender and in the Tender documents, the invitation to tender will be open to all interested tenderers.

34.0 Nominated Subcontractors

34.1 Unless otherwise stated in the **TDS,** the Procuring Entity does not intend to execute any specific elements of the Works by subcontractors selected/nominated by the Procuring Entity. In case the Procuring Entity nominates a subcontractor, the subcontract agreement shall be signed by the Subcontractor and the Procuring Entity. The main contract shall specify the working arrangements between the main contractor and the nominated subcontractor.

34.2 Tenderers may propose sub-contracting 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.

34.3 Domestic 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 so by the Procuring Entity in the **TDS** a scan 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.

35. Evaluation of Tenders

35.1 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 Lowest Evaluated Tender in accordance with ITT 40.

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

a) Price adjustment in accordance with ITT 31.1 (iii); excluding provisional sums and contingencies, if any, but including Daywork items, where priced competitively;
b) price adjustment due to discounts offered in accordance with ITT 14.4;
c) converting the amount resulting from applying (a) and (b) above, if relevant, to a single currency in accordance with ITT 32;
d) price adjustment due to quantifiable non material non-conformities in accordance with ITT 30.3; and
e) any additional evaluation factors specified in the **TDS** and Section III, Evaluation and Qualification Criteria.

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

35.4 Where the tender involves multiple lots or contracts, the tenderer will be allowed to tender for one or more lots (contracts). Each lot or contract will be evaluated in accordance with ITT 35.2. The methodology to determine the lowest evaluated tenderer or tenderers base done lot (contract) or based on a combination of lots (contracts), will be specified in Section III, Evaluation and Qualification Criteria. In the case of multiple lots or contracts, tenderer will be required to prepare the Eligibility and Qualification Criteria Form for each Lot.

36.0 Comparison of tenders

The Procuring Entity shall compare the evaluated costs of all substantially responsive Tenders established in accordance with ITT 35.2 to determine the Tender that has the lowest evaluated cost.

37.0 Abnormally low tenders and abnormally high tenders

Abnormally Low Tenders

37.1 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 regard to the Tenderer's ability to perform the Contract for the offered Tender Price or that genuine competition between Tenderersis compromised.

37.2 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.

37.3 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

37.4 An abnormally high tender 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.

37.5 Incase of a nab normally high 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:

i) If the tender price is abnormally high based on wrong estimated cost of the contract, the Procuring Entity may accept or not a ccept the tender depending on the Procuring Entity's budget considerations.

ii) 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.

37.6 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.

38.0 Unbalanced and/ or front-loaded tenders

38.1 If in the Procuring Entity's opinion, the Tender that is evaluated as the lowest evaluated price is seriously unbalanced and/or frontloaded, 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.

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

a) accept the Tender;

b) 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;

c) agree on a payment mode that eliminates the inherent risk of the Procuring Entity paying too much for undelivered works;

d) reject the Tender,

39.0 Qualifications of the tenderer

39.1 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.

39.2 The determination shall be based upon an examination of the documentary evidence of the Tenderer's qualifications submitted by the Tenderer, pursuant to ITT 17. 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 Sub-contractors if permitted in the Tender document), or any other firm(s) different from the Tenderer.

39.3 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.

40.0 Lowest evaluated tender

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

a) Most responsive to the Tender document; and

b) the lowest evaluated price.

41.0 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 there by incurring any liability to Tenderers. Incase of annulment, all Tenders submitted and specifically, Tender securities, shall be promptly returned to the Tenderers.

F. AWARD OF CONTRACT

42.0 Award criteria

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

43.0 Notice of Intention to Enter into a Contract/Notification of Award

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:

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

b) the Contract price of the successful tender;

c) 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;

d) the expiry date of the Standstill Period; and

e) instruction son how to request a debriefing and/ or submit a complaint during the stand still period;

44.0 Stand still period

44.1 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.

44.2 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.

45.0 Debriefing by The Procuring Entity

45.1 On receipt of the Procuring Entity's Notification of Intention to Enter into a Contract referred to in ITT 43, 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.

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

46.0 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 with in 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.

47.0 Signing of Contract

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

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

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

48.0 Performance Security

48.1 Within twenty-one (21) days of the receipt of the Letter of Award 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 38.2 (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.

48.2 Failure of the successful Tenderer to submit the above-mentioned Performance Security and otherdocuments 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.

48.3 Performance security shall not be required for contracts estimated to cost less than the amount specified inthe Regulations.

49.0 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:

a) name and address of the Procuring Entity;

b) name and reference number of the contract being awarded, a summary of its scope and the selection method used;
c) the name of the successful Tenderer, the final total contract price, the contract duration;
d) dates of signature, commencement and completion of contract;
e) names of all Tenderers that submitted Tenders, and their Tender prices as readout at Tender opening.

50.0 Procurement related Complaints and Administrative Review

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

50.2 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.

Reference to ITC Clause	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS
A. General	
ITT 1.1	The name of the contract is: **Proposed Construction of Chuka PW AHP Project, Chuka Igambang'ombe Constituency, Tharaka Nithi County with associated infrastructure** The reference number of the Contract is: **TENDER No MLPWHUD/SDHUD/AHP /345/2023-2024**
ITT 2.4	The Information made available on competing firms is as follows: N/A
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: **Two**
B. Contents of Tender Document	
ITT 7.1	The Tenderer will submit any request for clarifications in writing at the Address: (1) Name of Procuring Entity: **State Department of Housing and Urban Development** (2) Physical address for hand Courier Delivery to an office: **1st Ngong avenue, Ardhi House, 6th Floor, Wing B, Room 606** (3) Postal Address; **P.O. Box 30119-00100 Nairobi** (4) Officer to be contacted: **Head, Supply Chain Management Services** **Email: *procurement@housingandurban.go.ke***
ITT 7.2	A pre-arranged meeting / pretender site visit **shall not** take place at the following date, time and place: Date: **N/A** Time: **N/A** Place: **N/A** Pre-Tender meeting **shall** take place at the following date, time and place: **Date: Monday 13th May, 2024** **Time: 10.00am (GMT+3)** **Place: Ardhi House 6th Floor Boardroom, Wing B**
ITT 7.3	The Tenderer will submit any questions in writing, to reach the Procuring Entity not later than **2 Days** before the meeting.
ITT 7.5	The Procuring Entity's website where Minutes of the pre-Tender meeting and the pre-arranged pretender will be published is *https://housingandurban.go.ke/tenders/*

Reference to ITC Clause	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS
ITT 9.1	For Clarification of Tender purposes, for obtaining further information and for purchasing tender documents, the Procuring Entity's address is: (1) Name of Procuring Entity: **State Department of Housing and Urban Development** (2) Physical address for hand Courier Delivery to an office: **1st Ngong avenue, Ardhi House, 6th Floor, Wing B, Room 606** (3) Postal Address; **P.O. Box 30119-00100 Nairobi** (4) Officer to be contacted: **Head, Supply Chain Management Services** **Email: *procurement@housingandurban.go.ke***
C. Preparation of Tenders	
ITT 11.1 (h)	The Tenderer shall submit the following additional documents in its Tender (In addition to those described under ITT 11.1 (a) to (g)): 1. Certified copy of Registration certificate from National Construction Authority, Category NCA1 ONLY in Building works (General Building Contractor), and the current Practicing License. 2. Copies of audited accounts and bank statements for each of the last three year(s) beginning from the most recent year *(2021, 2022 and 2023)*. 3. Certified Copy of Company Registration / Incorporation Certificates. (For Main Contractor and Domestic Sub-Contractors) - (certified by commissioner for oaths) 4. Certified copy of Valid Tax Compliance Certificate, including a certified copy of the company's Pin Certificate. (For Main Contractor and Domestic Sub-Contractors) 5. Provide letter of Authority to seek references from bidder's bank (letter addressed to specific Banks giving authority to Client to verify the bank statements for the Main Contractor). 6. A copy of company's list of directors, beneficial owners, name of proprietor or names of partners (Copy of CR12 / CR13) issued within the last one year and showing the list of directors (certified by commissioner for oaths)

Reference to ITC Clause	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS
	The Bidder is required to be registered by the authorities listed below and provide the relevant documentation. If not, the bidder shall provide the listed Domestic Sub-Contractors and provide the relevant applicable documents showing their qualification: i.) Electrical Installations Sub-contractor a) Company Certificate of Incorporation b) Valid NCA category 1 Company Registration – Electrical Engineering Services [Electrical Installations] c) Valid Company Tax Compliance Certificate d) EPRA Electrical Contractor License Class A-1 ii.) Lift Installations Sub-contractor a) Company Certificate of Incorporation b) Valid NCA category 1 Company Registration - Electrical Engineering Service [Lifts] c) Valid Company Tax Compliance Certificate d) EPRA Electrical Contractor License Class A-2 iii.) ICT / Security Installations Sub-contractor a) Company Certificate of Incorporation b) Valid NCA category 1 Company Registration - Electrical Engineering Service [ICT/ Security Installations / CCTV] c) Valid Company Tax Compliance Certificate d) Communication Authority of Kenya [Telecommunication Contractor's licence iv.) Mechanical Plumbing, Drainage Installations Sub-contractor a) Company Certificate of Incorporation b) Valid NCA category 1 c) Company Registration - Mechanical Engineering Services [Plumbing, Drainage, Sanitary Fittings & Firefighting] d) Valid Company Tax Compliance Certificate e) Plumber's License f) Drain-Layer's License
ITT 13.1	Alternative Tenders **shall not be** considered.
ITT 13.2	Alternative times for completion **shall not be** permitted. (For Alternative Tenders)
ITT 13.4	Alternative technical solutions shall be permitted for the following parts of the Works: **N/A**
ITT 14.5	The prices quoted by the Tenderer shall be **Fixed**
ITT 15.2 (a)	Foreign currency requirements **not allowed**
ITT 18.1	The Tender validity period shall be **150 days**
ITT 18.3	(a) The Number of days beyond the expiry of the initial tender validity period will be **30 days**. (b) The Tender price shall be adjusted by the following percentages of the tender price: (i) By ____**N/A**_____% of t*he local currency portion of the Contract price adjusted to reflect local inflation during the period of extension,* *and* *(ii) By*_____ **N/A** _____*% the foreign currency portion of the Contract price adjusted to reflect the international inflation during the period of extension.*
ITT 19.1	Tender shall provide **a Tender Security** If a Tender Security shall be required, the amount and currency of the Tender Security shall be Kenya Shillings **Ten Million (Kshs.10,000,000) issued by a Reputable Financial Institution and Valid for a period of 180 days from the tender opening date. The format to match the provided Form; "FORM OF TENDER SECURITY- [Option 1–Demand Bank Guarantee]"**.

Reference to ITC Clause	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS
ITT 20.1	In addition to the original of the Tender, the number of copies is: **One soft copy in PDF which is a replica of the original bid document submitted. This instruction is issued pursuant to Section 74(i)(j) of the Public Procurement and Assets Disposal Act, 2015.** The tenderer shall return **a priced copy of the Bills of Quantities in excel format as provided in a compact disc or Flash disk together with the scanned PDF.** The excel must be a true copy original and the priced part of the PDF bidding document. No alterations should be made to the descriptions and quantities in the excel BQ.
ITT 20.3	The written confirmation of authorization to sign on behalf of the Tenderer shall consist of: **Notarized or Certified Power of Attorney and Board Resolution/s allowing the signatory to submit the bid, negotiate, and possibly execute the Project Agreement on behalf of the Bidder's Company**
D. Submission and Opening of Tenders	
ITT 22.1	(A) For Tender submission purposes only, the Procuring Entity's address is: Name of Procuring Entity: **State Department of Housing and Urban Development** Postal Address: **Principal Secretary, State Department of Housing and Urban Development P.O. Box 30119-00100 Nairobi** Attention: **Head, Supply Chain Management Services** Physical address for hand Courier Delivery: **1st Ngong avenue, Ardhi House, 6th Floor, Tender Box** Date and time for submission of Tenders: **17th May, 2024 at 9.00am (East African Time).** Tenders shall **shall not submit** tenders electronically.
ITT 25.1	The Tender opening shall take place at the time and the address for Opening of Tenders provided below: Name of Procuring Entity: **State Department of Housing and Urban Development** Physical address for the location: **1st Ngong avenue, Ardhi House, 6th Floor** State date and time of tender opening: **17th May, 2024 at 9.00am (East African Time).**
ITT 25.1	If Tenderers are allowed to submit Tenders electronically, they shall follow the electronic tender submission procedures **specified** **_____N/A_____** **_____**
E. Evaluation, and Comparison of Tenders	
ITT 30.3	The adjustment shall be based on the **Average** 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.
TT 32.1	The currency that shall be used for Tender evaluation and comparison purposes only to convert at the selling exchange rate all Tender prices expressed in various currencies into a single currency is: **Kenya Shillings** The source of exchange rate shall be: **The Central bank of Kenya** (mean rate) The date for the exchange rate shall be: **the deadline date for Submission of the Tenders.**
ITT 33.2	A margin of preference **shall not** apply.
ITT 33.4	The invitation to tender is extended to the following group that qualify for Reservations **_____N/A_____** **_____**

Reference to ITC Clause	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS
ITT 34.1	At this time, the Procuring Entity **intends** to execute certain specific parts of the Works by subcontractors selected in advance.
ITT 34.2	Contractor's may propose subcontracting: Maximum percentage of subcontracting permitted is: *25% 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 34.3	The parts of the Works for which the Procuring Entity permits Tenderers to propose Specialized Subcontractors are designated as follows: 1. Electrical Works 2. Lift Installations works 3. Plumbing and Mechanical Works 4. Supply and Delivery of Doors and Windows 5. Civil Works 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 35.2 (e)	Additional requirements apply; 1) Additional requirements are detailed in the evaluation criteria in Section III, Evaluation and Qualification Criteria. 2) Tenderers who have three (3) or more ongoing projects with the State Department for Housing and Urban Development will NOT be considered for award unless the Tenderer demonstrates that they have achieved a minimum completion rate of 40% for the three or more ongoing projects. **Tenderer to attach the most-current Interim Payment Certificate issued by the State Department as supporting documentation.**
ITT 48.1	Other documents required in addition to the Performance Security are; ***1) Works Programme/Implementation Plan*** ***2) Cash Flow Projections***
ITT 50.1	The procedures for making a Procurement-related Complaint are detailed in the "Notice of Intention to Award the Contract" herein and are also 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: **Director General** Title/position: **Director General** Procuring Entity: **State Department of Housing and Urban Development** Email address***: procurement@housingandurban.go.ke*** In summary, a Procurement-related Complaint may challenge any of the following (among others): (i) the terms of the Tender Documents; and (ii) the Procuring Entity's decision to award the contract.

SECTION III - EVALUATION AND QUALIFICATION CRITERIA

1.0 GENERAL PROVISIONS

1.1 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 shall use **the Standard Tender Evaluation Document for Goods and Works** for evaluating Tenders.

1.2 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:

a) 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.

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

(c) 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.

1.3 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.

2.0 PRELIMINARY EXAMINATION FOR DETERMINATION OF RESPONSIVENESS

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 mandatory requirements in the ITT, and that the tender is complete in all aspects in meeting the requirements provided for in the preliminary evaluation criteria outlined below. 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 non- responsive and will not be considered further.

The following mandatory requirements shall be used for determination of Responsiveness at the preliminary evaluation.

A. Preliminary and Mandatory Requirements Checklist

S/No	PRELIMINARY EVALUATION CRITERIA / MANDATORY REQUIREMENTS FOR MAIN CONTRACTOR
MR1	Original Tender document must be **TAPE-BOUND** and submitted alongside a **Soft Copy (PDF and Excel)** as per **TDS 20.1**. Tender documents submitted as spiral bound or in a box file **SHALL AUTOMATICALLY BE DISQUALIFIED**. In addition, the documents must be chronologically serialized on all pages and attachments.
MR2	Form of Tender in the company Letter head duly Completed, Signed and Stamped by The Tenderer in the format provided, and prepared in accordance with ITT 12 and ITT 14
MR3	The Bills of Quantities section of the submitted Tender Document must be **complete as issued**, with no alteration, addition or qualification of any kind whatsoever made by the Tenderer to the text of the document. Any alterations, additions or qualifications shall be considered as material deviations
MR4	Certified copy of Registration certificate from National Construction Authority, Category NCA1 and above in Building works (General Building Contractor), and the current Practicing License.
MR5	Provide proof of registration with the National Construction Authority for **Specialized (Sub)Contractors** under ITT 34.3, in accordance with ITT 11.1(h).

MR6	A Tender Security **shall be** required. The said Tender Security shall be for **Kenya Shillings Ten Million (Kshs.10,000,000) issued by a Reputable Financial Institution Valid for a period of 180 days from the tender opening date.**
MR7	Provide Written Form of Power Attorney for authorizing signatory of the bidder, signed by Commissioner for Oaths.
MR8	Copies of audited accounts and bank statements for each of the last three year(s) beginning from the most recent year *(*2021*, 2022 and 2023).*
MR9	Certified Copy of Company Registration / Incorporation Certificates. (For Main Contractor and Domestic Sub Contractors) - (certified by commissioner for oaths)
MR10	Provide letter of Authority to seek references from bidder's bank (letter addressed to specific Banks giving authority to Client to verify the bank statements for the Main Contractor).
MR11	Certified copy of Valid Tax Compliance Certificate, including a certified copy of the company's Pin Certificate. (For Main Contractor and Domestic Sub Contractors). Tax Compliance Certificates with "Invalid" or "Withdrawn" status shall result to **AUTOMATIC DISQUALIFICATION.**
MR13	Dully filled, signed and stamped Confidential Business Questionnaire as per enclosed format. In case of a joint venture all parties must submit a valid confidential business questionnaire as per attached format;
MR14	A copy of company's list of directors, beneficial owners, National Identity Card(s) for Sole Proprietorship/Partnership; (Copy of CR12 / CR13) issued within the last 12 months and showing the list of directors (certified by commissioner for oaths).
MR16	Compliance with **TDS - ITT 35.2 (e):** Tenderers who have three (3) or more ongoing projects with the State Department for Housing and Urban Development will NOT be considered for award unless the Tenderer demonstrates that they have achieved a minimum completion rate of 40% for the three or more ongoing projects. **Tenderer to attach the most-current Interim Payment Certificate issued by the State Department as supporting documentation.**
	NB: Bidders who do not meet all of the above requirements shall be considered non-responsive and their tenders will not be evaluated further. **In case of Joint Ventures (JVs), Parties must provide the documents. Joint Ventures to provide Power of Attorney and intent letter to enter Joint Venture.** **For copies of Original Documents to be accepted as valid, they must be certified by a commissioner of oath. The Bidder must attach a valid annual practicing license and active email address for commissioner of oaths.**

STAGE 2: TECHNICAL EVALUATION CRITERIA FOR THE BIDDERS

Detailed Technical Examination

After the Preliminary Examination, the Procuring Entity shall conduct a Detailed Technical Evaluation on the responsive tenders to ensure they meet the technical requirements provided for in the Detailed Technical Evaluation criteria outlined below. Points shall be awarded as follows: -

No	Parameter	Maximum Points
1	Key Personnel	10
2	General Experience	5
3	Specific Construction Experience	25
4	Schedules of Contractor's equipment	10
5	Audited Financial Report for the last 3 years	15
6	Evidence of Financial Resources	25
7	Provision of calculations for Debt Profile: EBITDA / Interest (x times) from the audited financial states for the last three (3) years	5
8	Detailed Works Program and Methodology	5
Total		**100**

Tenders that do not meet the minimum required points of **70 points** in the Detailed Technical Evaluation will be considered non- responsive and will not be considered further.

Item	Description	Points Scored	Max. Points
1	**Key Personnel as detailed here under** **NB: Attach Curriculum Vitae and certificates**		**10**
	Project Manager for the firm • With relevant qualifications; qualification (1 mk) and registration (1 mk) - **Total (2 mks)** • With over 5 years' experience in similar works (**2 mks**) • With over 10 years' general experience (**2 mk**) • With experience below the requirements (**0 mks)**		**6**
	Site Agent with the relevant Qualifications • With relevant qualifications; - **Total (1 mk)** • With over 5 years' experience in similar works (**2 mk**) • With over 10 years' general experience (**1 mk**) • With experience below the requirements (**0 mks)**		**4**
2.	**General Experience** • Has been practicing as a Contractor for the last 10 years. **(0.5 mk per year)**		**5**
3.	**Specific Experience (5 No. Projects)** **NB: Attach Letter of Award, Certificates of Completion and Recommendation from the Client for EACH project. A bidder who fails to provide this requirement shall NOT be scored.** • Project of similar nature, complexity, magnitude (Project value of Kshs.2 Billion) - **5 marks per project** • Project of similar nature and complexity but of lower value than the one in consideration **(Points prorated)** • Not undertaken/completed project of similar nature (**0 mks)**		**25**
4.	**Schedules of Contractor's equipment** For each specific equipment required in the construction work being tendered for. The awarding of marks for the categories will be as follows: ✓ Item 1 and 2 - **2 marks for meeting each category** ✓ 3,4,5,6,7, 8, 9 and 10 - **1 mk for meeting each category**		**10**

Item	Description	Points Scored	Max. Points
5.	**Financial report:** **Audited financial report for the last Three [3] years (2021, 2022 and 2023)** • Annual Turnover greater or equal to Kshs. 4,000,000,000 **(Max Points)** • Annual Turnover below Kshs. 4,000,000,000 **(Points prorated)** • Has not demonstrated/given evidence for turnover - (**zero points)** ***NB: Bidders may provide consolidated financial statements if cash and cash equivalents are in separate project companies***		**15**
6.	**Evidence of financial resources:** **Cash in hand, Lines of Credit, overdraft facility, e.t.c (attach evidence)** • Has financial resources equal or above Kshs. 450,000,000.00 **(Max Points)** • Has financial resources below Kshs. 450,000,000.00 **(Points prorated)** • Has not demonstrated/given evidence for the financial resources (**zero points)** ***NB: Bidders may provide consolidated financial statements if cash and cash equivalents are in separate project companies***		**25**
7.	**Provision of calculations for Debt Profile: EBITDA / Interest (x times) from the audited financial states for the last three (3) years** • Debt profile greater than or equal to 2x (5 mks) • Debt profile between 1.5x and 2x (3 mks) • Debt profile between 1x and 1.5x (1 mk) • Debt profile below 1x (Zero mks) ***NB: Bidders may provide consolidated financial statements if cash and cash equivalents are in separate project companies***		**5**
8.	**Detailed works program outlining the methodology of implementing the project to completion including the defects liability period.**		**5**
	Adequacy of the proposed Works program: • Has attached a clear and legible Works Program (**1mk)** • Program captures all elements specific to the proposed works (**1mk)** • Program covers the required timeline and all elements are reasonably scheduled. (**0.5 mk)**		**2.5**
	Adequacy of the proposed methodology: • Captures the Contractor's Organization structure. (**1mk)** • Captures all elements specific to the proposed works. (**1mk)** • Captures the inclusion of all statutory requirements specific to the works (OSHA, NCA, NEMA, Stakeholder engagement, e.t.c.) **(0.5 mk**)		**2.5**
	TOTAL POINTS		**100**
	MINIMUM POINTS		**70**

NB: Tenders attaining the minimum score of 70 points in the detailed technical evaluation shall be subjected to financial evaluation and comparison to determine the lowest evaluated price of the tender.

D. Financial Evaluation:

Financial Evaluation shall comprise of the following:

a) Completeness of the Bills of Quantities*:* The Bills of Quantities section of the submitted Tender Document must be complete as issued, with no alteration, addition or qualification of any kind whatsoever made by the Tenderer to the text of the document. Any alterations, additions or qualifications shall be considered as material deviations as per ITT 31 and shall lead to Disqualification.

b) Examination of unit rates: Each bid shall be subjected to an evaluation of unit rates. Bids shall be assessed to confirm uniformity and consistency in rates of similar individual line items. Bids not meeting this criterion shall be disqualified and error checks shall not be undertaken.

c) Error checks: Successful bids from the examination of unit rates shall be evaluated for arithmetic errors. All arbitrary additions to the tender document shall be considered as arithmetic errors. An assessment of the bids taking into consideration the Tender Sum, corrections relating to arithmetic errors and any discounts offered shall be done to determine the bids' Evaluated Tender Sum.

d) **Conformance with the estimated cost: The estimate for the project is Kshs. 990,000,000.00 with a plinth area of 24,626 SQM. The development cost (all-inclusive for the built-up structures and all the external works) shall be up to Ksh. 42,000 per square metre based on the plinth areas.**

TENDERERS FAILING TO COMPLY WITH THIS REQUIREMENT SHALL BE DISQUALIFIED.

e) Ranking of the bids: Ranking of the bids using their Evaluated Tender Sums shall be undertaken. The ranking shall be used to determine the bid with the Lowest Evaluated Tender sum, which shall be considered for award.

4.0 MULTIPLE CONTRACTS

4.1 Multiple contracts will be permitted in accordance with ITT 35.4. Tenderers are evaluated on basis of Lots and a 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

(i) 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.

(ii) If a tenderer wins more than one Lot, the tender will be awarded a contract for all won Lots, provided the tenderer meets the aggregate Eligibility and Qualification Criteria for all the won Lots. The tenderer will be awarded only the combinations 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 combination with the lowest evaluated price. Tenders will then be awarded to the Tenderer or Tenderers in the combination provided the tenderer meets the aggregate Eligibility and Qualification Criteria for all the won Lots.

5.0 ALTERNATIVE TENDERS (ITT 13.1) *N/A*

Alternative Tenders (ITT 13.1)

An alternative if permitted under ITT 3.1, 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.

6.0 MARGIN OF PREFERENCE – NOT APPLICABLE

6.1 If the TDS so specifies, the Procuring Entity will grant a margin of preference of fifteen percent (15%) to be loaded on evaluated prices of the foreign tenderers, where the percentage of shareholding of Kenyan citizens is less than fifty- one percent (51%).

6.2 Contractors 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 particular contractor or group of contractors qualifies for a margin of preference.

6.3 After Tenders have been received and reviewed by the Procuring Entity, responsive Tenders shall be assessed to ascertain their percentage of shareholding of Kenyan citizens. Responsive tenders shall be classified into the following groups:

i) *Group A:* tenders offered by Kenyan Contractors and other Tenderers where Kenyan citizens hold shares of over fifty one percent (51%).
ii) *Group B:* tenders offered by foreign Contractors and other Tenderers where Kenyan citizens hold shares of less than fifty one percent (51%).

6.4 All evaluated tenders in each group shall, as a first evaluation step, be compared to determine the lowest tender, and the lowest evaluated tender in each group shall be further compared with each other. If, as a result of this comparison, a tender from Group A is the lowest, it shall be selected for the award of contract. If a tender from Group B is the lowest, an amount equal to the percentage indicated in Item 6.1 of the respective tender price, including unconditional discounts and excluding provisional sums and the cost of day works, if any, shall be added to the evaluated price offered in each tender from Group B. All tenders shall then be compared using new prices with added prices to Group B and the lowest evaluated tender from Group A. If the tender from Group A is still the lowest tender, it shall be selected for award. If not, the lowest evaluated tender from Group B based on the first evaluation price shall be selected.

7. Post qualification and Contract ward (ITT 39), more specifically,

a) 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.
b) 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.
    i) 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 Kenya Shillings **Kenya Shillings Two Hundred Million (Kshs.200,000,000)**
    ii) Average annual construction turnover of Kenya Shillings **Kenya Shilling** Shillings **One Billion, Five Hundred (Kshs.1,500,000,000.00)**, equivalent calculated as total certified payments received for contracts in progress and/or completed within the last **three (3) years**.
    iii) At least **Five (5) no.** of contract(s) of a similar nature executed **within Kenya**, or the East African Community or a broad, that have been satisfactorily and substantially completed as a prime contractor, or joint venture member or sub-contractor each of minimum value Kenya shillings **Kenya shillings Eight Hundred Million (Kshs.800,000,000.00)** or equivalent.
    iv) Contractor's Representative and Key Personnel, which are specified as;

No.	Position	Total Work Experience (years)	Experience in Similar Works (years)
1	Project Manager (Bachelor of Architecture OR Bachelor of Quantity Surveying OR Civil Engineering OR Construction Management. all	10	5

	registered with relevant professional bodies).		
2	Site Agent (Bachelor in Architecture OR Quantity Surveying OR Civil Engineering. all registered with relevant professional bodies).	10	5

v) Contractors key equipment listed on the table "Contractor's Equipment" below and more specifically listed as:

No.	Equipment Type and Characteristics	No. required
1	Concrete Mixer Type 5/3.5	5
2	Concrete dumper 0.5 cu.m	5
3	Excavator 130 – 150 HP	1
4	Tipper Truck 15 ton.	5
5	Vibrating plate compactor 114-200 kg operating weight	1
6	Single drum vibratory roller	1
7	Concrete vibrator poker type N.D. 50 mm	3
8	Van, pick-up or similar utility vehicle	2
9	20KVA Generator	1
10	Concrete Hoist with bucket	2
11	Dumpy level 1	2
12	Scaffold	Assorted

vi) Other conditions depending on their seriousness.

a) **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 ***Three years***. The required information shall be furnished in the appropriate form.

b) 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.

c) Litigation History

There shall be no consistent history of court/arbitral award decisions against the Tenderer, in the last **Three 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*

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 Kenya Revenue Authority in accordance with ITT 3.14.	Attachment	
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 3.7	Form of Tender	
5	State- owned Enterprise	Meets conditions of ITT 3.8	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 **1st January 2021**	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	
10	Litigation History	No consistent history of court/arbitral award decisions against the Tenderer since **1st January 2021**	Form CON – 2	
11	Financial Capabilities	(i) 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 Two Hundred Million (Kshs.200,000,000)** equivalent for the subject contract(s) net of the Tenderer's other commitments. (ii) The Tenderers shall also demonstrate, to the satisfaction	Form FIN – 3.1, with attachments	

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)***
		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. (iii) 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 **2 years** shall be submitted and must demonstrate the current soundness of the Tenderer's financial position and indicate its prospective long-term profitability.		
12	Average Annual Construction Turnover	Minimum average annual construction turnover of **Kenya Shilling** One ***Billion, Five Hundred Million (Kshs.1,500,000,000)*** equivalent calculated as total certified payments received for contracts in progress and/or completed within the last ***Three* years**, divided ***Three* years.**	Form FIN – 3.2	
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 ***Ten (10)* years**, starting **1st January *2014***.	Form EXP – 4.1	
14	Specific Construction & Contract Management Experience	A minimum number of **5 (Five)** 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 2019** and tender submission deadline i.e. …. (number) contracts, each of minimum value Kenya shillings Eight Hundred million **(Kshs.800,000,000.00)** equivalent. [*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]* The similarity of the contracts shall be based on the following: [*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 subcontractors, if permitted in accordance with ITT 34.3]*	Form EXP 4.2(a)	

SECTION IV - TENDERING FORMS

QUALIFICATION FORMS

1. FOREIGN TENDERERS 40%RULE

Pursuant to ITT 3.9, a foreign tenderer must complete this form to demonstrate that the tender fulfils this condition.

ITEM	Description of Work Item	Describe location of Source	COST in K. shillings	Comments, if any
A	Local Labor			
1				
2				
3				
4				
5				
B	Sub contracts from Local sources			
1				
2				
3				
4				
5				
C	Local materials			
1				
2				
3				
4				
5				
D	Use of Local Plant and Equipment			
1				
2				
3				
4				
5				
E	Add any other items			
1				
2				
3				
4				
5				
6				
	TOTAL COST LOCAL CONTENT		XXXXX	

2. FORM: 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	

3. FORM PER -1

Contractor's Representative and Key Personnel Schedule

Tenderers should provide the names and details of the suitably qualified Contractor's Re presentative 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:	[*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 time schedule for this position:	[*insert the expected time schedule for this position (e.g. attach high level Gantt chart*]
2.	**Title of position:** *[_____]*	
	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 time schedule for this position:	[*insert the expected time schedule for this position (e.g. attach high level Gantt chart*]
3.	**Title of position:** *[_____]*	
	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 time schedule for this position:	[*insert the expected time schedule for this position (e.g. attach high level Gantt chart*]
4.	**Title of position:** *[_____]*	
	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 time schedule 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 time schedule for this position:	[*insert the expected time schedule for this position (e.g. attach high level Gantt chart*]

4. FORM PER - 2:

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

Name of Tenderer

Position [*#1*]: [*title of position from Form PER-1*]		
Personnel information	Name:	Date of birth:
	Address:	E-mail:
	Professional qualifications:	
	Academic qualifications:	
	Language proficiency: *[language and levels of speaking, reading and writing skills]*	
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
[main project details]	*[role and responsibilities on the project]*	*[time in role]*	*[describe the experience relevant to this position]*

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:	*[insert period (start and end dates) for which this Contractor's Representative or Key Personnel is available to work on this contract]*
Time commitment:	*[insert period (start and end dates) for which this Contractor's Representative or Key Personnel is available to work on this contract]*

I understand that any misrepresentation or omission in this Form may:

(a) be taken into consideration during Tender evaluation;
(b) result in my disqualification from participating in the Tender;
(c) 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): _____

5. TENDERERS QUALIFICATION WITHOUT PREQUALIFICATION

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.

5.1 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: *[indicate country of Constitution]*
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: _____
1. 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 1. Establishing that the Tenderer is not under the supervision of the Procuring Entity 2. Included are the organizational chart and a list of Board of Directors

52 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: _____
1. 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 3.5. 2. Included are the organizational chart and a list of Board of Directors.

53 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 1st January *[insert year]* specified in Section III, Evaluation and Qualification Criteria, Sub-Factor 2.1. ☐ Contract(s) not performed since 1st January *[insert year]* specified in Section III, Evaluation and Qualification Criteria, requirement 2.1 ☐ Contract(s) withdrawn since 1st January *[insert year]* 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)**
[insert year]	*[insert amount and 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]* Reason(s) for nonperformance: *[indicate main reason(s)]*	*[insert amount]*
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 of dispute	**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 dispute	Amount in dispute (currency)	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]*

Include details relating to potential bid-rigging practices such as previous occasions where tenders were withdrawn, joint bids with competitors, subcontracting work to unsuccessful tenderers, etc.

5.4 FORM FIN – 3.1:

Financial Situation and Performance

Tenderer's Name: _____
Date: _____
JV Member's Name_____
ITT No. and title: _____

5.4.1. 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

5.4.2 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		

5.4.3 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:

(a) 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).

(b) be independently audited or certified in accordance with local legislation.

(c) be complete, including all notes to the financial statements.

(d) correspond to accounting periods already completed and audited.

☐ Attached are copies of financial statements[1] 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.

5.5 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**
[indicate year]	*[insert amount and indicate currency]*		
Average Annual Construction Turnover *			

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

5.6 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		

5.7 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.

Current Contract Commitments					
No.	**Name of Contract**	**Procuring Entity's Contact Address, Tel,**	**Value of Outstanding Work [Current Kenya Shilling /month Equivalent]**	**Estimated Completion Date**	**Average Monthly Invoicing Over Last Six Months [Kenya Shilling /month)]**
1					
2					
3					
4					
5					

5.8 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: _____	

5.9 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:				

5.9 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:				

5.9 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	

5.10 FORM EXP - 4.2(b)

Construction Experience in Key Activities

Tenderer's Name: _____
Date: _____
Tenderer's JV Member Name: _____
Sub-contractor's Name[2] (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				
Procuring Entity's Name:				
Address: Telephone/fax number E-mail:				

[2] If applicable

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

2. Activity No. Two
3. ……

OTHER FORMS

6. FORM OF TENDER

INSTRUCTIONS TO TENDERERS

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

ii) The Tenderer must prepare this Form of Tender on stationery with its letterhead clearly showing the Tenderer's complete name and business address. Tenderers are reminded that this is a mandatory requirement.

iii) Tenderer must complete and sign CERTIFICATE OF INDEPENDENT TENDER DETERMINATION and the SELF DECLARATION FORMS OF THE TENDERER as listed under (xxii) below.

Date of this Tender submission:.....*[insert date (as day, month and year) of Tender submission]* **Tender Name and Identification**:.....*[insert identification]* **Alternative No.**:.....*[insert identification No if this is a Tender for an alternative]*

To: ..... *[Insert complete name of Procuring Entity]*

Date of thisTender 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,

1. In accordance with the Conditions of Contract, Specifications, Drawings and Bills of Quantities for the execution of the above named Works, we, the undersigned offer to construct and complete the Works and remedy any defects therein for the sum[3] of Kenya Shillings [*[Amount in figures]* _____Kenya Shillings *[amount in words]*_____

The above amount includes foreign currency[4] amount (s) of [*state figure or a percentage and currency*] [figures]_____[words] _____
_____

2. We undertake, if our tender is accepted, to commence the Works as soon as is reasonably possible after the receipt of the Architect 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.

3. 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.

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

5. We, the undersigned, further declare that:

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

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

[3] *This sum should be carried forward from the Summary of the Bills of Quantities.*
[4] *The percentage quoted above should not include provisional sums, and not more than two foreign currencies are allowed.*

iii) 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;

iv) 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];*

v) 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, incase 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

Option2, in case of multiple lots:

(a) 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

(b) 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*];

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

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

ix) 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*];

x) 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;

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

xii) 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 sub-contractor, and meet the requirements of ITT 3.4, other than alternative Tenders submitted in accordance with ITT 13.3;

xiii) Suspension and Debarment: We, along with any of our subcontractors, suppliers, Engineer, 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.

xiv) 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 ITT3.8*];

xv) 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.")

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

xvii) 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;

xviii) Fraud and Corruption: We here by 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; and

xix) 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.

xx) 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.

xxi) **Beneficial Ownership Information:** We commit to provide to the procuring entity the Beneficial Ownership Information in conformity with the Beneficial Ownership Disclosure Form upon receipt of notification of intention to enter into a contract in the event we are the successful tenderer in this subject procurement proceeding.

xxii) We, the Tenderer, have duly completed, signed and stamped the following Forms as part of our Tender:

a) Tenderer's Eligibility; Confidential Business Questionnaire - to establish we are no tin any conflict to interest.

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

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

d) 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.*

FORM OF ALTERNATIVE TENDER (ALTERNATIVE TECHNOLOGY) - N/A

INSTRUCTIONS TO TENDERERS

i) The Tenderers who wish to offer Alternative Tender shall complete this Form of Alternative Tender (Alternative Technology). Tenderers who fill this Form of Alternative tender and does not complete Form No. 6: Form of Tender shall be disqualified.

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

iii) Alternative Tender shall be prepared in accordance with TDS ITT 13.1 – 13.4

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

v) The Tenderer must prepare this Form of Tender on stationery with its letterhead clearly showing the Tenderer's complete name and business address. Tenderers are reminded that this is a mandatory requirement.

vi) Tenderer must complete and sign CERTIFICATE OF INDEPENDENT TENDER DETERMINATION and the SELF DECLARATION FORMS OF THE TENDERER as listed under (xxii) below.

Date of this Tender submission:.....*[insert date (as day, month and year) of Tender submission]* **Tender Name and Identification**:.....*[insert identification]* **Alternative No.**:.....*[insert identification No if this is a Tender for an alternative]*

To: ..... *[Insert complete name of Procuring Entity]*

Date of thisTender 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,

1. In accordance with the Conditions of Contract, Specifications, Drawings and Bills of Quantities for the execution of the above named Works, we, the undersigned offer to construct and complete the Works and remedy any defects therein for the sum[5] of Kenya Shillings [*[Amount in figures]* _____Kenya Shillings *[amount in words]*_____

   The above amount includes foreign currency[6] amount (s) of [*state figure or a percentage and currency*] [figures]_____[words] _____
   _____

2. We undertake, if our tender is accepted, to commence the Works as soon as is reasonably possible after the receipt of the Architect 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.

3. 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.

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

[5] *This sum should be carried forward from the Summary of the Bills of Quantities.*
[6] *The percentage quoted above should not include provisional sums, and not more than two foreign currencies are allowed.*

5. We, the undersigned, further declare that:

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

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

iii) 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;

iv) 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];*

v) 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, incase 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

Option2, in case of multiple lots:

(c) 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

(d) 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*];

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

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

xxv) 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*];

xxvi)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;

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

xxviii) 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 sub-contractor, and meet the requirements of ITT 3.4, other than alternative Tenders submitted in accordance with ITT 13.3;

xxix)Suspension and Debarment: We, along with any of our subcontractors, suppliers, Engineer, 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.

xxx) 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 ITT3.8*];

xxxi) 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.")

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

xxxiii) 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;

xxxiv) Fraud and Corruption: We here by certify that we have taken steps to ensure that no personacting for us or on our behalf engages in any type of Fraud and Corruption; and

xxxv) 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.

xxxvi) 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.

xxxvii) **Beneficial Ownership Information:** We commit to provide to the procuring entity the Beneficial Ownership Information in conformity with the Beneficial Ownership Disclosure Form upon receipt of notification of intention to enter into a contract in the event we are the successful tenderer in this subject procurement proceeding.

xxxviii) We, the Tenderer, have duly completed, signed and stamped the following Forms as part of our Tender:

a) Tenderer's Eligibility; Confidential Business Questionnaire - to establish we are no tin any conflict to interest.

(b) Certificate of Independent Tender Determination - to declare that we completed the tender without colluding with other tenderers.

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

(d) 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.*

(a) **TENDERER'S ELIGIBILITY- CONFIDENTIAL BUSINESS QUESTIONNAIRE**

Instruction to Tenderer

Tender is in structed 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.

(a) 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.	1. Country 2. City 3. Location 4. Building 5. Floor 6. Postal Address 7. Name and email of contact person.
6	Current Trade License Registration Number and Expiring date	
7	Name, country and full address (*postal and physical addresses, email, and telephone number*) 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 (*postal and physical addresses, email, and telephone number*) of state which stock exchange	

General and Specific Details

(b) Sole Proprietor, provide the following details.

Name in full_____Age_____
Nationality_____Country of Origin_____
Citizenship_____

(c) Partnership, provide the following details.

	Names of Partners	**Nationality**	**Citizenship**	**% Shares owned**
1				
2				
3				

(d) Registered Company, provide the following details.

I) Private or public Company _____

ii) State the nominal and issued capital of the Company_____

Nominal Kenya Shillings (Equivalent).....
Issued Kenya Shillings (Equivalent).....

iii) Give details of Directors as follows.

	Names of Director	Nationality	Citizenship	% Shares owned
1				
2				
3				

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

i) 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			

(iii) 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		

	Type of Conflict	Disclosure YES OR NO	If YES provide details of the relationship with Tenderer
	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_____

Titleor Designation_____

_____ _____

(Signature) *(Date)*

a) 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_____ *[NameofTenderer]*that:

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

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

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

4. 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:

    a) Has been requested to submit a Tender in response to this request for tenders;
    b) could potentially submit a tender in response to this request for tenders, based on their qualifications, abilities or experience;

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

    a) The Tenderer has arrived at the Tender independently from, and without consultation, communication, agreement or arrangement with, any competitor;

    b) 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;

6. 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:

    a) prices;
    b) methods, factors or formulas used to calculate prices;
    c) the intention r decision to submit, or not to submit, a tender; or
    d) the submission of a tender which does not meet the specifications of the request for Tenders; except as specifically disclosed pursuant tto paragraph (5)(b) above;

7. 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;

8. 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, which ever 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]

(c) 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 Box …….……. being a resident of……. in the Republic of ……. do hereby make a statement as follows: -

1. THAT I am the Company Secretary/ Chief Executive/Managing Director/Principal Officer/Direct or 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.

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

3. THAT what is deposed to here in 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: -

1. 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.

2. THAT theafore said Bidder, its servants and/oragents/subcontractorswillnotengageinanycorruptorfraudulent 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.

3. 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).*

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

5. THAT what is deponed to here in 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 Procurementand Asset Disposal and my responsibilities under the Code.

I do here by 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…….....

(d) APPENDIX 1 - FRAUD AND CORRUPTION

(Appendix 1 shall not be modified)

1. Purpose

1.1 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.

2. Requirements

2.1 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.

2.2 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:

1) 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 as set disposal proceeding;

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

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

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

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

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

5) 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: -

   a) Shall not take part in the procurement proceedings;

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

   c) shall not be a subcontract or for the tender to whom was awarded contract, or a member of the group of tenderers to whom the contract was awarded, but the subcontractor appointed shall meet all the requirements of this Act.

6) 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;

7) 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.

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

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

i) "Corrupt practice" is the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party;
ii) "Fraudulent practice" is any act or omission, including is representation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain financial or other benefit or to avoid an obligation;
iii) "collusive practice "is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party; "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;
iv) "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.

b) 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 processor 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.

c) Rejects a proposal for award[1] 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;

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

e) 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 inspect[2] 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

f) 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.

---

[1] *For the avoidance of doubt, a party's in eligibility to be awarded a contract shall includee, 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, suc has 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 copyor electronic format) deemed relevant for th einvestigation/audit, and making copies there of 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: _____

1. We have been informed that_____(here in after called "the Applicant") has submitted or will submit to the Beneficiary its Tender (here in after called" the Tender") for the execution of_____ under Request for Tenders No._____("the ITT").

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

3. 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.

4. 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.

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

_____

[signature(s)]

Note: All italicized text is for use in preparing this form and shall be deleted from the final product.

FORMAT OF TENDER SECURITY [Option 2–Insurance Guarantee]

TENDER GUARANTEE No.: _____

1. 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").

2. 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 __.

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

   a) 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

   b) 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.

4. 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.

5. 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 text is for use in preparing this form and shall be deleted from the final product.

FORM OF TENDER - SECURING DECLARATION

[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:

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

2. 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.

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

4. 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]*

Name of currency	*Amounts payable*
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 - WORKS REQUIREMENTS

Provided as an Annex

REPUBLIC OF KENYA

MINISTRY OF LANDS, PUBLIC WORKS, HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

BILL OF QUANTITIES

FOR:

PROPOSED CONSTRUCTION OF CHUKA PW AHP PROJECT, CHUKA IGAMBANG'OMBE CONSTITUENCY, THARAKA NITHI COUNTY WITH INFRASTRUCTURE WORKS

Ministry of Lands, Public Works, Housing and Urban Development

State Department for Housing and Urban Development,

P.O Box 30119-00100 Nairobi,

Kenya Tel: +254-020-2713833

PROPOSED CONSTRUCTION OF CHUKA PW AHP PROJECT, CHUKA IGAMBANG'OMBE CONSTITUENCY, THARAKA NITHI COUNTY WITH INFRASTRUCTURE WORKS

Item	Description		
1	**Tender No**	MLPWHUD/SDHUD/AHP/345/2023-2024	
2	**Site location**	Igambang'ombe Constituency, Tharaka Nithi County	
4	**Site conditions**	TBC	
3	**Land Size**	Approximately 2 Acres	
5	**Scope**	385No. Of Units in 4No. of blocks distributed as follows	
		1No. Of Type A Blocks 111No. Of Units	21No. of studio units 10 No. of 1 Room units 20 No. of 2 Room units 40No. of 2Bedroom units 10No. of 3Room 10No. of 3Bedroom units
		2No. Of Type B Blocks 160No. Of Units	10 No. of 2Bedroom units AHP 30 No. of 2Bedroom units MKT 10 No. of 3Bedroom units AHP 30 No. of 3Bedroom units MKT
		1No. Of Type C Blocks 114No. Of Units	20No. of studio units 10 No. of 1 Room units 18 No. of 2 Room units 37No. of 2Bedroom units 10No. of 3 Room units 10No. of 3Bedroom units 9No. Retail Shops
6	**Amenities**		
7	**External works**	Civil works, Boundary wall, Guard House, Basketball Picth, Garbage Receptacle	
8	**Built area**	24,626.62	

PREAMBLES

BILL NO. 1: PREAMBLES

EXCAVATION AND EARTHWORK

Nature of Excavation

A The Contractor must ascertain for himself the nature of the materials to be excavated and price the work accordingly as no allowance will be made beyond the Contract Sum for any alleged ignorance in this respect.

Site Clearance

B. The Contractor shall clear the construction areas within the site of all bushes, roots, brush, boulders, natural obstructions, rubbish and any other natural or artificial obstructions which would interfere with construction of buildings, roads, paths and drains.

C. Clear away all anti/termite hills and nests over the area of the site, excavate for, locate and destroy queens.

D. Treat the cavity formed by the removal of the nest as described hereinafter under "Soil Sterilization" and backfill with approved material well rammed and consolidated in layers not exceeding 300 mm thick.

E. All areas of the site must be thoroughly proofed against rodents and special care must be taken to ensure that no unconsolidated areas are left near banks and ditches.

Commencing Levels

F. Unless specifically stated otherwise the commencing levels for excavation shall be deemed to be existing ground level or underside of reduced level excavation.

G. All measurements are based upon reduced level excavation being executed first and no adjustment will be made should a differing sequence of operations be adopted, unless specifically ordered by the Architect in writing.

Excavations

H. Excavations shall be to the widths and depths indicated the drawings or to such lesser or greater depths as the Architect may deem necessary and so instruct the Contractor in order to obtain satisfactory foundations.

J. Any difference in the quantity of works actually executed under such instructions and that provided in the Bills of Quantities shall be measured and valued by the Quantity Surveyor as a variation under the relevant Conditions of Contract.

A. If, however, the Contractor excavates to any greater depth or widths than are shown on the drawings or directed by the Architect, then the Contractor shall at his own expense fill in such extra depths and widths with concrete similar to that described for foundations to the satisfaction of the Architect.

Bottoms to Excavation

B. The Contractor shall report to the Architect as and when a secure bottom to the excavations has been obtained and the same is ready to receive concrete. Any excess depth unnecessarily excavated below the formation level shall be backfilled with and compacted as directed by the Architect and no payment shall be made for excess excavation or for the fillings & compaction

C. Any concrete or other work put in before excavations have been inspected and approved shall, if so directed, be removed and new work substituted after excavations have been approved all at the Contractor's expense.

D. If so directed, the Contractor shall water and well ram the bottoms of excavations to the satisfaction of the architect.

Measurement of Excavation Work

E. Excavation work is measured net as before digging and the Contractor must allow for increase in bulk after digging.

Trenches for pipes, cables kerbs, etc., other than drain pipes

F. Prices for excavation of trenches for pipes, cables, kerbs, etc., shall include for grading and ramming bottoms to the levels required, all necessary planking and strutting, carefully returning, filling and ramming selected excavated materials and for carting away any surplus materials.

Rock

G. Any rock or other hard materials encountered in excavating to the required depth which, in the opinion of the Architect, can only be removed by wedges or compressor plant shall be paid for as an extra and the price shall include for trimming and levelling. No blasting will be allowed. Hard compacted murram which can be removed by pick will not be classed as rock notwithstanding that the Contractor may decide to remove it by wedges or compressor plant.

H. The Contractor must give notification to the Architect or his representative when such material is encountered and its extent must be agreed with Architect or Quantity Surveyor or their authorised representative before the work is carried out. No allowance will be made for rock excavation unless the foregoing procedure has been followed.

Rates for Excavation

J. The rates for excavation shall include for excavating by hand or machine in all types of materials except rock, as previously specified.

A. Excavations for plain concrete foundations have been measured to the **net sizes** required by concrete dimensions.

B. An allowance for working space and formwork has been measured to reinforced concrete foundation, but if the Architect's approval is given to pouring concrete against the face of the excavations these items will be measured and adjusted in the Final Account.

C. The rates for excavation must include for such excavating in all types of ground encountered including sand, murram, hard murram, tree roots and loose boulders.

Levelling

D. No item is measured for levelling and consolidating ground and rates for excavations must include for levelling and preparing the ground for concrete or other works including ramming or rolling.

Disposal of Water

E The Contractor shall keep the excavations free from standing water and silt (or excavated materials softened by water) and he shall include for the cost of pumping, construction of temporary drains, soakaway pits, etc., as deemed necessary to achieve this. An item has been included for this in the Bills of Quantities in each relevant section. The cost of pumping to dispose of any spring or running water has been covered by Provisional Sum. If spring or running water is encountered, the cost of any pumping ordered by the Architect will be paid for in accordance with the Dayworks Schedule.

Planking and Strutting

F. Sides of all excavations must be supported in order to prevent falls from or collapse of the earth face. The term "planking and strutting" is deemed to include any method or methods which the Contractor elects to adopt, uphold, protect and maintain the sides of excavations. The Contractor will be responsible for any consequences of his failure in this respect including clearing away fallen materials and any extra concrete or other works including formwork ordered by the Architect due to such failure. An item has been included in these Bills of Quantities in each relevant section.

Return, Fill in and Ram

H. Material returned around foundations externally shall be selected hard, dry excavated materials arising from the excavations free from vegetable soil, roots and rubbish carefully filled in, spread, watered and compacted in layers not exceeding 200 mm thick. Backfilling internally shall be hardcore, or selected hard dry granular materials as above to approval.

J. No excavations or foundation work shall be filled in or covered up until all measurements necessary for the adjustment of variations have been made. Walling shall not be built upon the foundations until four days after deposition of concrete.

Cart Away

A. All surplus excavated material, where so directed, and all rubbish is to be removed from the site and the Contractor is to find his own dump and pay all charges.

Approval Before Filling

B. No fill materials shall be placed before approval has been given by the Architect for filling to begin.

Measurement of Filling Generally

C. Filling is measured net as after consolidation.

Earth Filling

D. Levels specified to be made up with surplus soil, etc., are to be filled in with selected soil free from vegetable growth to the approval of the Architect and is to be laid in layers not exceeding 200 mm thick, each layer to be levelled, well rammed and consolidated and watered if necessary.

Hardcore Filling

E. Hardcore shall consist of clean hard broken stone or rubble graded to pass in all directions a 100 mm ring with sufficient sand added to fill the interstices. The hardcore shall be well packed, rammed and where possible, rolled with a heavy 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 sand, rolled and well watered through a sprinkler rose.

Borrow Pits

F. No borrow pits will be allowed to be opened on the site

Soil Sterilization

G. Anti-termite treatment is to be carried out using one of the chemicals below and the Contractor will be required, upon completion of the soil sterilization, to furnish a written guarantee certifying the following:-

(a) That the chemicals applied comply with the requirements specified herein for chemical concentration and rates of application.

(b) That the treatment will remain effective against termite infestation for a period of five years.

(c) Application shall not be done whilst its raining or to surface of filling which are wet, and strictly in accordance to manufacturer's instructions

Soil Sterilization

A. The chemicals used shall be one of the following:-

5 Termicide A; 1 part to 45 parts water
7 Pentachlorophenol; 5% in oil solution
8 Trichlorobenzene; 1 part to 3 parts oil

B. Some of the chemicals listed above are toxic to animals and plant life and must, therefore, be applied only with caution by an experienced person. Where individual water supply systems are proposed, precautions must be taken to prevent infiltering and endangering the water supply. Treatment shall not be made when soils or fill is excessively wet or immediately after heavy rains.

C. Precautions must also be taken to prevent disturbance of the treatment by animals or human contact with the treated soil. The treated areas are to be covered as quickly as possible after treatment.

D. The rate of applications is to be 7 litres per square meter and the areas measured include those under floor and around wall and column foundations.

CONCRETE WORK

Code of Practice for Reinforced Concrete Work

A. All workmanship, materials and tests in connection with reinforced concrete work are to be conformity with B.S. Code of Practice B S 8110 : 1985 - The Structural Use of Concrete.

Generally

B. A competent person shall be employed whose first duty it will be to supervise all stages in the preparation and placing of concrete. All cubes shall be made and site tests carried out under his direct supervision.

C. All materials which have been damaged, contaminated or have deteriorated. or which do not comply in any way with the requirements of the specification, shall be rejected and shall be immediately removed from the site.

D. No materials shall be stored or stacked on suspended floors without the Engineer's prior approval.

Samples

E. Samples of all materials are to be submitted for approval of the Engineer at least one week before it is desired to commence deliveries. All condemned materials are to be removed from the site within 24 hours.

Cement

F. Cement used shall be ordinary Portland cement and shall be obtained only from manufacturers approved by the Engineer, and shall comply in every respect with B.S. 197-1. The Contractor at his own expense may use rapid hardening Portland Cement (to B.S. 197-1) in order to speed up progress of the Works. If rapid hardening Portland Cement is used, the prior approval of the Engineer shall be obtained in writing.

G. Each consignment of cement shall be accompanied by the manufacturer's certificate showing that a representative sample of the consignment has been tested and complies with the appropriate specification. From time to time as requested by the Engineer, copies of the cement manufacturer's test certificates shall be delivered to the Engineer or his representative on thesite promptly, but such documents shall not preclude the Engineer from rejecting any cement which does not in every way comply with the specification.

Cement Storage

H. The cement must be delivered in the manufacturer's sealed and branded bags and stored separately in dry, water-tight stores with their floors raised above ground level and shall be at all times carefully protected from moisture.

I The cement shall be stored in such a way that each consignment may be identified and used in the order of its delivery. Cement may be delivered in bulk containers provided additional suitable arrangements are made for bulk storage on site to the approval of the Engineer.

Inferior Cement

A. Any cement which has failed to pass the tests or has been damaged by water or contaminated in any way on site shall immediately be put into bags and removed from the site.

Aggregate

B. Aggregates shall be granite or other equal and approved obtained from an approved source and shall comply with B.S. 1260. They must be chemically inert, strong, hard, durable, free from adhering coating, salts, organic or other impurities and shall be washed or screened as directed.

Fine Aggregate and Sand

C. Fine aggregate and sand shall be clean, sharp, coarse, hard siliceous materials and equal at all times to the samples which shall be deposited with and approved by the Architect or Engineer. It shall comply with the requirements of B.S. 1260, Table 2, Zones 1,2 or 3. The caustic soda tests for organic impurities shall show a colour not deeper than that of the standard solution. The settling test for natural sand shall be made and after being allowed to settle for three hours the layer of silt deposit on the coarse materials shall not exceed 10% for crushed stone and 3% for natural sand or crushed gravel.

D. The Contractor shall supply all necessary equipment for testing of fine aggregate and sand for use of the Clerk of Works.

Coarse Aggregates

E. Coarse aggregates shall be granite from approved quarries, clean, free from earth and extraneous matter, and shall conform to B.S. 1260. The amount of fine particles occurring in a free state or as loose adherent shall not exceed 1% when determined by the laboratory sedimentation test.

F. After twenty-four hours in water, a previously dried sample shall not gain more than 1`0% in weight for crushed stone or 3% for natural sand or crushed gravel

G. The four nominal aggregate sizes shall be 40 mm (1.5"): 20 mm (.75"): 10 mm (3/8"): 6 mm (1/4") : and the grading when analyzed as described in B.S. 812 shall be within the limits given in B.S. 1260.

Aggregate Storage

A. Each grade of aggregate shall be stored in the works in separate heaps so that there shall be no possibility of any inter-mixing. Any materials which have become inter-mixed shall be removed from the site forthwith by the Contractor.

B. The materials shall be stored on a timber or concrete floor and the piles shall be as large as possible, flat topped and drained.

Water

C. All water used on the Works shall be clean, free from earthy vegetable and organic matter and from acidic and alkaline substances in suspension or solution. It shall preferably be obtained from the water mains of the Ministry of Water and Energy Department or Water Authority and shall be stored in proper water storage tanks to the approval of the Architect or Engineer. Any approved water shall be tested in accordance with B.S. EN 1008.

Admixtures

D. Admixtures of any kind for accelerating the setting of cement, plasticiser, hardeners, water proof etc., shall be used only if approved or specified by the Architect or Engineer.

Proportion of Concrete Mix

E. The quantity of cement shall be measured by weight and each batch of concrete is to use one or more whole bags. The quantity of fine aggregate and coarse aggregate shall be measured separately by weight in an approved weight batching plant. Volume mixing will not be permitted. The weight of damp aggregates must be adjusted to take into account the weight of water in the aggregates, and must be adjusted to take into account the weight of water in the aggregates, and this in turn will affect the amount of water to be added into the mix.

F. Throughout the carrying out of the Contract "Work Tests" are to be made from concrete drawn from newly laid concrete or concrete about to be placed in position, such cubes being made when directed by the Clerk of Works and in his presence. Such cubes shall be made in 150 mm or six inch cube steel or cast from mould and shall be marked and cured strictly in accordance with Appendices of the Code of Practice, and shall be forwarded carriage paid in time for testing at the required age to a testing laboratory to be nominated by the Architect or Engineer.

G. Six cubes shall be made on each occasion, and cured in compliance with B.S. 1881 Part 3, 1983 concrete for each cube being from a difference batch. Three cubes shall be forwarded in time for testing at the age of seven days from casting and three cubes in time to testing in twenty-eight days. Each cube shall be marked with the date of casting and a distinctive reference number in accordance with a system agreed by the Engineer. A record shall be kept of the position from which the concrete for each set of cube was drawn, or to which it was about to be placed.

Concrete Work Cont'd

A. At least three sets of six cubes shall be cast during each week concrete is being cast including sets of cubes for each quality of concrete used during the period.

B. Concrete is required to have the properties and give the strength in Newtons per square millimetre as set out in the table below which is to be considered as the minimum standard that will be accepted in the finished Works.

C. The workability of the fresh concrete should be such that concrete is suitable for handling, placing and compaction so that it surrounds the reinforcement, tendons and ducts and completely fills the formwork.

Grade	Quality	Maximum size of coarse agregate	Maximum Water Cement Ratio by weight of Aggregate	Minimum Crushing Strength of Works Test Cubes	
				7 days	28 days
30	1:1:2	20	0.45	30	36
25	1:1.5:3	20	0.55	21	26
25	1:1.5:3	10	0.55	21	26
20	1:2:4	20	0.60	14	21
20	1:2:4	10	0.60	14	21
15	1:3:6	10	0.60	-	12
10	1:3:6	10	0.60	8	10
7	1:4:8	40	0.60	-	7
-	1:10	All in Agregate		-	-

D. If the strengths required in the table are not attained and maintained throughout the carrying out of the Contract, the Contractor will be required to increase the proportion of cement or substitute better aggregate at his own cost so as to give concrete which does comply with the requirements of this Clause. The Contractor may be required to remove and replace at his own cost any concrete which fails to attain the required strength as ascertained by the Works Cube Tests.

Unsatisfactory Concrete Work

E. Should in the opinion of the Engineer any of the results of the specified tests of concrete or materials be unsatisfactory, the Engineer may order the work to be stopped pending his further instructions. Executed work for which test cubes are unsatisfactory shall be liable to rejection and, if so directed by the Engineer, the work represented by the tests shall be cut out and re-executed at the Contractor's expense.

A. In the case of seven day Works Cube Tests proving unsatisfactory, the work may be stopped, but shall not be liable to rejection until the result of the twenty-eight day test is known.

B. In the event of the results of the twenty-eight day Works Cube Tests proving unsatisfactory, the work represented shall be immediately liable to rejection. The Contractor may, however, be given the option of cutting three specimens from the completed work subject to the direction of the Engineer, and preparing therefrom test cubes or cores Tests in accordance with the requirements of Part 4 of B.S. 1881 Part 3, 1983.which shall be sent to the Testing Laboratory for testing as for Works Cube

C. Should the average strength of these specimens attain the specified minimum twenty-eight day strength, the work will, subject to the Engineer's discretion be accepted. Alternatively, the Engineer may instruct the Contractor to make a loading test as described hereinafter. The cost of all cutting, preparation of specimens, testing and making good the portions of the structure affected, shall be borne by the Contractor. The cost of all delays on site due to concrete not attaining the desired strength, or caused by investigation of defects, cutting away and making good, shall be entirely the Contractor's responsibility.

Structural Test

D. If, in the Engineer's opinion, there is a doubt as to the strength of a structure, solely or in part, for the reason that the site-made concrete cubes fail to attain the specified fail, the Contractor shall be reimbursed for the cost of the test. If the result of the test is not satisfactory, the Contractor shall bear the cost of the test and the cost of correcting any defects in accordance with the instructions of the Engineer.strength, or because of one or more circumstances attributable to alleged negligence on the part of the Contractor to make a loading test on the Works or any part thereof. The nature of the test and the loading shall be in accordance with Clause 605 of C.P. 114. If the result of the test is satisfactory, except where the test has been made because test cubes

Formwork

E. The formwork shall be so constructed as to remain sufficiently rigid during the placing compaction of the concrete and shall be sufficiently tight to prevent loss of liquid from the concrete. Vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without injury. All rubbish, chippings, shavings and sawdust shall be removed from the interior of the forms before the concrete is placed, and suitable washout holes shall be provided to facilitate this, and the formwork in contact with the concrete shall be clean and thoroughly wetted and treated with the approved mould oil. Care shall be taken that such oil is kept out of contact with the reinforcement and shall be used a sparingly as possible. In no circumstances shall forms be struck until the concrete reaches a cube strength of at least twice the stress to which the concrete may be subjected at the time of striking, and in any case the minimum permissible times shall be as follows:-

Vertical sides of wall and columns	2 days
Sides of beams and lintels	2 days
Soffits of slabs (Subject to retention of props until 21 days	14 days
Soffits of beams and lintels (Subject to retention of props until 21 days)	14 days

A. No formwork is to be removed if, in the opinion of the Engineer, the concrete has not hardened sufficiently. Approval of the Engineer shall not relieve the Contactor of his liability to make good any concrete which may be damaged by premature removal or collapse of forms. Notwithstanding any other clauses in this specification the responsibility for the safe removal of the formwork rests with the Contactor.

B. All formwork shall be removed without such shock or vibration as would damage the reinforced concrete.

C. Forms shall be true to lines and levels and braced and strutted to prevent deformation.

D. Before placing of the concrete, bolts and fixings shall be in position and cores and other devices used for forming openings, holes pockets, recesses, ducts or other cavities shall be fixed to the shuttering.

E. Concrete shall not be poured in horizontal layers to a depth exceeding 1500 mm in formwork, except where prior approval of the Engineer has been obtained.

F. Formwork is measured to the actual net surface of the concrete to be supported and the Contractor shall allow in his prices for any waste, fixing at the various levels, straight cuttings, splayed edges, notchings, fillets to form chamfered arises, extra materials, joints, overleaves for angles, extra labour for narrow widths and small quantities, props, stays, struts, hangers, brackets, edges, wiring, bolts, and everything necessary to keep all quite firm and rigid, and any other labour and materials necessary to fix, ease, adjust and remove the formwork as described.

Normal Finish to Faces of Structural Concrete

G. After removal of shuttering, unless instructed to the contrary, the face of exposed concrete is to be rubbed down immediately to remove fins or other irregularities. In the event of parts of the concrete being honeycombed, such portions are to be cut to a depth and shape required by the Engineer and made up with fine concrete of equal quality in such a manner as shall be directed. The face of concrete for which shuttering is not provided, other than slab, is to be smoothed with a wooden float to give a finish equal to that of the rubbed-down surface where shuttering is provided. The top face of a slab which is to not intended to cover with other materials is to be levelled and floated before setting to a smooth finish at the level or falls shown on the drawings or elsewhere. The floating must be carried out in such a way as will prevent an excess or mortar being brought to the surface of the concrete. The top face of a slab intended to be surfaced with mortar, granolithic, or similar materials is to be brushed with a stiff broom while still green to remove any laitence © and to provide a roughened surface.

Fairfaced Concrete

A. Where so described or measured, faced of concrete shall be finished fair by means of formwork lined with approved waterproof plywood so as to produce a perfectly true surface and shall have all imperfections in the concrete face cut out, made good in cement mortar and rubbed down with carborundum stone and finally bag rubbed with cement slurry to finish to a high standard without trace of shuttering marks, joints or other disfigurements.

Wrought Boarded Face Formwork to give a Board Mark Finish

B. Where so described or measured, faces of concrete shall be finished fair by means of 100 mm or 150 mm (nominal) width tongued and grooved boarding of 25 mm (minimum) thickness.The edges of all boards shall be nominal 2 mm chamfer to form controlled fins.

C. Such formwork to column faces shall be of continuous length boards between construction joints.

D. End joints will be permitted to beams faces, etc., and shall be tongued, staggered and well distributed.

E. All imperfections shall be cut out and made good in concrete of equal quality.

F. The resulting concrete shall show grain and individual board marks, be free from honeycombing and excessive air holes, of uniform colour and to the entire satisfaction of the Engineer.

Wall Ties

G. Where blockwalls abut columns or solid concrete walls two 6 mm diameter steel reinforcing bar ties are to be cast into the concrete at vertical intervals of 400 mm. Ties to be 300 mm long and project 150 mm into blockwork.

Holes, Pipes Etc.

H. The Contractor shall be responsible for the co-ordination with sub-contactors for incorporating any electrical conduits pipes, fixing blocks, chases, holes, etc., in the concrete members as required. The Contractor shall submit full details of these items to the Engineer for approval before the work is put in hand. Concrete fixing blocks may be embedded in the concrete provided that the strength or effective cover of any part of the structure is not adversely affected nor the finished work damaged by any movement of the blocks. All fixing blocks, chases, holes etc.., to be left in concrete shall be accurately set out and cast with the concrete. No openings, chases, holes or other voids shall be cut or formed in concrete without the approval of the Engineer.

Blinding Concrete

A. No casting of any concrete on the ground shall take place until the ground has been passed as satisfactory by the Engineer. All ground to carry reinforced concrete shall be covered with a 50 mm minimum blinding layer of concrete 1:4:8. The cover for concrete under reinforcement shall be entirely above the blinding layer.

Mixing

B. Concrete is to be mixed in a batch mixer of approved type having a drum rotating about a horizontal or inclined axis. The speed of the drum is to be not more than twenty and not less than fourteen revolutions per minute. Each mixer is to be fitted with a water measuring device capable of accurate measurement to one gallon for one cubic yard mixers and pro rate for smaller sizes and so arranged that the accuracy is not affected by variations in the pressure of the water supply line.

C. The fine and coarse aggregate and the cement are to be mixed for at least four turns of the drum, after which the required amount of water is to be added gradually while the drum is in motion and the concrete then mixed for at least one and a half minutes and until a mix of uniform colour and consistency is attained.

D. The volume of concrete mixed in any one batch is not to exceed the rated capacity of the mixer.

E. The whole of the mixed batch is to be removed before materials for a fresh batch enter the drum.

F. On cessation of work, including all stoppages exceeding twenty minutes, the mixers and all handling plant are to be washed out with clean water.

G. Concrete mixed as above is not to be modified by the addition of water or otherwise in order to facilitate handling, or for any other purpose.

H. At least one slump test shall be made each day concreting is in progress under the supervision of the Clerk of Works. The slump shall not exceed 75 mm but at 25 mm slump may be allowed by the Engineer in certain structural members.

Transporting

J. Concrete is to be handled from the place of mixing to the place of final deposit as rapidly as practicable by the methods which will prevent segregation or loss of ingredients and maintain the required workability. It should be deposited as nearly as practicable in its final position to avoid rehandling.

K. Concrete shall be placed into the forms from as small a height as possible and shall in no case be dropped from a height of more than 1500 mm except with the approval of the Engineer.

A. When chuting is used, the inclination of the chute must be such as to allow the concrete to flow without the use of excessive water and without segregation or loss of the ingredients. Details of any proposed chuting plant must be approved by the Engineer before the plant is delivered to the site.

B. If the Contractor wishes to distribute concrete by means of pumps, full details of the system must be made available to the Engineer for approval.

Placing and Consolidation

C. The concrete shall be placed before setting has commenced and in any case within thirty minutes from the time the water is added, and must not be subsequently disturbed. Concrete shall be thoroughly compacted during the operation of placing, and thoroughly worked around the reinforcement, around embedded fixtures, and into corners of the formwork. Mechanical vibration with an approved type insertion vibrator shall be used.

D. The use of mechanical vibration will not relive the Contractor of his responsibility for making good work which may be damaged by excessive or ill-applied vibration.

E. All methods of placing and consolidation of the concrete are to be such as not to cause any disturbance or movement to the formwork or reinforcement. After being placed in position, the concrete is to be left absolutely undisturbed by any movements or thrusts while setting.

F. An accurate record is to be kept by the Contractor showing dates and times when various portions of the work were concreted. The concreting foreman must not vary the approved mix or water content without the permission of the representative of the Engineer. it may occasionally be found that in constructed structural members or where the proportion of reinforcement to concrete is high, the workability of the concrete must be increased locally in order to effect full compaction. Such increase in workability shall be achieved by an increase in the cement content of not more than 10% of the concrete by weight in any single batch and must be made only with the approval of the representative of the Engineer.

G. The workability of the concrete must never be altered by the use of additional water or sand alone.

Construction Joint

H. The form and location of all construction joints shall be approved by the Engineer before commencement of work.

A The Centering to form the stop shall be fitted with splay fillets on the concrete face and will be firmly fixed and scribed around the reinforcing steel. If any concrete shall flow past the stop, it shall be hacked off as soon as the concrete has set. Before any new concrete is placed up against the stopped face, the concrete previously placed shall be hacked and scoured with a wire brush to remove the scum. The joint shall then be soaked with water and covered with a sand cement mortar of proportions in the same ration in the concrete used. In all cases of application of mortar the punning must be adequate to incorporate the mortar in the body of the concrete. In no circumstances shall the concrete be allowed to finish at a break running down a rough slope. Such cases, if found, will be treated as contrary to the specification and the Contractor will be required to cut out the member and re-cast. In the case of horizontal joints, any excess water and laitence shall be removed from the surface after the concrete is deposited and before it has set.

B Before casting slabs the haunchings or seatings for the slab shall be thoroughly hacked, scoured and washed and covered with at least 5 mm of mortar immediately before the slab is cast.

C Slabs to be cast using alternate bay construction, maximum size of single panel 40 square meters.

Column Plinths

D Column kicker plinths 75 mm high not cast monolithically with the beam or slab will be allowed only at the discretion of the Engineer and special precautions must be taken if permission is granted, especially in regard to the quality of the mix used and the curing of concrete.

Curing

E The curing of the concrete must receive particularly careful attention. The concrete shall be covered with a layer of a sacking, canvas, hessian or suitable absorbent materials, and concrete, formwork and covering kept constantly wet for the first seven days after casting. Foundation concrete must be protected from falling earth and kept free from deleterious substances.

Dimensions of Finished Concrete

F Except where specially noted, dimensions, levels, sizes, positions, and covers are to be exactly as dimensioned or specified with the following tolerances for concrete cast in situ.

(a) For sizes of beams or columns, slab or wall thicknesses, not less than specified, nor more than 5 mm above. Dimensions between column faces not to have a greater tolerance than 10 mm.

(b) For layout positions or dimensions horizontal or vertical 5 mm plus or minus.

(c) Levels of floor, ceilings, beams, lintels, etc., (top and bottom), 5 mm plus or minus and no surface intended to be horizontal must slope more than 2 mm in 1 meter.

(d) Errors in plumbing 5 mm plus or minus, and no line or surface intended to be vertical must slope more than 2 mm in 1 meter.

(e) For cover of concrete around reinforcement 3 mm plus or minus.
Permissible tolerance shall not be cumulative.
Steel Reinforcement

A. Mild steel rod reinforcement shall comply with B.S. 4449.

B. High tensile steel rod reinforcement shall be hot rolled deformed steel complying with B.S. 4661 grade 460.

C. Welded steel fabric reinforcement shall comply with B.S. 4483.

D. The steel shall be stored so that it is kept clean and reasonably free from rust.

E. All metal for reinforcement is to be free from loose mill scale, loose rust, oil and grease, or other harmful matter immediately before placing of the concrete.

F. All reinforcement is to be placed and maintained in the positions shown on the drawings. Some definite method of ensuring the amount of cover required by the designer must be agreed between the Contractor and the Engineer.

G. Reinforcement must be bent or straightened in a manner that will not injure the materials, and in accordance with B.S. 4466.

H. All bars are to be bent cold.

J. Starter bars are to be positioned accurately.

K. All crossings of bars are to be securely wired.

L. Bars at the top of slabs are to have substantial support.

M. The prices of all rod reinforcement are to include for cutting to lengths and for all bending, hooked ends, etc., and for placing in position with distance pieces where necessary to ensure the rigidity of the bars and for tying together with approved wire in order to prevent displacement during concreting.

N. The placing of all reinforcement shall be checked by the Engineer and in no circumstances is concrete to be deposited around any steel that has not been passed. At least forty eight (48) hours notice shall be given to the Engineer that reinforcement will be ready for inspection.

O. Where bending schedules are provided, the measured weight of reinforcement for purposes of payment will be taken from the bending schedules and the Contractor must make due allowance in his rates for rolling margins and all the foregoing items and labour including cutting to waste from random lengths.

Cover to Reinforcement

A. The thickness of the concrete cover to reinforcement shall conform in all respects to the B.S. Code of Practice B. S. 8110 : 1995 unless specifically shown on the drawings. Some approved method of ensuring the correct amount of cover shall be used.

Spacing Blocks and Chairs etc.

B. Properly formed spacing blocks of concrete with wire ties or other approved means shall be securely wired or attached to the reinforcing bars to ensure the maintenance of the proper cover of concrete.

C. These shall be dense concrete left with a wire brushed surface or dipped in grout before fixing. These blocks are particularly important where the surface of the concrete is exposed to the weather or dampness. The Contractor must ensure that the bars are securely fixed so as to maintain their indicated positions during the progress or pouring, tamping or vibration of concrete. Four chairs per drop are to be provided around columns to hold steel in positions and chairs are to be made up of 12 mm diameter mild steel bars. The cost of all such fixing steel must be allowed for the Contractor in his rates for reinforcement generally.

Precast Concrete

D. Concrete shall all be cast in properly made strong mould to form shapes required. For work described as "finished fair" the mould shall be lined with sheet iron or other approved material.

E. The coarse aggregate for precast concrete shall be 10 mm gauge where 1:1.5:3 mix concrete is specified.

F. The concrete shall be of the mixes described and shall be thoroughly tamped in the mould and shall not be removed from them until seven days after placing the concrete, but the sides may be removed after three days providing the mould are such that the sides are easily removable without damaging the concrete.

G. The precast work shall be cast under sheds and shall remain under same for seven days in the mould and a further seven days after removal from the moulds. During the whole of this period the concrete shall be shield by sacking or other approved materials and kept wet. It shall then be removed from the sheds and stacked in the open for at least seven days to season.

H. All precast work shall be in lengths convenient for handling, unless otherwise described.

J. Prices for precast concrete shall include for all moulds, hoisting and fixing to the levels required, bedding and pointing in cement mortar (1:3) and for finishing exposed faces fair and smooth where so described.

WALLING

Setting out Walling

A. The Contractor shall provide proper setting out rods and set out all work on same for courses, openings, heights, etc., and shall build the walls and piers etc., to the widths, depths and heights indicated on the drawings and as directed and approved by the Architect.

Cement

B. Cement shall be described in Concrete Work.

Fine Aggregate

C. Fine aggregate for concrete blocks shall be as described for fine aggregate in Concrete Work.

Coarse Aggregate

D. Coarse Aggregate for concrete blocks shall be good, hard, clean aggregates from approved quarries. It shall be free from all decomposed materials and shall be graded up to 10 mm all as described for coarse aggregate in Concrete Work.

Concrete Block

E. Concrete blocks for walling shall be provided by the Contractor complying with B.S. 2028 Type A, and made in approved block making machines or a composition as follows:-

Portland Cement; 1 Cubic Meter
Fine Aggregate (graded up to 5 mm); 3 Cubic Meters
Coarse Aggregate (graded up to 10 mm); 6 Cubic Meters

F. Blocks shall be solid or hollow two-hole type as specified and are to be made under sheds erected by the Contractor to the directions and approval of the Architect. In hollow blocks of the volume of the cavities shall be not less than 45% and not more than 50% of the gross

G. The compressive strength Type A blocks shall be not less than:-

Average of 13 hollow blocks; 5.75 N/mm2 gross area
Lowest individual hollow block; 4.0 N/mm2 gross area

A. The concrete is to be put into the machine's moulds in thin layers and all properly tamped therein. On removal from the machines the blocks are to be carefully deposited on wet the whole time, after which they shall be put out in the open on racks and protected with the approved matting, sacking or straw and kept wet for a further five days, then kept in the same position and under the same mat cover, but without wetting, for a further two days and then left in the open without matting or wetting for a further seven wet the whole time, after which they shall be put out in the open on racks and protected with the approved matting, sacking or straw and kept wet for a further five days, then kept in the same position and under the same mat cover, but without wetting, for a further two days and then left in the open without matting or wetting for a further seven days to season. All blocks must be left with good sharp edges. The blocks for use in the Works shall be 190 mm high and may vary in length from 300 mm to 400 mm and no variation above or below these lengths will be allowed except where required to form proper bonding at corners, round openings, sills, lintels, beams, etc., and the like positions and the Contractor must make or cut blocks to all the varying sizes required for these purposes and include this in his price. days to season. All blocks must be left with good sharp edges. The blocks for use in the Works shall be 190 mm high and may vary in length from 300 mm to 400 mm and no variation above or below these lengths will be allowed except where required to form proper bonding at corners, round openings, sills, lintels, beams, etc., and the like positions and the Contractor must make or cut blocks to all the varying sizes required for these purposes and include this in his price.racks under sheds erected by the Contractor to the direction and approval of the Architect and there left for three days and kept thoroughly

Bonding Walling

B. The blocks shall be properly bonded together in such manner that no vertical joint in any one course shall be within 100 mm of a similar joint in the courses immediately above or below. Sufficient through bonders shall be provided as directed by the Architect. Alternate courses of walling at all angles and intersections shall be carried through the full thickness of the adjoining walls. All walling shall be built up entirely solid in blocks without void, allowance being made for joints 10 mm thick only. All perpends, reveals and other angles of the walling shall be built strictly true and square

Wall Reinforcement

C. Where so specified hollow block walls shall be reinforced vertically with 10 mm diameter mild steel bars built into the cavities of the blocks at 400 mm centres, unless otherwise specified, all bars in walls to have a minimum lap of 350 mm.

D. Prices for walling described as reinforced must include for all extra costs involved in slotting blocks over the vertical reinforcement.

Filling of Hollow Blockwork

E. All cavities where specified and shown above ground and all cavities below ground level shall be filled in solid with concrete of the mix described and placed and consolidated in sections not exceeding 1190 mm in height.

F. In reinforced walls the filling shall be carefully compacted around the reinforcement.

Blocks to be Wetted

A All concrete blocks and stone walling shall be well wetted before being laid and the top of walling where left off shall be wetted before re-commencing building. Walls to be kept wet three days after building.

Mortar

B Mortar to be used for all walling work shall be composed of 1 part of Portland Cement to 1 part lime to 6 parts of fine aggregate measured by volume in specially prepared dry on clean and watertight mixing platforms, with water added afterwards from a can with a fine rose until all parts are completely incorporated and brought to a proper consistency and then used within thirty minutes of mixing.gauge boxes and thoroughly mixed

C No partially or wholly set mortar will be allowed to be used or re-mixed.

Fair Face Walling

D Where walling is to be finished with a fair face, the concrete blocks are to be selected for freedom from defects and the joints raked out as the Works proceed and flush pointed with a neat joint in cement mortar.

Joints for Walling

E The blocks shall be bedded and jointed in cement mortar as described with beds and joints 10 mm thick, full flushed up and grouted solid as the work proceeds. Joints shall be raked out where the surfaces or walling are to be plastered.

F All walling shall be properly protected while mortar is setting as the Architect shall direct.

Building Walling

G All walls throughout the Works shall be carried up evenly in 12 mm course, no part being allowed to be carried up more than 800 mm higher at one time than any other part and in such cases the jointing shall

Putlog Holes

H Putlog holes shall be carefully, properly and completely filled up on completion of walling work.

Rough Cutting etc.

H. The Contractor shall allow in his prices for the walling which is measured net herein, for all ordinary rough cutting, bonding, plumbing angles, forming reveals and fitting up to under side of concrete beams. slabs and lintels etc.

Stone Pitching

A The ground to receive pitching shall be well compacted and the stones, which shall be flat bedded and not less than 230 mm either way along the bearing surface, shall be punned to the required falls and inclinations so that neither wedges nor spalls are required to keep the pitching rigidly in place. The joints shall be no more than 13 mm thick and shall be solidly filled with 1:3 cement mortar.

B Stone for pitching shall be coral obtained from approved quarries. It shall be hard, sound, durable and clean.

Stone for Walling

C Stone for walling shall be from an approved quarry, roughly square and built random and uncoursed in mortar as described. The stone shall be well bonded with a minimum of one good bond or through stone evenly spaced to each square meter. All cavities and joints in stonework are to be filled in and flushed up solid with mortar.

D Jointing and pointing is as detailed or instructed.

Precast Screen and Louvre Block Walling

E Precast concrete screen blocks shall be manufactured in concrete of 30.0 N/mm2 strength using 10 mm aggregate, the blocks shall be 390 mm and 190 mm long x 190 mm high and 150 mm on bed in accordance with detailed drawings and finished fair on all surfaces and bedded, jointed and pointed in cement mortar with a neat flush joint.

F Precast concrete louvre blocks shall be of similar concrete, similarly jointed and pointed and constructed to detail drawing.

Damp Proof Course

G Damp proof courses shall be hessian based bituminous felt to B.S. 743 Type 5A laid on and including a levelling screed of cement and sand and lapped 230 mm at joints.

ROOFING - ASPHALT WORKS

APPROVED SUPPLIER

A. All materials shall be supplied by a firm approved in writing by the Architect and the works executed by workmen approved by the supplier.

Guarantee

B. The Contractor shall deposit with the Architect, a written guarantee and undertaking to the effect that during a period of not less than twelve calendar months from and after the certified date of completion of the whole of the works the contractor shall at his own expense make good to the satisfaction of the Architect all and any defects in the asphalt work which shall be attributed to improper materials or faulty workmanship and shall bear the cost of any consequential damage as shall be provided for in such guarantee.

Samples

C. The Contractor shall when required by the Architect submit samples of any material for testing.

MATERIALS

Asphalt for roofing

D. Asphalt for roofing shall comply with B.S. 1162 tropicalised mastic asphalt for roofing purposes.

Felt underlay

E. The underlay shall be saturated "Cabro" sheathing felt complying with B.S. 1162 (or equivalent).

Insulating screeds

F. Insulating screeds shall consist of lightweight concrete composed of one part Portland Cement and eight parts vermiculite aggregate and shall be covered with 10 mm cement and sand (1:4) screed wood floated to receive asphalt coverings.

WORKMANSHIP

Preparation of surfaces

A. All surfaces to receive asphalt and other roof coverings are to be dry, wood floated and finished to suppliers specifications.

Laying

B. Asphalt and other roof coverings shall be laid in bays generally not exceeding 2 m wide and succeeding coats shall be laid at breaking joint. Junctions between bays and fillets shall be properly married the whole being worked so that the joints are neatly made.

C. Horizontal asphalt for roof coverings shall be 20 mm thick built up into two layers each 10 mm thick. The first layer shall be applied to sheathing felt and the final coat shall be left ready to receive roofing tiles.

Air pockets and stains

D. Air pockets and stains on the asphalt and other roof coverings will not be permitted and the finished work shall not ring hollow over any parts of its surface.

Joints and fillets

E. Joints in all asphalt work and other roof coverings shall be carefully made and complete fusion obtained to make them watertight. Fillets shall be run at all internal angles and in at least two operations. Perfectly watertight joints shall be made around pipes passing through walls and floors etc.

Felt underlay

F. The felt underlay shall be fixed and laid loose or partially bonded in hot bitumen with but joints.

Testing for falls

G. To ensure that asphalt and other roof coverings have been truly laid to falls, the contractor is to arrange for the roof areas and gutters to be flushed with water in the presence of the Architect. Any defects or depressions in the asphalt or other roof coverings are to be rectified and retested for approval.

CARPENTRY

Terminology

A. All technical terms shall be as defined in the "Timber Act (amended 2012)".

Timber Generally

B. The timber for carpentry and joinery shall be specified and obtained from an approved sawmill.

C. The timber for carpentry shall be Second or Select Grade for strength.

D. The timber shall be reasonably straight grained.

E. All timber for the Works is to be purchased immediately the Contract is signed and is to be open-stacked for as long as possible before use or kiln drying.

F. All timber as it arrives on the site shall be inspected by the Architect, and any timber brought on to the site and not approved must be removed forthwith.

G. All timber and assembled woodwork shall be protected from the weather and stored in such a way as to prevent attack by termites, insects or fungi.

Species of Timber for Structural Work

H. The following softwoods shall be used for structural work;

Standard Common Name	Botanical Name
Podo	Podocarpus
Cypress	Cuppressues Lusitanica

J. Both to be second strength Grade P5 or equivalent. Whilst either timber is suitable, intermixing of species will not be accepted.

K. The Contractor is permitted to propose substitute species but these shall not be used without the written approval of the Architect and no adjustment shall be made to the basic rates for softwood trusses in the event of a substitute species being accepted.

Insect Damage

L. All timber shall be free from 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.

Seasoning of Timber

A. All timber shall be seasoned to a moisture content of not more than 18% for carpentry and 15% for joinery. The Contractor's price must include for any kiln drying that may be necessary to achieve these figures.

Pressure Impregnation

B. The softwood described as pressure impregnated shall be treated with the "Celcure A" "Tanalith C" full cell process. Timber must be seasoned to a moisture content not exceeding 25% before being treated. The treatment shall be to the minimum standard of:-

Solution concentration; 2%
Absorption of preservative; 520 Litres per cubic meter
Net dry salt retention; 10.4 Kg per cubic meter

C. After treatment, the timber shall be seasoned to the specified moisture content.

D. Cut ends and faces of timber sawn, drilled and cut after treatment are to be swabbed liberally with approved preservatives until saturated, allowed to dry and then treated with a second coat and rates for timber must include for this. Approved preservatives are: Atlas A; Brunophan Nr 2; Cuprinol Clear or Water Repellant Clear; Ensele Woodtreat 55.

Inspection and Testing

E. The Architect shall be given facilities for inspection of all works in progress whether in workshops or on site. All timber as it arrives on the site must be inspected by the Architect and any timber brought onto the site and not approved by him must be removed forthwith, failing which he may arrange for the removal of the rejects and dispose of them as he may consider advisable at the Contractor's expense.

F. Notwithstanding approval having been given above, any timber incorporated in the Works found to be in any way defective before the expiry of the maintenance period shall be removed and renewed at the Contractor's expense. The Contractor is to allow for testing of prototypes of special construction units and the Architect shall be at liberty to select any samples he may required for the purpose of testing, i.e. for moisture content, or identification of species, strength, etc.

G. Where timbers need to be extended into a wall, they shall be thoroughly "brush treated" with Ensele in addition to preservative treatment as already described above, and as much clear air space maintained around the timber where it adjoins the wall as possible.

Clearing Up

H. The Contractor is to clear out and destroy or remove all cut ends, shavings and other woodwaste from all parts of the building and the site generally, as the work progresses and at the conclusion of the Work.

Workmanship

A. All carpentry shall be executed with workmanship of the best quality. Scantlings and boardings shall be accurately sawn and shall be of uniform width and thickness throughout.All carpenter's work shall be left with sawn surfaces except where particularly specified to be wrought.

B. All carpentry shall be accurately set out in strict accordance with the drawings.

C. All structural timbers shall be frame or jointed together as is most appropriate in the circumstances in accordance with the rules of good practice. Joints must be executed in strict conformity with the drawings.

D. All joints shall be secured with a sufficient number of nails disposed as shown on the drawings and rates must include for the jointing of timbers. Surfaces must be in good contact over the whole area of the joint before securing. Holes for nails must be pre-drilled undersize; holes for bolts must be bored slightly over size from both sides of the timber and washers must be used under the nut which must be tightened sufficiently to permanently secure the joint but not to crush the timber.

E. Actual dimensions of scantlings for carpentry shall not vary from the specified dimensions by more than 3 mm in deficiency or excess but must be uniform throughout. Boards 25 mm thick or less shall hold up to the specified size. All timbers shall be as long as possible and practicable, in order to eliminate joints.

Joints

F. All nails, screws, bolts, connectors, etc., are to be as specified under "Metalwork" and as shown on the drawings.

General

A. The provisions contained in the "Carpentry" section shall apply also to the Joinery Section where applicable.

Species of Timber

B. The following timber of First or Prime Grade for appearance shall be used for Joinery Work in conjunction with the term "softwood" or "approved softwood":-

Standard Name; Botanical Name

Podo (for grounds, etc., only); Podocarpus spp.

African Mahogany; Khaya Nyasica

Mninga, Pterocarpus Angolensis

Iroko (Mvula); Chlorophora excelsa

C. The following may also be used as "local hardwood" (referred to hereafter) with the Architect's approval:-
Adina; East African Afrormosia; East African Afzelia

Generally

D. All joinery work shall be accurately set out on boards to full size for the information and guidance of the artisans before commencing the respective works, with all joints, iron work and other work connected therewith full delineated. Such setting out must be submitted to the Architect and approved before such respective works are commenced.

E. **All joinery work shall be cut and framed together as soon after the commencement of the building as is practicable,** but not to be wedged up or glued until the building is ready for fixing same. Any portions that warp, wind or develop shakes or other defects within six months after completion of the Works shall be removed and new fixed in their place together with all other work which may be affected thereby, all at the Contractor's own expense.

F. All work shall be properly morticed, tenoned, housed, shouldered, dovetailed, notched, wedged, pinned, bradded, etc., as directed and to the satisfaction of the Architect and all properly glued up with the best quality approved glue.

A. Joints in joinery must be as specified or detailed, and so designed and secured so as to resist or compensate for any stresses to which they may be subjected. All nails, springs, etc., are to be punched and puttied. Loose joints are to be made where provision must be made for shrinkage; with glued joints where shrinkage need not be considered and where sealed joints are required. Glue for load-bearing joints or where conditions may be damp must be of the resin type. For non-load-bearing joints or where dry conditions may be guaranteed casein or organic glues may be used. All exposed surface of joinery work shall be wrought and all arises "eased-off" by planning and sand-papering to an approved finish suitable to the specified treatment.

Dimensions

B 3 mm reduction off specified sizes will be allowed for each wrought face except where described as (f) i.e. **finished** size in which case joinery shall hold up to the full dimensions. Dimensions of 25 mm or less shall hold up to the specified sizes.

Fixing Joinery

C All beads, fillets and small members shall be fixed with round or oval brads or nails well punched in and stopped. All large members shall be fixed with brass screws, the heads let in and pellated to march the grain where natural finish timber is specified.

Mastic

D Mastic where specified for bedding, joinery, sills, water bars, etc., is to be approved non-hardening plastic, phlysulphide synthetic rubber or butyl composition filler or sealer.

Fiberboard

E Fiberboard shall be "Celotex" or equal and approved.

Plywood

F Plywood shall be from an approved source and comply with B.S. 1455, first or second grade, as required and unless otherwise stated shall be "interior" quality. Where veneered plywood is specified, samples must be submitted for prior approval. Where stated to be "exterior" quality, this shall be waterproof (Bonding W.B.P.).

G Routine tests will be required from time to time to check the quality of manufacture. Plywood used in structural members shall be bonded with a suitable adhesive.

Chipboard

H Chipboard shall be approved medium density resin bonded wood chipboard equivalent to B.S. 2604 with sanded finish or thickness stated. Where faced with plastic sheeting the chipboard shall be counterbalanced.

Blockboard

J Blockboard shall be laminated board to B.S. 3444. Where faced with plastic sheeting the blockboard shall be counterbalanced.

Flush Doors

A. Flush doors shall be from an approved source and manufacture, be hollow / semi-solid core constructed generally in accordance with B.S. 459-2 finished with 6 mm veneer plywood (to Architect's approval) and lipped all round with softwood 12 mm thick.

B. The thickness stated is the overall finished thickness.

Plastic Sheeting

C. Plastic sheeting shall be Formica or equal and approved laminated sheeting 1.5mm thick fixed with an approved adhesive. All colours are to be selected by the Architect.

Plugging Walls

D. All work described as plugged shall be fixed with brass screws to plugs formed by drilling concrete, walls, etc., with a proper tool of suitable size at 500 mm spacings and filling the holes completely with an approved proprietary plugging compound used in accordance with the manufacturer's instructions.

Protect Joinery

E. All fixed joinery which, in the opinion of the Architect, is liable to become bruised or damaged in any way shall be completely cased and protected by the Contractor until the completion of the Works.

Bottom Edges

F. Bottom edges of doors shall be painted with one coat of approved primer before fixing .

Mosquito Screening

G. Mosquito screening shall be "Alcad" or equal and approved aluminium fine wire mesh screening.

Bird Screening

H. Bird screening shall be approved galvanized coffee tray wire.

Ironmongery

J. All ironmongery shall be fixed with screws to match. Before the woodwork is painted, handles shall be removed, carefully stored and refixed after completion of painting, and locks oiled and left in perfect working order. Prices for fixing locks must include for organizing masterkeying systems if required and all keys shall be labelled with door references marked on approved labels before handing to the Architect on completion.

STRUCTURAL STEELWORK

Standard of Construction

A. The whole of the structural steelwork and testing shall comply with the relevant clauses of B.S. 449, B.S 4360; 1980 and B.S. 5940 grade 43.

Fabrication by Specialist Firm.

B. The steelwork shall be fabricated by a specialist firm or under proper factory conditions to be approved by the Architect.

Contractor to Submit Drawings

C. The Contractor shall include for the preparation of all shop details from the drawing supplied by the Architect. All such details shall be approved in writing, by the Architect, before the work is put in hand. Every drawing shall show the number and sizes of all rivets and bolts, complete details of welds, type of electrodes, welding procedure, whether the welds are to be made in the shop or elsewhere and any other relevant information.

Accuracy of Drawings.

D. The Contractor shall be responsible for the correctness of his shop details and for shop fittings and site connections.

Erection Scheme

E. The Contractor shall submit to the Architect for approval, drawings showing the proposed erection scheme, together with all calculations for erection stresses, etc. The approval by the Architect will not absolve the Contractor in any way from his responsibility.

Dimensions to be Verified

F. The Contractor shall take the dimensions from the site or buildings and he shall verify all dimensions given on the drawings before the work is put in hand.

Copies of Orders

G. A copy of all orders for materials shall be supplied by the Contractor to the Architect at the time of ordering, for identification purposes.

Damage

H. Any damage to materials on the site due to inadequate precautions being taken during the erection of the steelwork shall be made good to the satisfaction of the Architect at the Contractor's expense.

Materials

Quality of Steel

A. (i) All structural and rivet mild steel shall comply with B.S 4360 Part 2

(ii) Nil

(iii) Nil

(iv) All structural steel tubes shall comply with B.S. 1775 and B.S. 449

(v) Mild steel and medium tensile steel electrodes for metal-arc welding shall comply with the requirements of B.S 2549.

(vi) High tensile steel electrodes for metal-arc welding shall comply with the requirements of B.S. 2549.

(vii) All mild steel bolts and nuts shall have a tensile strength of not less than 432 N per Square Millimetre (28 tons per square inch) and a minimum elongation of 17 percent as defined in Clause 2 of B.S. 916 or in B.S. 2708.

(viii) All high tensile steel bolts, nuts and washers shall have a minimum tensile strength of 570 N per square millimetre (37 tones per square inch).

(ix) High strength friction grip bolts and washers shall comply with B.S. 3139, Part 1.

(x) All plan washers shall be of steel. Tapered or other specially shaped washers shall be made of steel or malleable case iron complying with B.S. 3410.shall be made of steel or malleable case iron complying with B.S. 3410.

Marking of Steel

B. Each piece of steel shall be legibly marked with the maker's name or trade mark and with cast numbers or identification marks by which the steel can be traced to the cast from which it was made.

C. For rivet bars and small pieces securely bundled, a metal tag marked with the cast number will be sufficient.

Standard Dimensions

D. The dimensions and allied requirements of all structural rolled sections shall comply with B.S. 4. The dimensions, weight, tolerances etc., of all rivets, bolts, nuts, studs, etc., shall conform to the following standards. Rivets shall comply with the requirements of B.S. 275 for dimensions

E. Black bolts, nuts, studs, lock nuts and washers shall comply with the requirements of B.S. 916 for dimensions and with B.S. 1580 for unified black bolts etc.

A. Turned bolts shall have the shank turned to the specified diameter allowing only a minus tolerance up to 0.13mm (0.005 inch).

Weight of Steel

B. For the purpose of measurement, the weight of mild steel shall be as given in B.S. 648 which will be the basis for measurement of variations. The weights per meter given on the drawings do not include the shelf angles riveted to webs, nor the plates riveted to the flanges of R.S. Js or other sections.

Conditions of Surfaces

C. All surfaces of steel work shall be clean, free from loose millscale and loose rust.

Tests and Inspection

D. Manufacturer's Mill Test Certificates for all structural steel shall be supplied to the Architect as and when required. Where and when directed by the Architect, the Contractor shall take and deliver samples of structural steel for testing to the Employer's Highways and Transportation Testing Station. Should the results of either test be unsatisfactory the whole consignment of steel which the sample represents shall be rejected and shall be replaced by other material of proper quality at the expense of the Contractor.

E. The Architect or his representative shall at all reasonable times, be given free access to the Works.

Metallic Coatings

F. Galvanized steelwork shall comply with B.S. 729 Part 1 entirely coated with zincafter fabrication by complete immersion in a zinc bath in one operation and excess carefully removed. The finished surfaces shall be clean and uniform.

ii) Zinc sprayed steelwork shall comply with B.S. 2569 Part 1. The nominal thicknessof zinc coating shall be not less than 0.102 mm (0.004 inches) and at no point less than0.076mm (0.003 inches).

Generally

G. The whole of the fabrication and erection of the steelwork shall be carried out in accordance with B.S. 449

Materials (Cont'd)

A. The welding of steel to B.S. 1962 must conform to:B.S. 1856 - "General requirements for the metal-arc welding of mild steel"or B.S. 2642 - Are applicable."General requirements for the arc welding of steel to B.S. 968 and similar steel"

B. For welding any particular type of joint the Contractor shall provide evidence acceptable to the Architect that the welder has satisfactorily completed the appropriate tests as described in B.S. 5950 - 7

C. Any welder's tests shall be made at the Contractor's expense and shall include the cost of any fees incurred by the Employer for witnessing of, or making such tests.

D. The right is reserved to make non-destructive tests on the welding to determine if the welding conforms to the standards laid down in either B.S. 1856 or B.S. 2642 as applicable. This will normally consist of radiography on butt welds, ultrasonic examination of fillet welds or other tests as appropriate to the actual configuration of the weld in question.

Rejection

E. Any portion of the work which, in the opinion of the Architect, is not in accordance with the drawings, or specification shall be rejected whether before or after delivery and must be removed from the site if delivered within 24 hours from receipt of such notice or rejection at the Contractor's expense. Any delay caused by such rejection will not in any way relieve the Contractor from his responsibility with regard to the provisions of the Contract. If any welding is found to be defective the cost of all remedial measures shall be borne by the Contractor, including the cost of re-testing the subsequent inspection of welds as referred to in the P.C. Sum hereafter.

F. The Contractor is responsible for the good quality of all welding work and no exceptions will be made on the grounds that the Architect or his representative have inspected any part or parts of the work at some stage during production.

Fabrication

G. As much of the work of fabrication of the steelwork as is reasonably practicable shall be completed in the manufacturer's works. Field connections shall be made in accordance with the approved drawings. The Contactor shall give four day's clear notice of steelwork ready for inspection at the manufacturer's works, to facilitate inspection before delivery.

Cast of Temporary Erection, etc.

A. Trial erection of principal or other units may be called for at the discretion of the Architect or his representative.

B. The cost of any necessary temporary erection, testing, packing, marking, carriage and delivery is deemed to be included by the Contractor in the Tender price.

Joints and Connections

C. No variation of the number, type or position of the joints or connections shown on the drawings shall be made without the consent of the Architect. If such consent is desired the Contractor shall submit detailed drawings of the proposed joints for the approval of the Architect and no extra cost incurred by reason of such additions or alterations will be allowed to the Contractor.

Painting at Works

D. Where described as primed at works, steelwork shall be freed of rust, millscale, welding slag and flux residue and shall be dry immediately prior to painting with primer as Clause Q 14 a.

E. For joints with high strength friction grip bolts the contact surfaces shall be left unpainted but special care shall be taken after assembly to paint all edges and corners near the joints together with bolt head, nuts and washers to prevent the ingress of moisture.

F. For joints made with other bolts and rivets the contact surfaces shall each be given a coat of priming paint and for shop connections the contact surfaces shall be brought together while the paint is still wet.

G. For welded connections where the contact surfaces are not completed sealed the contact surfaces shall be painted to within 50mm of the edges that are to be welded.

H. The primer shall be touched up with similar primer if damaged by subsequent handling.

METALWORK

Mild Steel

A. Mild steel shall comply with B.S. 4360 Grade 1 and the sizes of all small sections shall be in accordance with B.S. 4 and 4A.

Galvanized Work

B. Iron and steel, where galvanized, shall comply with B.S.1461 Part 1 entirely coated with zinc after fabrication by complete immersion in a zinc bath in one operation and all excess carefully removed. The finished surface shall be clean and uniform.

Aluminium

C. Aluminium shall be of the alloys described in and shall comply with B.S. 485. Aluminium sheet for flashings shall be soft-temper, super purity (S1 or S1A) and not less than 20 s.w.g. (0.9mm) in thickness.

Smithying, Shearing and Cutting

D. All smithying, welding, cutting and bending shall be soundly and neatly executed, care being taken not to overheat. All flame cut edges and welds shall be neatly ground off on completion.

Bolts

E. Mild steel bolts, nuts and washers shall comply with B.S. 916 for black bolts with hexagonal heads and nuts. High tensile steel bolts and nuts shall be in accordance with B.S. 3139 Part 1.

Anchor Bolts

F. Anchor bolts in concrete for steel works etc., are to be self drilling anchor bolts of one of the following types:-

Phillips redhead concrete anchors
Rawlplug super drilanchor
Spit self-drilling anchors

G. Rates are to include for fixing complete with washer. Mortices in concrete have not been measured for this item.

Shop Inspection

A. The Architect shall be granted full facilities and any necessary assistance for inspection or materials and assembled parts in the Contractor's (or his Sub-Contractor's) workshops. At least two weeks notice shall be given to the Architect in writing prior to the despatch of finished components to the site to enable the Architect to inspect and approve the materials and workmanship at the workshops. Approval of work at the workshop does not relieve the Contractor of this obligations to carry out the work complete at the site to the Architect's satisfaction in accordance with the Contract.

Marking

B. All components delivered to the site are to be marked in paint with the Mark number in accordance with any shop and erection drawings.

Storage

C. All components are to be stored at the site in proper racks provided for the purpose which provide full support to each member to obviate any deflection and distortion. Steelwork is to be stored at least 25cm clear of the ground and temporary protection is to be provided for protection against water and damage from any other source.

Erection

D. Rates for all metalwork are to include for the complete for the complete erection including any temporary supports required and any necessary templates and wedges.

Painting

E. All steel is to be thoroughly de-rusted and degreased prior to despatch to the site and is to be given one coat zinc chromate primer at the works. Further painting treatment will be carried out at the site. Painting is measured separately and the cost thereof is not to be included in the rates for metalwork.

PLUMBING AND ENGINEERING INSTALLATION

Execution of the Works

A. The work shall be carried out strictly in accordance with:-

(a) "British Standard Code of Practice" C.P. 310: 1965: Water Supply
(b) "British Standard Code of Practice" C.P. 404: 1968: Sanitary Pipework above ground

(c) All other relevant British Standard Specifications and Codes of Practice
(d) Bye-laws of the Local Authority
(e) The working drawings

Extent of Work

B. The Contractor will be responsible for all below ground plumbing and drainage work and the installation of the Sanitary Fittings only, the remainder of the Plumbing and Engineering Installation will be executed by a Nominated Sub-Contractor.

Quality of Materials and Workmanship

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

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

E. The Contractor shall, if required by the Architect, submit samples of materials to the Architect for his approval before placing an order.

F. If in these Preambles the practice is adopted of specifying a particular item as "similar" to that of a particular firm's product, 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 name or product is quoted.

G. Where particular manufacturers are specified herein, no alternative makes will be considered and the Architect shall be allowed to reject any other makes.

H. 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.

J. The work shall be carried out by competent workmen under skilled supervision. The Architect shall have the authority to have any of the work taken down or changed which is executed in an unsatisfactory manner.

Galvanized Steel Tubes and Fittings

A. Galvanized steel tubing shall comply with B.S. 1387 with plain galvanized malleable fittings complying with B.S. 143/1256.

B. Tubes and fittings shall be jointed by means of screwed threads to B.S. 21, by means of P.T.F.E., tape or hemp and "Bosswhite". All joints shall be perfectly smooth inside without excrescences.

C. Where sleeves are required for pipework passing through concrete, blockwork or below concrete slabs, they shall be galvanized steel tube or drain pipes of sufficient diameter to give at least 25mm clearance all round the water main.

D. Galvanized water mains below ground level or below slabs shall be double wrapped in "Denso" tape.

Brasswork

E. Stop valves shall comply with B.S. 1010 and shall be with crutch handles or loose keys where so described on the drawings. Draincocks shall comply with B.S. 2879.

Testing

F. Upon completion the whole of the water main shall be tested to a pressure not less than twice times the working pressure for a period of thirty minutes.

G. Notwithstanding the foregoing clauses, all water mains and fittings and installation thereof shall comply fully with the requirements of the Water Supply Authority.

Sanitary and Other Appliances

H. The appliances shall be fixed in the positions shown on the drawings or as described by the Architect.

J. The Contractor shall include in his rates for providing all necessary screws, bolts, etc., together with all jointing materials required and also for temporarily erecting and securing fittings in the required position or service and discharge pipes, taking down, storing and fixing after completion of wall finishings permanently fixing and connecting to service and discharge.

K. Care shall be taken at all times and particularly after fixing, to protect appliances from damage.

L. Upon completion of the work, all appliances shall be cleaned of plaster, paint, etc., and carefully examined for defects.

Fire Fighting Equipment

A. The specified fire fighting equipment shall be supplied and installed by the Contractor in the positions shown on the drawings

B. Portable fire extinguishers shall comply with the following British Standards:-

(a) Water type (soda acid); B.S. 138: 1948

(b) Foam type (chemicals); B.S. 740: Part 1: 1948

(c) Foam type (gas pressure); B.S. 740: Part 2: 1952

(d) Water type (gas pressure); B.S. 1382: 1948

(e) Carbon tetrachloride and chlorobromethane; B.S. 1721: 1960

(f) Carbon dioxide type; B.S. 3326: 1960

(g) Dry powder type; B.S. 3465: 1962

(h) Water type (store pressure); B.S. 3709: 1964

C. Fire hose couplings and ancillary equipment shall comply with B.S. 336: 1965; rubber reel hose shall comply with B.S. 3169: 1959.

D. Underground fire hydrants and surface box openings for same shall comply with B.S. 750: 1964.

E. The installation of hydrants and fire extinguishers shall be in accordance with C.P. 402:101: 1952 and C.P. 402 part 3: 1964 respectively.

F. If nothing else is specified, fire extinguishers and hose reels shall be supplied in the colour "fire red" and be similar to manufacture "ANGUS".

FLOOR WALL AND CEILING FINISHINGS

Sand

A. Sand for backing, floor and wall finishes is to comply with B.S. 13139, Table 1.

Cement

B. Cement is to be as described for "Concrete Work:.

Lime

C. Lime is to be no-hydraulic hydrated lime to B.S. 459 Class "A" obtained from an approved source and run into putty at least 24 hours before use.

Workmanship

D. All concrete beds or slabs shall be thoroughly brushed clean, hacked if necessary and well wetted and flushed over with a cement sand (1:1) grout immediately before screeds or pavings are laid.

E. Screeds and cement pavings shall be laid in accordance with the relevant B.S. Code of Practice. Working joints between bays of the floor finish should be placed in accordance with the Architect's instructions and will be plain butt joints placed over joints in the concrete bed under. Pavings shall be damp cured with sand or sawdust and kept damp for at least 7 days after laying.

F. All surfaces to be plastered or rendered must be brushed clean and well wetted before plaster is applied. Joints of walling shall be raked out and concrete hacked to form a key. Care shall be taken to see that paving and plastering do not dry out prematurely.

G. Adequate time intervals must be left between successive coats in two-coat work in order that the drying shrinkage of the undercoat may be substantially complete. All internal and external angles shall be pencil rounded.

In-Situ Pavings Generally

H. Before laying in-situ floor finishes, the concrete beds are to be thoroughly hacked for key, cleaned off, thoroughly wetted with clean water and coated with a stiff cement slurry and rates for screed, granolithic and terrazzo paving are to include for this. They are also to include for all necessary curing and protecting until the building is handed over.

Cement and Sand Paving

J. The cement and sand paving shall be in proportions of 1:4 by volume and incorporating or treated with an approved hardener.

Polished Granolithic Paving

A. The aggregate for granolithic paving shall be in accordance with B.S. 1201 and shall be mixed in the proportions of 1:1:1.50 cement, fine and coarse aggregate respectively. The mix shall incorporate an approved hardener suitable for incorporation and not for surface treatment. The water cement ratio shall be kept as low as possible and shall not in any case exceed 0.45.The paving is to be laid to the full thickness described and to be finished with a wood float and with no extra cement trowelled into the surface which is to be laid true and level. The paving is to be thoroughly cured after laying by covering with polythene sheeting and periodically watered to keep it moist for at least one week after laying. The surface is to be polished with approved rotary carborundum discs mechanically operated coarse and fine grain and with cement and sand slurry to produce a blemish-free surface.

B. The granolithic shall be laid in bays not exceeding 3.50 square meters with ebonite dividing strips for the full depth of the paving and shall be executed by Specialist who have a thorough knowledge of the work.

Polished Terrazzo Paving

C. The ins-Situ terrazzo shall consist of white or coloured cement and marble aggregate; the colours of the cement and aggregate shall be selected by the Architect. The mix shall comprise three parts of 6mm nominal aggregate to one part coloured cement by volume. The aggregate shall be clean and granular and shall not contain flaky particles or dust. The underbed shall be cement and sand 1:4 by volume.

D. The terrazzo shall be laid in bays not exceeding 3.5 square meters with ebonite dividing strips for the full depth of the terrazzo and underbed, and shall be executed by Specialist who have a thorough knowledge of the work.

E. The terrazzo topping shall be laid to a minimum of 12mm thickness in a plastic condition while the underbed is still green and this should be watered to minimise absorption from the topping. The terrazzo must be well tamped into position and rolled with a suitable hand roller. The topping should be allowedto take an initial set and then any surface voids must be grouted up with neat cement of the same colour used in the mix.The surface should be cured by keeping moist by covering with damp sacking for at least 72 hours.When dry and hard the surface shall be machine polished by grinding with carborundum or other stone discs of suitable grade and with rotary polishing pads.

F. Rates must include for all necessary protection until the building is handed over to the Architect. The depths stated are for the full depth including topping and underbed.

P.V.C. Flooring and Skirting

G. P.V.C. floor tiles shall comply with B.S. 10595. The tiles and accessories shall be supplied in the sizes and thickness specified in colours selected by the Architect and are to be fixed to the screed base with a suitable adhesive supplied (or recommended) by the Manufacturer and used in accordance with his instructions. Rates for floor tiles shall include for thoroughly washing and cleaning on completion and for the application of one coat of water based wax polish.

Brushed Terrazzo Rendering

A. Brushed terrazzo rendering is to comprise two coats as described. The undercoat shall consist of cement and sand mixed in the proportion of (1:4) by volume and applied to a minimum thickness of 10mm finished with a wood float and scratched to provide key for top coat. The finishing coat shall consist of one part white cement to two parts marble chippings or approved size applied to a minimum thickness of 10mm and the final surface wet brushed to expose the aggregate.

B. The Contractor will be required to produce a sample panel of rendering on site for the approval of the Architect.

Internal Plaster

C. Internal plaster shall be applied in two coats and adequate time intervals must be allowed between successive coats in order that the drying shrinkage of the undercoat my be substantially complete. The first coat must be well scratched, keyed and wetted to receive the finishing coat. The finishing coat shall be finished smooth with a steel float but care must be taken not to overwork the surface in order to minimize the incidence of shrinkage cracks. All internal and external angles shall be pencil rounded.

D. Internal plaster, unless otherwise described, shall be lime plaster of 12mm minimum overall finished thickness applied in two coats, the first coat consisting of cement, lime putty and sand mixed in the proportion of 1:2:9. The finishing coat shall be a skim coat comprising cement and lime putty in the proportion of 1:10.

E. Cement plaster is to be employed where specified on the drawings and is to be applied in two coats of approximately equal thickness to a total of 12mm minimum overall finished thickness. The composition of both boats shall be the same and shall comprise cement and sand (1:3) but a small percentage addition (not more than 10%) lime putty y may be permitted if the Architect considers that this will reduce the incidence of shrinkage cracks.

F. The Contractor shall cut out and make good all cracks, blisters and other defects and leave the whole of the plastering and rendering perfect at completion. When making good defects the plaster shall be cut out to a rectangular shape with edges undercut to form dovetailed key, and all finished flush with the face of surrounding plaster.

Marmoran Finishings

G. Prepare and prime surface, apply one coat 3 mm thick PVC Resin Bonded plaster with trowel, apply 3.2 mm thick stone chips with low pressure spray gun or by hand, roll flat by roller immediately after application. Colours and texture of the plaster and stone chips are subject to specifier's approval. Specifications must be strictly in accordance with manufacturer's instructions

Wall Tiles

A. Glazed wall tiles shall be from an approved manufacturer and shall conform with the requirements of B.S. 1281. Tiles shall be white with slightly rounded or "cushion" edges and unless otherwise specifically described shall be size 150 x 150 x 6mm thick. Tiles shall be laid with continuous straight joint and internal angles shall be butt jointed. Rounded on edge tiles shall be used at all external angles and at edges of panels. Tiles shall be bedded in approved tiles adhesive and pointed in white cement.

B. Backing to tiles is to be cement and sand in the proportion of 1:4 rendering in one coat to a minimum thickness of 12mm trowelled smooth. Backings have been measured separately.

Carpet Tiles

C. Carpet floor tiles shall be from an approved manufacturer and shall conform to specification as per M/s Protex of South Africa. Graveltex Protex Carpet tiles shall be of heavy duty grade, 100% stain proof miracle fibre with density of 920, g/sq.m (fibre) and 4500 g/sq.m (total) with fire resistance (S.A.B.S) of 3, lavender colour. The size shall be 500 x 500 x 9.50mm thick. Tiles shall be laid with continuous straight joint. Tiles shall be bedded in approved tiles adhesive.

D. Beds to tiles are to be cement and sand in the proportion of 1:4 rendering in one coat to a minimum thickness of 30mm trowelled smooth. Backings have been measured separately.

Floor tiles

Porcelain tiles

E. Porcelain floor tiles shall be from an approved manufacturer and shall be of black polished, cocowhite-polished or gardenia green matt. The size shall be size 400 x 400 x 10 x thick. Tiles shall be laid with continuous straight joint. Tiles shall be bedded in approved tiles adhesive.

F. Beds and backings to tiles is to be cement and sand in the proportion of 1:4 rendering in one coat to a minimum thickness of 30mm trowelled smooth. Beds and backings have been measured separately.

Laying of Marble, Granite, Porcelain or Ceramic Floor Tiles

G. Before laying the tiles, level the flooring area, ensure the surface is rough and clean.

Laying Floor tiles with Traditional Mortar

H. The cement thickness needed to lay tiles should be around 40 mm. The mixture for indoor is 1 volume of Portland cement and 3 volumes of sand. The mixture must be made with appropriate quantity of water in order to dampen the materials. Clean and wet the flooring area, making sure to leave completely clean. Spread the mixture and level with a ruler, in order to reach the 40 mm of thickness. Spread dry cement over the mixture, until the water that remains over the surface has been completely absorbed. Lay the tiles, already mixed from different boxes, with a wide joint and in the desired way. Wet tiles, then cover to achieve a perfect level.

Laying Floor tiles with Adhesive

A. The bed needed for this kind of laying, should be around 30 mm. The flooring area should be steel or wood trowelled and levelled. Spread the adhesive with a spatula with ridges. It is very important to lay a good quantity of adhesive so that there is no free space between the tiles.

Mixing the Colour Shades of Floor tiles

B. Before laying the tiles at least 5 to 6 boxes must be laid over a dry surface in order to ensure that the different shades have a uniform look. The best result is obtained this way.

The Joints of Floor tiles

C. The tiles have to be laid with a minimum of at least a joint separation between tiles of 3 to 10 mm.

Setting the Joints of Floor tiles

D. The cord or wire system can be used in the 4 or 5 joints, ensuring they are all parallel with the reference joint. Plastic crosses used for this purpose, in different sizes, can be obtained in specialized shops, giving a much better finishing and final result.

Filling the Joints of Floor tiles

E. Apply a mixture composed of 2 volumes of Portland cement and 1 of fine washed sand, with enough water in order to amplify the handing. There are suitable preparations for different uses and in different colours now available, so as to achieve the desired effects. Spread the substance by use of a rubber or plastic spatula. Clean the tiles before the mixture dries. After the joints are completely dry, wash with plenty of water several times.

Concrete Tiles

F. Concrete tile for finishing the roofs shall be 25mm thick of natural colour with bevelled top arises on all sides and shall comply with B.S. 1197. The tiles shall be laid to regular pattern with open joints. Care should be taken to ensure that the surface level is even and follows accurately the levels of the roof finish. All cement stains shall be carefully removed.

Precast Concrete Paving Slabs and Kerbs

A. Precast concrete paving slabs shall comply with B.S. 368. precast concrete kerbs shall comply with B.S. 340 figure 5 and shall be finished true and smooth on all exposed faces.

B. Precast paving shall be bedded on a compacted sand bed with 6mm wide joints filled and pointed with cement mortar coloured to match the colour of the slabs. The pavings shall be finished true and even and to the falls shown with no surface irregularities.

GLAZING

Method of Glazing

C. Notwithstanding reference in the descriptions of glazing method to glazing beads, or the like with associated fixings, and insulating strips, such components will be measured separately in accordance with the appropriate rules of the S.M.M.

D. The provision of glazing compounds and putties and springs, clips and other sundry fixings shall be deemed to be included with all items of glazing.

E. Distance pieces and setting blocks, in appropriate materials, shall be provided in accordance with good glazing practice and they shall be deemed to be included with all items of glazing.

MATERIALS

Glass generally

F. All glass shall comply in all respects with the appropriate section of B.S. 952. Plain sheet clear glass shall be O.Q.; plate glass shall be GG. All glass shall comply in all respects with the latest British Standards including the British Codes of Safety.

Putting for glazing to wood

G. Putty for glazing to wood shall comply with B.S. 544.

Samples

H. Samples not less than 150 mm square, are to be submitted to the Architect for approval before any glass is cut.

WORKMANSHIP

Glass to be kept free from moisture

J. All glass surfaces shall be kept dry during transit and storage. Glass becoming moist from condensation or other causes, shall be thoroughly dried and aired.

Rebates and beads

A. All glazing beads in wood shall be primed, (as measured in Painting and Decorating), before glazing is commenced.

Edges of glass

B. All glass shall have clean cut edges. The edges of louvres shall be rounded and polished.

Bead glazing

C. Glazing fixed by beads shall have both glass and beads bedded and back puttied, and the putty trimmed off flush. Where sealing strip is used, it shall pass round both faces of the glass and be trimmed off flush on both sides. Metal surfaces to receive sealing strip shall be treated with mineral oil before glazing.

Method of measurement

D. Beads and sealing strips have been measured separately. Prices for glazing with beads are to include for taking out and re-fixing beads as required, which shall be deemed to be bradded unless otherwise described.

PAINTING

Execution by a Specialist Firm

E. All work under this section must be executed by a Specialist Firm, approved by the Architect.

Approved Paints

G All paints shall be obtained from the same manufacturer and shall be approved by the Architect.

H The Contractor must allow for providing the Architect with colour charts from the approved firm and for executing sample panels as required.

Generally

I All materials shall be delivered on site intact in the original drums or tins and shall be mixed and applied strictly in accordance with the manufacturer's instruction and to the approval of the Architect.

J The only addition which will be allowed to be made locally will be liquid thinners and driers supplied or recommended by the manufacturers and none shall be thinned more than approved by the Architect.

Preparation

K All surfaces to receive treatment are to be clean and dry before paint application and surface irregularities are to be removed by filling or the use of suitable abrasives.

External Rendered Surfaces

A External cement slurry finished wall which are to be painted must be clean and must be thoroughly brushed and washed to remove any dust, loose flakes or other foreign matter and must be well wetted prior to the application of finish.

Plastered Surfaces

B Internal plastered surfaces which are to be painted are to be allowed to dry out thoroughly prior to paint application. All cracks and surface imperfections are to be cut back and filled with a patent filler in accordance with the manufacturer's instructions and rubbed down to a true and even surface.

Woodwork Preparations

C Large knots in woodwork are to be cut and replace with sound wood or scorched back and after priming the surface made good with stopping. All knots are to be treated with two thin coats of patent knotting free from resin. After priming, all nails holes and other imperfections shall be filled with stopping and the whole surface rubbed down to a smooth even finish. The stopping must be "Sadofill" or other approved make.

Woodwork - Fittings

D Unless otherwise specified, fittings are to be treated with two cots of linseed oil.

Metalwork

E All rust and loose scale on steel and iron work must be removed by wire brushing and rubbing with emery paper. Where patches of ingrained rust cannot be removed they are to be thoroughly rubbed down and treated with one coat of "Galvafroid" or other zinc rich paint in accordance with the manufacturer's instructions. One coat of zinc chromate primer will then be applied followed by two undercoat and one finishing coat of gloss paint as described for Woodwork above. The Contractor is tonote that where mild steel burglar bars are housed into wood frames, the full length or the bar is to be treated before fixing.

F Galvanized metalwork is to receive one coat of white spirit or mordant degreasing solution washed off prior to the application of calcium plumbate primer followed by two undercoats and one finishing coat of gloss as previously described.

G Galvanized metal work is to be painted only where instructions are given by the Architect as in some cases galvanized metalwork is to be left untreated.

DRAINAGE

Generally

Preambles to Other Sections

A The preambles contained in other sections of this document shall apply equally hereto where applicable, so far as is consistent with the clauses following.

Notices

B The Contractor shall give all requisite noticed. Uncoloured plans will be supplied by the Architect at the Contractor's request.

Drainage Bye-Laws

C All of the works shall comply with the requirements of the drainage bye-laws made by the Local Authority and shall be executed to the satisfaction of the Architect and Local Authority.

Inspections

D The Contractor shall give written notice to the Architect for the purpose of inspections and measurements, whenever section of:-

(a) excavations are completed

(b) concrete beds are laid

(c) drains are completed

and no further work shall be executed until each stage of the work has been inspected.

Levels of Existing Drains

E The Contractor shall check the invert levels of existing drains, sewer and manholes before laying new drains, and shall notify the Architect immediately if the declared invert levels are found to be inaccurate

Pitch Impregnated Fibre Drain Pipes, Couplings and Fittings

F Pitch impregnated fibre drain couplings and fittings shall comply with B.S. 2760.

UPVC Pipes and Fittings

G UPVC pipe and fittings shall comply with B.S. 3506 Class O to be obtained from a manufacturing source approved by the Architect in writing.

Spun Cast Iron Drain Pipes and Cast Iron Fittings, Gullies etc.

H Spun cast iron drain pipes shall be coated centrifugally cast (spun) iron pipes complying with B.S.1211 Class B.

A Fittings, gullies, etc., shall be of coated cast iron and shall comply with B.S. 1130.

Concrete Pipes and Fittings

B Concrete pipes and fittings shall comply with B.S. 556. They shall be reinforced, and of sulphate resisting cement if specified.

Manhole Covers and Road Gratings

C Manhole covers and road gratings and frames shall comply with B.S. 497.

Step Irons

D Step irons shall be galvanized malleable cast iron complying with B.S. 1247.

Mesh Reinforcement

E Mesh reinforcement shall be steel fabric complying with B.S. 1221 Part A or B.S. 4483.

Setting Out

F The Contractor shall set out all drains in accordance with the drawings, and provide all profiles, etc., necessary for the execution of the work.

Excavation

G The bottoms of all excavations shall be trimmed and consolidated to the correct levels. Unauthorized excavations below the required levels shall be filled with concrete of the same composition as for drain beds, at the Contractor's expense.

H Where the bottom is insufficiently firm, the Contractor shall excavate until, in the Architect's opinion, a firm bottom is obtained and the level shall be made up with concrete of the same composition as for drain beds. Particulars of such additional work shall be agreed with the Architect's representative before the work is covered up, otherwise no claim in this respect will be entertained.

Planking and Strutting

I Care shall be taken not to undermine the foundations of the buildings and, if so directed by the Architect, planking and strutting shall be left in, or other means adopted to protect the foundations. Details of such additional items shall be agreed with the Architect's representative before the work is covered up, otherwise no claim in this respect will be entertained.

Backfilling

J Trenches for pitch impregnated fibre of UPVC pipes shall first be filled with selected screened excavated materials carefully hand-tamped between the pipe and sides of the trench, followed by 150mm - 200mm of similar materials before the general filling is carried out.

A Trenches for concrete or cast iron drains shall first be filled to a depth of 300mm with selected fine materials carefully hand-packed around the pipe. On no account shall materials be tipped into the trench until first 300mm has been completed.

B Filling shall be continued in layers not exceeding 300mm thick, well rammed and, if necessary, watered.

Laying Drains

C Drains shall be laid truly straight on line and gradient with sockets upstream and the full bore shall be unobstructed.

Pitch Impregnated Fibre Drains

D All hard obstructions shall be removed from trench bottoms before laying pitch impregnated fibre pipes. The pipes shall be bedded in sand and laid and jointed in accordance with Appendix "C" to B.S. 2760.

UPVC Drains

E UPVC drain pipes shall be laid and jointed with solvent welded joints entirely in accordance with the manufacturer's instructions.

F Pipes shall be bedded in sand after all hard obstructions have been removed from trench bottoms.

Cast Iron Drains

G Cast iron drains shall be laid on concrete beds where specified or shown on the drawings and shall be jointed with gasket of hemp, well caulked, to a depth of 30mm for 100mm pipes and 40mm for large pipes, and remainder of the socket shall be filled with molten lead or lead fibre solidly caulked.

H Connection of iron to concrete drains shall be jointed as described for concrete drains.

I Cast iron drains fixed to walls or beams shall be supported on brackets at 1,350mm centres.

J Gullies, outlets, etc., on drains under concrete floors shall be set in position at correct levels before the floors are laid.

Concrete Drains

K Concrete drains shall be jointed with one turn of tarred gaskin, well caulked and the remainder of the socket filled with cement and sand (1:3), finished with an angle fillet around the pipe. All surplus mortar shall be removed from the inside of the pipe with a badger. Where pipes are sulphate resisting, the jointing mortar shall contain sulphate resisting cement.

Concrete Beds, Haunches and Coverings

A Where specified or shown on drawings, drains shall be laid on concrete, (105kg/sq.cm - 40mm aggregate), beds 100mm thick, 400mm wide for 100mm diameter drains and 450mm wide diameter drains. The concrete shall be haunched up both sides of the barrel to give lateral support.

B Where drains, other than cast iron drains, are laid under buildings or pavings carrying vehicular traffic, they shall be completely surrounded in concrete, (105kg/sq.cm - 40mm aggregate), 150mm thick, (i.e. 400mm x 400mm overall for 100mm pipes and 450 x 450mm overall for 150mm pipes). Where directed, drain beds shall be reinforced.

C Gullies shall be bedded and surrounded in concrete 105kg/sq.cm - 40mm aggregate minimum 150mm thick all round.

Sleeves

D All drains passing through walls or foundations shall have sleeves of cast iron pipe of sufficient size to allow a clearance round the drain.

Benching

E Benching in bottom of manholes shall be concrete (105kg/sq.cm - 40mm aggregate) to falls of not less than 10 degrees to channels finished with cement and sand (1:2), 25mm thick, trowelled hard and smooth with all angles rounded.

Bedding and Sealing Covers and Frames

F Frames to manhole covers shall be bedded in cement mortar (1:3), and the covers in grease and sand.

Testing

G All drains and manholes shall be tested for water tightness and straightness to the satisfaction, and in the present of, the Architects and the Local Authority. Drains shall be filled with water to a head of 1.50 meters and are to be tested in sections agreed with the Architect:-

(i) after jointing
(ii) after haunching and backfilling
(iii) after completion of the works

H The Contractor shall provide all necessary testing apparatus and shall carry out such other tests as are required by the Architect and the Local Authority.

Clean and Flush all Drains

I All drains, gullies, manholes, etc., shall be cored, cleaned and flushed on completion.

Method of Measurement

A Where not otherwise stated, the starting level for trench manhole excavation shall be:-

(i) the formation level in areas where the site is excavated to reduce levels.

(ii) existing ground level in areas where no excavation is required, or where filling is required.

B The depths of all the trenches in the following description lie within the same 1.5m stages as the average depths stated.

C Prices for excavating pipes trenches shall be deemed to include keeping them free from general water (i.e. all water except spring or running water).

D Notwithstanding the provisions of SMM Clause V.7 (a) to (c) the descriptions of excavating manholes, yard gullies, septic tanks and soakpits shall be deemed to include grading bottoms, planking and strutting, return filling and compacting, disposal of surplus soil and keeping excavation free from water.

E Prices for building pipes into manholes shall include for building in on rake where necessary.

F Prices for concrete beds, benchings and covering for pipes laid in trenches, shall be deemed to include for any necessary formwork. Formwork required for beds, etc., for pipes above ground, and for casing to vertical pipes, is referred to in the descriptions of such items.

G Prices for all gullies shall be deemed to include for all necessary excavation, return filling, disposal of surplus excavated materials, planking and strutting, and trimming and ramming bottoms.

EXTERNAL PAVINGS

Generally

A. The Preambles contained in other sections of the document shall apply equally to this sections so far as is consistent with the following clauses.

Materials

Soil for Planted Areas

B. Soil for planted areas shall be vegetable soil free from roots and rubbish and treated with weed killer to prevent the growth of weeds.

Sand for Filling under Footpaths

C. Sand for filing under footpaths shall be clean, dry, pit or river sand, free from vegetable soil, roots and rubbish.

Crusher Dust for Sub-Base Course of Macadam Paving

D. Crusher dust shall be from an approved source and shall be free from clay or other deleterious matter.

Stone for Base Course to Macadam Paving.

E. Stone for base course to macadam paving shall be 40mm gauge, clean and hard and free from clay or other deleterious matter.

Blinding For Stone Base Course

F. Blinding for stone base course shall be 4mm gauge hard stone chippings, free from clay, dust or other deleterious matter.

Precast Paving Slabs

G. Precast paving slabs shall comply with B.S. 368 except for sizes.

Kerbs

H. Precast concrete kerbs shall comply with B.S. 340, and shall be finished true and smooth on all exposed faces.

Prime Coat for Macadam Paving

J. The prime coat for macadam paving shall be bitumen grade M.C.I.

Bitumen for surfacing

A. The bitumen for surfacing shall be made 500/700 grade bitumen.

Workmanship

Generally

B. The sub-grade, sub-base and base courses for roads and parking area shall be prepared and laid at a convenient time before completion of the contract, as shall be agreed between the Architect and the Contractor, together with their kerbs and foundations.

C. The wiring course shall be applied at a later date, and prior to laying, the base course shall be made good in accordance with the requirements specified herein. The Contractor shall make good at his own expense any damage to kerbs.

Surveying

D. The Contractor shall verify all dimensions and levels prior to the commencement of work.

E. All surveying necessary for the accomplishment of the works shall be done by the Contractor at his own expense and he shall give notice of his intention to carry out such work in order that the arrangements can be made for supervision and checking. The Contractor shall also provide, without extra charge, all necessary instruments, appliances, labour and any other materials required for checking the survey work.

F. The Contractor shall make all necessary surveys using given bench marks as reference points. These bench marks he shall carefully preserve.

G. The Contractor shall draft, in accordance with these surveys, all plans and drawings which are necessary for the completion of the work, and shall submit these plans and drawings to the Architect for approval in writing.

Levels, Falls, Crossfalls and Cambers

H. The works shall be executed to the levels, falls, crossfalls and cambers shown on the drawings

Accuracy

J. The Contractor shall be responsible for ensuring that the works are carried out to the line, levels and dimensions shown on the drawings, and shall provide camber gauges and straight edges for checking to ensure that the surfaces are within the following tolerances:-

(a) **Sub-Grade** -

The camber or crossfall shall not vary more than 20mm from that shown on the drawings. In the longitudinal direction the variations from a 3 meter straight edge placed parallel to the centre line of the road shall not exceed 12mm.

(b) **Base**

The camber or crossfall shall not vary more than 12mm from that shown on the drawings. The variation on the longitudinal section shall be as above for sub-grade

Sub-Grade

A. The sub-grade shall be shaped to the required falls and cambers and any depressions filled with approved materials having a minimum C.B.R. of 8 percent. This value shall be obtained at optimum moisture content and compacted to 100 percent of the maximum dry density as determined by B.S x1377. The Contractor shall carry out standard compacting tests on the sub-grade in accordance with Test Nr 10 of B.S. 1377. Such tests shall be taken at 30metre intervals. The standard of compaction required shall be 98 percent of the maximum dry density as determined by Test No. 9 of B.S. 1377.

B. The sub-grade shall be approved by the Architect before any materials to be used in construction of the carriageway are deposited or laid.

Sub-Base Course

C. The sub-base shall consist of a layer of crusher dust finishing to the thickness specified after compaction. The bed shall be watered as necessary and rolled to produce a smooth and uniform surface with no irregularities.

Base Course

D. The base course shall consist of a layer of stone in which the interstices shall be filled by application of crusher fines after the stone is in place, to finish to the thickness specified after compaction. The base course shall not be blinded with crusher fines, but with 4mm gauge stone chippings to provide a clean hard surface. If any irregularities develop, they should be corrected by loosening the material at these places and adding or removing material and recompaction until the surface is smooth and uniform with no irregularities.

Application of Bitumen

E. The plant used by the Contractor for transporting, heating and spraying bitumen shall be in suitable rubber-tyred units and shall ensure adequate and uniform heating without the introduction of steam or moisture, and giving rise to the cooking or burning of the bitumen, and shall be fitted with a thermometer and heating control. Distributors shall be equipped to provide a constant rate of application per square meter of surface and there shall be visible speedometer indicating the speed of the vehicle in meters per minute.

A. Spray bars shall be capable of spreading the bitumen evenly to the full width of the work. The bitumen shall be heated to the temperature specified below and sprayed on the clean surface of the base at the rates specified.

B. Application temperatures shall be in accordance with those recommended by the manufacturer, or where this information is not available, they shall be as follows:-

Bitumen Grade	Sprayed Temperature (Degree Celcius)
N.C.I	54-80
500/700	124-149

Prime Coat

C. Prior to the application of the prime coat, the surface of the base shall be swept clean of dust and foreign materials to the satisfaction of the Architect. Approximately 30 minutes before applying the bitumen the surface of the base shall be lightly sprayed with water.

D. The prime coat shall be applied at the rate of 0.70 litres per square meter.

Wearing Course

E. After the application of the priming coat, and where directed and approved by the Architect, the Contractor shall lay bitumen type 500/700 spread at the rate of 3 square meters per 5 litres immediately followed by spreading dry, clean approved 12mm chippings at the rate of 130 square meters per cubic meter, rolled six to eight passes of a six to eight tonne roller. A second and similar surfacing layer shall be laid at the end of the defects liability period.

F. Alternatively, where specified, the wearing course shall consist of a premix macadam carpet of 500/700 grade bitumen and approved quality aggregate graded and mixed together prior to laying in the proportions and by the methods given in B.S. 1621 table 4, laid to finish to the thicknesses shown after compaction. The compaction shall be achieved with six to eight passes of a six to eight tonne roller.

Wet Weather

G. No bitumen spraying shall be carried out when either the carriageway surface of the aggregate are wet, without the prior approval, in writing, of the Architect who may allow such work to proceed by the use of an approved adhesive agent at the Contractor's expense

Murram Roads

H. Murram roads shall be laid in layers not exceeding 150mm compacted thickness, to finish compacted to the thicknesses shown on the drawings.

J. Each layer shall be watered, rolled and compacted as previously described herein to produce a smooth dense surface free of all irregularities.

Laying Precast Paving Slabs

A. Precast paving slabs shall be bedded on a sandbed compacted to the thickness specified with 6mm wide joints, filled and pointed with cement mortar coloured to match the colour of the slabs and recessed 5mm deep. The paving shall be finished true and even to the falls shown on the drawings with no surface irregularities.

Grassing

B. Grassing shall be carried out by a Specialist using approved local grass. Prices for grass shall include for tending, watering, cutting and keeping weed free for a period of twelve months, to produce a dense and healthy weed free grass carpet.

Note:
The Contractor shall include here for any cost they may consider necessary and over and above costs which they believe they cannot recover in any other section of these Bills of Quantities.

GENERAL SPECIFICATIONS

SPECIFICATIONS

Reference is made to the General Specifications for Building Works (1976) by the Ministry of Works, Housing and Physical Planning.

A copy is available for perusing at the request of the procuring entity.

Contractors are required to adhere to the latest industry standards as outlined in the most recent version of KS (Kenyan Standards) / BS (British Standards) EN International standards. Failure to comply may result in project delays or financial penalties. It is the responsibility of the Contractor to stay informed about and apply the current industry standards throughtout the construction process. Any disputes arising from non-compliance with updated standards will be subject to resolution through dispute resolution mechanism outlined in the contract.

PRELIMINARIES

ITEM	DESCRIPTION	AMOUNT
	BILL NO. 1	
	PARTICULAR PRELIMINARIES	
A	**PARTIES**	
	The **Employer** is: Principal Secretary, Ministry of Lands, Public works,Housing and Urban Development, State Department of Housing and Urban Development P.O Box 30119 -00100 NAIROBI, KENYA	
	The **Engineer** is: The term "Engineer" wherever used in these Bills of Quantities shall be deemed to imply the Engineer as defined in Condition 1 of the Conditions of Contract or such person or persons as may be duly authorised to represent him on behalf of the Government .	
	The Architect is: Ministry of Lands, Public works,Housing and Urban Development, State Department of Housing and Urban Development P.O Box 30119 -00100 NAIROBI, KENYA	
	The Quantity Surveyors is: Ministry of Lands, Public works,Housing and Urban Development, State Department of Housing and Urban Development P.O Box 30119 -00100 NAIROBI, KENYA	
	The Structural/ Civil Engineers is: Ministry of Lands, Public works,Housing and Urban Development, State Department of Housing and Urban Development P.O Box 30119 -00100 NAIROBI, KENYA	
	The Electrical / Mechanical Engineers is: Ministry of Lands, Public works,Housing and Urban Development, State Department of Housing and Urban Development P.O Box 30119 -00100 NAIROBI, KENYA	

ITEM	DESCRIPTION	AMOUNT
A	**LOCATION OF SITE** The site of the proposed works is located in **Chuka Igambang'ombe Constituency, Tharaka Nithi County** The Contractor shall be deemed to have visited the site and satisfied himself as to:- **a)** The nature, position, topography and access of the site **b)** The amount of the rubbish or debris to be cleared away before commencement. **c)** The nature, current usage, proximity and size of adjoining property and buildings **d)** The availability of land for the erection and positioning of all temporary structures, plant and materials necessary for the execution of the works. The Contractor shall obtain approval from the relevant Local Authority in adherence to site access and erection of temporary structures and must ensure all matters relating to the requirements of these authorities. No claim will be allowed for travelling or other expenses which may be incurred by the Contractor in visiting the site or preparing the tender for the works.	
B	**EXISTING SITE CONDITIONS** The Contractor is advised that all measures should be taken to avoid nuisance to neighbours. All occupation health and safety requirements must be met as required by law. This includes prevention and or minimizing noise, dust, fumes e.t.c. Notices should be given prior to disruption of services	
C	**SCOPE OF CONTRACT** The Works under this contract comprises of the structures as detailed in the project data sheet	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
A	**DESCRIPTION OF THE WORKS**	
	The construction comprises reinforced concrete foundations, masonry walling, reinforced concrete beams, column , staircases and suspended solid slabs, roof construction.	
	The exterior facade consists of steel casement windows, steel and timber doors , render and paint finish, clay and stone facing finish to walls	
	The interior works includes timber doors and finishes which are generally plaster and paint to walls, ceramic and non slip ceramic tiles to floors and walls.	
	External works generally comprise of foul water drainage, storm water drainage, pathway, dryline area, septic tank, underground water tank.	
	All mechanical / electrical services and other specialist works associated with the above works shall be executed by domestic/nominated sub contractors approved by the Engineer	
	CONTRACT PARTICULARS	
B	**FORM OF CONTRACT**	
	The Contractor will be required to enter into a contract with the Employer under the **Terms and Conditions of Contract as "Standard Tender Document for Procurement of Works (Building and Associated Civil Engineering Works) Issued by the Public Procument Regulatory Authority in February 2021 (updated 2022)** and in association with the latest applicable version of the Public Procurement and Asset Disposal Act.	
	The Contractor's attention is called to the appendix of the conditions of Contract and additions and amendments thereto, which shall be read as incorporated herein and he shall allow any sums which he considers necessary for the observance of such conditions, together with sub clauses used in application.	
	The prioirity of such documents shall be as stated in the conditions of agreement.	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
A	**LIABILITY AGAINST INJURY TO PERSONS AND PROPERTY** Insurance against injury to persons and property NOTES In addition to the conditions of the contract and the requirement contained herein the contractor's all risk policy shall cover the full value of the following and allow for all costs thereof:- i) The works and temporary works erected in performance of this contract. ii) The materials on site, plant and tools iii) The cost and expense of removing debris of the property insured, destroyed or damaged by any peril insured. iv) Professional fees (to be allowed at 15% of the contract sum) v) Employer's liability (workman's compensation) ii) Third party (Public liability for an indemnity of not less than shs 15,000,000 for any accident or series of accidents arising from the same event (unlimited in aggregate) The contractor shall ensure that all sub-contractors effect and maintain such insurances as are necessary to cover their liabilities in respect of injury to persons and property and workman,s compensation. Should the contractor already hold annual insurances covering the whole of his activities, and the indemnity required under the existing policy/ies then further insurances shall be effected and maintained to cover such excess, the policies of insurances being suitably endorsed to cover this project	
B	**Insurance of the works (contractors liability)** The Contractor shall insure as required in the Conditions of Contract. No payment on account of the work executed will be made to the Contractor until he has satisfied the Engineer either by production of an Insurance Policy or and Insurance Certificate that the provision of the foregoing Insurance Clauses have been complied with in all respects. Thereafter the Engineer shall from time to time ascertain that premiums are duly paid up by the Contractor who shall if called upon to do so, produce the receipted premium renewals for the Engineer's inspection.	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
	PERFORMANCE BOND	
A	**Performance bond for the works** The Contractor shall submit on the Form of Tender an approved bank or approved (By PPRA) Insurance Company and who will be willing to be bound to the Employer in an amount .....(*as defined in the bidding documents*)..... for the due performances of the Contract up to the date of completion as certified by the Engineer and who will when and if called upon, sign a Bond to that effect on the relevant standard form as seen in the CONTRACT STANDARD FORMS (without the addition of any limitations) And should the surety fail to be approved, the Contractor shall furnish within seven days another Surety to the approval of the Employer. Note that no payments on account of works executed will be made to the Contractor until he has submitted the Performance bond, duly stamped signed and sealed by an approved bank or insurance company.	
B	**POSSESSION AND COMMENCEMENT** The Contractor shall take possession of the site on the date indicated in the acceptance letter. The date of commencement of the works shall also be communicated to the Contractor and the contract period shall run from the commencement date. The Contractor is expected to utilize the period between possession and commencement to mobilise his resources to ensure smooth running of the works from the commencement date.	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
	PROJECT SUPERVISION	
A	The said works shall be executed under the direction and to the entire satisfaction of the Engineer and Clerk of works who shall have the Engineer's specifically delegated authority and shall at all times have access to the works, to the yards and workshops of the contractor or other places where goods are being prepared for the building.	
	LABOUR CAMPS	
B	The contractor will generally be permitted to house labour on site subject to approval by Architect	
	DOWNTAKINGS	
C	All materials arising from demolitions and downtakings are deemed to be the property of the employer. No claim will be entertained on account of employer excising this right to retain the materials	
	All downtakings shall be carefully removed, taken down, dismantled and stored on site until instructed by the Engineer to remove from the site. Such materials shall only be incorporated in the new works if required by the Engineer in which case appropriate adjustments will be made in the final account for the cost of labour, screws etc for fixing such downtakings in the new works.	
	DAMAGES	
D	Damages for delay in completion shall be levied at the rate of Kshs .....(Refer to the special Conditions of Contract).....	
	OTHER PRELIMINARIES	
E	Allow for any other item necessary to execute the works and state them below;	
	.....	-
	.....	
	.....	
	.....	
	Carried to collection	-

ITEM	DESCRIPTION	AMOUNT
	BILL NO. 1	
	PARTICULAR PRELIMINARIES	
	COLLECTION	
	Carried from page 1/1	
	Carried from page 1/2	
	Carried from page 1/3	
	Carried from page 1/4	
	Carried from page 1/5	
	Carried from page 1/6	-
	Particular Preliminaries Carried to Summary of Bill No. 1	**-**

ITEM	DESCRIPTION	AMOUNT
	BILL NO. 2	
	GENERAL PRELIMINARIES	
	PRICING OF ITEMS OF PRELIMINARIES AND PREAMBLES	
A	Whenever in the Contractor's priced Bills of Quantities no price appears against an item of Preliminaries or Preambles or work items , the value of such item shall be deemed to be included in his prices for other items in the Bills of Quantities.	
	SUFFICIENCY OF TENDER	
B	The Contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender for the works and of the rates and prices stated in the priced Bills of Quantities. Rates and prices quoted shall cover all his obligations under the contract and all the matters and maintenance of the works	
	RECORDS	
C	The Contractor shall ensure proper records are kept and maintained for : Daily Reports on Personnel and Machinery; tracked programme; weather charts/reports; site instruction book and query book,a digital camera shall be provided for taking progress photos The contractor shall be required to provide equipment for taking ground and aerial photos or videos in relation to the progress of works when called upon to do so.	
	DEFINITIONS AND ABBREVIATIONS	
D	Throughout these Bills, units of measurements and terms are abbreviated and shall be interpreted as follows: mm shall mean millimeter lm shall mean linear meter sm shall mean square meter m^2 shall mean square meter cm shall mean cubic meter kg shall mean kilogramme N shall mean Newton KN shall mean KiloNewton	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
	in/" shall mean inches L f shall mean linear foot s f shall mean square foot c f shall mean cubic foot L b shall mean pound avoirdupois No. shall mean number B.S.M shall mean both sides measured K.S. shall mean current Kenya Standard specification published by the Kenya Bureau of Standard, P.O. Box 54974. NAIROBI, Kenya. 'As described' shall mean as described in these Bills of Quantities. 'As before described' shall mean the whole of the previous description except as qualified in the current one. **Carried to collection**	

ITEM	DESCRIPTION	AMOUNT
	SITE LEVELS	
A	Before commencing work the Contractor must arrange for and agree with the Architect, Engineer and Quantity Surveyor the existing site levels and similarly establish and agree on a bench mark. The Contractor shall provide a surveyor to ensure all levels are achieved as per the drawings and Architects/Structural Engineer's instructions	
	SETTING OUT	
B	The contractor shall set out works in accordance with the dimensions and levels shown on the drawings and shall be responsible for the correctness of all dimensions and levels set out by him and he will be required to amend all errors arising from inaccurate setting out at his own cost and expenses. In the event of any error or discrepancy in the dimensions or levels marked on the drawings being discovered, such errors or discrepancies must be reported by the Contractor to the Engineer for his immediate attention. No work shall be commenced by the Contractor until he has received written instructions from the Engineer to adjust such discrepancies which may be proved, upon receipt of such instructions and no claim for extra expenses or relief from the provisions of Clause 5 of the Conditions of the Contract , any discrepancy or error in the dimensions or levels shown on the drawings may be made thereafter. The Contractor shall give the Engineer reasonable notice of the intention to set out or take levels for any part of the Works so that arrangements may be made for checking the work. The accuracy of setting out and leveling shall be within the tolerances specified in the Specifications or on the Drawings. The checking of setting out or leveling by the Engineer shall not relieve the Contractor of his duties or responsibilities under the Contract.	
	MEASUREMENTS	
C	Measurements are based on **Standard Methods of Measurement of Building Works and Associated Civil Works For Eastern Africa (SMM) Second Edition 2008.** In the event of any discrepancies arising between the Bills of Quantities and the actual works, the site measurements shall generally take precedence.	
D	**GENERAL SPECIFICATIONS** All works to be carried out in accordance with the Ministry of Roads, public Works and Housing **General Specifications for Building Works issued in 1976** or as qualified and amended.	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
	SAMPLES	
A	The contractor shall furnish at the earliest possible opportunity before work commences and at his own cost any samples of materials or workmanship that may be called for by the Engineer for his approval or rejection until such samples are approved to be the acceptable standard for the work to which they apply. The samples shall be maintained and displayed on a designated section within the site for the duration of the project where practical and possible.	
	PROTECTION OF EXISTING PROPERTY	
B	The contractor shall take every precaution to avoid damage to all existing property including boundary wall, carpark, roads, cables, drains,staircases, lift etc including other services and he will be held responsible for all damages hereto arising from the execution of his contract and he shall make good all such damages when directed at his own expense. Any damage or disturbances caused to any element shall be reported immediately to the Engineer and the relevant Authority and shall be made good to their satisfaction at the Contractor's expense.	
C	**PROTECTION / RELOCATION OF EXISTING SERVICES** Prior to commencement of any work the Contractor is to ascertain from the relevant Authorities the exact position, depth and level of all existing electric cables, water pipes and all other services in the area and he shall make whatever provisions may be required by the authorities concerned for the support and protection and/or relocation of such services as will be necessitated. The contractor is also expected to generate a utility management plan to the approval of the Engineer . Any damage or disturbances caused to any service shall be reported immediately to the Engineer and the relevant Authority and shall be made good to their satisfaction at the Contractor's expense.	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
A	**MATERIALS, TOOLS, PLANT AND SCAFFOLDINGS** All materials and workmanship used in the execution of the works shall be of the best quality and description. Any materials for the works condemned by the Engineer shall immediately be removed from the site at the Contractor's expense. The Contractor shall be responsible for the provision of all materials, scaffolding, tools, plant, transport and workmen required for the works except in so far as may be stated otherwise herein and he shall allow for the provision of the foregoing except for such items specifically and only required for the use of Nominated Sub-contractors as described herein. No timber used for scaffolding, formwork or similar purpose shall be used afterwards in the permanent works. All such plant, tools and scaffolding shall comply with all regulations whether general or local in force including Environmental,Social, Health and Safety (ESHS) policies throughout the period of the contract and shall be required as may be necessary to comply with any amendments in or additions to such regulations The Contractor shall keep on the site and maintain in good condition one dumpy or quickset level, metric leveling staff and one 30 metre steel tape for the use of the Architect, Surveyor and Engineer. The contractor may be required to provide an appropriate tower crane as required during the project life. Where a crane is provided, it should meet all regulatory and technical standards, all licences in connection with erection, usage shall be at the Contractors expense. The contractor may be required to provide an appropriate tower crane as required during the project life. Where a crane is provided, it should meet all regulatory and technical standards, all licences in connection with erection, usage shall be at the contractors expense.	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
A	**LOCAL REGULATIONS AND BY-LAWS** The contractor is to comply with all local regulations and by-laws of the Local Authority including serving notices and paying of fees where applicable. These include, but not limited to: National Environmental Management Authority (NEMA), National Contruction Authority (NCA), Water Resources Authority (WRA) The Contractor will be held responsible for serving on the Chief Inspector of Factories a written notice not later than seven days after the beginning of the building operations included in this contract stating the particulars required.	
B	**TRANSPORT TO AND FROM THE SITE** The Contractor shall include in his prices for the transport of materials, workmen etc to and from the site of the proposed works at such hours and by such routes as are permitted by the Authorities. All unit rates for local or imported goods are to include freight, insurance, handling and delivery costs to the project site together with import duties, sale tax, port charges etc and all other charges of whatever nature.	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
A	**FAIR WAGES** The Contractor shall pay rates of wages and observe hours and conditions of labour not less favourable than the minimum conditions of employment applicable in the area in which the work is carried out. The relevant notice must be posted up and kept posted upon the site where it can be conveniently read by the employees concerned in languages they can understand. The Contractor is to comply with the regulations of Wages and Conditions of Employment Act, Building and Construction Industry Wages Council and is to be responsible for compliance of the sub-contractors employed in the execution of the contract. If required he is to notify the Engineer of the names and addresses of all such Sub-contractors. Any Contractor or Sub-contractors not complying will not be permitted to tender for other work for such a period as the Engineer may determine Should a claim be made to the Engineer alleging the Contractor's default in payment of fair wages to any workman employed on the contract and if proof thereof satisfactory to the Engineer, may failing payment by the Contractor, pay the claim out of any monies due or which may become due to the contractor under this contract. The Contractor is to furnish to the Engineer, if called upon to do so, such particulars of the rates of wages, hours and conditions of labour referred to above as the Engineer may direct	
B	**SECURITY OF WORKS** The Contractor shall be entirely responsible and shall pay security of all works, stores, materials, plant, personnel etc both his own and sub-contractors and shall also provide all necessary watching, lighting, and other precautions as necessary to ensure the security, the safety and protection of the public. He is to ensure that there is no informal business settlement near the establishment.	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
A	**OCCUPATIONAL HEALTH AND SAFETY MEASURES** The Engineer expects the Contractor to adhere to strict safety measures. In this regard the Contractor should ensure that all his workers, the Consultants and his sub-Contractors workmen are wearing Personal Protective Equipment (PPE) before commencement of any work where applicable including overalls with the company name clearly printed on the back each with clearly marked Identification Numbers stitched or imprinted on. The Contractor shall allow for providing all watching, lighting, green netting, barriers, signs, covering open trenches and protection of the works, including Sub-Contract works, as may be necessary for the safety of the works and for the protection of the public and his own and Sub-Contractors' employees. He shall also ensure provision of a certified and qualified safety, health and environmental officer, access to ambulance services at all worksites and arrangement to access a local hospital/dispensary with qualified medical staff. The contractor shall take cognisance and shall fully adhrere to the regulations of the **Occupational Safety and Health Act of 2007** including all the associated revisions The Engineer shall expect full compliance to this regulation and no excuses will be entertained for non-compliance which may lead to suspension of works until the issue is addressed satisfactorily.	
B	**PUBLIC, PRIVATE ROADS AND PAVEMENTS ETC** The contractor will be required to make good at his own expense any damages he may cause to the present approach and surrounding road surfaces during the period of the works	
C	**POLICE REGULATIONS** The contractor is to allow for complying with all Government Acts, orders or regulations in connection with employment of labour and other matters related to the execution of the works. The Contractor must acquit himself duly with current acts and regulations, including police regulations regarding the movement, housing, security and control of labour, labour camps, passes for transport, etc..	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
A	**AREA TO BE OCCUPIED BY CONTRACTOR** The area of the site which may be occupied by the Contractor for use as storage and for the purpose of erecting workshops etc shall be defined on the site by the Engineer	
B	**PROGRESS SCHEDULE** Immediately after signing the contract the Contractor is to prepare a Time Progress Chart showing the time and order in which he proposes to carry out the works within the total construction time stated in the contract. The chart will show in detail the construction time and order in which each section of the work is to be carried out and be sub-divided into trades and tasks. If the contractor proposes sectional completion of the project he must plan this in detail including access roads, and services and this shall be reflected on the chart Upon the letting of the Sub-Contractors work the Contractor is to incorporate times and details of each separate Sub-Contractor work which information is to be agreed by the Sub-Contractor and the chart will be so designed to accommodate this infantine. At the end of each week the Contractor is to mark on the chart in a different colour the actual time taken to complete the respective stages and sections of the work. The contractor shall obtain the Engineer's approval on the chart and then shall supply copies to the Engineer and Quantity Surveyor If at any time it should appear to the Engineer that the actual progress of the works does not conform to the approved programme progress schedule the Contractor shall produce at the request of the Engineer a revised programme showing the modifications and accelerations to the approved programme necessary to ensure completion of the works within the agreed contract period. The submission of and approval by the Engineer of such revisions and accelerations shall not entitle the Contractor to any extra payment or extension of time and shall not relieve the Contractor of any duties or obligations or responsibilities under the contract	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
A	**OVERTIME** The Contractor shall be responsible for any extra costs for overtime working he considers will be necessary in order to complete the works within the contract period or time for completion apart from overtime working which may be authorised by the Engineer If overtime is worked out in accordance with a written instruction issued by the Engineer the contractor will be reimbursed in respect of such overtime to the unproductive time payable over and above the basic hourly rates as laid down by the Regulation of wages and Conditions of employment Act, Building and Construction Industry Wages Council and excluding any bonuses, profits and overheads.	
B	**WATER** The contractor shall provide at his own risk and cost all water for use in connection with the works including the work of sub-contractors make arrangements with the local authority for the installation of a separate meter where applicable and possible for all water used by him throughout the contract and pay all costs and fees in connection therewith. He shall also provide temporary storage tanks and tubing etc as he may consider necessary and clear away at completion. The contractor is to provide clean drinking water at the construction site for his workers at all times. All water shall be fresh, clean and pure, free from earthly vegetable or organic matter, acid or alkaline substance in solution or suspension.	
C	**TELEPHONE** The contractor shall provide in the office, from the commencement to the completion of the works, a wireless or mobile phone and shall pay all charges or airtime necessary for its use	
D	**LIGHTING AND POWER** The contractor shall provide at his own risk and cost all temporary artificial lighting and power for use on the works including all sub-contractors and specialists requirements and including all temporary connections, wiring, fittings etc and clearing away on completion. The Contractor shall pay all fees and obtain all permits in connection therewith.	
	Carried to Collection	

ITEM	DESCRIPTION	AMOUNT
A	**TESTING** Allow for all expenses in connection with the testing of materials as specified hereunder including the supply and preparation of materials to be tested, the cost of materials and their packing and conveyance to the nearest approved Testing Laboratory, laboratory charges, etc. The following items of tests will be measured according to the number of tests actually called for by the Engineer but unsuccessful tests will not be included in the remeasurement. Allow for executing the following tests as detailed in the Appendices to these Bills of Quantities (PROVISIONAL)) Water Test .....(litres) Sand Test .....(m3) Aggregate Test .....(m3) Reinforcement test (1m of mild steel rod or high tensile steel bar of various sizes) ..... Concrete Test (each test comprising ..... cubes as described hereinafter) ..... Testing of concrete or stone blocks of various strengths in accordance with Kenya Standard Specification (one test comprising ..... blocks)	
B	**PRICING RATES** The tenderer shall include for all costs in executing the whole of the works, including transport, replacing damaged items, fixing, all to comply with the said Conditions of Contract.	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
A	**TEMPORARY STRUCTURES** a) The Contractor shall allow for providing and clearing away on completion of the works such temporary hoarding , rubbish chutes, gates, planked walkways, guard rails etc. as may be necessary for the protection of the workers, the general public, and for the proper execution of the works. b) As such, temporary structures shall be constructed with the approval of the Engineer and to his full satisfaction and in such a manner as to cause minimum intrisiveness and disturbance to occupants of adjacent developments and users of the adjacent roads. c) All such temporary structures shall comply in all aspects with the national laws, rules, and regulations currently in force and applicable to such structures. d) All temporary structures shall be erected in a manner so that the unloading of materials causes minimum obstruction to the use of adjacent roads and other facilities e) All temporary structures shall be kept properly lighted throughout the periods of darkness and any corners or projections shall be painted white. g) Temporary structures shall not be used or permitted to be used for advertisement purposes except with the written consent of the Engineer h) All temporary structures shall be maintained at all times in good order and good condition to the satisfaction of the Engineer. i) All temporary structures shall be removed when so required by the Engineer or at the end of the period for which it is required. j) The Contractor shall indemnify and shall keep the employer idemnified against any expenses, loss, claim or suits arising out of or in connection with the temporary structures. **Carried to collection**	

ITEM	DESCRIPTION	AMOUNT
	SITE OFFICE	
A	The contractor shall supply, maintain, service, clean and light a fully furnished, suitable office having an approximate floor area of not less than 200sqm. The office shall have a sample room suitable dimensions with clean running water and electricity connected to the approval of the Engineer. The Contractor shall provide offices, messrooms and all other buildings required by the Contractor for his own use and the use of by Clerk of Works and Nominated SubContractors as required by the items or attendance The site office shall be equipped with a table and chairs of sufficient size and number for site meetings and plan chests for drawings shall also be provided by the contractor The Contractor shall allow for the cost of providing light refreshment for the consultants at site meetings.	
	TEMPORARY DISPOSAL OF RAIN WATER	
B	The Contractor shall provide and maintain all necessary temporary gutters, downpipes, chutes, drains etc. for conveying rainwater from the buildings and storage tanks for rainwater harvesting. The Contractor shall allow for temporary drainage plumbing and piping for keeping the premises and site free from accumulation of water. He shall also allow for construction and maintaining any necessary storm water drainage structures as directed.	
	CLEARING AWAY	
C	The Contractor shall remove all temporary works, rubbish, debris and surplus materials from the site as they accumulate, on intervals as intructed by the Engineer and upon completion of the works, remove and clear away all plant, equipment, rubbish, unused materials and stains and leave in a clean and tidy state to the reasonable satisfaction of the Engineer. The whole of the works shall be delivered up clean, complete and in perfect condition in every respect to the satisfaction of the Engineer.	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
A	**SITE ACCOMODATION & STORAGE** The Contractor shall provide sheds for storage accommodation for all goods and materials liable to suffer damage from exposure to sunlight or inclement weather. The Contractor shall provide offices, mess rooms and all the buildings required by the Contractor for his own use and the use of Nominated Sub-Contractors as required by the items of attendance only. The Contractor shall provide at his own risk and cost where directed on the site weather proof lock-up sheds and make good damaged or disturbed surfaces upon completion to proof lock-up sheds and make good damaged or disturbed surfaces upon completion to the satisfaction of the Engineer Upon completion all temporary buildings are to be removed and cleared away	
B	**SANITATION OF THE WORKS** The sanitation of the works shall be provided, maintained and removed on completion by the Contractor to the satisfaction of the Engineers and local Authorities. The sanitary facilities shall be of generally acceptable standard regardless of the material being used to ensure ease of cleaning and maintain general well being of the users. Their location shall be agreed with the Engineers and the works shall not be commenced before the sanitary accommodation has been approved by the above mentioned authorities. The Contractor will be required to pay all conservancy charges and shall ensure clean daily maintenance and disinfecting of the sanitary facilities, and not less than once per week, the whole area shall be sprayed with disinfectant and insecticides and any temporary drains shall be removed and all works and surfaces disturbed made good and then the whole area disinfected and left clean and free from pollution to the satisfaction of the Engineer and local authorities.	
C	**HOARDINGS** The Contractor shall provide, erect and maintain throughout the course of the Contract and thereafter clear away and make good disturbed areas, temporary hoarding; **approximate length of 1000 metres**: 2400mm high above ground consisting of: 100mm diameter timber poles at 1200mm centres firmly founded and secured, 75x50mm horizontal timber rails at 900mm centres, painted GCI sheets, proper timber gates with suitable locks to Engineers approval.	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
A	**DEMOLITIONS AND DOWNTAKINGS** The Contractor is to allow for all temporary protection required during the works including ordinary and special dust screens, hoardings, barriers, warning signs etc. as directed by the Engineer and as necessary for the adequate protection of adjacent property and finishes, workmen employed upon the site and the public. Any damage or loss incurred due to the insufficiency of such protection must be made good by the Contractor. All protective devices are to be removed on completion of the work and any necessary making good consequent upon this is to be executed to the satisfaction of the Engineer All materials arising from demolitions and downtakings are deemed to be the property of the employer. No claim will be entertained on account of employer excising this right to retain the materials unless otherwise stated. The Contractor shall allow in his rates the cost of handling and disposal of debris arising out of the demolition works All downtakings shall be carefully removed, taken down, dismantled and stored on site until instructed by the Engineer to remove from the site. Such materials shall only be incorporated in the new works if required by the Engineer in which case appropriate adjustments will be made in the final account for the cost of labour, screws etc for fixing such downtakings in the new works. The Contractor shall be entirely responsible for any breakage or damage which may occur to materials required for re-use, during their removal, unless it is certified by the Engineer that such damage or breakage was inevitable as a result of the condition of the item concerned.	
B	**ACCESS TO SITE AND TEMPORARY ROADS** Means of access to the site shall be agreed with the Engineer prior to commencement of the works and the Contractor must allow for building and maintaining any temporary access roads for the transport of materials, plant and workmen as may be required for the complete execution of the works including the provision of temporary culverts, crossings, bridges or any other means of gaining access. Upon the completion the works the Contractor shall remove such temporary roads, temporary culverts bridges etc and make good and reinstate all works and services disturbed to the satisfaction of the Engineer.	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
A	**SIGN BOARD** The Contractor shall provide and erect where directed and maintain during the whole period of the building operation and remove at completion, one approved sign board of **approximately 3000x3000mm and approximately 5800mm overall height** to the Architect's later design giving a brief description of the works, a 3D perspective image of the project, and showing the names of the employer and the consultants, with sufficient space to append the names of the sub-contractors and suppliers when known. The lettering concerning the Architect, Quantity Surveyor and Engineer is not to be more than 50mm high.	
B	**PRIME COST SUMS** i) The words "Prime Cost" (or the initials "P.C") appearing in the contract documents shall mean net costs exclusive of any trade, cash or other discount whatsoever but inclusive of the costs of the packing, carriage and delivery. Such costs shall be the same due to the sub-contract or supplier after adjustments where applicable in respect of measurements of rates. ii) Any increase or decrease in the prime costs sums resulting from the adjustments and properly paid by the contractor shall be added or deducted from the contract sum in the final account. In substantiation the contractor will require to produce to the Quantity Surveyor all quotations, invoices and receipted accounts as shall be necessary to show the details of the sums actually paid. iii) Any sum added by the contractor in these Bills of Quantities in respect of profits upon any prime costs will be deducted at the final settlement of accounts and the sum will be added to the amount of which will bear the same proportion to the sum added as the net amount properly expended to the original P.C sum. The profit is a management fee for arranging and taking responsibility of the sub-contract works or arranging for and checking the supply of materials and goods from nominated suppliers.	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
A	NOMINATED SUB-CONTRACTORS The contractor shall accept responsibility for providing the following services for nominated sub-contractors. i) GENERAL ATTENDANCE: The following services are described as "allow for general attendance" . This shall mean: a) Use for the purpose of the sub-contract works of any scaffolding belonging to or provided by the contractor while it remains so erected upon site, provided that no warranty or other liability on the part of the contractor or of his other sub-contractors shall be created or implied in regard to the fitness, condition or suitability of the said scaffolding b) Provision of water, lighting, watching and attendance for the purpose of the sub-contract works. c) Use of sanitary accommodation, mess rooms and welfare facilities. d) Provision of space for erecting of offices or stores or space for storage of plant and materials. ii) SPECIAL ATTENDANCE: The following services are described as "allow for special attendance" . This shall mean: a) Taking delivery and including the provision of unskilled labour necessary to attend upon the sub-contractors workmen for the purpose of unloading plants/equipment and materials of significant weight and/or size, when received upon the site and placing in position within the sub-contractor's storage space or store. b) Special Scaffolding, scaffolding additional to the Contractors scaffolding or Reassembling of contractor's scaffolding. c) Facilitating special power requirements during the course of the works. **Carried to collection**	

ITEM	DESCRIPTION	AMOUNT
	CLAIMS	
A	It shall be a condition of this contract that upon it becoming reasonably apparent to the Contractor that he has incurred losses and / or expenses due to any of the contract conditions, or by any other reason whatsoever, he shall present such a claim or intent to claim notice to the Engineer within the contract period. No claim shall be entertained upon the expiry of the said contract period.	
	PAYMENTS	
B	The tenderer's attention is drawn to the fact that the payments shall be made in accordance with Clause 14 of the Conditions of Contract Agreement. In order to facilitate this, a list of the general component elements for the works is given at the summary page of these specifications and the tenderer is requested to break down his tender sum commensurate to the said elements.	
	PREVENTION OF ACCIDENT, DAMAGE OR LOSS	
C	The Contractor is thus instructed to take reasonable care in the execution of the works as to prevent accidents, damage or loss and disruption of activities being carried out. The Contractor shall allow in his rates any expense he deemed necessary by taking such care within the site.	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
A	**NOMINATED SUPPLIERS** The contractor shall take delivery all materials or goods supplied by the Nominated suppliers and shall sign a receipt as having received them in good order and condition. He shall offload, transport to site, unload, hoist, provide safe storage and thereafter be responsible for any loss or damage or replacement of any such lost or damaged articles at his own expense and shall return case if so required. Provision is made herein following each appropriate P.C sums for the costs of the foregoing services against items reading "take delivery of and fix only" Fix Only:- "Fix Only" shall mean take delivery on site, unload, store, unpack, assemble as necessary, distribute to position, hoist and fix only.	
B	**DIRECT CONTRACTS** Notwithstanding the foregoing conditions, the Government reserves the right to place a "Direct Contract" for any goods or services required in the works which are covered by a P.C. Sum in the Bills of Quantities and to pay for the same direct. In any such instances, profit relative to the P.C. Sum in the priced Bills of Quantities will be adjusted as described for P.C. Sums is allowed.	
C	**PROTECTION OF THE WORK** The Contractor shall cover up and protect all finished work liable to damage including provision of temporary roof, gutters, drains etc until the completion of the works. In the event of any damages occurring to the works, materials, sewers, drains, gullies, paths or other works on site in temporary possession of the contractor for the purpose of this contract either from weather, want of proper protection, defects, or insufficiency of the works or any other causes or whatsoever during the progress of the works, the contractor shall be responsible and without extra charge, make good all damage and pay all costs which may be levied.	
D	**BLASTING OPERATIONS** Blasting will only be allowed with the express permission of the Engineer in writing. All blasting operations shall be carried out at the Contractor's sole risk and cost in accordance with any Government regulations in force for the time being, and any special regulations laid down by the Engineer governing the use and storage of explosives.	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
	PREVENTION OF NUISANCE	
A	The works and such sections of the site necessary thereafter shall be under the entire care and control of the contractor during the whole period of the contract and shall take all possible precautions to prevent any nuisance, inconvenience or injury to the holder or occupiers of the existing or surrounding properties and to the public generally, and shall at all times keep all paths and roads affected by the works in a safe and clear state, and shall use proper precautions to ensure the safety of all wheeled traffic and pedestrians. The contractor shall provide appropriate screens to seal off the working area.	
	REMOVAL OF PLANT AND RUBBISH ETC	
B	The Contractor shall upon completion of the works remove and clear away all temporary buildings, plant, rubbish and unused materials, and shall leave the whole of the site of the works in a clean and tidy state to the satisfaction of the Engineer. He shall also remove all rubbish and dirt from the site at intervals or as directed by the Engineer. Particular care shall be taken in leaving windows, floors and fittings clean and the removal of all paint and cement stains therefrom. The contractor is expected to have established a well planned method of solid disposal of debris/garbage on and off the camp site	
	CONTRACTOR'S SUPERINTENDENCE/SITE AGENT	
C	The Contractor shall constantly keep on the works a literate English speaking Agent or Representative, competent and experienced in the kind of work involved who shall give his whole experience in the kind of work involved and shall give his whole time to the superintendence of the works. Such Agent or Representative shall receive on behalf of the Contractor all directions and instructions from the Engineer and such directions shall be deemed to have been given to the Contractor in accordance with the Conditions of Contract.	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
	TRAINING LEVY	
A	The Contractor's attention is drawn to legal notice No. 237 of 2007 which requires payment by the Contractor for a training levy and the contractor shall allow in the preliminaries of this contract (basic rates column) for all costs arising or resulting therefrom. Proof of payment of this Levy should be provided at the request of the Engineer	
	STANDARDS LEVY	
B	The Contractor is required to make payments to the Kenya Bureau of Standards as Standard Levy inline with the current current and prevailing regulations.	
	VALUE ADDED TAX (V.A.T.)	
C	The Contractor's attention is drawn to V.A.T PUBLIC NOTICE NO. 6 of 5th August, 1993 regarding the Finance Bill 1993 which expanded the V.A.T base to cover construction services amongst other items. The Contractor's attention is also drawn to all other notices issued by the government in relation to taxation. The Contractor shall familiarise himself with the said notices and allow in all his Bills of Quantities rates (Excluding P.C and Provisional Sums) for the net tax. (i.e less input tax where applicable) as required by law. Please note that allowing a lump sum tax either in preliminaries or in summary page shall not be acceptable. Any additional information and assistance concerning the application of the said notice should be directed to the office of the Commissioner of Value Added Tax	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
	BILL NO. 1	
	GENERAL PRELIMINARIES	
	COLLECTION	
	Carried from page 1/1	
	Carried from page 1/2	
	Carried from page 1/3	
	Carried from page 1/4	
	Carried from page 1/5	
	Carried from page 1/6	
	Carried from page 1/7	
	Carried from page 1/8	
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	Carried from page 1/17	
	Carried from page 1/18	
	Carried from page 1/19	
	Carried from page 1/20	
	Carried from page 1/21	
	Total for General Preliminaries Carried to Summary of Bill No. 1	-

PROJECT EXPENSES

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	BILL NO. 3 **PROJECT EXPENSES** **Disclaimer: The following items are provisional sums provided by the Engineer. They are to be expended at the written instruction of the Engineer.** **Note: Tenderers should not attach, revise or add any conditions or specifications to the project supervisor's expenses**				
A	Allow a provisional sum of Kshs. Two Million Five Hundred Thousand (2,500,000) for provision and maintenance of equipment for the Engineer's site office for the duration of the project	Lump Sum			
B	Allow a provisional sum of Kshs. Two Million Seven Hundred Thousand (2,700,000) for supervision as follows: 1 No. Clerks of works, (Building and services) for the duration of project and 1 no. Work Inspectors, and 1 No Surveyor to be engaged on need basis.	Lump Sum			
C	Allow a provisional sum of Kshs. Eight Million (8,000,000) for Project Management Team and other stakeholders facilitation allowances during project implementation, as and whenever it is necessary.	Lump Sum			
D	Allow a P.C. Sum of KShs. 8,500,000 for supply of 1 Nr. (one)4WD station wagon SUV zero mileage vehicles of 2500 cc, or approved equivalent, including road licenses, number plates, insurances, etc. The vehicles to revert to Employer after completion of Contract. Minimum specifications include but not limited to the following: • Engine - 2.5 litres Turbo Diesel • Rear Differential Gear Lock • Braking System to include ABS (Anti-Lock Brake System) • Power Steering with adjustable Steering Column • Electronic Fuel Injection System. • 5 Speed Semi-Auto Transmission • Power Windows • Immobilizer and Alarm System • Fuel tank capacity between 80 litres and 100 litres	Item			
E	Provide for the driver, fuels, maintenance, lubricants and servicing of the vehicle for kilometrage over 1,500 km per vehicle month.				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
A	Provide a Prime-cost sum of Kshs five Hundred Thousand, (500,000.00) only for carrying out environmental impact assessment before the commencemennt of works and and undertaking environmental mitigation measures as the work progresses.				
B	Provide a Prime-cost sum of Kshs one million, (1,000,000.00) only for carrying out Geotechnical survey before the commencemennt of works and preparation of the reports				
C	Allow a provisional sum of Kshs. Two Hundred and Fifty Thousand (250,000.00) for stationery, documentation, model making, review and preparation of as built drawings Manager.				
D	Allow a provisional sum of Kshs. Three Hundred and Fifty Thousand (350,000.00) for provision of Laptop Computer for the Engineer's Team.				
	Contractor's profits and overheads				
E	Allow for the Contractor's overheads and profits on items above.				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	BIOMETRIC & CCTV INSTALLATION				
	BIOMETRIC INSTALLATIONS				
A	Supply, Deliver to site, Install, test and commission a biometric and RFID card reader that supports RS485 and TCP/IP. supports both 125kHz & 13.56MHz, finger, card and pin authentication complete with Wiegand Interface, 12-digit Keypad,Power Supply unit c/w batteries, RFID Proximity ID Cards, Workstation and all necessary cabling and infurstructure required for a complete installation to Engineers approval. Allow for full graphic customization and programming of the installed system into the existing access control system	Item	1		
	CCTV INSTALLATION				
	Deliver to site, Install,test and commission the following as described below:				
B	Supply, Deliver to site, Install, test and commission a CCTV installation during the construction period for monitoring and socio-economic data collection as per engineer's specifications. System should include but not limited to remote monitoring capabilities and atleast 30 days cloud storage, IP66, IK10 Bullet Network Camera 4MP resolution, H.265, H.264, MJPEG codec supported, Multiple streaming, Motion detection, Tampering, Defocus detection, micro SD/SDHC/SDXC memory slot (Max. 128GB), PoE / 12V DC, IR viewable length 20m (QNO-7010R), 25m (QNO-7020R) 30m (QNO-7030R), Warranty 3 years, 8 Channel Network Video Recorder, Maximum 12-megapixel camera supported complete with storage and all neccessary active and passive devices, cabling, back up power and accessories required for a complete installation.	Item	1		
	Total for Project Expenses Carried to Summary of Bill No. 1				-

BLOCK TYPE A

Item	Description	Unit	QTY	Rate	Amount
	PROPOSED SOCIAL + AFFORDABLE UNITS BLOCK (TYPE A G+9)				
	BILL NO.4 -BLOCK A				
	ELEMENT NO 1 - SUBSTRUCTURES (ALL PROVISIONAL)				
	Site Clearance				
A	Clear site of all grass, hedges, shrubs, bushes grub up roots, load and remove from site and dispose at designated local authority areas.	SM	682		
B	Bulk excavation to reduce levels depth not exceeding 1.5m commencing from existing ground level	CM	1,022		
C	Ditto but exceeding 1.5 metres but not 3 metres deep	CM	682		
D	Extra over all type of excavation for excavating in soft rock	CM	85		
E	Ditto excavation in hard rock class I	CM	85		
	Disposal of water				
F	Allow for keeping the whole of the excavation free from all spring and running water by pumping or any other such means as may be necessary	Item			
	Planking and strutting				
G	Allow for maintaining and upholding the sides of excavations and keeping excavations clear of all fallen materials, rubbish etc	Item			
	Carried to collection				

Item	Description	Unit	QTY	Rate	Amount
	Disposal of excavated material				
A	Load,wheel and cart away surplus excavated material to a Local Authority designated dumping site or fill soil heaps as away from site instructed by the Project Engineer.	CM	656		
B	Return, fill and ram selected excavated material around sides of foundations.	CM	1049		
	Fillings				
C	Make up levels using approved imported materials: compacted in layers not exceeding 300mm thick with a roller: to the satisfaction of the Structural Engineer.	CM	821		
D	300mm thick hardcore bed: hand packed : compacted in layers not exceeding 150mm thick: to the satisfaction of the Structural Engineer	SM	456		
E	50 mm Stone dust/ Murrum blinding to surfaces of hardcore	SM	456		
	Anti - termite to treatment				
F	Approved anti-termite treatment, with ten-year guarantee, sprayed to surfaces of hardcore strictly in accordance with manufacturer's instructions.	SM	532		
	Damp-proof membrane				
G	1000 gauge polythene or other equal and approved damp-proof membrane, laid over blinded hardcore (measured separately) with 300mm side and end laps (measured nett-allow for laps); 1 No. layer: bedded in and including cement and sand (1:3) mortar	SM	532		
	Concrete Blinding				
	Insitu concrete Class 15MPa: vibrated:				
H	50 mm thick blinding under raft	SM	682		
I	50 mm thick blinding under ground beams	SM	76		
	In- situ vibrated reinforced concrete Class 25 MPa: in:				
J	Raft Foundation	CM	511		
K	Ground Beams	CM	15		
L	100mm thick surface bed	SM	532		
M	Steps	CM	1		
	In- situ vibrated reinforced concrete Class 30 MPa: in:				
N	Columns	CM	22		
O	200mm thick Lift pit shaft wall	SM	31		
	Carried to collection				

Item	Description	Unit	QTY	Rate	Amount
	Ribbed reinforcement steel bars to KS 573:2014 : Grade 500 high tensile strengthincluding bends, hooks, tying wire and distance blocks; to S.E's detail (Provisional)				
A	Assorted reinforcement	KGS	24718		
	Mesh fabric reinforcement to K/EAS 412;2 (2019) BRC A142;200 x 200mm, weighing 2.22kg/m² (measured net - no allowance) for laps; in two layers - top & bottom; including bends, tying wire and spacer blocks)				
B	In ground floor slab	SM	532		
	Modular steel frame with steel plates covering formwork and/or marine board formwork: to:				
C	Sides of raft foundation	SM	106		
D	Sides of ground beams	SM	152		
E	Vertical sides to columns	SM	261		
F	Vertical sides to lift shaft walls	SM	61		
G	Edge of slab not exceeding 150mm girth	LM	142		
H	Edges of risers 75 - 150mm high	LM	12		
	Foundation Walling				
	Natural quarry stone walling with a minimum of 7.0 N/mm2 bedded and jointed in cement and sand (1:4) mortar, reinforced with and including 25 x 3 mm thick hoop iron strips at every alternate course as described in;				
I	200mm thick walls in foundations	SM	724		
	Pavings				
J	Supply and lay 600 x 600 x 50mm reinforced concrete precast paving slabs around the building including laying, spreading and compacting 100mm thick approved sand bed blinding, on and including 150mm thick compacted hardcore to Engineer's approval.	SM	85		
	Plinth				
	25mm Thick cement and sand (1:3) rendering on concrete or masonry ; wood float finished; to				
K	Plinths externally	SM	64		
	Two coats black bitumastic paint on:				
L	Rendered surfaces	SM	64		
	Cement/sand (1:3) screed with approved waterproofing admixture, steel trowelled hard and smooth to receive waterproofing (m/s)				
M	20mm thick water proof cement/sand (1:3) screed to lift pit floor prepared to receive water proofing	SM	7		
N	12mm thick water proof cement/sand (1:3) render to wall prepared to receive water proofing	SM	32		
	Carried to collection				

Item	Description	Unit	QTY	Rate	Amount
	Waterproofing				
	CRYSTALLINE WATERPROOFING				
	All areas indicated shall be waterproofed by approved cementious system , provide 10 year guarantee, all to manufacturer's specifications and instructions as described:				
	Two coat slurry application: waterproofing powder: 1kg per m2 per coat, minimum 2 coats to seal all expansion joints, holes, repaired areas and angle fillet or as per manufacturers instructions				
	Application of render coat: waterproofing powder: 1kg per m2 at 4.5mm thick on slabs. Rate shall allow for hacking and preparing all concrete surfaces or as per manufacturers instructions				
A	Horizontal surfaces of lift base	SM	7		
B	Vertical surfaces of Lift shaft walls	SM	32		
	Carried to collection				
	COLLECTION				
	Total brought forward from page no: 1				
	Total brought forward from page no: 2				
	Total brought forward from page no: 3				
	Total brought forward from above				
	ELEMENT NO. 1 **Carried to** **SUBSTRUCTURES** **Main summary**				

Item	Description	Unit	QTY	Rate	Amount
	PROPOSED SOCIAL + AFFORDABLE UNITS BLOCK (TYPE A G+9)				
	BILL NO.4 -BLOCK A				
	ELEMENT No 2 - R.C FRAME				
	Insitu concrete class 30MPa: vibrated: reinforced				
A	Columns	CM	301		
B	200mm thick Lift shaft wall	SM	417		
	Insitu concrete class 25MPa: vibrated: reinforced				
C	Beams	CM	279		
D	Upper Roof Beams	CM	3		
E	130mm thick suspended slabs	SM	3757		
F	150mm thick suspended slabs	SM	1206		
G	150mm thick Tank Slab over stairwell	SM	82		
H	150 mm thick landing	SM	103		
I	Staircases	CM	40		
J	100 mm thick reinforced concrete benches reinforced with BRC mesh A142 complete with formwork and all necessary plasterworks/screed work	SM	24		
	Ribbed reinforcement steel bars to KS 573:2014 : Grade 500 high tensile strengthincluding bends, hooks, tying wire and distance blocks; to S.E's detail (Provisional)				
K	Assorted reinforcement	Kg	148150		
	Modular steel frame with steel plates covering formwork and/or marine board formwork: to				
L	Sides of columns	SM	3597		
M	Sides and soffites of beams	SM	2695		
N	Soffits of suspended slabs	SM	5044		
O	Edges of slab over 75mm but not exceeding 150mm girth	LM	3138		
P	To sloping soffites of staircases	SM	148		
Q	Soffits of landings	SM	103		
R	Riser of steps over 150 mm but not exceeding 225 mm girth	LM	480		
S	Staircase string 300mm extreme girth and cut to profile of steps	LM	247		
T	Edges of landing over 150 but ot exceeding 225mm high	LM	80		
U	Sides of lift walls	SM	834		
V	Edges of lift shaft openings 150-225mm high	LM	114		
	ELEMENT NO. 2 **Carried to**				
	R.C FRAME **Main summary**				

Item	Description	Unit	QTY	Rate	Amount
	PROPOSED SOCIAL + AFFORDABLE UNITS BLOCK (TYPE A G+9)				
	BILL NO.4 -BLOCK A				
	ELEMENT No 3-WALLING				
	WALLING				
	External Walling				
	Machine cut quarry stone walling with a minimum of 7.0 N/mm2 average compressive strength ;bedded and jointed in cement and sand (1:4) mortar, reinforced with and including 25 x 3 mm thick hoop iron strips at every alternate course as described in;				
A	200mm thick walling Externally	SM	2967		
B	200mm thick parapet walling	SM	308		
	Internal Walling				
	Machine cut quarry stone walling with a minimum of 7.0 N/mm2 average compressive strength ;bedded and jointed in cement and sand (1:4) mortar, reinforced with and including 25 x 3 mm thick hoop iron strips at every alternate course as described in;				
C	200mm thick walling Internally	SM	2214		
D	150mm thick walling Internally	SM	2781		
E	100mm thick walling Internally	SM	238		
F	Approved hessian based damp proof course to 200mm thick walling in cement/sand mortar	LM	266		
G	Approved hessian based damp proof course to 150mm thick walling in cement/sand mortar	LM	150		
	Precast Concrete Breeze Ventilation Blocks				
H	150 x 150mm wide x 50mm thick Pre Cast Concrete flower 3D breeze ventilation blocks bedded and jointed in cement and sand (1:4) mortar	SM	189		
	COPING				
I	600 x 350 wide x 100mm thick insitu reinforced concrete class 20Mpa coping, throated and weathered and jointing to columns with cement sand 1:4 mortar	NO	79		
J	Ditto 300 x 100mm concrete coping to walls twice weathered and throated;	LM	257		
	Lintols				
K	200mm x 200mm Deep lintols in reinforced concrete class 20MPa with and including 4No T10 and T8 stirups at 200mm centres; complete with formwork	LM	592		
	ELEMENT NO. 3 **Carried to**				
	WALLING **Main summary**				

Item	Description	Unit	QTY	Rate	Amount
	PROPOSED SOCIAL + AFFORDABLE UNITS BLOCK (TYPE A G+9)				
	BILL NO.4 -BLOCK A				
	ELEMENT NO 4-WINDOWS				
	MILD STEEL WINDOWS				
	Supply, fabricate and fix the following purpose made small pane mild steel casement windows to be fabricated from approved mild steel sections (atleast 14g 2mm thick) comprising of frame and casement incorporating permanent hooded high level ventilation panels infilled with mosquito gauze : window supplied complete with and including 12mm solid square burglar proofing bars fixed at 200mm centres both ways and metal fixing lugs including building into wall and making good, and all necessary iron mongery viz hinges, fasteners, and hasp including shop priming window with red oxide primer before delivery to site:-				
	A prime cost sum of Kshs 6,000 per Sqm has been allowed for fabrication of the above specified Steel casement Windows by AHP juakali artisans as approved by the Project Manager/Architect.				
	The contractor's unit rate shall include the cost of transport, storage, fixing and all associated accesories in addition to the PC Rate.				
A	Window, overall size 1200 X 1500mm high to Architects Details (Lounge)	NO	111		
B	Ditto Size 1200 x 1500mm high (bedroom)	NO	150		
C	Ditto Size 1200 x 1200mm high (Kitchen)	NO	80		
D	Ditto Size 600 x 900mm high (WC/SH)	NO	171		
	Glazing				
E	4mm Thick clear sheet glass panes over 0.1 but not exceeding 0.5 square meters; fixing with premium putty	SM	601		
F	Ditto; obscure	SM	97		
	Painting and Decorations				
	On Metal work				
	Prepare and apply aerosol spray painting in two finishing coats of first grade paint as per the manufacturer's printed instructions to: -				
G	General window and grille surfaces; over 300mm girth internal	SM	1397		
	Carried to Collection				

Item	Description	Unit	QTY	Rate	Amount
	Precast concrete window cill finishing fair on all exposed surfaces and hoisting and placing in position, bedding, jointing and pointing in pigmented cement and sand (1:3) mortar				
A	150 x 25mm thick Precast concrete window sill	LM	634		
	Curtain rods;				
B	1.5mm thick, 20mm thick diameter twin powdercoated mild steel rod complete accessories to approval	LM	525		
	Carried to collection				
	COLLECTION				
	Total brought forward from page no: 7				
	Total brought forward from above				
	ELEMENT NO. 4 WINDOWS **Carried to the Main summary**				

Item	Description	Unit	QTY	Rate	Amount
	PROPOSED SOCIAL + AFFORDABLE UNITS BLOCK (TYPE A G+9)				
	BILL NO.4 -BLOCK A				
	ELEMENT NO 5-DOORS				
	External Doors				
	Hardwood Panelled Doors				
	50mm thick approved hardwood PANEL doors with 12.5mm thick Meru oak hardwood lipping to Architect's details, specifications and approval				
	A prime cost sum at the rate indicated below has been allowed for fabrication of the above specified Hardwood panelled door leaves by AHP juakali artisans as approved by the Project Manager/Architect.				
	The contractor's unit rate shall include the cost of transport, storage, fixing and all associated accesories in addition to the PC Rate.				
A	Double leaf door size 1500 x 2400mm high (PC Rate Kshs 41,000)	NO	3		
B	Single leaf Size 900 x 2400mm high (- PC Rate Kshs 25,000)	NO	111		
	Frames and frame finishes in mahogany timber:				
C	25 x 25mm quadrant beading (PC Rate Kshs 75)	LM	663		
D	25 x 50mm architrave with two labours, plugged (PC Rate Kshs 150)	LM	663		
E	150mm x 50mm frame with three labours; chamfered edges; plugged (PC Rate Kshs 1400)	LM	663		
	Internal Doors **Flush timber doors**				
	50 mm thick Semi Solid cored flush doors with plywood facing to receive painting (m.s) all to Architects details, specifications and approval				
	A prime cost sum at the rate indicated below for fabrication of the above specified Timber Flush door leaves by AHP juakali artisans as approved by the Project Manager/Architect. **The contractor's unit rate shall include the cost of transport, storage, fixing and all associated accesories in addition to the PC Rate.**				
F	Door size 900mm x 2400mm High comprising of 1 No Opennable leaf size 800 x 2100mm high including fixed fanlight size 900 x 300mm high in 4mm clear glass (measured separetely) (PC Rate Kshs 4,000)	NO	150		
G	Ditto 800 x 2100mm high comprising of 1No. Opennable leaf size 700 x 2100mm high (PC Rate Kshs 3,500)	NO	171		
	4mm Thick clear sheet glass fixing with timber glazing beads to timber casements.				
H	In panes exceeding 0.1 sqm but not exceeding 0.5 square metres.	SM	41		
	Frames and frame finishes in cypress Timber				
I	25 x 25mm quadrant (PC Rate Kshs 75)	LM	1710		
J	25 x 50mm architrave with two labours, plugged (PC Rate Kshs 150)	LM	1710		
K	150mm x 50mm transome with three labours; chamfered edges; plugged (PC Rate Kshs 800)	LM	135		
L	150mm x 50mm frame with three labours; chamfered edges; plugged (PC Rate Kshs 800)	LM	1710		
	Carried to collection				

Item	Description	Unit	QTY	Rate	Amount
	Painting and decorating				
	Priming back of frame with an aluminium or equivalent and approved wood primer				
B	Surfaces not exceeding 100mm girth	LM	4745		
C	Surfaces over 100mm but not exceeding 200mm girth	LM	2373		
	Prepare Knot, prime, stop and apply one undercoat and two finishing coats first grade timber quality paint to wood surfaces as per the manufacturer's printed instructions				
D	General timber surfaces	SM	1750		
E	Surfaces over 200mm but not exceeding 300mm girth	LM	2373		
F	Architraves: not exceeding 100 mm girth	LM	2373		
G	Quadrant beading : not exceeding 100 mm girth	LM	2373		
	Ironmongery				
	Supply and fix the following ironmongery to timber complete with matching screws and keys to the approval of the Architect				
G	100mm pressed steel Butt Hinges	PRS	657		
H	Stainless steel 3 Lever Mortice Door Lock with handle furniture set;(keyhole escutcheons, cylinder and latch)	NO	114		
I	Ditto: but 2 Lever Door Lock with handle	NO	321		
J	Door fixing cramps	NO	435		
K	200 x 75 x 3mm perspex door signage with door numbers as per Architect detail	NO	0		
L	Block sign with block type, name and number Iin exterior quality paint as per Architect detail	NO	0		
	Supply and fix the following purpose-made signage in printed vinyl panels in approved background and text colours in accordance to the architects later signage design fixed to finished surfaces in the approved adhesive and matching screws as applicable to;				
M	200 x 50mm Main door signage	NO	112		
N	150x450mm Floor Level Indicator Sign	NO	20		
O	500x100 Floor Wayfinding/Directional Sign	NO	20		
P	200x200mm Duct door Signage	NO	130		
Q	450x200 mm Fire Exit Signage	NO	20		
R	1000x300 mm Block Identification Signage	NO	1		
	Carried to Collection				
	COLLECTION				
	Total brought forward from page no: 10				
	Total brought forward from above				
	ELEMENT NO. 5 **Carried to**				
	DOORS **Main summary**				

Item	Description	Unit	QTY	Rate	Amount
	PROPOSED SOCIAL + AFFORDABLE UNITS BLOCK (TYPE A G+9)				
	BILL NO.4 -BLOCK A				
	ELEMENT NO 6 - EXTERNAL FINISHES				
	EXTERNAL WALL FINISHES				
	External Render				
	Cement and sand (1:3) render:wood floated: on concrete or blockwork: to				
A	15mm thick to beams, Columns, Slab Moulds and walling externally	SM	5555		
B	Extra over horizontal and vertical pointing in 10mm thick rod in cement and sand mix (1:3) mortar including one coat Bituminous paint	SM	10		
	External Painting				
	Prepare and apply one coat Alkali Resistant primer followed by 3 coats of silicon exterior Emulsion paint in accordance with the manufacturers written instructions and to the satisfaction of the architect to				
C	Concrete/masonry surfaces externally-Beam, Column and Slab Moulds	SM	5555		
	ROOF FINISHES **Cement and sand (1:3) screeded beds: on concrete: complete with coloured pigmentation additives and hardener to:**				
D	50mm average waterproofed lightweight screed laid to falls and crossfalls to roof slabs -upper roof including gutter bases	SM	617		
	Prepare and apply to vertical/horizontal surfaces 4mm thick APP/EPDM water proofing or other equal and approved membrane with surface finish weighing 4kg/sm; laid on primer with torch-on process ;by an approved specialist all in accordance with the manufacturers instructions including provision of a written ten (10) year anti leak guarantee.				
E	4mm thick APP membrane applied to roof slabs	SM	617		
F	Ditto to skirting 200mm high	LM	378		
G	Dress membrane around 100mm rainwater outlet	No.	12		
	The Following Flat roof concrete tiles fixed with approved adhesive, laid and jointed with waterproofing bituminous compound				
H	20mm thick interlocking Concrete tiles of size 225 x 225mm with and including cement sand (1:4) backing to falls	SM	582		
	ELEMENT NO. 6 Carried to **EXTERNAL FINISHES Main summary**				

Item	Description	Unit	QTY	Rate	Amount
	PROPOSED SOCIAL + AFFORDABLE UNITS BLOCK (TYPE A G+9)				
	BILL NO.4 -BLOCK A				
	ELEMENT NO 7 - INTERNAL FINISHES				
	Internal Wall Finishes				
	Cement and sand (1:3) backings				
A	15mm thick to receive Ceramic Wall tiles	SM	2757		
B	To receive porcelain wall tiles (m.s.) (Lift Lobby)	SM	172		
	Ceramic wall tiles				
	Allow a Prime Cost supply/Purchase only rate of Ksh. 1000 per SM (In addition to the cost of purchase above, the contractor's rate shall include cost of transportation, offloading, storage, fixing including all necessary adhesives, grouting and accessories				
C	Supply and Fix approved ceramic wall tiles on prepared backings(m.s) with proprietary adhesive; jointed and pointed in matching coloured proprietary grouting: including pvc spacers and expansion joint as necessary: aluminium corner and dividing strips; all to Architect's approval. - Wall Surfaces	SM	2757		
	Porcelain wall tiles				
	Allow a Prime Cost supply/Purchase only rate of Ksh. 1500 per SM (In addition to the cost of purchase above, the contractor's rate shall include cost of transportation, offloading, storage, fixing including all necessary adhesives, grouting and accessories				
D	Supply and Fix porcelain wall tiles on prepared backings(m.s) with proprietary adhesive; jointed and pointed in matching coloured proprietary grouting: including pvc spacers and expansion joint as necessary: aluminium corner and dividing strips; all to Architect's approval. - Wall Surfaces	SM	172		
	15mm (minimum) two coat cement, sand (1:3) plaster complete with wire gauze anti-crack mechanism at the intersection of masonry walling and concrete beams as described to:-				
E	Concrete/masonry surfaces	SM	12110		
	Painting and Decoration				
	Prepare, Skim and apply Emulsion or universal undercoat followed by two finishing coats of soft satin Emulsion paint in accordance with the manufacturers written instructions and to the satisfaction of the architect				
F	Plastered concrete/masonry surfaces internally	SM	12110		
	Carried to Collection				

Item	Description	Unit	QTY	Rate	Amount
	Floor Finishes				
	Cement and sand (1:3) screeds, backings, beds etc				
A	32mm bed finished to receive floor Tiles (m.s)	SM	3434		
B	32mm Thick coloured cement sand screed mix 1:3 finished with red oxide to approval	SM	1036		
	Cement and sand (1:3) backings etc				
C	32mm bed finished to receive ceramic tiles to surfaces of Landings (m.s)	SM	103		
D	25 x 300 mm wide treads to receive ceramic tiles (m.s)	LM	432		
E	20 x 150mm risers to receive ceramic tiles (m.s)	LM	480		
	Ceramic Floor tiles				
	Allow a Prime Cost supply/Purchase only rate of Ksh. 1000 per SM (In addition to the cost of purchase above, the contractor's rate shall include cost of transportation, offloading, storage, fixing including all necessary adhesives, grouting and accessories				
F	Supply and Fix Ceramic tiles, on prepared bed(m.s) with proprietary adhesive; jointed and pointed in matching coloured proprietary grouting: including pvc spacers and expansion joint as necessary: aluminium corner and dividing strips; all to Architect's approval.	SM	2311		
G	Ditto Non Slip Ceramic Tiles	SM	1122		
H	Ditto 100mm wide Wall Skirtings	LM	3996		
I	Non Slip Ceramic Tiles to surfaces of Landings	SM	103		
J	Non Slip Ceramic Tiles to 300 mm wide treads	LM	432		
K	Non Slip Ceramic Tiles to 150mm risers	LM	480		
	Wet areas waterproofing - Kitchens, Toilets etc.				
L	Liquid membrane - High build bitumen/ rubber latex emulsion with excellent adhesion, liquid applied to form a seamless flexible water proof/ vapour proof membrane as **as per the manufacturer's printed instructions to**; solid content =65%, Rubber Content=10% in dried film)				
M	To floors and walls	m^2	1567		
	Staircase soffit finishes				
	15mm (minimum) two coat cement, sand (1:3) plaster complete with wire gauze anti-crack mechanism at the intersection of masonry walling and concrete beams as described to:-				
N	Soffits of staircase landing	SM	103		
O	Ditto to sloping soffites exceeding 15˚ from horizontal	SM	148		
P	Staircase string 300mm extreme girth and cut to profile of steps	LM	247		
	Paint works				
	Prepare, skim and apply Emulsion or universal undercoat followed by two finishing coats of soft satin Emulsion paint in accordance with the manufacturers written instructions and to the satisfaction of the architect to				
Q	Soffits of staircase landing	SM	103		
R	Ditto to sloping soffites exceeding 15˚ from horizontal	SM	148		
S	Staircase string 300mm extreme girth and cut to profile of steps	LM	247		
	Carried to Collection				

Item	Description	Unit	QTY	Rate	Amount
	Ceiling finishes				
	15mm (minimum) two coat cement, sand (1:3) plaster complete with wire gauze anti-crack mechanism at the intersection of masonry walling and concrete beams as described to:-				
A	Soffits of Concrete surfaces	SM	5044		
	Painting and Decoration				
	Prepare, skim and apply Emulsion or universal undercoat followed by two finishing coats of soft satin Emulsion paint in accordance with the manufacturers written instructions and to the satisfaction of the architect				
B	Plastered ceilings	SM	5044		
	Carried to Collection				

Item	Description	Unit	QTY	Rate	Amount
	COLLECTION Total brought forward from page no: 12 Total brought forward from page no: 13 Total brought forward from page no: 14				
	ELEMENT NO. 7 **Carried to** **INTERNAL FINISHES Main summary**				

Item	Description	Unit	QTY	Rate	Amount
	PROPOSED SOCIAL + AFFORDABLE UNITS BLOCK (TYPE A G+9) **BILL NO.4 -BLOCK A** **ELEMENT NO 8- BALUSTRADING AND RAILING** *Balustrades and staircase railings*				
A	900mm high mild Steel balustrade; comprising 60 x 10mm mild Steel balusters at 900mm centres; bolted to base plate and tread (m.s), with 7No. 25mm diameter horinzontal bars, and 75x4mm diameter CHS mild Steel handrail part welded into 60x10mm balustrades; to Architects drawings	LM	159		
B	50mm diameter x 3mm CHS handrail supported by 50 x 50 x 3mm thick SHS balusters anchored to slab with and including w/steel bolts and plates at 1800mm centres smooth welded 100mm high (Staircase)	LM	90		
	Prepare, prime and apply one undercoat and two finishing coats first quality gloss oil paint on				
C	General metal surfaces of balustrading (both sides measured overall)	SM	400		
	ELEMENT NO. 8 BALUSTRADE AND RAILING **Carried to the Main summary**				

Item	Description	Unit	QTY	Rate	Amount
	PROPOSED SOCIAL + AFFORDABLE UNITS BLOCK (TYPE A G+9)				
	BILL NO.4 -BLOCK A				
	ELEMENT NO 9 - JOINERY FITTINGS				
	Allow for providing materials, labour and construct fixtures and fittings as per Architects drawings of the following JOINERY FITTINGS AND FIXTURES complete with associated iron mongery;				
	NOTE: All blockboard, MDF boards,etc in joinery works shall be lipped with hardwood lipping all round before fixing.				
	High level cupboards				
	400mm Wide high level kitchen cupboards in 18mm laminated mdf sides & shelves complete with doors, top, bottom & divisions with and including all necessary ironmongery; to Architect's details				
A	High level storage cupboard units 600mm high x 400mm deep	LM	230.00		
	Low level kitchen cupboards				
	Low level kitchen worktops with 600x600x10mm porcelain tiles top on 100mm thick reinforced concrete slab with A142 BRC mesh, formwork to soffits and slab edges, plater to soffits of slab, screed to top slab, 100mm thick plastered steeper walls, including 300x300x6mm thick ceramic wall tiles on both sides of the wall: 100mm plastered mass concrete plinths in concrete class 15MPa: 18mm laminated mdf sides & shelves complete with doors, shelves, drawers, cutting tiles for kitchen sink (m.s) & all necessary ironmongery; to Architect's details and approval				
B	Low level kitchen cupboards 850mm high x 600mm deep	LM	230		
	Bedroom Wardrobes				
	600mm Wide x 2200mm high wardrobes in 18mm laminated mdf sides, divisions, drawers, shelves ; ; complete with sliding/ side hung doors, shelves, divisions, shoe racks, hanging rails, drawers, & all necessary ironmongery; 100mm plastered mass concrete plinths in concrete class 15MPa ; to Architect's details				
C	Bedroom wardrobes size 2200mm high x 600mm deep in bedrooms	LM	217		
	Duct doors 50mm thick laminated MDF duct doors; complete with frames, ironmongery and all necessary paintwork				
D	Duct doors size 300mm wide x 2100mm high	NO.	10		
E	Duct doors size 350mm wide x 2100mm high	NO.	10		
F	Duct doors size 600mm wide x 2100mm high	NO.	50		
G	Duct doors size 500mm wide x 2100mm high	NO.	20		
H	Duct doors size 700mm wide x 2100mm high	NO.	20		
I	Duct doors size 800mm wide x 2100mm high	NO.	20		
	ELEMENT NO. 9 JOINERY & FITTINGS **Carried to the Main summary**				

Item	Description	Unit	QTY	Rate	Amount
	PROPOSED SOCIAL + AFFORDABLE UNITS BLOCK (TYPE A G+9)				
	ELEMENT NO 10 - BUILDERS WORKS IN CONNECTION WITH SERVICES (BWICWS)				
	Plumbing, Drainage and Mechanical Installations				
A	Inspect all drawings and Bills of Quantities for Plumbing, Drainage and Mechanical Installations and allow for all Builder's work associated with the installations; including cutting away and making good after installing a concealed drainage system; including cutting or leaving all holes notches, mortices, sinkings and chases in both the structure and its coverings; including but not limited to forming recess in masonry	Item			
	Electrical Services Installations				
B	Inspect all drawings and Bills of Quantities for Electrical Installations and allow for all Builder's work associated with the Electrical installations, including cutting away for and making good after Electrician installing a concealed conduit system including cutting or leaving all holes notches, mortices, sinkings and chases in both the structure and its coverings; including but not limited to forming recess in masonry	Item			
	ELEMENT NO. 10 Carried to the BUILDERS WORKS IN CONNECTION WITH SERVICES (BWICWS) Main summary				

Item	Description	Unit	QTY	Rate	Amount
	PROPOSED SOCIAL + AFFORDABLE UNITS BLOCK (TYPE A G+9)				
	BILL NO.4 -BLOCK A				
	MAIN SUMMARY		**Page No.**		**Amount (Kshs.)**
1	**Substructures**		**A/4**		
2	**Reinforced Concrete Frame**		**A/5**		
3	**Walling**		**A/6**		
4	**Windows**		**A/8**		
5	**Doors**		**A/10**		
6	**External Finishes**		**A/11**		
7	**Internal Finishes**		**A/15**		
8	**Balustrade and Railing**		**A/16**		
9	**Joinery and Fittings**		**A/17**		
10	**Builders works in connection with services**		**A/18**		
	TOTAL FOR 1NO. TYPE A (G+9) BLOCK				
	NO. OF BLOCKS				
	MULTIPLY BY **1.NO** OF BLOCKS	**X 1**			1
	TOTAL FOR 1NO. TYPE A (G+9) BLOCK(S) CARRIED TO GRAND SUMMARY				

BLOCK TYPE B

Item	Description	Unit	QTY	Rate	Amount
	PROPOSED APARTMENTS FOR AFFORDABLE HOUSING PROGRAM (TYPE B G+9)				
	BILL NO.1-BUILDERS WORKS				
	ELEMENT NO 1 - SUBSTRUCTURES (ALL PROVISIONAL)				
	Site Clearance				
A	Clear site of all grass, hedges, shrubs, bushes grub up roots, load and remove from site and dispose at designated local authority areas.	SM	938		
B	Bulk excavation to reduce levels depth not exceeding 1.5m commencing from existing ground level	Cm	1407		
C	Ditto but exceeding 1.5 metres but not 3 metres deep	Cm	938		
D	Extra over all type of excavation for excavating in soft rock	Cm	117		
E	Ditto excavation in hard rock class I	Cm	117		
	Disposal of water				
F	Allow for keeping the whole of the excavation free from all spring and running water by pumping or any other such means as may be necessary	Item	1		
	Planking and strutting				
G	Allow for maintaining and upholding the sides of excavations and keeping excavations clear of all fallen materials, rubbish etc	Item	1		
	Carried to collection				

Item	Description	Unit	QTY	Rate	Amount
	Disposal of excavated material				
A	Load,wheel and cart away surplus excavated material to a Local Authority designated dumping site or fill soil heaps as away from site instructed by the Project Engineer.	CM	1484		
B	Return, fill and ram selected excavated material around sides of foundations.	CM	862		
	Fillings				
C	Make up levels using approved imported materials: compacted in layers not exceeding 300mm thick with a 10 tonne roller: to the satisfaction of the Structural Engineer.	CM	1407		
D	300mm thick hardcore bed: hand packed : compacted in layers not exceeding 150mm thick: to the satisfaction of the Structural Engineer	SM	938		
E	50 mm Stone dust/ Murrum blinding to surfaces of hardcore	SM	938		
	Anti - termite to treatment				
F	Approved anti-termite treatment, with ten-year guarantee, sprayed to surfaces of hardcore strictly in accordance with manufacturer's instructions.	SM	938		
	Damp-proof membrane				
G	1000 gauge polythene or other equal and approved damp-proof membrane, laid over blinded hardcore (measured separately) with 300mm side and end laps (measured nett-allow for laps); 1 No. layer: bedded in and including cement and sand (1:3) mortar	SM	938		
	Concrete Blinding				
	Insitu concrete Class 15MPa: vibrated:				
H	50 mm thick blinding under raft	SM	938		
H	50 mm thick blinding under column bases	SM	0		
I	Ditto; under ground beams	SM	94		
	In- situ vibrated reinforced concrete Class 25MPa: in:				
I	Column bases	CM	0		
J	Ground Beams	CM	19		
N	100mm thick surface bed	SM	672		
	In- situ vibrated reinforced concrete Class 30MPa: in:				
J	Raft	CM	704		
K	Columns	CM	18		
L	200mm thick Lift pit shaft wall	SM	24		
	Carried to collection				

Item	Description	Unit	QTY	Rate	Amount
	Ribbed reinforcement steel bars to KS 573:2014 : Grade 500 high tensile strengthincluding bends, hooks, tying wire and distance blocks; to S.E's detail (Provisional)				
A	Assorted reinforcement	KGS	31,160.00		
	Mesh fabric reinforcement to K/EAS 412;2 (2019) BRC A142;200 x 200mm, weighing 2.22kg/m² (measured net - no allowance) for laps; in two layers - top & bottom; including bends, tying wire and spacer blocks)				
B	In ground floor slab	SM	672		
	Modular steel frame with steel plates covering formwork and/or marine board formwork: to:				
C	Sides of the raft	SM	103		
D	Sides of ground beam	SM	188		
E	Vertical sides to columns	SM	219		
F	Vertical sides to lift shaft walls	SM	48		
G	Edge of slab not exceeding 150mm girth	LM	162		
	Foundation Walling				
	Natural quarry stone walling with a minimum of 7.0 N/mm2 bedded and jointed in cement and sand (1:4) mortar, reinforced with and including 25 x 3 mm thick hoop iron strips at every alternate course as described in;				
H	200mm thick walls in foundations	SM	266		
	Pavings				
I	Supply and lay 600 x 600 x 50mm reinforced concrete precast paving slabs around the building including laying, spreading and compacting 100mm thick approved sand bed blinding, on and including 150mm thick compacted hardcore to Engineer's approval.	SM	97		
	Plinth				
	25mm Thick cement and sand (1:3) rendering on concrete or masonry ; wood float finished; to				
J	Plinths externally	SM	49		
	Two coats black bitumastic paint on:				
K	Rendered surfaces	SM	49		
	Carried to collection				

Item	Description	Unit	QTY	Rate	Amount
	Cement/sand (1:3) screed with approved waterproofing admixture, steel trowelled hard and smooth to receive waterproofing (m/s)				
A	20mm thick water proof cement/sand (1:3) screed to lift pit floor prepared to receive masterseal water proofing	m^2	9		
B	12mm thick water proof cement/sand (1:3) render to wall prepared to receive water proofing	m^2	26		
	Waterproofing				
	CRYSTALLINE WATERPROOFING				
	All areas indicated shall be waterproofed by approved cementious system , provide 10 year guarantee, all to manufacturer's specifications and instructions as described:				
	Two coat slurry application: waterproofing powder: 1kg per m2 per coat, minimum 2 coats to seal all expansion joints, holes, repaired areas and angle fillet or as per manufacturers instructions				
	Application of render coat: waterproofing powder: 1kg per m2 at 4.5mm thick on slabs. Rate shall allow for hacking and preparing all concrete surfaces or as per manufacturers instructions				
C	Horizontal surfaces of lift base	m^2	9		
D	Vertical surfaces of Lift shaft walls	m^2	26		
	Carried to collection				
	COLLECTION				
	Total brought forward from page no:1				
	Total brought forward from page no:2				
	Total brought forward from page no:3				
	Total brought forward from above				
	ELEMENT NO. 1 SUBSTRUCTURES **Carried to Main summary**				

Item	Description	Unit	QTY	Rate	Amount
	PROPOSED APARTMENTS FOR AFFORDABLE HOUSING PROGRAM (TYPE B G+9)				
	BILL NO.1-BUILDERS WORKS				
	ELEMENT No 2 - R.C FRAME				
	Insitu concrete class 30MPa: vibrated: reinforced				
A	Columns	CM	273		
B	200mm thick Lift shaft wall	SM	415		
	Insitu concrete class 25MPa: vibrated: reinforced				
C	Beams	CM	312		
D	Upper Roof Beams	CM	14		
E	130mm thick suspended slabs	SM	5155		
F	Ditto but 150mm thick	SM	1579		
G	150mm thick Tank Slab over stairwell	SM	48		
H	150 mm thick landing	SM	101		
I	Staircases	CM	40		
	Ribbed reinforcement steel bars to KS 573:2014 : Grade 500 high tensile strengthincluding bends, hooks, tying wire and distance blocks; to S.E's detail (Provisional)				
J	Assorted reinforcement	Kg	165113		
	Modular steel frame with steel plates covering formwork and/or marine board formwork: to				
K	Sides of columns	Sm	3240		
L	Sides and soffites of beams	Sm	3086		
M	Soffits of suspended slabs	Sm	6782		
N	Edges of slab over 150mm but not exceeding 225mm girth	Lm	2236		
O	To sloping soffites of staircases	SM	154		
P	Soffits of landings	SM	101		
Q	Riser of steps over 150 mm but not exceeding 225 mm girth	LM	480		
R	Staircase string 300mm extreme girth and cut to profile of steps	LM	268		
S	Edges of landing over 150 but ot exceeding 225mm high	Lm	96		
T	Edges of lift shaft openings 150-225mm high	LM	114		
U	Sides of lift walls	SM	829		
	ELEMENT NO. 2 R.C FRAME **Carried to Main summary**				

Item	Description	Unit	QTY	Rate	Amount
	PROPOSED APARTMENTS FOR AFFORDABLE HOUSING PROGRAM (TYPE B G+9)				
	BILL NO.1-BUILDERS WORKS				
	ELEMENT No 3-WALLING				
	WALLING				
	External Walling				
	Machine cut quarry stone walling with a minimum of 7.0 N/mm2 average compressive strength ;bedded and jointed in cement and sand (1:4) mortar, reinforced with and including 25 x 3 mm thick hoop iron strips at every alternate course as described in;				
A	200mm thick walling Externally	Sm	3440		
B	200mm thick parapet walling	Sm	193		
	Internal Walling				
	Machine cut quarry stone walling with a minimum of 7.0 N/mm2 average compressive strength ;bedded and jointed in cement and sand (1:4) mortar, reinforced with and including 25 x 3 mm thick hoop iron strips at every alternate course as described in;				
C	200mm thick walling Internally	Sm	2377		
D	150mm thick walling Internally	Sm	2973		
E	Approved hessian based damp proof course to 200mm thick walling in cement/sand mortar	Lm	282		
F	Approved hessian based damp proof course to 150mm thick walling in cement/sand mortar	Lm	179		
	Precast Concrete Breeze Ventilation Blocks				
G	150 x 150mm wide x 50mm thick Pre Cast Concrete flower 3D breeze ventilation blocks bedded and jointed in cement and sand (1:4) mortar	Sm	405		
	COPING				
	600 x 350 wide x 100mm thick insitu reinforced concrete class 20Mpa coping, throated and weathered and jointing to columns with cement sand 1:4 mortar	No	84		
H	Ditto 300 x 100mm concrete coping to walls twice weathered and throated;	LM	209		
	Lintols				
I	200mm x 200mm Deep lintols in reinforced concrete class 20MPa with and including 4No T10 and T8 stirups at 200mm centres; complete with formwork	LM	798.00		
	ELEMENT NO. 3 WALLING **Carried to Main summary**				

Item	Description	Unit	QTY	Rate	Amount
	PROPOSED APARTMENTS FOR AFFORDABLE HOUSING PROGRAM (TYPE B G+9)				
	BILL NO.1-BUILDERS WORKS				
	ELEMENT NO 4-WINDOWS				
	MILD STEEL WINDOWS				
	Supply, fabricate and fix the following purpose made small pane mild steel casement windows to be fabricated from approved mild steel sections (atleast 14g 2mm thick) comprising of frame and casement incorporating permanent hooded high level ventilation panels infilled with mosquito gauze : window supplied complete with and including 12mm solid square burglar proofing bars fixed at 200mm centres both ways and metal fixing lugs including building into wall and making good, and all necessary iron mongery viz hinges, fasteners, and hasp including shop priming window with red oxide primer before delivery to site:-				
	A prime cost sum of Kshs 6,000 per Sqm has been allowed for fabrication of the above specified Steel casement Windows by AHP juakali artisans as approved by the Project Manager/Architect.				
	The contractor's unit rate shall include the cost of transport, storage, fixing and all associated accesories in addition to the PC Rate.				
A	Window, overall size 1500 X 1200mm high to Architects Details (Lounge)	NO	80		
B	Ditto Size 1500 x 1200mm high (bedroom)	NO	200		
C	Ditto Size 1200 x 1200mm high (Kitchen)	NO	80		
D	Ditto Size 900 x 600mm high (WC/SH)	NO	200		
	Glazing				
E	4mm Thick clear sheet glass panes over 0.1 but not exceeding 0.5 square meters; fixing with premium putty	SM	619		
	Ditto; obscure	SM	108		
	Painting and Decorations				
	On Metal work				
	Prepare and apply aerosol spray painting in two finishing coats of first grade paint as per the manufacturer's printed instructions to: -				
F	General window and grille surfaces; over 300mm girth internal	SM	1454		
	Carried to Collection				

Item	Description	Unit	QTY	Rate	Amount
	Precast concrete window cill finishing fair on all exposed surfaces and hoisting and placing in position, bedding, jointing and pointing in pigmented cement and sand (1:3) mortar				
A	150 x 25mm thick Precast concrete window sill	LM	808		
	Curtain rods;				
B	1.5mm thick, 20mm thick diameter twin powdercoated mild steel rod complete accessories to approval	LM	624		
	Carried to collection				
	COLLECTION				
	Total brought forward from page no:7				
	Total brought forward from page no:8				
	ELEMENT NO. 4 WINDOWS **Carried to the Main summary**				

Item	Description	Unit	QTY	Rate	Amount
	PROPOSED APARTMENTS FOR AFFORDABLE HOUSING PROGRAM (TYPE B G+9)				
	BILL NO.1-BUILDERS WORKS				
	ELEMENT NO 5-DOORS				
	External Doors				
	Hardwood Panelled Doors				
	50mm thick approved hardwood PANEL doors with 12.5mm thick Meru oak hardwood lipping to Architect's details, specifications and approval				
	A prime cost sum at the rate indicated below has been allowed for fabrication of the above specified Hardwood panelled door leaves by AHP juakali artisans as approved by the Project Manager/Architect.				
	The contractor's unit rate shall include the cost of transport, storage, fixing and all associated accesories in addition to the PC Rate.				
A	Double leaf door size 1500 x 2400mm high (PC Rate Kshs 41,000)	NO	3		
B	Single leaf Size 900 x 2400mm high (- PC Rate Kshs 25,000)	NO	80		
	Frames and frame finishes in mahogany timber:				
C	25 x 25mm quadrant beading (PC Rate Kshs 75)	LM	483		
D	25 x 50mm architrave with two labours, plugged (PC Rate Kshs 150)	LM	483		
E	150mm x 50mm frame with three labours; chamfered edges; plugged (PC Rate Kshs 1400)	LM	483		
	Internal Doors				
	Flush timber doors				
	50 mm thick Semi Solid cored flush doors with plywood facing to receive painting (m.s) all to Architects details, specifications and approval				
	A prime cost sum at the rate indicated below for fabrication of the above specified Timber Flush door leaves by AHP juakali artisans as approved by the Project Manager/Architect.				
	The contractor's unit rate shall include the cost of transport, storage, fixing and all associated accesories in addition to the PC Rate.				
F	Door size 900mm x 2400mm High comprising of 1 No Opennable leaf size 800 x 2100mm high including fixed fanlight size 900 x 300mm high in 4mm clear glass (measured separetely) (PC Rate Kshs 4,000)	NO	260		
G	Ditto 800 x 2100mm high comprising of 1No. Opennable leaf size 700 x 2100mm high (PC Rate Kshs 3,500)	NO	200		
	4mm Thick clear sheet glass fixing with matching timber glazing beads to timber frames				
H	In panes exceeding 0.1 sqm but not exceeding 0.5 square metres.	SM	70		
	Frames and frame finishes in cypress Timber				
I	25 x 25mm quadrant (PC Rate Kshs 75)	LM	2482		
J	25 x 50mm architrave with two labours, plugged (PC Rate Kshs 150)	LM	2482		
K	150mm x 50mm transome with three labours; chamfered edges; plugged (PC Rate Kshs 800)	LM	234		
L	150mm x 50mm frame with three labours; chamfered edges; plugged (PC Rate Kshs 800)	LM	2482		
	Carried to collection				

Item	Description	Unit	QTY	Rate	Amount
	Painting and decorating				
	Priming back of frame with an aluminium or equivalent and approved wood primer				
A	Surfaces not exceeding 100mm girth	LM	5930		
B	Surfaces over 100mm but not exceeding 200mm girth	LM	3199		
	Prepare Knot, prime, stop and apply one undercoat and two finishing coats first grade timber quality paint to wood surfaces as per the manufacturer's printed instructions				
C	General timber surfaces	SM	1867		
D	Surfaces over 200mm but not exceeding 300mm girth	LM	3199		
E	Architraves: not exceeding 100 mm girth	LM	2965		
F	Quadrant beading : not exceeding 100 mm girth	LM	2965		
	Ironmongery				
	Supply and fix the following ironmongery to timber complete with matching screws and keys to the approval of the Architect				
G	100mm pressed steel Butt Hinges	PRS	815		
H	Stainless steel 3 Lever Mortice Door Lock with handle furniture set;(keyhole escutcheons, cylinder and latch)	NO	343		
I	Ditto: but 2 Lever Door Lock with handle	NO	200		
J	Door fixing cramps	NO	543		
K	200 x 75 x 3mm perspex door signage with door numbers as per Architect detail	NO	0		
L	Block sign with block type, name and number Iin exterior quality paint as per Architect detail	NO	0		
	Supply and fix the following purpose-made signage in printed vinyl panels in approved background and text colours in accordance to the architects later signage design fixed to finished surfaces in the approved adhesive and matching screws as applicable to;				
M	200 x 50mm Main door signage	NO	81		
N	150x450mm Floor Level Indicator Sign	NO	20		
O	500x100 Floor Wayfinding/Directional Sign	NO	20		
P	200x200mm Duct door Signage	NO	120		
Q	450x200 mm Fire Exit Signage	NO	20		
R	1000x300 mm Block Identification Signage	NO	1		
	Carried to Collection				
	COLLECTION				
	Total brought forward from page no:9				
	Total brought forward from page no:10				
	ELEMENT NO. 5 DOORS **Carried to Main summary**				

Item	Description	Unit	QTY	Rate	Amount
	PROPOSED APARTMENTS FOR AFFORDABLE HOUSING PROGRAM (TYPE B G+9)				
	BILL NO.1-BUILDERS WORKS				
	ELEMENT NO 6 - EXTERNAL FINISHES				
	EXTERNAL WALL FINISHES				
	External Render				
	Cement and sand (1:3) render:wood floated: on concrete or blockwork: to				
A	15mm thick to beams, Columns, Slab Moulds and walling externally	SM	5,332.00		
B	Extra over horizontal and vertical pointing in 10mm thick rod in cement and sand mix (1:3) mortar including one coat Bituminous paint	SM	0		
	External Painting				
	Prepare and apply one coat Alkali Resistant primer followed by two finishing coats of silicon exterior Emulsion paint in accordance with the manufacturers written instructions and to the satisfaction of the architect to				
C	Concrete/masonry surfaces externally-Beam, Column and Slab Moulds	SM	5332		
	ROOF FINISHES **Cement and sand (1:3) screeded beds: on concrete: complete with coloured pigmentation additives and hardener to:**				
D	50mm average waterproofed lightweight screed laid to falls and crossfalls to roof slabs -upper roof including gutter bases	SM	720		
	Prepare and apply to vertical/horizontal surfaces 4mm thick APP/EPDM water proofing or other equal and approved membrane with surface finish weighing 4kg/sm; laid on primer with torch-on process ;by an approved specialist all in accordance with the manufacturers instructions including provision of a written ten (10) year anti leak guarantee.				
E	4mm thick APP membrane applied to roof slabs	SM	720		
F	Ditto to skirting 200mm high	LM	186		
G	Dress membrane around 100mm rainwater outlet	No.	12		
	The Following Flat roof concrete tiles fixed with approved adhesive, laid and jointed with waterproofing bituminous compound				
H	20mm thick interlocking Concrete tiles of size 225 x 225mm with and including cement sand (1:4) backing to falls	SM	720		
	ELEMENT NO. 6 EXTERNAL FINISHES **Carried to Main summary**				

Item	Description	Unit	QTY	Rate	Amount
	PROPOSED APARTMENTS FOR AFFORDABLE HOUSING PROGRAM (TYPE B G+9)				
	BILL NO.1-BUILDERS WORKS				
	ELEMENT NO 7 - INTERNAL FINISHES				
	Internal Wall Finishes				
	Cement and sand (1:3) backings				
A	15mm thick to receive porcelain Wall tiles	SM	2,647.00		
B	To receive ceramic wall tiles (m.s.) (Lift Lobby)	SM	141.00		
	Ceramic wall tiles				
	Allow a Prime Cost supply/Purchase only rate of Ksh. 1000 per SM (In addition to the cost of purchase above, the contractor's rate shall include cost of transportation, offloading, storage, fixing including all necessary adhesives, grouting and accessories				
C	Supply and Fix approved ceramic wall tiles on prepared backings(m.s) with proprietary adhesive; jointed and pointed in matching coloured proprietary grouting: including pvc spacers and expansion joint as necessary: aluminium corner and dividing strips; all to Architect's approval. - Wall Surfaces	SM	2647		
	Porcelain wall tiles				
	Allow a Prime Cost supply/Purchase only rate of Ksh. 1500 per SM (In addition to the cost of purchase above, the contractor's rate shall include cost of transportation, offloading, storage, fixing including all necessary adhesives, grouting and accessories				
D	Supply and Fix porcelain wall tiles on prepared backings(m.s) with proprietary adhesive; jointed and pointed in matching coloured proprietary grouting: including pvc spacers and expansion joint as necessary: aluminium corner and dividing strips; all to Architect's approval. - Wall Surfaces	SM	141.00		
	15mm (minimum) two coat cement, sand (1:3) plaster complete with wire gauze anti-crack mechanism at the intersection of masonry walling and concrete beams as described to:-				
F	Concrete/masonry surfaces	SM	12882		
	Painting and Decoration				
	Prepare, Skim and apply Emulsion or universal undercoat followed by two finishing coats of soft satin Emulsion paint in accordance with the manufacturers written instructions and to the satisfaction of the architect to				
G	Plastered concrete/masonry surfaces internally	SM	12882		
	Carried to Collection				

Item	Description	Unit	QTY	Rate	Amount
	Floor Finishes				
	Cement and sand (1:3) screeds, backings, beds etc				
A	32mm bed finished to receive Floor Tiles (m.s)	SM	5074		
	Cement and sand (1:3) backings etc				
B	32mm bed finished to receive ceramic tiles to surfaces of Landings (m.s)	SM	101		
C	25 x 300 mm wide treads to receive ceramic tiles (m.s)	LM	437		
D	20 x 150mm risers to receive ceramic tiles (m.s)	LM	460		
	Ceramic Floor tiles				
	Allow a Prime Cost supply/ Purchase only rate of Ksh. 1000 per SM (In addition to the cost of purchase above, the contractor's rate shall include cost of transportation, offloading, storage, fixing including all necessary adhesives, grouting and accessories				
E	Supply and Fix Ceramic tiles, on prepared bed(m.s) with proprietary adhesive; jointed and pointed in matching coloured proprietary grouting: including pvc spacers and expansion joint as necessary: aluminium corner and dividing strips; all to Architect's approval.	SM	2689		
F	Ditto Non Slip Ceramic Tiles	SM	2385		
G	Ditto 100mm wide Wall Skirtings	LM	7535		
H	Non Slip Ceramic Tiles to surfaces of Landings	SM	101		
J	Non Slip Ceramic Tiles to 300 mm wide treads	LM	437		
K	Non Slip Ceramic Tiles to 150mm risers	LM	460		
	Wet areas waterproofing - Kitchens, Toilets etc.				
	Liquid membrane - High build bitumen/ rubber latex emulsion with excellent adhesion, liquid applied to form a seamless flexible water proof/ vapour proof membrane as **as per the manufacturer's printed instructions to**; solid content =65%, Rubber Content=10% in dried film)				
L	To floors and walls	SM	2385		
	Staircase soffit finishes				
	15mm (minimum) two coat cement, sand (1:3) plaster complete with wire gauze anti-crack mechanism at the intersection of masonry walling and concrete beams as described to:-				
M	Soffits of staircase landing	SM	101		
N	Ditto to sloping soffites exceeding 15˚ from horizontal	SM	154		
P	Staircase string 300mm extreme girth and cut to profile of steps	LM	268		
	Paint works				
	Prepare, skim and apply Emulsion or universal undercoat followed by two finishing coats of soft satin Emulsion paint in accordance with the manufacturers written instructions and to the satisfaction of the architect to				
Q	Soffits of staircase landing	SM	101		
R	Ditto to sloping soffites exceeding 15˚ from horizontal	SM	154		
S	Staircase string 300mm extreme girth and cut to profile of steps	LM	268		
	Carried to Collection				

Item	Description	Unit	QTY	Rate	Amount
	Ceiling finishes				
	15mm (minimum) two coat cement, sand (1:3) plaster complete with wire gauze anti-crack mechanism at the intersection of masonry walling and concrete beams as described to:-				
A	Soffits of Concrete surfaces	SM	6782		
	Painting and Decoration				
	Prepare, skim and apply Emulsion or universal undercoat followed by two finishing coats of soft satin Emulsion paint in accordance with the manufacturers written instructions and to the satisfaction of the architect to				
B	Plastered ceilings	SM	6782		
	Carried to Collection				

Item	Description	Unit	QTY	Rate	Amount
	COLLECTION				
	Total brought forward from page no:12				
	Total brought forward from page no:13				
	Total brought forward from page no:14				
	ELEMENT NO. 7 **Carried to** **INTERNAL FINISHES**				

Item	Description	Unit	QTY	Rate	Amount
	PROPOSED APARTMENTS FOR AFFORDABLE HOUSING PROGRAM (TYPE B G+9)				
	BILL NO.1-BUILDERS WORKS				
	ELEMENT NO 8- BALUSTRADING AND RAILING				
	Balustrades and staircase railings				
A	900mm high mild Steel balustrade; comprising 60 x 10mm mild Steel balusters at 900mm centres; bolted to base plate and tread (m.s), with 7No. 25mm diameter horinzontal bars, and 75x4mm diameter CHS mild Steel handrail part welded into 60x10mm balustrades; to Architects drawings	LM	82		
B	50mm diameter x 3mm CHS handrail supported by 50 x 50 x 3mm thick SHS balusters anchored to slab with and including w/steel bolts and plates at 1800mm centres smooth welded 100mm high (Staircase)	LM	92		
	Prepare, prime and apply one undercoat and two finishing coats first quality gloss oil paint on				
C	General metal surfaces of balustrading (both sides measured overall)	SM	117		
	ELEMENT NO. 8 BALUSTRADE AND RAILING **Carried to the Main summary**				

Item	Description	Unit	QTY	Rate	Amount
	PROPOSED APARTMENTS FOR AFFORDABLE HOUSING PROGRAM (TYPE B G+9)				
	BILL NO.1-BUILDERS WORKS				
	ELEMENT NO 9 - JOINERY FITTINGS Allow for providing materials, labour and construct fixtures and fittings as per Architects drawings of the following JOINERY FITTINGS AND FIXTURES complete with associated iron mongery; NOTE: All blockboard, MDF boards,etc in joinery works shall be lipped with hardwood lipping all round before fixing. High level cupboards 400mm Wide high level kitchen cupboards in 18mm laminated mdf sides & shelves complete with doors, top, bottom & divisions with and including all necessary ironmongery; to Architect's details				
A	High level storage cupboard units 600mm high x 400mm deep	LM	140		
B	Ditto 600mm high x 400mm deep	LM	14		
	Low level kitchen cupboards Low level kitchen worktops with 600x600x10mm porcelain tiles top on 100mm thick reinforced concrete slab with A142 BRC mesh, formwork to soffits and slab edges, plater to soffits of slab, screed to top slab, 100mm thick plastered steeper walls, including 300x300x6mm thick ceramic wall tiles on both sides of the wall: 100mm plastered mass concrete plinths in concrete class 15MPa: 18mm laminated mdf sides & shelves complete with doors, shelves, drawers, cutting tiles for kitchen sink (m.s) & all necessary ironmongery; to Architect's details and approval				
C	Low level kitchen cupboards 850mm high x 600mm deep	LM	168		
D	Ditto 1850mm long x 850mm high x 600mm deep	LM	19		
	Bedroom Wardrobes 600mm Wide x 2200mm high wardrobes in 18mm laminated mdf sides, divisions, drawers, shelves ; ; complete with sliding/ side hung doors, shelves, divisions, shoe racks, hanging rails, drawers, & all necessary ironmongery; 100mm plastered mass concrete plinths in concrete class 15MPa ; to Architect's details				
E	Bedroom wardrobes size 2200mm high x 600mm deep in bedrooms	LM	135		
F	Ditto size 2200mm high x 600mm deep in bedrooms	LM	132		
	Duct doors 50mm thick laminated MDF duct doors; complete with frames, ironmongery and all necessary paintwork to:				
H	Duct doors size 650mm wide x 2200mm high	NO.	44		
J	Duct doors size 400mm wide x 2200mm high	NO.	88		
	ELEMENT NO. 9 JOINERY & FITTINGS **Carried to the Main summary**				

Item	Description	Unit	QTY	Rate	Amount
	BILL NO.1-BUILDERS WORKS				
	ELEMENT NO 10 - BUILDERS WORKS IN CONNECTION WITH SERVICES (BWICWS)				
	Plumbing, Drainage and Mechanical Installations				
A	Inspect all drawings and Bills of Quantities for Plumbing, Drainage and Mechanical Installations and allow for all Builder's work associated with the installations; including cutting away and making good after installing a concealed drainage system; including cutting or leaving all holes notches, mortices, sinkings and chases in both the structure and its coverings; including but not limited to forming recess in masonry	Item			
	Electrical Services Installations				
B	Inspect all drawings and Bills of Quantities for Electrical Installations and allow for all Builder's work associated with the Electrical installations, including cutting away for and making good after Electrician installing a concealed conduit system including cutting or leaving all holes notches, mortices, sinkings and chases in both the structure and its coverings; including but not limited to forming recess in masonry	Item			
	ELEMENT NO. 10 Carried to the BUILDERS WORKS IN CONNECTION WITH SERVICES (BWICWS) Main summary		-		

Item	Description	Unit	QTY	Rate	Amount
	PROPOSED APARTMENTS FOR AFFORDABLE HOUSING PROGRAM (TYPE B G+9)				
	BILL NO.1-BUILDERS WORKS				
	MAIN SUMMARY		**Page No.**		**Amount (Kshs.)**
1	**Substructures**				
2	**Reinforced Concrete Frame**				
3	**Walling**				
4	**Windows**				
5	**Doors**				
6	**External Finishes**				
7	**Internal Finishes**				
8	**Balustrade and Railing**				
9	**Joinery and Fittings**				
10	**Builders Works**				
	TOTAL FOR 1NO. TYPE B (G+9) BLOCK				
	MULTIPLY BY **2.NO** OF BLOCKS	**X 2**			2.00
	TOTAL FOR TYPE B (G+9) BLOCK(S) CARRIED TO GRAND SUMMARY				

BLOCK TYPE C

Item	Description	Unit	QTY	Rate	Amount
	PROPOSED SOCIAL + AFFORDABLE UNITS BLOCK (TYPE C G+9) **BILL NO.4 -BLOCK C** **ELEMENT NO 1 - SUBSTRUCTURES (ALL PROVISIONAL)** *Site Clearance*				
A	Clear site of all grass, hedges, shrubs, bushes grub up roots, load and remove from site and dispose at designated local authority areas.	SM	682		
B	Bulk excavation to reduce levels depth not exceeding 1.5m commencing from existing ground level	CM	1022		
C	Ditto but exceeding 1.5 metres but not 3 metres deep	CM	682		
D	Extra over all type of excavation for excavating in soft rock	CM	85		
E	Ditto excavation in hard rock class I	CM	85		
F	**Disposal of water** Allow for keeping the whole of the excavation free from all spring and running water by pumping or any other such means as may be necessary	Item			
G	**Planking and strutting** Allow for maintaining and upholding the sides of excavations and keeping excavations clear of all fallen materials, rubbish etc	Item			
	Carried to collection				

Item	Description	Unit	QTY	Rate	Amount
	Disposal of excavated material				
A	Load,wheel and cart away surplus excavated material to a Local Authority designated dumping site or fill soil heaps as away from site instructed by the Project Engineer.	CM	654		
B	Return, fill and ram selected excavated material around sides of foundations.	CM	1050		
	Fillings				
C	Make up levels using approved imported materials: compacted in layers not exceeding 300mm thick with a roller: to the satisfaction of the Structural Engineer.	CM	833		
D	300mm thick hardcore bed: hand packed : compacted in layers not exceeding 150mm thick: to the satisfaction of the Structural Engineer	SM	463		
E	50 mm Stone dust/ Murrum blinding to surfaces of hardcore	SM	463		
	Anti - termite to treatment				
F	Approved anti-termite treatment, with ten-year guarantee, sprayed to surfaces of hardcore strictly in accordance with manufacturer's instructions.	SM	532		
	Damp-proof membrane				
G	1000 gauge polythene or other equal and approved damp-proof membrane, laid over blinded hardcore (measured separately) with 300mm side and end laps (measured nett-allow for laps); 1 No. layer: bedded in and including cement and sand (1:3) mortar	SM	532		
	Concrete Blinding				
	Insitu concrete Class 15MPa: vibrated:				
H	50 mm thick blinding under raft	SM	682		
I	50 mm thick blinding under ground beams	SM	70		
	In- situ vibrated reinforced concrete Class 25 MPa: in:				
J	Raft Foundation	CM	511		
K	Ground Beams	CM	14		
L	100mm thick surface bed	SM	532		
M	Steps	CM	1		
	In- situ vibrated reinforced concrete Class 30 MPa: in:				
N	Columns	CM	22		
O	200mm thick Lift pit shaft wall	SM	31		
	Carried to collection				

Item	Description	Unit	QTY	Rate	Amount
	Ribbed reinforcement steel bars to KS 573:2014 : Grade 500 high tensile strengthincluding bends, hooks, tying wire and distance blocks; to S.E's detail (Provisional)				
A	Assorted reinforcement	KGS	24582		
	Mesh fabric reinforcement to K/EAS 412;2 (2019) BRC A142;200 x 200mm, weighing 2.22kg/m² (measured net - no allowance) for laps; in two layers - top & bottom; including bends, tying wire and spacer blocks)				
B	In ground floor slab	SM	532		
	Modular steel frame with steel plates covering formwork and/or marine board formwork: to:				
C	Sides of raft foundation	SM	117		
D	Sides of ground beams	SM	139		
E	Vertical sides to columns	SM	261		
F	Vertical sides to lift shaft walls	SM	61		
G	Edge of slab not exceeding 150mm girth	LM	142		
H	Edges of risers 75 - 150mm high	LM	12		
	Foundation Walling				
	Natural quarry stone walling with a minimum of 7.0 N/mm2 bedded and jointed in cement and sand (1:4) mortar, reinforced with and including 25 x 3 mm thick hoop iron strips at every alternate course as described in;				
I	200mm thick walls in foundations	SM	661		
	Pavings				
J	Supply and lay 600 x 600 x 50mm reinforced concrete precast paving slabs around the building including laying, spreading and compacting 100mm thick approved sand bed blinding, on and including 150mm thick compacted hardcore to Engineer's approval.	SM	85		
	Plinth				
	25mm Thick cement and sand (1:3) rendering on concrete or masonry ; wood float finished; to				
K	Plinths externally	SM	64		
	Two coats black bitumastic paint on:				
L	Rendered surfaces	SM	64		
	Cement/sand (1:3) screed with approved waterproofing admixture, steel trowelled hard and smooth to receive waterproofing (m/s)				
M	20mm thick water proof cement/sand (1:3) screed to lift pit floor prepared to receive water proofing	SM	7		
N	12mm thick water proof cement/sand (1:3) render to wall prepared to receive water proofing	SM	32		
	Carried to collection				

Item	Description	Unit	QTY	Rate	Amount
	Waterproofing				
	CRYSTALLINE WATERPROOFING				
	All areas indicated shall be waterproofed by approved cementious system , provide 10 year guarantee, all to manufacturer's specifications and instructions as described:				
	Two coat slurry application: waterproofing powder: 1kg per m2 per coat, minimum 2 coats to seal all expansion joints, holes, repaired areas and angle fillet or as per manufacturers instructions				
	Application of render coat: waterproofing powder: 1kg per m2 at 4.5mm thick on slabs. Rate shall allow for hacking and preparing all concrete surfaces or as per manufacturers instructions				
A	Horizontal surfaces of lift base	SM	7		
B	Vertical surfaces of Lift shaft walls	SM	32		
	Carried to collection				
	COLLECTION				
	Total brought forward from page no: 1				
	Total brought forward from page no: 2				
	Total brought forward from page no: 3				
	Total brought forward from above				
	ELEMENT NO. 1 **Carried to** **SUBSTRUCTURES** **Main summary**				

Item	Description	Unit	QTY	Rate	Amount
	PROPOSED SOCIAL + AFFORDABLE UNITS BLOCK (TYPE C G+9)				
	BILL NO.4 -BLOCK C				
	ELEMENT No 2 - R.C FRAME				
	Insitu concrete class 30MPa: vibrated: reinforced				
A	Columns	CM	301		
B	200mm thick Lift shaft wall	SM	417		
	Insitu concrete class 25MPa: vibrated: reinforced				
C	Beams	CM	277		
D	Upper Roof Beams	CM	3		
E	130mm thick suspended slabs	SM	3757		
F	150mm thick suspended slabs	SM	1206		
G	150mm thick Tank Slab over stairwell	SM	82		
H	150 mm thick landing	SM	103		
I	Staircases	CM	40		
J	100 mm thick reinforced concrete benches reinforced with BRC mesh A142 complete with formwork and all necessary plasterworks/screed work	SM	24		
	Ribbed reinforcement steel bars to KS 573:2014 : Grade 500 high tensile strengthincluding bends, hooks, tying wire and distance blocks; to S.E's detail (Provisional)				
K	Assorted reinforcement	Kg	147921		
	Modular steel frame with steel plates covering formwork and/or marine board formwork: to				
L	Sides of columns	SM	3597		
M	Sides and soffites of beams	SM	2674		
N	Soffits of suspended slabs	SM	5044		
O	Edges of slab over 75mm but not exceeding 150mm girth	LM	3138		
P	To sloping soffites of staircases	SM	148		
Q	Soffits of landings	SM	103		
R	Riser of steps over 150 mm but not exceeding 225 mm girth	LM	480		
S	Staircase string 300mm extreme girth and cut to profile of steps	LM	247		
T	Edges of landing over 150 but ot exceeding 225mm high	LM	80		
U	Sides of lift walls	SM	834		
V	Edges of lift shaft openings 150-225mm high	LM	114		
	ELEMENT NO. 2 **Carried to**				
	R.C FRAME **Main summary**				

Item	Description	Unit	QTY	Rate	Amount
	PROPOSED SOCIAL + AFFORDABLE UNITS BLOCK (TYPE C G+9)				
	BILL NO.4 -BLOCK C				
	ELEMENT No 3-WALLING				
	WALLING				
	External Walling				
	Machine cut quarry stone walling with a minimum of 7.0 N/mm2 average compressive strength ;bedded and jointed in cement and sand (1:4) mortar, reinforced with and including 25 x 3 mm thick hoop iron strips at every alternate course as described in;				
A	200mm thick walling Externally	SM	2967		
B	200mm thick parapet walling	SM	308		
	Internal Walling				
	Machine cut quarry stone walling with a minimum of 7.0 N/mm2 average compressive strength ;bedded and jointed in cement and sand (1:4) mortar, reinforced with and including 25 x 3 mm thick hoop iron strips at every alternate course as described in;				
C	200mm thick walling Internally	SM	2214		
D	150mm thick walling Internally	SM	2730		
E	100mm thick walling Internally	SM	238		
F	Approved hessian based damp proof course to 200mm thick walling in cement/sand mortar	LM	266		
G	Approved hessian based damp proof course to 150mm thick walling in cement/sand mortar	LM	117		
	Precast Concrete Breeze Ventilation Blocks				
H	150 x 150mm wide x 50mm thick Pre Cast Concrete flower 3D breeze ventilation blocks bedded and jointed in cement and sand (1:4) mortar	SM	196		
	COPING				
I	600 x 350 wide x 100mm thick insitu reinforced concrete class 20Mpa coping, throated and weathered and jointing to columns with cement sand 1:4 mortar	NO	79		
J	Ditto 300 x 100mm concrete coping to walls twice weathered and throated;	LM	257		
	Lintols				
K	200mm x 200mm Deep lintols in reinforced concrete class 20MPa with and including 4No T10 and T8 stirups at 200mm centres; complete with formwork	LM	591		
	ELEMENT NO. 3 **Carried to**				
	WALLING **Main summary**				

Item	Description	Unit	QTY	Rate	Amount
	PROPOSED SOCIAL + AFFORDABLE UNITS BLOCK (TYPE C G+9)				
	BILL NO.4 -BLOCK C				
	ELEMENT NO 4-WINDOWS				
	MILD STEEL WINDOWS				
	Supply, fabricate and fix the following purpose made small pane mild steel casement windows to be fabricated from approved mild steel sections (atleast 14g 2mm thick) comprising of frame and casement incorporating permanent hooded high level ventilation panels infilled with mosquito gauze : window supplied complete with and including 12mm solid square burglar proofing bars fixed at 200mm centres both ways and metal fixing lugs including building into wall and making good, and all necessary iron mongery viz hinges, fasteners, and hasp including shop priming window with red oxide primer before delivery to site:-				
	A prime cost sum of Kshs 6,000 per Sqm has been allowed for fabrication of the above specified Steel casement Windows by AHP juakali artisans as approved by the Project Manager/Architect.				
	The contractor's unit rate shall include the cost of transport, storage, fixing and all associated accesories in addition to the PC Rate.				
A	Window, overall size 1200 X 1500mm high to Architects Details (Lounge)	NO	111		
B	Ditto Size 1200 x 1500mm high (bedroom)	NO	150		
C	Ditto Size 1200 x 1200mm high (Kitchen)	NO	80		
D	Ditto Size 600 x 900mm high (WC/SH)	NO	171		
E	Ditto Size 800 x 1500mm high (Shops)	NO	5		
F	Ditto Size 600 x 1500mm high (Shops)	NO	5		
G	Ditto Size 2250 x 1500mm high (Shops)	NO	4		
H	Ditto Size 700 x 1500mm high (Shops)	NO	4		
	Glazing				
I	4mm Thick clear sheet glass panes over 0.1 but not exceeding 0.5 square meters; fixing with premium putty	SM	629		
J	Ditto; obscure	SM	97		
	Painting and Decorations				
	On Metal work				
	Prepare and apply aerosol spray painting in two finishing coats of first grade paint as per the manufacturer's printed instructions to: -				
K	General window and grille surfaces; over 300mm girth internal	SM	1453		
	Carried to Collection				

Item	Description	Unit	QTY	Rate	Amount
	Precast concrete window cill finishing fair on all exposed surfaces and hoisting and placing in position, bedding, jointing and pointing in pigmented cement and sand (1:3) mortar				
A	150 x 25mm thick Precast concrete window sill	LM	656		
	Curtain rods;				
B	1.5mm thick, 20mm thick diameter twin powdercoated mild steel rod complete accessories to approval	LM	544		
	Carried to collection				
	COLLECTION				
	Total brought forward from page no: 7				
	Total brought forward from above				
	ELEMENT NO. 4 WINDOWS **Carried to the Main summary**				

Item	Description	Unit	QTY	Rate	Amount
	PROPOSED SOCIAL + AFFORDABLE UNITS BLOCK (TYPE C G+9) **BILL NO.4 -BLOCK C** **ELEMENT NO 5-DOORS** **External Doors** **Hardwood Panelled Doors** **50mm thick approved hardwood PANEL doors with 12.5mm thick Meru oak hardwood lipping to Architect's details, specifications and approval** **A prime cost sum at the rate indicated below has been allowed for fabrication of the above specified Hardwood panelled door leaves by AHP juakali artisans as approved by the Project Manager/Architect.** **The contractor's unit rate shall include the cost of transport, storage, fixing and all associated accesories in addition to the PC Rate.**				
A	Double leaf door size 1500 x 2400mm high (PC Rate Kshs 41,000)	NO	3		
B	Single leaf Size 900 x 2400mm high (- PC Rate Kshs 25,000)	NO	105		
	Frames and frame finishes in mahogany timber:				
C	25 x 25mm quadrant beading (PC Rate Kshs 75)	LM	628		
D	25 x 50mm architrave with two labours, plugged (PC Rate Kshs 150)	LM	628		
E	150mm x 50mm frame with three labours; chamfered edges; plugged (PC Rate Kshs 1400)	LM	628		
	Internal Doors **Flush timber doors** **50 mm thick Semi Solid cored flush doors with plywood facing to receive painting (m.s) all to Architects details, specifications and approval** **A prime cost sum at the rate indicated below for fabrication of the above specified Timber Flush door leaves by AHP juakali artisans as approved by the Project Manager/Architect.** **The contractor's unit rate shall include the cost of transport, storage, fixing and all associated accesories in addition to the PC Rate.**				
F	Door size 900mm x 2400mm High comprising of 1 No Opennable leaf size 800 x 2100mm high including fixed fanlight size 900 x 300mm high in 4mm clear glass (measured separetely) (PC Rate Kshs 4,000)	NO	142		
G	Ditto 800 x 2100mm high comprising of 1No. Opennable leaf size 700 x 2100mm high (PC Rate Kshs 3,500)	NO	171		
	Carried to collection				

Item	Description	Unit	QTY	Rate	Amount
	4mm Thick clear sheet glass fixing with timber glazing beads to timber casements.				
A	In panes exceeding 0.1 sqm but not exceeding 0.5 square metres.	SM	38		
	Frames and frame finishes in cypress Timber				
B	25 x 25mm quadrant (PC Rate Kshs 75)	LM	1664		
C	25 x 50mm architrave with two labours, plugged (PC Rate Kshs 150)	LM	1664		
D	150mm x 50mm transome with three labours; chamfered edges; plugged (PC Rate Kshs 800)	LM	128		
E	150mm x 50mm frame with three labours; chamfered edges; plugged (PC Rate Kshs 800)	LM	1664		
	Mild steel casement doors.				
	Supply and fix mild steel casement doors, comprising of 25mm x 3mm thick SHS mullions and stiles, 3mm thick mild steel plate infills and 50mm x 3mm angle line framing, complete with 50 x 50 x 3 mm thick mild steel RHS frame with & including ; 4mm thick clear laminated sheet glass and glazing in putty ; building in lugs to jambs, plugging to head or cill, bedded all round in cement and sand (1:3) mortar and pointing one side in mastic, and complete with heavy duty hinges, peg stays, and oiling, easing and adjusting and fixing to concrete or masonry ; grinding all welds to smooth finish; door latch, one coat red oxide primer; all necessary approved ironmongery to Architect's details & schedule;-				
F	Double Door overall size 1500 x 2400mm high (Shops)	NO	9		
	Painting and decorating				
	Priming back of frame with an aluminium or equivalent and approved wood primer				
G	Surfaces not exceeding 100mm girth	LM	4585		
H	Surfaces over 100mm but not exceeding 200mm girth	LM	2292		
	Prepare Knot, prime, stop and apply one undercoat and two finishing coats first grade timber quality paint to wood surfaces as per the manufacturer's printed instructions				
I	General timber surfaces	SM	1688		
J	Surfaces over 200mm but not exceeding 300mm girth	LM	2292		
K	Architraves: not exceeding 100 mm girth	LM	2292		
L	Quadrant beading : not exceeding 100 mm girth	LM	2292		
	Prepare and apply three coats gloss oil paint as per the manufacturer's instructions to:-				
M	General surfaces of metal doors	SM	32		
	Carried to collection				

Item	Description	Unit	QTY	Rate	Amount
	Ironmongery				
	Supply and fix the following ironmongery to timber complete with matching screws and keys to the approval of the Architect				
I	100mm pressed steel Butt Hinges	PRS	636		
J	Stainless steel 3 Lever Mortice Door Lock with handle furniture set;(keyhole escutcheons, cylinder and latch)	NO	108		
K	Ditto: but 2 Lever Door Lock with handle	NO	313		
L	Door fixing cramps	NO	421		
M	200 x 75 x 3mm perspex door signage with door numbers as per Architect detail	NO	106		
N	Block sign with block type, name and number Iin exterior quality paint as per Architect detail	NO	1		
	Supply and fix the following purpose-made signage in printed vinyl panels in approved background and text colours in accordance to the architects later signage design fixed to finished surfaces in the approved adhesive and matching screws as applicable to;				
O	200 x 50mm Main door signage	NO	106		
P	150x450mm Floor Level Indicator Sign	NO	20		
Q	500x100 Floor Wayfinding/Directional Sign	NO	20		
R	200x200mm Duct door Signage	NO	130		
S	450x200 mm Fire Exit Signage	NO	20		
T	1000x300 mm Block Identification Signage	NO	1		
	Carried to Collection				
	COLLECTION				
	Total brought forward from page no: 9				
	Total brought forward from page no: 10				
	Total brought forward from above				
	ELEMENT NO. 5 **Carried to**				
	DOORS **Main summary**				

Item	Description	Unit	QTY	Rate	Amount
	PROPOSED SOCIAL + AFFORDABLE UNITS BLOCK (TYPE C G+9) **BILL NO.4 -BLOCK C** **ELEMENT NO 6 - EXTERNAL FINISHES** **EXTERNAL WALL FINISHES** **External Render** *Cement and sand (1:3) render:wood floated: on concrete or blockwork: to*				
A	15mm thick to beams, Columns, Slab Moulds and walling externally	SM	5569		
B	Extra over horizontal and vertical pointing in 10mm thick rod in cement and sand mix (1:3) mortar including one coat Bituminous paint	SM	10		
	External Painting *Prepare and apply one coat Alkali Resistant primer followed by two finishing coats of silicon exterior Emulsion paint in accordance with the manufacturers written instructions and to the satisfaction of the architect to*				
C	Concrete/masonry surfaces externally-Beam, Column and Slab Moulds	SM	5569		
	ROOF FINISHES **Cement and sand (1:3) screeded beds: on concrete: complete with coloured pigmentation additives and hardener to:**				
D	50mm average waterproofed lightweight screed laid to falls and crossfalls to roof slabs -upper roof including gutter bases *Prepare and apply to vertical/horizontal surfaces 4mm thick APP/EPDM water proofing or other equal and approved membrane with surface finish weighing 4kg/sm; laid on primer with torch-on process ;by an approved specialist all in accordance with the manufacturers instructions including provision of a written ten (10) year anti leak guarantee.*	SM	621		
E	4mm thick APP membrane applied to roof slabs	SM	621		
F	Ditto to skirting 200mm high	LM	374		
G	Dress membrane around 100mm rainwater outlet	No.	12		
	The Following Flat roof concrete tiles fixed with approved adhesive, laid and jointed with waterproofing bituminous compound				
H	20mm thick interlocking Concrete tiles of size 225 x 225mm with and including cement sand (1:4) backing to falls	SM	582		
	ELEMENT NO. 6 Carried to **EXTERNAL FINISHES Main summary**				

Item	Description	Unit	QTY	Rate	Amount
	PROPOSED SOCIAL + AFFORDABLE UNITS BLOCK (TYPE C G+9)				
	BILL NO.4 -BLOCK C				
	ELEMENT NO 7 - INTERNAL FINISHES				
	Internal Wall Finishes				
	Cement and sand (1:3) backings				
A	15mm thick to receive Ceramic Wall tiles	SM	2757		
B	To receive porcelain wall tiles (m.s.) (Lift Lobby)	SM	172		
	Ceramic wall tiles				
	Allow a Prime Cost supply/Purchase only rate of Ksh. 1000 per SM (In addition to the cost of purchase above, the contractor's rate shall include cost of transportation, offloading, storage, fixing including all necessary adhesives, grouting and accessories				
C	Supply and Fix approved ceramic wall tiles on prepared backings(m.s) with proprietary adhesive; jointed and pointed in matching coloured proprietary grouting: including pvc spacers and expansion joint as necessary: aluminium corner and dividing strips; all to Architect's approval. - Wall Surfaces	SM	2757		
	Porcelain wall tiles				
	Allow a Prime Cost supply/Purchase only rate of Ksh. 1500 per SM (In addition to the cost of purchase above, the contractor's rate shall include cost of transportation, offloading, storage, fixing including all necessary adhesives, grouting and accessories				
D	Supply and Fix porcelain wall tiles on prepared backings(m.s) with proprietary adhesive; jointed and pointed in matching coloured proprietary grouting: including pvc spacers and expansion joint as necessary: aluminium corner and dividing strips; all to Architect's approval. - Wall Surfaces	SM	172		
	15mm (minimum) two coat cement, sand (1:3) plaster complete with wire gauze anti-crack mechanism at the intersection of masonry walling and concrete beams as described to:-				
E	Concrete/masonry surfaces	SM	11987		
	Painting and Decoration				
	Prepare, Skim and apply Emulsion or universal undercoat followed by two finishing coats of soft satin Emulsion paint in accordance with the manufacturers written instructions and to the satisfaction of the architect				
F	Plastered concrete/masonry surfaces internally	SM	11987		
	Carried to Collection				

Item	Description	Unit	QTY	Rate	Amount
	Floor Finishes				
	Cement and sand (1:3) screeds, backings, beds etc				
A	32mm bed finished to receive floor Tiles (m.s)	SM	3434		
B	32mm Thick coloured cement sand screed mix 1:3 finished with red oxide to approval	SM	1036		
	Cement and sand (1:3) backings etc				
C	32mm bed finished to receive ceramic tiles to surfaces of Landings (m.s)	SM	103		
D	25 x 300 mm wide treads to receive ceramic tiles (m.s)	LM	432		
E	20 x 150mm risers to receive ceramic tiles (m.s)	LM	480		
	Ceramic Floor tiles				
	Allow a Prime Cost supply/ Purchase only rate of Ksh. 1000 per SM (In addition to the cost of purchase above, the contractor's rate shall include cost of transportation, offloading, storage, fixing including all necessary adhesives, grouting and accessories				
F	Supply and Fix Ceramic tiles, on prepared bed(m.s) with proprietary adhesive; jointed and pointed in matching coloured proprietary grouting: including pvc spacers and expansion joint as necessary: aluminium corner and dividing strips; all to Architect's approval.	SM	2311		
G	Ditto Non Slip Ceramic Tiles	SM	1122		
H	Ditto 100mm wide Wall Skirtings	LM	3996		
I	Non Slip Ceramic Tiles to surfaces of Landings	SM	103		
J	Non Slip Ceramic Tiles to 300 mm wide treads	LM	432		
K	Non Slip Ceramic Tiles to 150mm risers	LM	480		
	Wet areas waterproofing - Kitchens, Toilets etc.				
L	Liquid membrane - High build bitumen/ rubber latex emulsion with excellent adhesion, liquid applied to form a seamless flexible water proof/ vapour proof membrane as **as per the manufacturer's printed instructions to**; solid content =65%, Rubber Content=10% in dried film)				
M	To floors and walls	m^2	1567		
	Staircase soffit finishes				
	15mm (minimum) two coat cement, sand (1:3) plaster complete with wire gauze anti-crack mechanism at the intersection of masonry walling and concrete beams as described to:-				
N	Soffits of staircase landing	SM	103		
O	Ditto to sloping soffites exceeding 15˚ from horizontal	SM	148		
P	Staircase string 300mm extreme girth and cut to profile of steps	LM	247		
	Paint works				
	Prepare, skim and apply Emulsion or universal undercoat followed by two finishing coats of soft satin Emulsion paint in accordance with the manufacturers written instructions and to the satisfaction of the architect to				
Q	Soffits of staircase landing	SM	103		
R	Ditto to sloping soffites exceeding 15˚ from horizontal	SM	148		
S	Staircase string 300mm extreme girth and cut to profile of steps	LM	247		
	Carried to Collection				

Item	Description	Unit	QTY	Rate	Amount
	Ceiling finishes				
	15mm (minimum) two coat cement, sand (1:3) plaster complete with wire gauze anti-crack mechanism at the intersection of masonry walling and concrete beams as described to:-				
A	Soffits of Concrete surfaces	SM	5044		
	Painting and Decoration				
	Prepare, skim and apply Emulsion or universal undercoat followed by two finishing coats of soft satin Emulsion paint in accordance with the manufacturers written instructions and to the satisfaction of the architect				
B	Plastered ceilings	SM	5044		
	Carried to Collection				

Item	Description	Unit	QTY	Rate	Amount
	COLLECTION Total brought forward from page no: 12 Total brought forward from page no: 13 Total brought forward from page no: 14				
	ELEMENT NO. 7 **Carried to** **INTERNAL FINISHES Main summary**				

Item	Description	Unit	QTY	Rate	Amount
	PROPOSED SOCIAL + AFFORDABLE UNITS BLOCK (TYPE C G+9) **BILL NO.4 -BLOCK C** **ELEMENT NO 8- BALUSTRADING AND RAILING** *Balustrades and staircase railings*				
A	900mm high mild Steel balustrade; comprising 60 x 10mm mild Steel balusters at 900mm centres; bolted to base plate and tread (m.s), with 7No. 25mm diameter horinzontal bars, and 75x4mm diameter CHS mild Steel handrail part welded into 60x10mm balustrades; to Architects drawings	LM	159		
B	50mm diameter x 3mm CHS handrail supported by 50 x 50 x 3mm thick SHS balusters anchored to slab with and including w/steel bolts and plates at 1800mm centres smooth welded 100mm high (Staircase)	LM	90		
	Prepare, prime and apply one undercoat and two finishing coats first quality gloss oil paint on				
C	General metal surfaces of balustrading (both sides measured overall)	SM	400		
	ELEMENT NO. 8 BALUSTRADE AND RAILING **Carried to the Main summary**				

Item	Description	Unit	QTY	Rate	Amount
	PROPOSED SOCIAL + AFFORDABLE UNITS BLOCK (TYPE C G+9) **BILL NO.4 -BLOCK C** **ELEMENT NO 9 - JOINERY FITTINGS** Allow for providing materials, labour and construct fixtures and fittings as per Architects drawings of the following JOINERY FITTINGS AND FIXTURES complete with associated iron mongery; NOTE: All blockboard, MDF boards,etc in joinery works shall be lipped with hardwood lipping all round before fixing. High level cupboards 400mm Wide high level kitchen cupboards in 18mm laminated mdf sides & shelves complete with doors, top, bottom & divisions with and including all necessary ironmongery; to Architect's details				
A	High level storage cupboard units 600mm high x 400mm deep	LM	230		
	Low level kitchen cupboards Low level kitchen worktops with 600x600x10mm porcelain tiles top on 100mm thick reinforced concrete slab with A142 BRC mesh, formwork to soffits and slab edges, plater to soffits of slab, screed to top slab, 100mm thick plastered steeper walls, including 300x300x6mm thick ceramic wall tiles on both sides of the wall: 100mm plastered mass concrete plinths in concrete class 15MPa: 18mm laminated mdf sides & shelves complete with doors, shelves, drawers, cutting tiles for kitchen sink (m.s) & all necessary ironmongery; to Architect's details and approval				
B	Low level kitchen cupboards 850mm high x 600mm deep	LM	230		
	Bedroom Wardrobes 600mm Wide x 2200mm high wardrobes in 18mm laminated mdf sides, divisions, drawers, shelves ; ; complete with sliding/ side hung doors, shelves, divisions, shoe racks, hanging rails, drawers, & all necessary ironmongery; 100mm plastered mass concrete plinths in concrete class 15MPa ; to Architect's details				
C	Bedroom wardrobes size 2200mm high x 600mm deep in bedrooms	LM	217		
	Duct doors 50mm thick laminated MDF duct doors; complete with frames, ironmongery and all necessary paintwork				
D	Duct doors size 300mm wide x 2100mm high	NO.	10		
E	Duct doors size 350mm wide x 2100mm high	NO.	10		
F	Duct doors size 600mm wide x 2100mm high	NO.	50		
G	Duct doors size 500mm wide x 2100mm high	NO.	20		
H	Duct doors size 700mm wide x 2100mm high	NO.	20		
I	Duct doors size 800mm wide x 2100mm high	NO.	20		
	ELEMENT NO. 9 JOINERY & FITTINGS **Carried to the Main summary**				

Item	Description	Unit	QTY	Rate	Amount
	PROPOSED SOCIAL + AFFORDABLE UNITS BLOCK (TYPE C G+9)				
	ELEMENT NO 10 - BUILDERS WORKS IN CONNECTION WITH SERVICES (BWICWS)				
	Plumbing, Drainage and Mechanical Installations				
A	Inspect all drawings and Bills of Quantities for Plumbing, Drainage and Mechanical Installations and allow for all Builder's work associated with the installations; including cutting away and making good after installing a concealed drainage system; including cutting or leaving all holes notches, mortices, sinkings and chases in both the structure and its coverings; including but not limited to forming recess in masonry	Item			
	Electrical Services Installations				
B	Inspect all drawings and Bills of Quantities for Electrical Installations and allow for all Builder's work associated with the Electrical installations, including cutting away for and making good after Electrician installing a concealed conduit system including cutting or leaving all holes notches, mortices, sinkings and chases in both the structure and its coverings; including but not limited to forming recess in masonry	Item			
	ELEMENT NO. 10 Carried to the BUILDERS WORKS IN CONNECTION WITH SERVICES (BWICWS) Main summary				

Item	Description	Unit	QTY	Rate	Amount
	PROPOSED SOCIAL + AFFORDABLE UNITS BLOCK (TYPE C G+9)				
	BILL NO.4 -BLOCK C				
	MAIN SUMMARY		**Page No.**		
1	**Substructures**		**A/4**		
2	**Reinforced Concrete Frame**		**A/5**		
3	**Walling**		**A/6**		
4	**Windows**		**A/8**		
5	**Doors**		**A/10**		
6	**External Finishes**		**A/11**		
7	**Internal Finishes**		**A/15**		
8	**Balustrade and Railing**		**A/16**		
9	**Joinery and Fittings**		**A/17**		
10	**Builders works in connection with services**		**A/18**		
	TOTAL FOR 1NO. TYPE C (G+9) BLOCK				
	NO. OF BLOCKS				
	MULTIPLY BY **1.NO** OF BLOCKS	**X 1**			
	TOTAL FOR 1NO. TYPE C (G+9) BLOCK(S) CARRIED TO GRAND SUMMARY				

GARBAGE RECEPTACLE

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	PROPOSED APARTMENTS FOR AFFORDABLE HOUSING PROGRAM (GARBAGE RECEPTACLE)				
	BILL NO.11-GARBAGE RECEPTACLE				
	ELEMENT NO 1 - SUBSTRUCTURES (ALL PROVISIONAL)				
	Site Clearance				
A	Clear site of all grass, hedges, shrubs, bushes grub up roots, load and remove from site and dispose at designated local authority areas.	SM	103		
B	Excavate average 200mm deep to remove top vegetable soil, load, remove from site and dump in designated local authority dump site.	SM	99		
C	Excavate to reduced levels in varying depths not exceeding 1.5m deep from existing ground levels.	CM	79		
D	Excavate for Strip foundations depth not exceeding 1.50 metres starting from Reduced ground levels.	CM	33		
E	Excavate for column bases depth not exceeding 1.50 metres starting from Reduced ground levels.	CM	10		
	Carried to collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	Disposal of excavated material				
A	Return, fill and ram selected excavated material around foundations.	CM	84		
B	Load,wheel and cart away surplus excavated material to a Local Authority designated dumping site or fill soil heaps as away from site instructed by the Project Engineer.	CM	39		
	Fillings				
C	Make up levels using approved imported materials: compacted in layers not exceeding 300mm thick with a roller: to the satisfaction of the Structural Engineer.	CM	71		
D	300mm thick hardcore bed: hand packed : compacted in layers not exceeding 150mm thick: to the satisfaction of the Structural Engineer	SM	89		
E	50 mm Thick Murram Blinding to surfaces of hadcore	SM	89		
	Anti - termite to treatment				
F	Approved anti-termite treatment, with ten-year guarantee, sprayed to surfaces of hardcore strictly in accordance with manufacturer's instructions.	SM	103		
	Damp-proof membrane				
G	1000 gauge polythene or other equal and approved damp-proof membrane, laid over blinded hardcore (measured separately) with 300mm side and end laps (measured nett-allow for laps); 1 No. layer: bedded in and including cement and sand (1:3) mortar	SM	103		
	Concrete Blinding				
	Insitu concrete class 15/20 mm aggregates: vibrated:				
H	50 mm Thick under strip foundation	SM	37		
I	50 mm Thick under column bases	SM	13		
	In- situ vibrated reinforced concrete Class 25 (20mm aggregates): in:				
J	Strip foundation	CM	7		
K	100mm thick surface bed	SM	103		
L	Column bases	CM	5		
	Carried to collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	Ribbed reinforcement steel bars to BS4449: 2005: Grade 500 high tensile strengthincluding bends, hooks, tying wire and distance blocks; to S.E's detail (Provisional)				
A	Assorted reinforcement	Kg	491		
	Mesh fabric reinforcement to BS 4483 BRC A142;200 x 200mm, weighing 2.22kg/m² (measured net - no allowance) for laps; in two layers - top & bottom; including bends, tying wire and spacer blocks)				
B	In floor beds	SM	103		
	Modular steel frame with 5mm thick steel plates covering formwork and/or marine board formwork: to:				
C	Sides of Strip footing	SM	24		
D	Sides of column bases	SM	21		
E	Edge of slab not exceeding 150mm girth	LM	41		
	Foundation Walling				
	Natural quarry stones rough dressed; bedded in and including cement and sand (1:4) mortar; reinforced with and including 45 mm wide hoop iron gauge in alternate courses: in:				
F	200mm thick walls in foundations	SM	103		
	Plinth				
	25mm Thick cement and sand (1:4) rendering on concrete or masonry ; wood float finished; to				
G	Plinths externally	SM	12		
	Two coats black bitumastic paint on:				
H	Rendered surfaces	SM	12		
	Carried to collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	COLLECTION				
	Total brought forward from page no: 1				
	Total brought forward from page no: 2				
	Total brought forward from page no: 3				
	ELEMENT NO. 1 **Carried to**				
	SUBSTRUCTURES **Main summary**				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BILL NO.11-GARBAGE RECEPTACLE				
	ELEMENT No 2 - R.C FRAME				
	Reinforcement to BS 4449:1997 , Grade 460B high strength type 2 ribbed bars with proof stress of 460 N/mm2				
	Insitu concrete class 25 (20 mm aggregate): vibrated: reinforced				
A	Columns	CM	1		
B	Ring beam	CM	4		
C	150mm thick Ramp	SM	4		
D	Steps	CM	1		
	Ribbed reinforcement steel bars to BS4449: 2005:Grade 500 high tensile strength including bends, hooks, tying wire and distance blocks to S.E's detail (All provisional)				
E	Assorted reinforcement	Kg	890		
	Modular steel frame with 5mm thick steel plates covering formwork and/or marine board formwork: to				
F	Sides and soffites of beams	Sm	57		
G	Sides of columns	Sm	25		
H	Edges of steps not exceeding 150mm girth	Lm	3		
	ELEMENT NO. 2 **Carried to**				
	R.C FRAME **Main summary**				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	PROPOSED APARTMENTS FOR AFFORDABLE HOUSING PROGRAM (GARBAGE RECEPTACLE) **BILL NO.1-BUILDERS WORKS**				
	PROPOSED APARTMENTS FOR AFFORDABLE HOUSING PROGRAM (GARBAGE RECEPTACLE) **BILL NO.1-BUILDERS WORKS**				
	ELEMENT No 3-WALLING **WALLING** **External Walling** *Machine cut quarry stone walling with a minimum of 7.0 N/mm2 average compressive strength to B.S 5390;bedded and jointed in cement and sand (1:4) mortar, reinforced with and including 25 x 3 mm thick hoop iron strips at every alternate course as described in;*				
A	200mm thick walling Externally	Sm	119		
B	200mm thick walling Internally	Sm	24		
C	Approved hessian based damp proof course to 200mm thick walling in cement/sand mortar	Lm	69		
	ELEMENT NO. 2 **Carried to** **WALLING** **Main summary**				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BILL NO.1-BUILDERS WORKS				
	ELEMENT No 4 - ROOFING				
	ROOF STRUCTURE, COVERING & RAINWATER GOODS				
	The following in nailed sawn celcured cypress roof trusses 3800mm clear span 1200mm high including hoisting approximately 3000mm above the ground				
	Sawn celcured second grade cypress in:				
A	150x50mm wall plate complete with J-bolts	Lm	65		
B	150x50mm rafters	Lm	61		
C	100x50mm common rafters	Lm	50		
D	150x50mm tie beam/ceiling joist	Lm	59		
	100x50mm purlins	Lm	174		
E	100x50mm ties and struts	Lm	66		
	Roof covering **28** gauge **IT5 Roofing sheets**; laid on timber structure and including fixing clips and brackets and fixing to timber rafters at 600mm centres(m/s)				
F	Sheet covering to pitched roof	Sm	97		
	Wrot softwood Fascia board				
G	250mm x 25mm Fascia/ barge boards nailed to end of rafters	Lm	25		
	Painting Wood				
	Knot, prime, stop and paint three coats of gloss oil paint as as per manufacturer's instructions				
H	Fascia or verge; girth 225mm - 300mm	Lm	25		
	Flashing				
I	600mm girth mild steel flushing twice bent and fixed in approved means	Lm	40		
	Rain water goods				
	Supply and fix the following in UPVC: to BS 4515 with fittings fixed to manufacturer's instruction and BS 5572: manufactured by "Doshi Kenya Ltd" or other equal and approved: tenderer must allow in the pipework for pipe fixing clips or holderbats, plugged and screwed				
J	110mm Diameter ***down pipe:*** Grey uPVC with and including swan neck offset and shoes: holder bats at 1500mm centres: including water-tight connections to mild steel gutters	Lm	18		
K	Extra over ditto for swan neck	no	6		
L	Ditto horse shoe	no	6		
	Heavy duty UPVC ***gutter***				
M	150mm diameter half round gutter fixed to fascia board with and including mild steel brackets at 600 centers	Lm	25		
N	Extra over rainwater gutter for 100mm diameter downpipe outlet	no	6		
O	Ditto stopped end	no	6		
P	Ditto bend	no	6		
	ELEMENT NO. 4 **Carried to** **ROOFING** **Main summary**				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	ELEMENT NO 5 - DOORS AND OPENINGS				
	Steel Casement Door				
	Supply, fabricate and fix the following purpose made heavy gauge double steel casement door comprising 40 x 25 x3mm stiles, top and bottom stiles, 4 No Intermediate rails, 1.5mm steel sheet both sideswelded in place and 5mm thick clear glazing, all primed with red oxide spray painted with two finishing coats of first quality gloss oil paint on ; complete with all necessary ironmongery fasteners and necessary seremetals assembled and fixed to opening including cutting and pinning lugs to concrete or block work sorround and bedding frame in cement and sand mortar (1:3).				
A	Door size 1200 x 2100mm high	NO	4		
B	Door size 1600 x 2100mm high	NO	2		
C	Approved gauge 22 mild steel mesh in 16mm diameter roind bars	SM	12		
	Painting and Decorations				
	On Metal work				
	Prepare and apply aerosol spray painting in two finishing coats of first grade paint as per manufacturer's instructions				
D	General window and grille surfaces; over 300mm girth internal	SM	59		
	ELEMENT NO. 5 Carried to				
	DOORS Main summary				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	ELEMENT NO 6 - EXTERNAL FINISHES				
	EXTERNAL WALL FINISHES				
A	Extra over horizontal and vertical pointing in 10mm thick rod in cement and sand mix (1:3) mortar including one coat Bituminous paint	SM	119		
	COPING				
B	300 wide x 50mm thick concrete, coping, throated and weathered, bedding and jointing to walls with cement sand 1:4 mortar	LM	40		
	ELEMENT NO. 6 **Carried to**				
	EXTERNAL FINISHES **Main summary**				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	ELEMENT NO 7 - INTERNAL FINISHES				
	Internal Wall Finishes				
	Cement and sand (1:4) backing				
A	15mm thick internal walls	SM	166		
	Floor Finishes				
	Cement and sand (1:3) screeds, backings, beds etc				
B	32mm Thick coloured cement sand screed mix 1:3 finished to approval	SM	91		
	ELEMENT NO. 7 Carried to INTERNAL FINISHES				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	ELEMENT NO 8 - BUILDERS WORKS IN CONNECTION WITH SERVICES (BWICWS)				
	Plumbing, Drainage and Mechanical Installations				
A	Inspect all drawings and Bills of Quantities for Plumbing, Drainage and Mechanical Installations and allow for all Builder's work associated with the installations; including cutting away and making good after installing a concealed drainage system; including cutting or leaving all holes notches, mortices, sinkings and chases in both the structure and its coverings; including but not limited to forming recess in masonry	Item			
	Electrical Services Installations				
B	Inspect all drawings and Bills of Quantities for Electrical Installations and allow for all Builder's work associated with the Electrical installations, including cutting away for and making good after Electrician installing a concealed conduit system including cutting or leaving all holes notches, mortices, sinkings and chases in both the structure and its coverings; including but not limited to forming recess in masonry	Item			
	ELEMENT NO. 8 Carried to the BUILDERS WORKS IN CONNECTION WITH SERVICES (BWICWS) Main summary				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	PROPOSED APARTMENTS FOR AFFORDABLE HOUSING PROGRAM (GARBAGE RECEPTACLE)				
	MAIN SUMMARY		**PAGE**		**AMOUNT (KSHS)**
1	**Substructures**		GR/4		
2	**Walling**		GR/5		
3	**RC Frame**		GR/6		
4	**Roofing**		GR/7		
5	**Doors**		GR/8		
6	**External Finishes**		GR/9		
7	**Internal Finishes**		GR/10		
8	**Builders works in connection with services**		GR/11		
	TOTAL FOR 1NO. GARBAGE RECEPTACLE				
	NO. OF RECEPTACLE				**1**
	TOTAL FOR 1NO. GARABAGE RECEPTACLES CARRIED TO GRAND SUMMARY				

GUARD HOUSE

Item	Description	Unit	QTY	RATE	AMOUNT
	PROPOSED APARTMENTS FOR AFFORDABLE HOUSING PROGRAM (GUARD HOUSE)				
	BILL NO.10-GUARD HOUSE				
	ELEMENT NO 1 - SUBSTRUCTURES (ALL PROVISIONAL)				
	Site Clearance				
A	Clear site of all grass, hedges, shrubs, bushes grub up roots, load and remove from site and dispose at designated local authority areas.	SM	14		
B	Bulk excavation to reduce levels depth not exceeding 1.5m commencing from existing ground level	CM	22		
C	Excavate for column bases depth not exceeding 1.50 metres starting from Reduced ground levels.	CM	3		
D	Excavate for Strip foundations depth not exceeding 1.50 metres starting from Reduced ground levels.	CM	4		
E	Extra over excavation for excavating in all classes of rock	CM	1		
	Disposal of water				
F	Allow for keeping all excavation free from water by pumping, bailing or by other means necessary	Item			
	Planking and Strutting				
G	Allow provision and subsequent removal of planking and strutting to uphold and maintain all faces of excavations	Item			
	Carried to collection				

Item	Description	Unit	QTY	RATE	AMOUNT
	Disposal of excavated material				
A	Return, fill and ram selected excavated material around foundations.	CM	24		
B	Load,wheel and cart away surplus excavated material to a Local Authority designated dumping site or fill soil heaps as away from site instructed by the Project Engineer.	CM	5		
	Fillings				
C	Make up levels using approved imported materials: compacted in layers not exceeding 300mm thick with a roller: to the satisfaction of the Structural Engineer.	CM	32		
D	300mm thick hardcore bed: hand packed : compacted in layers not exceeding 150mm thick: to the satisfaction of the Structural Engineer	SM	10		
E	50 mm Thick Murram Blinding to surfaces of hadcore	SM	10		
	Anti - termite to treatment				
F	Approved anti-termite treatment, with ten-year guarantee, sprayed to surfaces of hardcore strictly in accordance with manufacturer's instructions.	SM	14		
	Damp-proof membrane				
G	1000 gauge polythene or other equal and approved damp-proof membrane, laid over blinded hardcore (measured separately) with 300mm side and end laps (measured nett-allow for laps); 1 No. layer: bedded in and including cement and sand (1:3) mortar	SM	14		
	Concrete Blinding				
	Insitu concrete class 15/20 mm aggregates: vibrated:				
H	50 mm thick blinding under footings	SM	8.00		
I	50 mm thick blinding under bases	SM	6		
	In- situ vibrated reinforced concrete Class 25 (20mm aggregates): in:				
J	Strip footing	CM	2		
K	100mm thick surface bed	SM	14		
	Carried to collection				

Item	Description	Unit	QTY	RATE	AMOUNT
	In- situ vibrated reinforced concrete Class 25 (20mm aggregates): in:				
A	Column Bases	CM	2		
B	Sub columns	CM	1		
	Ribbed reinforcement steel bars to KS 573:2014 : Grade 500 high tensile strengthincluding bends, hooks, tying wire and distance blocks; to S.E's detail (Provisional)				
C	Assorted reinforcement	Kg	443		
	Mesh fabric reinforcement to K/EAS 412;2 (2019) BRC A142;200 x 200mm, weighing 2.22kg/m² (measured net - no allowance) for laps; in two layers - top & bottom; including bends, tying wire and spacer blocks)				
D	In surface bed	SM	14		
	Modular steel frame with 5mm thick steel plates covering formwork and/or marine board formwork: to:				
E	Sides of Column Bases	SM	7		
F	Sides of sub columns	SM	14		
G	Sides of strip footing	SM	5		
H	Edge of slab not exceeding 150mm girth	LM	15		
	Foundation Walling				
	Natural quarry stones rough dressed; bedded in and including cement and sand (1:4) mortar; reinforced with and including 45 mm wide hoop iron gauge in alternate courses: in:				
I	200mm thick walls in foundations	SM	36		
	Plinth				
	25mm Thick cement and sand (1:4) rendering on concrete or masonry ; wood float finished; to				
J	Plinths externally	SM	5		
	Two coats black bitumastic paint on:				
K	Rendered surfaces	SM	5		
	Carried to collection				

Item	Description	Unit	QTY	RATE	AMOUNT
	COLLECTION				
	Total brought forward from Page No:1				
	Total brought forward from Page No:2				
	Total brought forward from Page No:3				
	ELEMENT NO. 1 Carried to **SUBSTRUCTURES Main summary**				

Item	Description	Unit	QTY	RATE	AMOUNT
	PROPOSED APARTMENTS FOR AFFORDABLE HOUSING PROGRAM (GUARD HOUSE)				
	BILL NO.1-BUILDERS WORKS				
	ELEMENT No 2 - R.C FRAME				
	Insitu concrete class 25 (20 mm aggregate): vibrated: reinforced				
A	Columns	CM	2		
B	Beams	CM	1		
C	150mm thick roof slab	SM	14		
D	100 mm thick reinforced concrete benches reinforced with BRC mesh A142 complete with formwork and all necessary plasterworks/screed work	SM	3		
	Ribbed reinforcement steel bars to KS 573:2014 : Grade 500 high tensile strengthincluding bends, hooks, tying wire and distance blocks; to S.E's detail (Provisional)				
E	Assorted reinforcement	KGS	702		
	Modular steel frame with 5mm thick steel plates covering formwork and/or marine board formwork: to				
F	Sides and soffites of beams	SM	12		
G	Vertical sides of columns	SM	27		
H	Edges of slab over 150mm but not exceeding 225mm girth	LM	15		
	ELEMENT NO. 2 R.C FRAME **Carried to Main summary**				

Item	Description	Unit	QTY	RATE	AMOUNT
	PROPOSED APARTMENTS FOR AFFORDABLE HOUSING PROGRAM (GUARD HOUSE)				
	BILL NO.1-BUILDERS WORKS				
	ELEMENT No 3-WALLING				
	WALLING				
	External Walling				
	Machine cut quarry stone walling with a minimum of 7.0 N/mm2 average compressive strength to B.S 5390;bedded and jointed in cement and sand (1:4) mortar, reinforced with and including 25 x 3 mm thick hoop iron strips at every alternate course as described in;				
A	200mm thick walling	Sm	29		
B	200mmm parapet walling	Sm	29		
	Machine cut quarry stone walling with a minimum of 7.0 N/mm2 average compressive strength to B.S 5390;bedded and jointed in cement and sand (1:4) mortar, reinforced with and including 25 x 3 mm thick hoop iron strips at every alternate course as described in;				
C	200mm thick walling Internally	Sm	5		
D	Approved hessian based damp proof course to 200mm thick walling in cement/sand mortar	Lm	13		
	COPING				
E	Ditto 200 x 50mm concrete coping to walls twice weathered and throated;	LM	11		
	Lintols				
F	200mm x 200mm Deep lintols in reinforced concrete class 20MPa with and including 4No T10 and T8 stirups at 200mm centres; complete with formwork	LM	3		
	ELEMENT NO. 3 WALLING **Carried to Main summary**				

Item	Description	Unit	QTY	RATE	AMOUNT
	PROPOSED APARTMENTS FOR AFFORDABLE HOUSING PROGRAM (GUARD HOUSE)				
	BILL NO.1-BUILDERS WORKS				
	ELEMENT NO 4-WINDOWS				
	MILD STEEL WINDOWS				
	Supply, fabricate and fix the following purpose made mild steel casement windows to be fabricated from approved mild steel sections (atleast 14g 2mm thick) comprising of frame and casement incorporating permanent hooded high level ventilation panels infilled with mosquito gauze : window supplied complete with and including 12mm solid square burglar proofing bars fixed at 200mm centres both ways and metal fixing lugs including building into wall and making good, and all necessary iron mongery viz hinges, fasteners, and hasp including shop priming window with red oxide primer before delivery to site:- **A prime cost sum of Kshs 6,000 per Sqm has been allowed for fabrication of the above specified Steel casement Windows by AHP juakali artisans as approved by the Project Manager/Architect.** **The contractor's unit rate shall include the cost of transport, storage, fixing and all associated accesories in addition to the PC Rate.**				
A	Window, overall size 1200 X 1500mm high to Architects Details (Guard Room)	NO	1		
B	Window, overall size 900 X 1500mm high to Architects Details (Guard Room)	NO	1		
C	Ditto Size 600 x 600mm high (WC/SH)	NO	2		
	Glazing				
D	4mm Thick clear sheet glass panes over 0.1 but not exceeding 0.5 square meters; fixing with putty	SM	3		
E	Ditto; obscure	SM	1		
	Painting and Decorations				
	On Metal work				
	Prepare and apply aerosol spray painting in two finishing coats of first grade approved paint as described in				
F	General window and grille surfaces; over 300mm girth internal	SM	8		
	Carried to Collection				

Item	Description	Unit	QTY	RATE	AMOUNT
	Bull-nosed precast concrete, finishing fair on all exposed surfaces and hoisting and placing in position, bedding, jointing and pointing in pigmented cement and sand (1:3) mortar				
A	150 x 25mm thick precast concrete window sill	LM	4		
	Curtain rods;				
B	20mm diameter heavy duty twin brass rod complete accessories to approval	LM	3		
	Carried to collection				
	COLLECTION				
	Total brought forward from Page No:7				
	Total brought forward from Page No:8				
	ELEMENT NO. 4 WINDOWS **Carried to the Main summary**				

Item	Description	Unit	QTY	RATE	AMOUNT
	PROPOSED APARTMENTS FOR AFFORDABLE HOUSING PROGRAM (GUARD HOUSE)				
	ELEMENT NO 5-DOORS				
	Steel Casement Door				
	Heavy gauge steel casement doors size 900 x 2100mm high comprising 40 x 25 x3mm stiles, top and bottom stiles, 4 No Intermediate rails, 1.5mm steel sheet both sideswelded in place and 5mm thick clear glazing, all primed with red oxide and spray painted 2 coats eggshell gloss paint; complete with all necessary ironmongery fasteners and necessary seremetals assembled and fixed to opening including cutting and pinning lugs to concrete or block work sorroung and bedding frame in cement and sand mortar (1:3). (D.01)				
A	Door size 900x 2100 mm high (D.01)	NO	1		
	Flush timber doors				
	50 mm thick Semi Solid cored flush doors with plywood facing to receive painting (m.s) all to Architects details, specifications and approval				
B	Door size 900mm x 2100mm (D.02)	NO	1		
	Frames and frame finishes in soft wood Timber				
C	25 x 25mm quadrant	LM	5		
D	25 x 50mm architrave with two labours, plugged	LM	5		
E	150mm x 50mm frame with three labours; chamfered edges; plugged	LM	5		
	Carried to collection				

Item	Description	Unit	QTY	RATE	AMOUNT
	Priming back of frame with an aluminium or equivalent and approved wood primer				
A	Surfaces not exceeding 100mm girth	LM	10		
B	Surfaces over 100mm but not exceeding 200mm girth	LM	5		
	Prepare Knot, prime, stop and apply one undercoat and two coats first grade quality gloss oil paint to wood surfaces				
C	General timber surfaces	SM	4		
D	Surfaces over 100mm but not exceeding 200mm girth	LM	5		
E	Architraves: not exceeding 100 mm girth	LM	5		
F	Quadrant beading : not exceeding 100 mm girth	LM	5		
	Ironmongery				
	Supply and fix the following ironmongery to timber complete with matching screws and keys to the approval of the Architect				
G	100mm pressed steel Butt Hinges	Pairs	2		
H	Stainless steel 3 Lever Door Lock with handle	NO	1		
I	Stainless steel 2 Lever Door Lock with handle	NO	1		
J	Door fixing cramps	NO	1		
K	Rubber Door Stops	NO	2		
	Carried to Collection				
	COLLECTION				
	Total brought forward from Page No:9				
	Total brought forward from Page No:10				
	ELEMENT NO. 5 DOORS **Carried to Main summary**				

Item	Description	Unit	QTY	RATE	AMOUNT
	PROPOSED APARTMENTS FOR AFFORDABLE HOUSING PROGRAM (GUARD HOUSE)				
	ELEMENT NO 6 - EXTERNAL AND INTERNAL FINISHES				
	EXTERNAL WALL FINISHES				
	External Render				
	Cement and sand (1:3) render:wood floated: on concrete or blockwork: to				
A	15mm thick to beams, Columns, Slab Moulds and walling externally	SM	100		
B	Extra over horizontal and vertical pointing in 10mm thick rod in cement and sand mix (1:3) mortar including one coat Bituminous paint	SM	1		
	External Painting				
	Prepare and apply one coat undercoat and one finishing coats permaplast long lasting exterior/ weatherguard as per manufacturer's instructions to rendered surfaces as described in:-				
C	Plastered surfaces of beams, Columns, and walling externally	SM	100		
	INTERNAL FINISHES				
	Internal Wall Finishes				
	Cement and sand (1:4) backings				
B	15mm thick to receive Wall tiles - Wet areas	SM	12		
	Ceramic wall tiles				
	Allow a Prime Cost supply rate of Ksh. 700 per SM				
	Allow a Prime Cost supply/Purchase only rate of Ksh. 1000 per SM (In addition to the cost of purchase above, the contractor's rate shall include cost of transportation, offloading, storage, fixing including all necessary adhesives, grouting and accessories				
E	Supply and Fix approved ceramic wall tiles on prepared backings(m.s) with proprietary adhesive; jointed and pointed in matching coloured proprietary grouting: including pvc spacers and expansion joint as necessary: aluminium corner and dividing strips; all to Architect's approval. - Wall Surfaces	SM	12		
	Carried to Collection				

Item	Description	Unit	QTY	RATE	AMOUNT
	15mm (minimum) two coat lime plaster complete with wire gauze anti-crack mechanism at the intersection of masonry walling and concrete beams as described to:-				
A	Concrete/masonry surfaces Internally	SM	10		
	Painting and Decoration				
	Allow for skimming coat, Prepare and apply three coats interior quality eggshell paint as per manufacturer's instructions				
B	Plastered concrete/masonry surfaces internally	SM	10		
	Floor Finishes				
	Cement and sand (1:3) screeds, backings, beds etc				
C	32mm bed finished to receive Floor Tiles (m.s)	SM	12		
	Ceramic Floor tiles				
	Allow a Prime Cost supply/Purchase only rate of Ksh. 1000 per SM (In addition to the cost of purchase above, the contractor's rate shall include cost of transportation, offloading, storage, fixing including all necessary adhesives, grouting and accessories				
D	Supply and Fix Ceramic tiles, on prepared bed(m.s) with proprietary adhesive; jointed and pointed in matching coloured proprietary grouting: including pvc spacers and expansion joint as necessary: aluminium corner and dividing strips; all to Architect's approval.	SM	4		
E	Ditto Non Slip Ceramic Tiles	SM	3		
F	Ditto 100mm wide Wall Skirtings	LM	15		
	The following in cement concrete tiles, jointed with neat cement slurry with pigment to match the shade of the tiles including rubbing and polishing;				
G	20mm thick concrete tiles size 300 x 300mm	SM	5		
	Carried to Collection				
	COLLECTION				
	Total brought forward from page no:11				
	Total brought forward from page no:12				
	ELEMENT NO 6: TOTAL FOR FINISHES				

Item	Description	Unit	QTY	RATE	AMOUNT
	ELEMENT NO. 7				
	ROOF FINISHES				
	Cement and sand (1:4) screeded beds: on concrete:				
	complete with coloured pigmentation additives and				
	hardener to:				
A	50mm average waterproofed lightweight screed laid to falls and crossfalls to roof slabs -upper roof including gutter bases	SM	14		
	Prepare and apply to vertical/horizontal surfaces 4mm thick APP/EPDM water proofing or other equal and approved membrane with surface finish weighing 4kg/sm; laid on primer with torch-on process ;by an approved specialist all in accordance with the manufacturers instructions including provision of a written ten (10) year anti leak guarantee.				
B	4mm thick APP membrane applied to roof slabs	SM	14		
C	Ditto to skirting 200mm high	LM	15		
D	Dress membrane around 100mm rainwater outlet	No.	2		
	The Following Flat roof concrete tiles fixed with approved adhesive, laid and jointed with waterproofing bituminous compound				
E	20mm thick interlocking Concrete tiles of size 225 x 225mm	SM	14		
	Ceiling finishes				
	15mm (minimum) two coat lime plaster complete with wire gauze anti-crack mechanism at the intersection of masonry walling and concrete beams as described to:-				
F	Soffits of Concrete surfaces	SM	14		
	Painting and Decoration				
	Prepare and apply one undercoat and one finishing coat first quality plastic emulsion paint on:-				
G	Plastered ceilings	SM	14		
	ELEMENT NO. 7				
	ROOF CONSTRUCTION AND FINISHES				

Item	Description	Unit	QTY	RATE	AMOUNT
	ELEMENT NO 8 - JOINERY FITTINGS Allow for providing materials, labour and construct fixtures and fittings as per Architects drawings of the following JOINERY FITTINGS AND FIXTURES complete with associated iron mongery; NOTE: All blockboard, MDF boards,etc in joinery works shall be lipped with hardwood lipping all round before fixing. Low level worktops with 600x600x8mm porcelain tiles top on and including 20mm thick blockboard: 100mm plastered mass concrete plinths in concrete class 15MPa: 18mm laminated mdf sides & shelves complete with doors, shelves, drawers & all necessary ironmongery; to Architect's details and approval				
A	Low level cupboards below concrete worktop total girth grouped together 1250mm long x 850mm high x 600mm deep	NO	1		
	ELEMENT NO. 8 JOINERY & FITTINGS **Carried to the Main summary**				

Item	Description	Unit	QTY	RATE	AMOUNT
	ELEMENT NO 9 - BUILDERS WORKS IN CONNECTION WITH SERVICES (BWICWS)				
	Plumbing, Drainage and Mechanical Installations				
A	Inspect all drawings and Bills of Quantities for Plumbing, Drainage and Mechanical Installations and allow for all Builder's work associated with the installations; including cutting away and making good after installing a concealed drainage system; including cutting or leaving all holes notches, mortices, sinkings and chases in both the structure and its coverings; including but not limited to forming recess in masonry	Item			
	Electrical Services Installations				
B	Inspect all drawings and Bills of Quantities for Electrical Installations and allow for all Builder's work associated with the Electrical installations, including cutting away for and making good after Electrician installing a concealed conduit system including cutting or leaving all holes notches, mortices, sinkings and chases in both the structure and its coverings; including but not limited to forming recess in masonry	Item			
	ELEMENT NO. 9 Carried to the BUILDERS WORKS IN CONNECTION WITH SERVICES (BWICWS) Main summary				

Item	Description	Unit	QTY	RATE	AMOUNT
	PROPOSED APARTMENTS FOR AFFORDABLE HOUSING PROGRAM (GUARD HOUSE)				
	BILL NO.1-BUILDERS WORKS				
	MAIN SUMMARY		**PAGE**		**AMOUNT (KSHS)**
1	**Substructures**		**GH/4**		
2	**Reinforced Concrete Frame**		**GH/5**		
3	**Walling**		**GH/6**		
4	**Windows**		**GH/8**		
5	**Doors**		**GH/10**		
6	**External and Internal Finishes**		**GH/12**		
7	**Roof construction and finishes**		**GH/13**		
8	**Joinery Fittings**		**GH/14**		
9	**Builders works in connection with services**		**GH/15**		
	TOTAL FOR 1NO. GUARD HOUSE				
	NO. OF GUARD HOUSES				**1.00**
	TOTAL FOR 1NO.GUARD HOUSES CARRIED TO GRAND SUMMARY	**KSHS**			

BOUNDARY WALL

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BOUNDARY WALL				
	ELEMENT NO.1				
	SUBSTRUCTURES				
	(ALL PROVISIONAL)				
	Siteworks and Excavations				
A	Clear site of all grass, hedges, shrubs, bushes including grubbing up of roots, cart away arising debris and burn them.	SM	373		
	Green Fencing with Chainlink				
B	2400mm High chainlink fencing : comprising 16 gauge chainlink fixed to and including precast concrete size 100 X 100 X 2400 mm high posts :holes for and including 8No strands 16 gauge galvanised barbed wire : 16 gauge high tensile galvanised straining vertical wire at 250 centres : 700 x 600 x 650mm deep plain concrete (class 20) base at 3000mm centres : strutting posts : including planting and maintenace to maturity of bouganvillea shrubs along the fenceline; all necessary excavations and disposal	LM	373		
	GATES				
	Mild steel sections as described in;				
C	6000mm wide x 2100mm high sliding gate comprising of 50x50x3mm RHS framing and middle rail 50x25x3mm RHS Vertical infill members at 225mm centres;priming with red oxide primer; purpose made ironmongery; all necessary lugs and grouting as per details (all with roller at the ground)	NO	1		
D	Ditto pedestrian gate size 900x1800 ditto	NO	1		
	Prepare surfaces and apply three coats of first grade quality of gloss oil paint as per manufacturer's instructions				
E	General surfaces of metal	SM	28		
	TOTAL FOR BOUNDARY WALL CARRIED TO GRAND SUMMARY				

BASKET BALL PITCH

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	PROPOSED APARTMENTS FOR AFFORDABLE HOUSING PROGRAM (BASKET BALL PITCH)				
	BILL NO.10 BASKET BALL PITCH				
	Oversite Excavation				
A	Clear site of all grass, hedges, shrubs, bushes grub up roots, load and remove from site and dispose at designated local authority areas.	SM	628		
B	Excavate average 200mm deep to remove top vegetable soil, load, remove from site and dump in designated local authority dump site.	SM	628		
C	Excavate to reduced levels in varying depths not exceeding 1.5m deep from existing ground levels.	CM	377		
D	Load and cart away excess excavated materials as directed on site.	CM	377		
	TOTAL FOR EXCAVATIONS CARRIED TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	ELEMENT NO. 2 - BASKET BALL COURT (All provisional)				
	Sub-Grade				
A	Roll and compact subgrade formation to achieve 98% modified proctors MDD including grading to falls and crossfalls	SM	628		
B	Imported and approved murram backfill materials to make up levels, well watered, rolled and compacted to 98% MDD at optimum moisture content in layers not exceeding 150mm Thick to Engineer's approval	CM	377		
	Sub-Base				
C	150mm thick Compacted gravel 3.5mm in sub-base laid at a slope of 1%well watered and compacted to 98% MDD at optimum moisture content in layers each of 150mm Thick to Engineer's approval	SM	628		
	FINISHINGS				
D	**ASPHALT FINISH**				
	Prepare surface and spray MC-30 as a prime coat cutback bitumen at a rate of 0.8 -1.0 lt/m2 as prime coat.	SM	628		
E	Prepare primed surfaces, provide and spray K1-60 bitumen emulsion as tack coat at a spray rate of 0.8 - 1.0 lt/m2 as directed by Engineer.	SM	628		
F	75mm thick Asphalt concrete for surfacing	SM	628		
	Channels				
G	Provide, lay and joint Channel, 125x150mm flush channel block, laid on and including 450x100mm concrete (1:3:6) bed and 100x200mm haunching behind ancluding any necessary formwork and disposal of surplus material as directed.	LM	104		
	TOTAL FOR BASKET BALL COURTS CARRIED TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	ELEMENT NO. 3 - WATER DRAINAGE AROUND THE PITCH				
	FRENCH DRAIN				
	Oversite Excavation (All excavations Measured Net)				
	Excavate for French Drain average depth not exceeding 1500mm Deep, uphold the sides of excavation, keep excavations free from water, trim and compact the bottom of excavation to level and cart away the resultant excavated materials as directed on site as described in:				
A	Main-drain	CM	94		
B	Ditto to Sub-drain	CM	91		
	Mass concrete (class 15/20) in;				
	50mm Thick Class 15/20 mass concrete blinding to bottom of trenches to receive drain pipe as described in:				
C	Main-drain	SM	30		
	Underground Drain Pipe.				
D	Supply, lay including necessary jointing and connections approved HDPE Perforated Pipe all to approval as decribed in:				
E	200mm Diameter main drain.	LM	34		
	Hesian Filter Fabric				
F	Supply and lay approved hesian Filter Fabric to french drains girth 600mm wide.	LM	34		
G	Ditto girth 300mm wide.	LM	20		
	Carried to collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	Drain Fillings.				
A	Approved imported hardcore fillings over perforated underground pipe in main drain.	CM	9		
B	Ditto above formation level on subdrains.	CM	5		
C	Supply and place approved 200mm graded aggregates ballast fillings over perforated underground pipe in main drain.	CM	9		
D	Ditto above formation level on subdrains.	CM	5		
E	Supply and place approved sand fillings over perforated underground pipe in main drain.	CM	9		
F	Ditto above formation level on subdrains.	CM	5		
	Inspection chambers				
G	Construct 600 wide x 600 mm long x 1500 mm deep (internal dimensions) storm water manhole, comprising 150 mm thick concrete class 20 bed, 200 mm thick natural stonewalling in cement and sand (1:3) mortar, 150 mm thick concrete class 20 cover slab with requisite reinforcement, 450x 600 mm heavy duty cast iron cover and frame bedded in cement and sand (1:3) mortar; internally plastered & screeded in 15 mm thick lime plaster; 100 mm thick concrete class 20 benching; complete with necessary excavation, formwork and2 No. connections to pipes not exceeding 200 mm diameter(pipe m/s)	NO.	1		
	Carried to Collection				
	Collection:				
	Brought forward from page BP/3				
	Brought forward from page Above				
	TOTAL FOR WATER DRAINAGE AROUND THE PITCH CARRIED TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	PROPOSED APARTMENTS FOR AFFORDABLE HOUSING PROGRAM (BASKET BALL PITCH)				
	ELEMENT NO. 4 - TERRACES (All provisional)				
	Excavations.				
	Oversite Excavations.				
A	Excavate oversite average 200mm thick and collect the soil and cart away from site as directed.	SM	200		
	Excavation for foundations.				
B	Excavate for strip foundation starting from reduced level and not exceeding 1.50m deep	CM	90		
C	Ditto exceeding 1.5m deep but not exceeding 3.0m deep.	CM	90		
D	Extra over for excavation in soft rock.	CM	18		
	Disposal of excavated materials				
E	Return fill and ram selected excavated materials around foundations.	CM	148		
F	Load,wheel and cart away surplus excavated material to a Local Authority designated dumping site or fill soil heaps as away from site instructed by the Project Engineer.	CM	32		
	Planking and Water exclusion				
G	Allow for planking and strutting to uphold sides of excavations	ITEM			
H	Ditto but keeping all excavations free from running or underground water by pumping or pailing	ITEM			
	Concrete works				
	Insitu concrete class 15/20 mm aggregates: vibrated:				
I	50mm thick blinding under strip footing and column bases	SM	100		
	In- situ vibrated reinforced concrete Class 25 (20mm aggregates): in:				
J	Strip footing	CM	20		
K	Columns	CM	7		
L	Steps	CM	1		
M	Cast insitu coping	Lm	100		
	Carried to Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	PROPOSED APARTMENTS FOR AFFORDABLE HOUSING PROGRAM (BASKET BALL PITCH)				
	Ribbed reinforcement steel bars to BS4449: 2005: Grade 500 high tensile strengthincluding bends, hooks, tying wire and distance blocks; to S.E's detail (Provisional)				
A	Assorted Reinforcement	KG	3,120		
	Modular steel frame with 5mm thick steel plates covering formwork and/or marine board formwork: to:				
B	Sides of strip foundation.	Sm	40		
C	Sides of columns.	Sm	48		
D	Sides and soffits of Coping beams	SM	80		
	Foundation Walling.				
E	***Natural quarry stones rough dressed; bedded in and including cement and sand (1:4) mortar; reinforced with and including 45 mm wide hoop iron gauge in alternate courses: in:***				
F	200mm thick walling	SM	200		
	TERRACE WALLING				
	Machine cut quarry stone walling with a minimum of 7.0 N/mm2 average compressive strength to B.S 5390;bedded and jointed in cement and sand (1:4) mortar, reinforced with and including 25 x 3 mm thick hoop iron strips at every alternate course as described in;				
G	200mm thick walling	SM	108		
	Keying Finish to exposed wall surfaces.				
H	Extra over horizontal and vertical pointing in 10mm thick rod in cement and sand mix (1:3) mortar including one coat Bituminous paint	SM	216		
	Weep Holes.				
I	Supply and fix 150mm UPVC pipe 250mm long as weep holes across 200mm thick wall with and including all necessary chasing and finish all around them.	NO	10		
	Carried to Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	PROPOSED APARTMENTS FOR AFFORDABLE HOUSING PROGRAM (BASKET BALL PITCH)				
	Fillings				
A	Imported and approved murram backfill materials as infill to terraces walls, well watered, rolled and compacted to 98% MDD at optimum moisture content in 1 layers not exceeding 150mm Thick to Engineer's approval	CM	100		
B	Ditto but Pick and use selected excavated materials to make up levels, well watered, rolled and compacted to 98% MDD at optimum moisture content in 1 layer of 150mm Thick to Engineer's approval	CM	50		
	300mm thick ammended planting top soil.				
C	Pick from excavation and use selected excavated vegetable soil and lay to 300mm Thick to be ploughed, disked, graded and chain harrowed for a smooth surface with even falls and a fine tilth for seeding including removal of weeds. Ameliorants (cow manure mixed at 1:2 of top soil) and fertilizer (11:6:9 N:P2O5:K2O applied at a rate of circa 500Kg/ha or approved equal to manufacturer's printed instructions and specifications) to be mixed into the top soil to receive natural lawn (Pennisetum clandestinum) (m.s)	SM	200		
	FINISHIINGS				
	Natural Grass finish				
D	Natural Paspalum Grass (or equivalent) on 150mm deep amended top soil media (m.s) on 100mm well compacted fine sand (m.s) to receive fertilizer 4:1:3 N:P2O5:K2O applied at a rate of circa 500Kg/ha or approved equal to manufacturer's printed instructions and specifications) 9-12 months after lawn seeding, and annualy thereafter to specialist specifications . Contractor to allow for watering and maintenance for six months till fully established.	SM	200		
	Channels				
E	Provide, lay and joint Channel, 125x150mm flush channel block, laid on and including 450x100mm concrete (1:3:6) bed and 100x200mm haunching behind ancluding any necessary formwork and disposal of surplus material as directed.	LM	100		
	Approved plant hedging behind top terrace.				
F	Supply and plant (duranta) approved size plantings to act as hedging behind top terrace with and including watering and maintenance for six months until fully established.	NO	500		
	Carried to collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	Collection:				
	Brought forward from page BC/5				
	Brought forward from page BC/6				
	Brought forward from page BC/7				
	TOTAL FOR TERRACES CARRIED TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	ELEMENT NO. 5 - BASKET BALL GOAL POSTS				
	Excavation				
A	Excavation for Goal post sockets diameter 150mm wide average depth not exceeding 1500 mm from formed level.	CM	2		
	Load cart away				
B	Load,wheel and cart away surplus excavated material to a Local Authority designated dumping site or fill soil heaps as away from site instructed by the Project Engineer.	CM	2		
	In- situ vibrated reinforced concrete Class 25 (20mm aggregates): in:				
C	Socket - bases & stud columns	CM	2		
	Ribbed reinforcement steel bars to BS4449: 2005: Grade 500 high tensile strengthincluding bends, hooks, tying wire and distance blocks; to S.E's detail (Provisional)				
D	Assorted reinforcement	KG	500		
	Formwork				
E	Sawn formwork with one coat of an approved retarding agent to vertical sides of socket bases	SM	3		
	Mild steel work in:-				
F	Achoring system anchoring in concrete including neoprene caps all as per manufacturer's instructions.	NO	2		
G	150mm Diamater x 4mm thick CHS sockets all removable.	LM	20		
	Prime stop and apply one undercoat and two finishing coats of gloss paint to CROWN PAINTS first quality or other equal and approved to metal surfaces of:				
H	General metal surfaces	LM	20		
	Goal net and ring				
I	Standard goal net and ring all to approval welded to steel post.	NO.	2		
J	25mm thick fibre glass block board all fixee to approval	SM	10		
K	Supply and fix 100mm thick polytheylene foam padding	SM	10		
L	Supply and fix 25mm thick rubber tubing all around 150mm diameter vertical posts	LM	20		
	TOTAL FOR GOAL POSTS CARRIED TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BILL NO.10 BASKET BALL PITCH				
	SUMMARY				
	ELEMENT		Page No.		
1	**EXCAVATIONS**		BC/1		
2	**BASKET BALL COURT**		BC/2		
3	**WATER DRAINAGE AROUND PITCH**		BC/4		
4	**TERRACES**		BC/8		
5	**BASKET GOAL POSTS**		BC/9		
	TOTAL FOR 1NO. BASKETBALL PITCH				
	NO. OF BASKETBALL PITCH				**1**
	TOTAL FOR BASKET BALL PITCH CARRIED FORWARD TO GRAND SUMMARY				

POWER HOUSE

Item	DESCRIPTION	Unit	QTY	RATE	AMOUNT
	PROPOSED POWER HOUSE				
	BILL NO.6-BUILDERS WORKS				
	ELEMENT NO 1 - SUBSTRUCTURES (ALL PROVISIONAL)				
	Site Clearance				
A	Clear site of all grass, hedges, shrubs, bushes grub up roots, load and remove from site and dispose at designated local authority areas.	SM	24		
B	Excavate average 200mm deep to remove top vegetable soil, load, remove from site and dump in designated local authority dump site.	SM	24		
C	Excavate to reduced levels in varying depths not exceeding 1.5m deep from existing ground levels.	Cm	36		
D	Ditto exceeding 1.5m deep but not exceeding 3.0m from existing reduced levels.	Cm	12		
E	Excavate for Strip foundations depth starting from Reduced ground levels.	Cm	3		
F	Excavate for duct bank depth starting from Reduced ground levels.	Cm	4		
G	Extra over all type of excavation for excavating in soft rock	Cm	3		
H	Ditto excavation in hard rock class I	Cm	3		
	Disposal of water				
I	Allow for keeping the whole of the excavation free from all spring and running water by pumping or any other such means as may be necessary	Item			
	Planking and strutting				
J	Allow for maintaining and upholding the sides of excavations and keeping excavations clear of all fallen materials, rubbish etc	Item			
	Carried to collection				

Item	DESCRIPTION	Unit	QTY	RATE	AMOUNT
	Disposal of excavated material				
A	Return, fill and ram selected excavated material around foundations.	CM	65		
B	Load,wheel and cart away surplus excavated material to a Local Authority designated dumping site or fill soil heaps as away from site instructed by the Project Engineer.	CM	15		
	Fillings				
C	Make up levels using approved imported materials: compacted in layers not exceeding 300mm thick with a roller: to the satisfaction of the Structural Engineer.	CM	49		
D	300mm thick hardcore bed: hand packed : compacted in layers not exceeding 150mm thick: to the satisfaction of the Structural Engineer	SM	36		
F	50 mm Thick Murram Blinding to surfaces of hadcore	SM	36		
	Anti - termite to treatment				
G	Approved anti-termite treatment, with ten-year guarantee, sprayed to surfaces of hardcore strictly in accordance with manufacturer's instructions.	SM	36		
	Damp-proof membrane				
H	1000 gauge polythene or other equal and approved damp-proof membrane, laid over blinded hardcore (measured separately) with 300mm side and end laps (measured nett-allow for laps); 1 No. layer: bedded in and including cement and sand (1:3) mortar	SM	36		
	Concrete Blinding				
	Insitu concrete class 15/20 mm aggregates: vibrated:				
I	50 mm Thick under strip foundation	SM	14		
J	50 mm Thick under duct bank	SM	5		
	In- situ vibrated reinforced concrete Class 25 (20mm aggregates): in:				
L	Columns	CM	1		
N	Strip foundation	CM	3		
O	100mm thick duct bank sides	SM	13		
P	100mm thick duct bank bottom	SM	4		
Q	150 mm thick horizontal ground floor slab	SM	20		
	Carried to collection				

Item	DESCRIPTION	Unit	QTY	RATE	AMOUNT
	Ribbed reinforcement steel bars to BS4449: 2005: Grade 500 high tensile strengthincluding bends, hooks, tying wire and distance blocks; to S.E's detail (Provisional)				
A	Assorted reinforcement	KG	303		
	Mesh fabric reinforcement to BS 4483 BRC A142; 200x200mm, weighing 2.22kg/m² (measured net - no allowance) for laps; in two layers - top & bottom; including bends, tying wire and spacer blocks)				
B	In floor beds	SM	20		
	Modular steel frame with 5mm thick steel plates covering formwork and/or marine board formwork: to:				
C	Vertical sides to columns	SM	10		
E	Vertical sides to strip footing	SM	9		
F	Vertical sides to duck bank sides	SM	27		
G	Vertical sides to duck bank bottom	LM	49		
H	Edge of slab not exceeding 150mm girth	LM	48		
	Foundation Walling				
	Natural quarry stones rough dressed; bedded in and including cement and sand (1:4) mortar; reinforced with and including 45 mm wide hoop iron gauge in alternate courses: in:				
I	200mm thick walls in foundations	SM	46		
	Pavings				
J	Supply and lay 600 x 600mm medium duty paving blocks round the Building including laying, spreading and compacting 100mm thick approved sand bed blinding to approval.	SM	27		
	Plinth				
	25mm Thick cement and sand (1:4) rendering on concrete or masonry ; wood float finished; to				
K	Plinths externally	SM	10		
	Two coats black bitumastic paint on:				
L	Rendered surfaces	SM	10		
	Carried to collection				

Item	DESCRIPTION	Unit	QTY	RATE	AMOUNT
	COLLECTION				
	Total brought forward from page no: 1				
	Total brought forward from page no: 2				
	Total brought forward from page no: 3				
	ELEMENT NO. 1 **Carried to** **SUBSTRUCTURES** **Main summary**				

Item	DESCRIPTION	Unit	QTY	RATE	AMOUNT
	PROPOSED POWER HOUSE				
	BILL NO.1-BUILDERS WORKS				
	ELEMENT No 2 - R.C FRAME				
	Reinforcement to BS 4449:1997 , Grade 460B high strength type 2 ribbed bars with proof stress of 460 N/mm2				
	Insitu concrete class 25 (20 mm aggregate): vibrated: reinforced				
A	Columns	CM	1		
B	Ring beam	CM	1		
C	Ramp 200 mm thick average thickness	SM	4		
D	175 mm thick roof slab	SM	31		
	Ribbed reinforcement steel bars to BS4449: 2005:Grade 500 high tensile strength including bends, hooks, tying wire and distance blocks to S.E's detail (All provisional)				
E	Assorted reinforcement	Kg	606.00		
	Modular steel frame with 5mm thick steel plates covering formwork and/or marine board formwork: to				
F	Sides of columns	Sm	12		
G	Sides and soffites of beams	Sm	22		
H	Sloping soffits of roof slab	Sm	31		
J	Edge of ramp exceeding 150mm but not exceeding 300 mm girth	Lm	3		
K	Edges of horizontal roof slab, exceeding 150mm but not exceeding 300 mm girth	Lm	23		
	ELEMENT NO. 2 **Carried to**				
	R.C FRAME **Main summary**				

Item	DESCRIPTION	Unit	QTY	RATE	AMOUNT
	PROPOSED POWER HOUSE				
	BILL NO.1-BUILDERS WORKS				
	ELEMENT No 3-WALLING				
	WALLING				
	External Walling				
	Machine cut quarry stone walling with a minimum of 7.0 N/mm2 average compressive strength to B.S 5390;bedded and jointed in cement and sand (1:4) mortar, reinforced with and including 25 x 3 mm thick hoop iron strips at every alternate course as described in;				
A	200mm thick walling Externally	Sm	40		
B	200mm thick parapet walling	Sm	8		
	Precast Concrete Breeze Ventilation Blocks				
C	305 x 305 mm wide x 150 mm thick Pre Cast Concrete lourved breeze ventilation blocks bedded and jointed in cement and sand (1:4) mortar including vermin proof gauge wire	Sm	1		
	Damp proof courses				
D	Approved hessian based damp proof course to 200mm thick walling in cement/sand mortar	Lm	17		
	Window Cill				
	Precast concrete window cill finishing fair on all exposed surfaces and hoisting and placing in position, bedding, jointing and pointing in pigmented cement and sand (1:3) mortar				
E	150 x 25mm thick Precast concrete window sill	Lm	7		
	ELEMENT NO. 3 **Carried to**				
	WALLING **Main summary**				

Item	DESCRIPTION	Unit	QTY	RATE	AMOUNT
	PROPOSED POWER HOUSE				
	BILL NO.1-BUILDERS WORKS				
	ELEMENT NO 4-DOORS				
	Steel Casement Doors				
	Supply, fabricate and fix the following purpose made mild steel casement door comprising 40 x 25 x3mm stiles, top and bottom stiles, 4 No Intermediate rails, 1.5mm steel sheet both sideswelded in place and 5mm thick clear glazing, all primed with red oxide and spray painted with two finishing coats of first grade quality gloss oil paint on ; complete with all necessary ironmongery fasteners and necessary seremetals assembled and fixed to opening including cutting and pinning lugs to concrete or block work sorroung and bedding frame in cement and sand mortar (1:3).				
A	Door size 1000 x 2500mm high	NO	1		
B	Ditto Door size 2000 x 2500mm high	NO	1		
	ELEMENT NO. 4 Carried to				
	DOORS Main summary				

Item	DESCRIPTION	Unit	QTY	RATE	AMOUNT
	PROPOSED POWER HOUSE				
	BILL NO.1-BUILDERS WORKS				
	ELEMENT NO 5 - EXTERNAL FINISHES				
	EXTERNAL WALL FINISHES				
	External Finish				
	Cement and sand (1:3) render:wood floated: on concrete or blockwork: to				
A	15mm thick to columns/beams surfaces externally	SM	17		
	Keying				
B	Extra over horizontal and vertical pointing in 10mm thick rod in cement and sand mix (1:3) mortar including one coat Bituminous paint	SM	56		
	External Painting				
	Prepare and apply one coat undercoat and two finishing coats of long lasting exterior/ weatherguard paint or other equal and approved exterior quality paint to surfaces as described in:-				
C	Columns surfaces externally	SM	56		
	ELEMENT NO. 5 Carried to				
	EXTERNAL FINISHES Main summary				

Item	DESCRIPTION	Unit	QTY	RATE	AMOUNT
	PROPOSED POWER HOUSE				
	BILL NO.1-BUILDERS WORKS **ELEMENT NO 6 - INTERNAL FINISHES** ***Internal Wall Finishes***				
	12mm (minimum) two coat lime plaster complete with wire gauze anti-crack mechanism at the intersection of masonry walling and concrete beams as described to:-				
A	Concrete/masonry surfaces	SM	42		
B	Ditto to Jambs and reveals not exceeding 200mm girth	LM	30		
	Painting and Decoration				
	Prepare and apply one undercoat and one finishing coat first quality permaplast emulsion paint manufactured by Crown Solo Paints or equal and approved paint on:-				
C	Plastered concrete/masonry surfaces internally	SM	42		
D	Ditto to Jambs and reveals not exceeding 200mm girth	LM	30		
	Floor Finishes				
	Plain in-situ concrete (1:3:6/20 mm agg.)				
E	40 mm Thick polished plain concrete on exisiting Reiforced concrete base; level or to falls; mixed with hardener; SIKA FLOOR 3 QUARTZ ; power floated to smooth finish to approval	SM	20		
	Duct bank cover plate				
F	6 mm thick chequered plate in duct bank covers including Forming 50 mm wide x 50 mm deep rebate to both sides of channel at the top; with and including 50 mm x 50 mm x 5 mm thick mild steel angle framing cast in concrete with mild steel anchor bars and grouted to both rebated sides of channel; all welding ground to a smooth finish; including priming metal surfaces with red oxide primer before delivery to site and three coats gloss oil automotive spray paint finish; all to Architect's and Structural Engineer's approval	SM	24		
G	Allow a provisional sum for foundation holes for 100 mm LG x 12.5 diamter bolts	Item			
H	Allow a provisional sum for plates, bolts, nuts, washers e.t.c	Item			
	Ceiling finishes				
	12mm (minimum) two coat lime plaster complete with wire gauze anti-crack mechanism at the intersection of masonry walling and concrete beams as described to:-				
J	Soffits of Concrete surfaces	SM	24		
	Painting and Decoration				
	Prepare and apply one undercoat and one finishing coat first quality plastic emulsion paint on:-				
K	Plastered ceilings	SM	24		
	ELEMENT NO. 6 Carried to **INTERNAL FINISHES**				

Item	DESCRIPTION	Unit	QTY	RATE	AMOUNT
	PROPOSED POWER HOUSE				
	BILL NO.1-BUILDERS WORKS				
	ELEMENT NO 7 - ROOFING				
	ROOF FINISHES				
	Cement and sand (1:4) screeded beds: on concrete: complete with coloured pigmentation additives and hardener to:				
A	50mm average waterproofed lightweight screed laid to falls and crossfalls to roof slabs -upper roof including gutter bases	SM	31		
	Prepare and apply to vertical/horizontal surfaces 4mm thick APP/EPDM water proofing or other equal and approved membrane with surface finish weighing 4kg/sm; laid on primer with torch-on process ;by an approved specialist all in accordance with the manufacturers instructions including provision of a written ten (10) year anti leak guarantee.				
B	4mm thick APP membrane applied to roof slabs	SM	31		
C	Ditto to skirting 200mm high	LM	20		
D	Dress membrane around 100mm rainwater outlet	No.	2		
	The Following Flat roof concrete tiles fixed with approved adhesive, laid and jointed with waterproofing bituminous compound				
E	20mm thick interlocking Concrete tiles of size 225 x 225mm	SM	31		
	ELEMENT NO. 7 ROOFING Carried to the Main summary				

Item	DESCRIPTION	Unit	QTY	RATE	AMOUNT
	PROPOSED POWER HOUSE **BILL NO.1-BUILDERS WORKS** **ELEMENT NO 11 - BUILDERS WORKS IN CONNECTION WITH SERVICES (BWICWS)** **Plumbing, Drainage and Mechanical Installations**				
A	Inspect all drawings and Bills of Quantities for Plumbing, Drainage and Mechanical Installations and allow for all Builder's work associated with the installations; including cutting away and making good after installing a concealed drainage system; including cutting or leaving all holes notches, mortices, sinkings and chases in both the structure and its coverings; including but not limited to forming recess in masonry	Item			
	Electrical Services Installations				
B	Inspect all drawings and Bills of Quantities for Electrical Installations and allow for all Builder's work associated with the Electrical installations, including cutting away for and making good after Electrician installing a concealed conduit system including cutting or leaving all holes notches, mortices, sinkings and chases in both the structure and its coverings; including but not limited to forming recess in masonry	Item			
	ELEMENT NO. 8 BUILDERS WORKS IN CONNECTION WITH SERVICES (BWICWS) Carried to the Main summary				

Item	DESCRIPTION	Unit	QTY	RATE	AMOUNT
	PROPOSED POWER HOUSE				
	BILL NO.1-BUILDERS WORKS				
	MAIN SUMMARY		**PAGE**		**AMOUNT (KSHS)**
1	**Substructures**		**PH/4**		
2	**Reinforced Concrete Frame**		**PH/5**		
3	**Walling**		**PH/6**		
5	**Doors**		**PH/7**		
6	**External Finishes**		**PH/8**		
7	**Internal Finishes**		**PH/9**		
8	**Roofing**		**PH/10**		
9	**BUILDERS WORKS IN CONNECTION WITH SERVICES (BWICWS)**		**PH/11**		
	TOTAL FOR POWER HOUSE TO GRAND SUMMARY				

UNDERGROUND WATER TANK

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	UNDERGROUND WATER TANK				
	SUBSTRUCTURE (ALL PROVISIONAL)				
	Excavations				
A	Excavate over site to remove top soil average 200mm deep and cart away.	m^2	50		
B	excavation level and not exceeding 1.50m deep.	m^3	75		
C	Excavate for pits commencing at reduced excavation level and not exceeding 1.50-3m deep	m^3	75		
D	Excavate for pits commencing at reduced excavation level and not exceeding 3-4.5m	m^3	58		
E	Extra excavation for excavating in all types of rock and cart away.	m^3	62		
F	Remove surplus excavated material from site.	m^3	208		
	Disposal				
G	Allow for keeping the whole of the excavation free from all spring and running water by pumping or any other such means as may be necessary	Item	1		
H	Allow for planking and strutting to sides of already excavated surfaces and new excavated surfaces to keep excavations free from all fallen materials.	Item	1		
	Fillings				
J	Approved 300mm wide granular filling layers not exceeding 150mm thick	m^2	50		
	50mm Plain Concrete Blinding (Class 15) to:				
K	Floor slab	m^2	50		
	Carried to Collection				

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	REINFORCED CONCRETE FRAME				
	Vibrated reinforced concrete (class 30); Fiber mesh to be dosed in the concreteat at minimum dosage of 0.9kg/m^3				
A	Beams	m^2	7		
B	250mm RC wall	m^2	29		
C	300mm RC wall	m^2	149		
D	300mm bottom slab	m^2	50		
E	200mm top slab	m^2	50		
F	Extra over for boxing to form opening size 600 x 450mm through 200mm thick reinforced concrete slab; rebated edges	No	4		
G	Sump	No	4		
	Deformed high yield steel ribbed bars reinforcement as before described (all provisional).				
H	Assorted reinforcement	kg	9,375		
	Sawn formwork to:-				
J	Sides of beams	m^2	46		
K	RC wall	m^2	356		
L	Soffits of suspended slab	m^2	50		
M	Edge of floor slab 150 - 225mm high.	m	30		
N	Edge of floor slab 225 - 300mm high.	m	30		
	Water Bar				
P	250mm wide PVC water bar	m	39		
	Carried to Collection				
	Underground Water Tank				

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	FINISHES				
	WALL FINISHES				
	15mm cement and sand rendering on concrete surfaces finished with a wood float to:-				
A	12mm Two coat external lime plaster on walls finished smooth with a steel trowel.	m²	356		
	Waterproofing				
	25mm thick 2 coats lime waterproofed plaster in "penetron Plus" as described;				
B	300mm thick floor slab	m²	50		
C	Ditto to walls	m²	356		
D	Ditto to suspended slab	m²	50		
	Plastic manhole				
E	Heavy duty plastic manhole cover and frame size 600x450mm wide with cover set in frame with grease	No	4		
F	Supply and fix approved 450mm, 10mm dia solid rungs wide stainless steel step ladder at 300mm centres fixed with SS bolts and nuts to structural details	No	4		
	Carried to Collection				
	Underground Water Tank				

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	UNDERGROUND WATER TANK **COLLECTION** Total brought forward from Page No.				
	Carried Forward to Summary				

CIVIL WORKS (ROADS)

BILL NO 11. CIVIL WORKS

CHUKA AHP SITE - CIVIL WORKS

BILL № 1: Preliminary and General Items

ITEM	DESCRIPTION	UNIT	QTY	RATE (KShs)	AMOUNT (KShs)
A	Allow Provisional sum of Kenya shillings (KSh 100,000/=) for materials testing as instructed by the Engineer.	Prov. Sum			
B	Extra Over on Item 1.01 for Contractors overheads and profits	%		0%	
BILL 1 TOTAL CARRIED TO SUMMARY PAGE					

BILL № 2: Site Clearance and Topsoil Stripping

ITEM	DESCRIPTION	UNIT	QTY	RATE (KShs)	AMOUNT (KShs)
A	Clear site including removal of trees (girth less than 300 mm), hedges, bushes and other vegetation and other deleterious materials, grub up roots and backfilling of holes left by removal of stumps and roots in accordance with the Specifications, as shown on the drawings and as instructed by Engineer.	ha	0.20		
B	Removal of top soil to a maximum depth of 200 mm including excavation, loading and disposal	m3	0.00		
C	Cutting of trees of all girth above 300 mm including cutting of trunks, branches, uprooting and removal of all materials and stacking within the Right of Way and complete with filling of depressions/pits by earth including liaison with concerned authorities for obtaining permissions.				
	(i) Girth from 300 mm to 600 mm	№	15.00		
	(ii) Girth above 600 mm but up to 900 mm	№	15.00		
	(iii) Girth above 900 mm but up to 1800 mm	№	3.00		
D	Transpotation of the existing trees of girth above 600 mm girth as instructed by Engineer, including shifting of the tree and storing at locations as instructed by the Engineer.	№	33.00		
	Total of Bill № 2 (Carried Forward to Summary				

BILL № 3: Earthworks					
ITEM	**DESCRIPTION**	**UNIT**	**QTY**	**RATE (KShs)**	**AMOUNT (KShs)**
	No separate payments shall be made for the overhaul of the material and the cost of such haulage shall be included in the rates and or prices.				
A	Cut to spoil in soft material	m3	1677.00		
B	As Item 5.01 but in hard material	m3	17.00		
C	Provide, spread, water, process and compact 300 mm improved subgrade to 100% MDD (AASHTO T99) in two layers of 150 mm thickness.	m2	2096.00		
D	Provide and compact soft material as fill material as shown in the drawing and as directed by the Engineer	m3	1048.00		
E	Provide and fill in hard material as shown in the drawing and as directed by the Engineer.	m3	105.00		
F	Provide, Spread and compact rockfill in swampy areas	m3	84.00		
	Total of Bill № 3 (Carried Forward to Summary)				

BILL № 4: Culvert and Drainage Works					
ITEM	DESCRIPTION	UNIT	QTY	RATE (KShs)	AMOUNT (KShs)
	No separate payment shall be made for the haulage of surplus or unsuitable excavated material and the cost of such haulage shall be included in the rates and/or prices				
A	Excavate in soft material for pipe culverts, subsoil drains, headwalls, wing walls, aprons, toe walls, drop inlets, mitre drains, catch water drains and median drains including support of trench sides, backfilling and compacting as specified or as instructed by the Engineer.	m3	27.00		
B	As Item 8.01 but in hard material (any method)	m3	3.00		
	Allow for hacking in existing concrete drain for junction connections	m3	5.00		
C	Allow for perforation and connecting to the existing drain including stoppage of inflowing water (hole approximately 600 widex800 high x 250 thick)	no.	5.00		
D	Excavate/ desilt, grade to shape inlets outfalls, side drains to free flow conditons including cart to spoil any excess grass debris and soils as and where directed by the Engineer.	m3	851.00		
E	Provide, lay and joint 450 mm Internal Diameter (I. D.) Reinforced Cement Concrete pipes. The rate to include backfilling and compaction to drain formation level	m	15.00		
F	Ditto item 8.06 above but 600mm I.D. Reinforced Cement Concrete pipes	m	3.00		
G	Ditto item 8.06 above but 900mm I.D. Reinforced Cement Concrete pipes	m	1.00		
H	Provide place and compact class 25/20 concrete to headwalls, wingwalls, aprons and toe walls to pipe culverts.	m3	6.00		
I	Provide place and compact 150mm class 15/20 concrete to beds and surround to 450mm diameter pipes (0.4059m3/m)	m3	6.00		
J	Ditto item 8.11 above but 600mm I.D. Reinforced Cement Concrete pipes (0.5259m3/m)	m3	1.00		
K	Ditto item 8.11 above but 900mm I.D. Reinforced Cement Concrete pipes (0.8118m3/m)	m3	1.00		
L	Allow for in-situ lining with concrete Class 20/20 on outfall drains through built-up areas and limit of works areas and access roads	m3	2.00		
N	Provide and joint 450mm diameter precast concrete invert block drain (IBD) channels with two double side precast side slabs of 600x225x75mm as lining for side drain including bedding and backfilling with selected material as directed by the Engineer.	m	851.00		
O	Extra Over for precast side slabs of 600x225x75mm.	m	851.00		
P	Provide all materials lay and joint shallow IBD as directed by the Engineer to form mitre drains. Rate to include provision of 100mm well compacted bed and jointed by 1:3 cement mortar	m	10.00		
Q	Provide and lay 150mm thick grouted stone pitching with ratio 1:4 cement to Mortar, on culvert inlets and outlets and where directed by the Engineer.	m2	14.00		
R	Concrete class 20/20 for side closed drains , including formwork and steel reinforcements as directed by the Engineer	m	5.00		
S	Provide all materials and construct standard untrapped gully pot in concrete class 20/20 reinforced with BRC A142 and with 350x500mm polyresin frames and covers conforming with standard specifications	no.	5.00		
T	Provide and place A142 fabric Mesh reinforcement or equivalent for wing walls, head walls, aprons, toe, inlets and outlets as directed by the Engineer	m2	7.00		
U	Excavate in soft material for service ducts including support of trench sides, backfilling and compacting as specified or as instructed by the Engineer.	m3	10.00		
V	As Item 8.20 but in hard material (any method)	m3	5.00		
W	Provide and lay 450 Dia service ducts of length 10 m each as per the drawings and as instructed by the Engineer	No.	2.00		
	Total of Bill № 4 (Carried Forward to Summary)				

BILL № 5: Concrete Works

ITEM	DESCRIPTION	UNIT	QTY	RATE (KShs)	AMOUNT (KShs)
	CONCRETE				
A	Provide and fix on the carriageway and parking interlocking concrete paved unishaped blocks (monolithic single layer precast concrete blocks) of any specified colour/size & shape, with approved pattern of 60 mm thick having average crushing strength of 50 N/mm2 on average thickness of 50 mm complete with uniformly graded river sand cushioning properly compacted with a mechanical compactor to required level, grade and camber as instructed by Engineer. Rate to include bedding sand and that to fill the joints, tie and edge restraints	m2	1976.00		
B	Extra over item 17.01 for laying blocks at speed bumps	m2	50.00		
C	Ditto item 17.01 above but for 60mm heavy duty blocks at the walkway	m2	50.00		
D	Provide, lay in place and joint 600x600x50mm well cured paving slabs on 50mm well compacted sand/quarry dust bed to footpaths/islands, Cloth drying areas and around the blocks as stipulated in the special Specifications -TWO ROWS OF PCC slab	m2	120.00		
BILL 5 TOTAL CARRIED TO SUMMARY PAGE					

BILL № 6: Road Furniture

ITEM	DESCRIPTION	UNIT	QTY	RATE (KShs)	AMOUNT (KShs)
	Road Marking and Road Signs				
	Road Marking				
A	Provide and lay hot applied thermoplastic road marking compound in approved colour and shade (ASTM 9) for road marking on bituminous surface on centerline, 100 mm, edge line 150 mm wide 3.0 mm thick, using fully automatic extrusion machine and using pre-melter for melting thermoplastic material including cleaning the surface of all dirt, dust, and other foreign matter, complete with demarcation at site/pre-marking, finishing and managing the traffic movements. Marking to be done as per the specifications, detailed drawings and as instructed by the Engineer.				
	(i) For lane marking (broken lines) with white paint, 100 mm wide	m2	143.00		
	(ii) For lane marking with yellow paint, 100mm wide	m2	285.00		
	(iii) For raised kerb lines with black paint, 150 mm wide	m2	106.00		
B	Provide and lay hot applied thermoplastic road marking compound in approved colour and shade (ASTM 9) for road marking on bituminous road surface on pedestrian crossings, chevrons, directional arrows, give way and stop lines mm thick using fully automatic extrusion machine and using pre-melter for melting thermoplastic. Material, including dispensing drop on glass beads of approved make and as per BS 6088 at the rate of 250g/m² including cleaning the surface of all dirt, dust, and other foreign matter, complete with demarcation at site/ pre-marking, finishing and managing the traffic control. Marking to be done as per the specifications, drawings	m2	20.00		
C	**Other Road Furniture**				
D	Provide, lay and Joint complete with hauncing as shown on the drawings and as instructed by the Engineer				
	(i) Raised Kerbs	m	523.00		
	(ii) Flush Kerbs	m	328.00		
E	Provide, lay and Joint complete with hauncing as shown on the drawings and as instructed by the Engineer 100 x 125 mm channels for the walkways and shallow drains	m	377.00		
	Total of Bill № 6 (Carried Forward to Summary				

Bill	DESCRIPTION	AMOUNT KSHS.
	BILL NO 11. CIVIL WORKS	
1	Preliminary and General Items	
2	Site Clearance and Topsoil Stripping	
3	Earthworks	
4	Culverts and Drainage Works	
5	Concrete Works	
6	Road Furniture	
A	**Sub-total A**	

SEWER RETICULATION WORKS

BILL NO 12. SEWER WORKS

BILL NO. 1 - PRELIMINARIES AND GENERAL ITEMS

Item No	Description	Unit	Quantity	Rate (KSh.)	Amount (KSh.)
	CLASS A - GENERAL ITEMS				
	Contractual Requirements				
A	Provide for preparation and submission to the employer 1No set of virograph and 2No sets of blue print copies (A1 SIZE) of as built drawings for all the sewer pipelines in the contract. Note that manhole positions in the layout should be actual (geo-referenced to the national grid).	sum	1		
	Specified Requirements				
B	Provide for leasing of contractor's temporary yard including offices and stores. Rate to include for all necessary equiping to meet the contractor's requirements.	month	1		
	Specified Requirements **Testing of Materials and Works**				
C	Provide for concrete strength test. Rate to include for casting of the necessary number of cubes, curing,transport from site to testing institution and fees payable for the service.	nr	5		
D	Provide for testing of the sewer pipes.Rate to include for transportation to the testing institutions and fees payable for this service.	nr	2		
	Temporary Works				
E	Traffic regulation (including signages,warning tapes and warning signs); establishment, operation and removal.	Item			
	Bill No. 1- PAGE 1 TOTAL CARRIED TO GRAND SUMMARRY				

BILL No. 2 MEASURED WORKS					
ITEM No.	**DESCRIPTION**	**Unit**		**Rate**	**Amount (Kshs.)**
	The rates quoted by the Contractor shall be deemed to include provision by the Contractor to provide temporary vehicular access to all construction sites including negotiating with private land owners and paying the necessary charges as required.				
	CLASS A - GENERAL ITEMS				
	GENERAL CLEARANCE				
A	Allow for setting out of the works	m	510		
	Testing of the works				
B	Carrying out test on sewer, a pipeline as specified or directed by the engineer, include provision of all equipment and materials	m	510		
C	Allow for keeping trenches and other excavation free of water which may have entered through ground seepage, rain or by other means as directed by the Engineer	sum	1		
	CLASS B - SITE INVESTIGATION				
D	Trial holes where ordered to prove location , construction size etc., of pipelines, services or existing structures, max depth n.e 1m (provisional)	nr	2		
E	Trial holes where ordered to prove location , construction size etc., of pipelines, services or existing structures, max depth 1- 2m (provisional)	nr	2		
F	Trial holes where ordered to prove location , construction size etc., of pipelines, services or existing structures, max depth 2-3m (provisional)	nr	2		
G	Trial holes where ordered to prove location , construction size etc., of pipelines, services or existing structures, max depth 3-5m (provisional)	nr	1		
	CLASS D - DEMOLITION AND SITE CLEARANCE **The rate quoted is for site clearance and demolition along construction wayleave shall be deemed to include removal of the material and carting away to tips, identified by the Contractor in liaison with the Local Authority.**				
H	General site clearance through undeveloped land over the wayleave, include for additional clearance required	ha	0.04		
I	Removal of trees girth 0.5- 1m (Provisional)	nr	5		
J	Removal of trees girth 1-2m (Provisional)	nr	5		
Bill No. 2- PAGE 1 TOTAL CARRIED FORWARD TO COLLECTION SHEET					

ITEM No.	DESCRIPTION	Unit		Rate	Amount (Kshs.)
	CLASS I - PIPEWORK - PIPES				
	Provide materials, lay, joint and test approved pipes and fittings. Rates to include for handling, laying, all jointing materials and fixing as directed by the engineer.				
	Supply of pipes				
A	Nomial bore 150mm uPVC Class 34 Pipeline	m	255		
B	Nomial bore 225mm uPVC Class 34 Pipeline	m	153		
C	Nomial bore 300 mm DWC HDPE SN8 Pipe	m	102		
D	Nomial bore 450 mm DWC HDPE SN8 Pipe	m	51		
	uPVC & PRECAST CONCRETE PIPES TO BS 5911 WITH SPIGOT AND SOCKET CONCRETE PIPES				
	The rates entered against the items in this section shall include for stripping top soil, laying aside and subsequently replacing over refilled trench, excavation in trench in material other than rock, shuttering where necessary, refilling and compacting spreading surplus soil evenly over and alongside pipe trench, compacting, lay and joint pipes to correct line and level. Depths are stated from ground level to invert level.				
	Nominal bore 150 mm in trenches				
E	depth not exceeding 1.5 m.	m	255		
	Nominal bore 225 mm in trenches				
F	depth not exceeding 1.5 m.	m	92		
G	ditto but depth; 1.5 - 2.0 m.	m	61		
	Nominal bore 300 mm in trenches				
H	depth not exceeding 1.5 m.	m	61		
I	ditto but depth; 1.5 - 2.0 m.	m	41		
	Nominal bore 450 mm in trenches				
J	depth not exceeding 1.5 m.	m	13		
K	ditto but depth; 1.5 - 2.0 m.	m	15		
L	ditto but depth; 2.0 - 2.5 m.	m	9		
M	ditto but depth; 2.5 - 3.0 m.	m	14		
	Bill No. 2- PAGE 2 TOTAL CARRIED FORWARD TO COLLECTION SHEET				

ITEM No.	DESCRIPTION	Unit		Rate	Amount (Kshs.)
	CLASS K - PIPEWORK - MANHOLES AND PIPEWORK ANCILLARIES **Excavation quantities are given net. The rate entered are to include for manhole concrete slabs and covers, step irons or ladder, excavation, shuttering where necessary, refilling and compacting around the finished manholes, and disposing of surplus spoil is to be evenly spread. Excavation in any material other than rock** **Masonary manhole 1050 mm , reinforced concrete manhole slab and cover.**				
A	depth not exceeding 0.6 m.	nr	40		
B	depth not exceeding 0.9 m.	nr	15		
C	depth not exceeding 1.2 m.	nr	0		
D	depth not exceeding 1.5 m.	nr	0		
	MANHOLES **Manhole size 1050 mm , reinforced concrete manhole slab and cover.**				
E	depth not exceeding 1.5 m.	nr	5		
F	ditto but depth; 1.5 - 2.0 m.	nr	5		
	MANHOLES **Manhole size 1200 mm , reinforced concrete manhole slab and cover.**				
G	depth not exceeding 1.5 m.	nr	7		
H	ditto but depth; 1.5 - 2.0 m.	nr	10		
I	ditto but depth; 4.0 - 4.5 m.	nr	1		
	Bill No. 2- PAGE 3 TOTAL CARRIED FORWARD TO COLLECTION SHEET				

ITEM No.	DESCRIPTION	Unit		Rate	Amount (Kshs.)
	CLASS L; SUPPORTS AND PROTECTION ANCILLIARIES TO LAYING AND EXCAVATION				
	Extras to Excavation and backfilling Trenches. (Note : blasting not allowed for any rock excavation)				
	In pipe trenches 225mm bore				
A	Excavation of rock	m3	6		
B	Allow for excavation of soft material below final surface of pipe trench and back fill with approved hardcore, well compacted in ,layers of 200mm thickness , depth not exceeding 1.0m	m3	6		
	In pipe trenches 300mm bore				
C	Excavation of rock	m3	2		
D	Allow for excavation of soft material below final surface of pipe trench and back fill with approved hardcore, well compacted in ,layers of 200mm thickness , depth not exceeding 1.0m	m3	2		
	In pipe trenches 450 mm bore				
E	Excavation of rock	m3	8		
F	Allow for excavation of soft material below final surface of pipe trench and back fill with approved hardcore, well compacted in ,layers of 200mm thickness , depth not exceeding 1.0m	m3	8		
	In Manholes and other chambers *(Note: Blasting not allowed for any rock excavation*				
G	Excavation of rock	m3	12		
H	Allow for excavation of soft material below final surface of manhole and back fill with approved hardcore, well compacted in ,layers of 200mm thickness , depth not exceeding 1.0m	m3	12		
	Bill No. 2- PAGE 4 TOTAL CARRIED FORWARD TO COLLECTION SHEET				

ITEM No.	DESCRIPTION	Unit		Rate	Amount (Kshs.)
	Bed, Haunches and Surrounds				
	Mass concrete grade 15/20 in 150mm Thick Beds, Haunches and surrounds				
A	225 mm nominal bore pipeline Bed haunch and surround type A (0.0904 m^3)	m	2		
B	225 mm nominal bore pipeline Bed haunch and surround type D (0.2821 m^3)	m	5		
C	300 mm nominal bore pipeline Bed haunch and surround type A (0.1471 m^3)	m	5		
D	300 mm nominal bore pipeline Bed haunch and surround type C (0.3485m^3)	m	2		
E	300 mm nominal bore pipeline Bed haunch and surround type D (0.3702 m^3)	m	5		
F	450 mm nominal bore pipeline Bed haunch and surround type A (0.1689 m^3)	m	5		
G	450 mm nominal bore pipeline Bed haunch and surround type C (0.4059 m^3)	m	2		
H	450 mm nominal bore pipeline Bed haunch and surround type D (0.4818 m^3)	m	1		
Bill No. 2- PAGE 5 TOTAL CARRIED FORWARD TO COLLECTION SHEET					

COLLECTION PAGE					
ITEM No.	**DESCRIPTION**	**Unit**			
	COLLECTION PAGE				
1	**From Page 2**				
2	**From Page 3**				
3	**From Page 4**				
3	**From Page 5**				
4	**From Page 6**				
	Sub-Total (i)				
Bill No. 2-TOTAL CARRIED FORWARD TO GRAND SUMMARY					

GRAND SUMMARY

Bill No.	Description	Page No.	Amount
Bill No. 1	Preliminaries and General Items	S/1	
Bill No. 2	Measured Works	S/7	
	GRAND TOTAL		

MECHANICAL INSTALLATIONS

CHUKA AHP GRAND SUMMARY PAGE

ITEM	DESCRIPTION	Unit	Qty	RATE (KSHS)	AMOUNT (KSHS)
1.0	SUMMARY FOR MECHANICAL SERVICES FOR AFFORDABLE HOUSING BLOCK TYPE A	No	1		
2.0	SUMMARY FOR MECHANICAL SERVICES FOR AFFORDABLE HOUSING BLOCK TYPE B	No	2		
3.0	SUMMARY FOR MECHANICAL SERVICES FOR AFFORDABLE HOUSING BLOCK TYPE C	No	1		
4.0	SUMMARY FOR EXTERNAL RETICULATION	No	1		
5.0	SUMMARY FOR MECHANICAL SERVICES FOR GUARD HOUSE	No	1		
5.0	SUMMARY FOR MECHANICAL SERVICES FOR GARBAGE RECPTACLE	No	1		
	TOTALS FOR MECHANICAL INSTALLATION SERVICES FOR PROPOSED CHUKA AFFORDABLE HOUSING PROJECT **(VAT INCL)**				

	Ommisions				
	DECRIPTION	**UNIT**	**QTY**	**RATE (KSHS)**	**AMOUNT (KSHS)**
1.0	Sanitary Supply Only Item Estimate	Item	1	9,232,000.00	**9,232,000.00**
2.0	Booster Pumps Supply & Installation (50m3/h @ 5 bar)	Set	1	2,100,000.00	**2,100,000.00**
3.0	Roof Level Water Tanks (32,000 Litres)	No.	8	1,000,000.00	**8,000,000.00**
4.0	Roof Level Hose Reel Pumps	Set	4	200,000.00	**800,000.00**
5.0	Borehole Drilling & Equipping Estimate	No.	1	4,500,000.00	**4,500,000.00**
6.0	1 No. 1200 PE Waste Water Treatment Plant (Equiping Only)	No.	1	16,800,000.00	**16,800,000.00**
7.0	External Reticulation Borehole Water Estimate	Item	1	100,000.00	**100,000.00**
8.0	External Reticulation Council Water Estimate	Item	1	120,800.00	**120,800.00**
9.0	LPG External Reticulation Provision	Item	1	1,000,000.00	**1,000,000.00**
10.0	Mechanical Installation for Commercial Stalls	Item	1	60,000.00	**60,000.00**
					42,712,800.0

Amount in Words: Kenya Shillings…….....…….....

…….....

…….....

Official Stamp & Address:…….....…….....

…….....

...…….....

Tenderer's Signature:…….....……...Date:….....……..……..…….....

Witness' Name:…….....……Witness' Signature:…….…….....….

Address:……..…….....

Date:…….....

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
1.0	**Internal Plumbing Installations**				
	Supply, deliver install, Test and Commission:				
	PP-R (Polypropylene Random Co-polymer) pipes **PN 20** and fittings and fusion joints to **(KS ISO 15874 Part 1, 2, 3 & 5)** of approved manufacturer. Rates must allow for all Metal/plastic threaded adaptors where required for the connection of sanitary fixtures, valves, sockets, sliding and fixed joints etc. as required in the running lengths of pipework. The pipes shall run in floors and wall chase. The pipes will be pressure tested before the plastering of wall commences and as per the manufacturers recommended testing pressures.				
(i)	3 BR AHP				
	Pipe Works				
A	32mm Ø PPR Pipe	2	LM		
B	Ditto 25mm Ø	20	LM		
	Extra Over Pipe Work				
	Elbows/ Bends				
C	32mm Ø Elbows/ Bends	2	No.		
D	Ditto 25mm Ø	14	No.		
	Equal/Unequal Tees				
E	32 x 32 x 32mm	1	No.		
F	25 x 25 x 25mm	7	No.		
	Reducers				
G	32 x 25mm reducer	1	No.		
	Male/Female brass threaded adaptor				
J	25 x 20mm male/female threaded adaptor	2	No.		
K	25 x 15mm ditto	4	LM		
L	25 x 15mm male threaded bend	14	LM		
	Total Carried to Next Page				

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
	Total from Previous Page				
	Isolating valves				
M	25mm Ø Gate Valve as "Pegler" or Equivalent	1	No.		
	Shut off Angle Valve				
N	Brass plated 1/2" angle valve	7	No.		
	Check Meter				
O	25mm diameter water check meter	1	No.		
	Testing and Commissioning				
P	Allow for pressure testing of the Plumbing installation to the satisfaction of the Engineer including provision of necessary pipe plugs.	1	Item		
	Sub Total for 1 Units				
	TOTAL FOR 1 No. 3BR AHP (Per Floor)	1		x 1	
Total Cost of Plumbing Installation for 3BR AHP per Floor					

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
(ii)	3 Room Social				
	Pipe Works				
A	32mm Ø PPR Pipe	2	LM		
B	Ditto 25mm Ø	15	LM		
	Extra Over Pipe Work				
	Elbows/ Bends				
C	32mm Ø Elbows/ Bends	2	No.		
D	Ditto 25mm Ø	8	No.		
	Equal/Unequal Tees				
E	32 x 32 x 32mm	1	No.		
F	25 x 25 x 25mm	4	No.		
	Reducers				
G	32 x 25mm reducer	1	No.		
	Male/Female brass threaded adaptor				
J	25 x 20mm male/female threaded adaptor	2	No.		
K	25 x 15mm ditto	4	LM		
L	25 x 15mm male threaded bend	8	LM		
	Isolating valves				
M	25mm Ø Gate Valve as "Pegler" or Equivalent	1	No.		
	Shut off Angle Valve				
N	Brass plated 1/2" angle valve	4	No.		
	Check Meter				
O	25mm diameter water check meter	1	No.		
	Testing and Commissioning				
P	Allow for pressure testing of the Plumbing installation to the satisfaction of the Engineer including provision of necessary pipe plugs.	1	Item		
	Sub Total for 1 Units				
	TOTAL FOR 1 No. 3Room Social (Per Floor)	1		x 1	
Total Cost of Plumbing Installation for 3Room Social per Floor					

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
(iii)	2 BR AHP				
	Pipe Works				
A	32mm Ø PPR Pipe	2	LM		
B	Ditto 25mm Ø	15	LM		
	Extra Over Pipe Work				
	Elbows/ Bends				
C	32mm Ø Elbows/ Bends	2	No.		
D	Ditto 25mm Ø	8	No.		
	Equal/Unequal Tees				
E	32 x 32 x 32mm	1	No.		
F	25 x 25 x 25mm	4	No.		
	Reducers				
G	32 x 25mm reducer	1	No.		
	Male/Female brass threaded adaptor				
J	25 x 20mm male/female threaded adaptor	2	No.		
K	25 x 15mm ditto	4	LM		
L	25 x 15mm male threaded bend	8	LM		
	Isolating valves				
M	25mm Ø Gate Valve as "Pegler" or Equivalent	1	No.		
	Shut off Angle Valve				
N	Brass plated 1/2" angle valve	4	No.		
	Check Meter				
O	25mm diameter water check meter	1	No.		
	Testing and Commissioning				
P	Allow for pressure testing of the Plumbing installation to the satisfaction of the Engineer including provision of necessary pipe plugs.	1	Item		
	Sub Total for 1 Units				
	TOTAL FOR 4 No. 2BR AHP (Per Floor)	4		x 4	
Total Cost of Plumbing Installation for 2BR AHP per Floor					

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
(iv)	2 Room Social				
	Pipe Works				
A	32mm Ø PPR Pipe	2	LM		
B	Ditto 25mm Ø	15	LM		
	Extra Over Pipe Work				
	Elbows/ Bends				
C	32mm Ø Elbows/ Bends	2	No.		
D	Ditto 25mm Ø	8	No.		
	Equal/Unequal Tees				
E	32 x 32 x 32mm	1	No.		
F	25 x 25 x 25mm	4	No.		
	Reducers				
G	32 x 25mm reducer	1	No.		
	Male/Female brass threaded adaptor				
J	25 x 20mm male/female threaded adaptor	2	No.		
K	25 x 15mm ditto	4	LM		
L	25 x 15mm male threaded bend	8	LM		
	Isolating valves				
M	25mm Ø Gate Valve as "Pegler" or Equivalent	1	No.		
	Shut off Angle Valve				
N	Brass plated 1/2" angle valve	4	No.		
	Check Meter				
O	25mm diameter water check meter	1	No.		
	Testing and Commissioning				
P	Allow for pressure testing of the Plumbing installation to the satisfaction of the Engineer including provision of necessary pipe plugs.	1	Item		
	Sub Total for 1 Units				
	TOTAL FOR 2 No. 2 Room Social (Per Floor)	2		x 2	
Total Cost of Plumbing Installation for 2Room Social per Floor					

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
(v)	1 Room Social				
	Pipe Works				
A	32mm Ø PPR Pipe	2	LM		
B	Ditto 25mm Ø	15	LM		
	Extra Over Pipe Work				
	Elbows/ Bends				
C	32mm Ø Elbows/ Bends	2	No.		
D	Ditto 25mm Ø	8	No.		
	Equal/Unequal Tees				
E	32 x 32 x 32mm	1	No.		
F	25 x 25 x 25mm	4	No.		
	Reducers				
G	32 x 25mm reducer	1	No.		
	Male/Female brass threaded adaptor				
J	25 x 20mm male/female threaded adaptor	2	No.		
K	25 x 15mm ditto	4	LM		
L	25 x 15mm male threaded bend	8	LM		
	Isolating valves				
M	25mm Ø Gate Valve as "Pegler" or Equivalent	1	No.		
	Shut off Angle Valve				
N	Brass plated 1/2" angle valve	4	No.		
	Check Meter				
O	25mm diameter water check meter	1	No.		
	Testing and Commissioning				
P	Allow for pressure testing of the Plumbing installation to the satisfaction of the Engineer including provision of necessary pipe plugs.	1	Item		
	Sub Total for 1 Units				
	TOTAL FOR 1 No. 1Room Social (Per Floor)	1		x 1	
Total Cost of Plumbing Installation for 1Room Social per Floor					

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
(vi)	Studio Apartment				
	Pipe Works				
A	32mm Ø PPR Pipe	2	LM		
B	Ditto 25mm Ø	15	LM		
	Extra Over Pipe Work				
	Elbows/ Bends				
C	32mm Ø Elbows/ Bends	2	No.		
D	Ditto 25mm Ø	8	No.		
	Equal/Unequal Tees				
E	32 x 32 x 32mm	1	No.		
F	25 x 25 x 25mm	4	No.		
	Reducers				
G	32 x 25mm reducer	1	No.		
	Male/Female brass threaded adaptor				
J	25 x 20mm male/female threaded adaptor	2	No.		
K	25 x 15mm ditto	4	LM		
L	25 x 15mm male threaded bend	8	LM		
	Isolating valves				
M	25mm Ø Gate Valve as "Pegler" or Equivalent	1	No.		
	Shut off Angle Valve				
N	Brass plated 1/2" angle valve	4	No.		
	Check Meter				
O	25mm diameter water check meter	1	No.		
	Testing and Commissioning				
P	Allow for pressure testing of the Plumbing installation to the satisfaction of the Engineer including provision of necessary pipe plugs.	1	Item		
	Sub Total for 1 Units				
	TOTAL FOR 2 No. Sudios (Per Floor)	2		x 2	
Total Cost of Plumbing Installation for 2Room Social per Floor					

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
(vii)	1 No. Extra Apartment on Ground Floor				
	Pipe Works				
A	32mm Ø PPR Pipe	2	LM		
B	Ditto 25mm Ø	15	LM		
	Extra Over Pipe Work				
	Elbows/ Bends				
C	32mm Ø Elbows/ Bends	2	No.		
D	Ditto 25mm Ø	8	No.		
	Equal/Unequal Tees				
E	32 x 32 x 32mm	1	No.		
F	25 x 25 x 25mm	4	No.		
	Reducers				
G	32 x 25mm reducer	1	No.		
	Male/Female brass threaded adaptor				
J	25 x 20mm male/female threaded adaptor	2	No.		
K	25 x 15mm ditto	4	LM		
L	25 x 15mm male threaded bend	8	LM		
	Isolating valves				
M	25mm Ø Gate Valve as "Pegler" or Equivalent	1	No.		
	Shut off Angle Valve				
N	Brass plated 1/2" angle valve	4	No.		
	Check Meter				
O	25mm diameter water check meter	1	No.		
	Testing and Commissioning				
P	Allow for pressure testing of the Plumbing installation to the satisfaction of the Engineer including provision of necessary pipe plugs.	1	Item		
	Sub Total for 1 Units				
	TOTAL FOR 1 No. Sudio (Extra)	1		x1	
Total Cost of Plumbing Installation for the Extra Studio					

ITEM	DESCRIPTION	AMOUNT (KES)
	Typical Floor Collection Page	
1	Total Cost For Plumbing Installation for 3BR AHP	
2	Total Cost For Plumbing Installation for 3Room Social	
3	Total Cost For Plumbing Installation for 2BR AHP	
4	Total Cost For Plumbing Installation for 2Room Social	
5	Total Cost For Plumbing Installation for 1Room Social	
6	Total Cost For Plumbing Installation for Studio Apartment	
7	Total Plumbing Cost Per Floor	
8	**Total Plumbing Cost for G + 9 Levels (Item 7 x 10 Floors)**	
9	**Add Total Cost of Extra Studio Apartment on Ground Gloor**	
	Total Cost (Item 8 +7) of Plumbing Carried to Summary Page	

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
2	**Risers and Roof Levels**				
	Pipe Works				
A	75mm Ø PPR pipe	50	LM		
B	Ditto 63mm Ø	50	LM		
B	Ditto 50mm Ø	50	LM		
C	Ditto 40mm Ø	40	LM		
	Extra Over Pipe Work				
	Elbows/ Bends				
D	75mm Ø Elbows/ Bends	12	No.		
E	Ditto 63mm Ø	25	No.		
F	Ditto 50mm Ø	8	No.		
G	Ditto 40mm Ø	16	No.		
H	Ditto 32mm Ø	16	No.		
I	Ditto 25mm Ø	8	No.		
	Equal/Unequal Tees				
J	63 x 63 x 63mm	10	No.		
K	40 x 40 x 40mm	8	No.		
L	40 x 40 x 32mm	16	No.		
M	32 x 32 x 32mm	4	No.		
N	32 x 32 x 25mm	4	No.		
O	25 x 25 x 25mm	12	No.		
	Reducers				
P	63 x 50mm reducer	6	No.		
Q	50 x 40mm reducer	6	No.		
R	40 x 32mm reducer	6	No.		
S	40 x 32mm reducer	6	No.		
T	32 x 25mm reducer	8	No.		
	Male/Female brass threaded adaptor				
U	40 x 32mm male/female threaded adaptor	5	No.		
V	32 x 25mm male/female threaded adaptor	7	No.		
	Total Carried to the Next Page				

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
	Total from Previous Page				
	Isolating valves				
W	65mm Ø Gate Valve as "Pegler" or Equivalent	1	No.		
X	40mm Ø Ditto	1	No.		
	Testing and Commissioning				
Y	Allow for pressure testing of the Plumbing installation to the satisfaction of the Engineer including provision of necessary pipe plugs.	1	Item		
	Sub Total for 1 Riser				
	TOTAL FOR 4 No. Risers	4		x 4	
	Total Cost of Riser & Roof Level Plumbing				

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
3	**SANITARY FITTINGS AND ACCESSORIES INSTALL ONLY**				
A	**Water Closet (WC) Pan** Floor Standing Close Coupled WC Bowl complete with seat cover, flexible connection and cistern, WC connector relevant fittings & accessories ***(Quote Install Only)***	121	No.		
B	**Wash Basin** Wall Hang Wash Basin 450x485x230m White Complete with bottle traps, flexible connection hoses and other accessories with cws only tap ***(Quote Install Only)***	121	No.		
C	**Shower Fittings** Shower fitting c/w 15mm diameter chrome plated stop cork, Instant shower fitting and 1/2" Cobra wall mounted tap as Pegler or equal and equivalent ***(Quote Install Only)***	121	No.		
D	**Bathroom Accessories** Medium Washroom bathroom set Consisitng of Toilet roll holder, soap dish holder, and Coat Hooke ***(Quote Install Only)***	121	No.		
E	**Kitchen Sink** Stainless steel kitchen sink single drain, single bowl complete overflow and 40mm diameter plastic tubular p-trap PVC Bottle Trap and waste 1.5in x 40, Long Neck Wall type Bib Tap ***(Quote Install Only)***	111	Set		
	Total Carried to Next Page				

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
	FIRE PROTECTION				
	Hose Reel and Associated Pipework				
A	Supply and Install automatic 30 meters long, 25mm diameter hosereel and nozzle installed to KS 2003:2006	10	No.		
	Associated Pipework				
	GI Class 'B' tubing to KS06-259 with screwed and socketed joints to KS ISO 7-1:1994 including all range piping, fittings, hanagers, supports, brackets, and supports				
B	50mm diameter	65	LM		
C	25mm ditto	13	LM		
	Extra Over Piping For Fittings:-				
	Elbows/Various Bends				
D	50mm bend/elbow	7	No.		
E	25mm ditto	20	No.		
	Equal/Unequal tees				
F	50 x 50 x 50mm tee	10	No.		
G	50 x 50 x 25mm ditto	19	No.		
	Reducers				
H	50 x 25mm reducer	10	No.		
	Unions				
I	50mm diameter union	2	No.		
J	25mm ditto	20	No.		
	Valves				
K	25mm diameter quarter Turn hose reel isolation valve to be as PEGLER or approved equivalent.	10	No.		
	Painting				
L	Allow for Wire brushing , cleaning and painting of the complete fire fighting pipework installation with one coat of red oxide primer, undercoat, and gloss coat to specifications	1	Item		
Total Cost Carried For hose reel and associated pipework Installations					

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
	Portable Fire Protection Equipment				
	Supply, deliver, install, test and commission portable fire protection equipment with initial fill complete with all the necessary mounting accessories.				
A	9 litres, carbon dioxide gas extinguisher	10	No.		
B	4.5kg ABC dry powder extinguisher	10	No.		
C	Supply and fix signs indicating the words "FIRE POINT" in 80mm high letters	10	No.		
	Testing and Commissioning				
D	Allow for testing and commissioning of the fire pump installation to the satisfaction of the Engineer.	1	Item		
Total Cost For Portable fire Extinguishers					

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
	Dry Riser Installations				
	Supply , deliver and install Galvernised Iron (GI) Pipe KS 06-259 Class B, Groove fittings including fixing and jointing. Tenderers must allow in their pipework prices for Galvanised Support Brackets, Clamping screw, Threaded Rod, Bolts & all the couplings, connectors, joints etc. required in the running length of pipework and also where necessary, for pipe fixing clips, holderbats plugged and screwed, brackets and pipe sleeves through structural members.				
A	100mm diameter GI	45	LM		
	Extra over GI Pipe tubing for the following:				
	Bends				
B	100mm diameter bend	8	No.		
	Tees				
C	100mm ditto	10	No.		
	Reducers				
D	100x65mm GI Pipe	10	No.		
	Flanged Couplers				
E	100mm diameter GI union	20	No.		
	Landing Valve				
F	65mm diameter landing valve as Merry - Weather "Equery" constant pressure outlet with flanged inlet and 1No. 65mm dia female instantaneous outlet with blank cap and chain.	10	No.		
	Fire Hose				
G	65mm dia x30m long canvas hose complete with nozzle/ Spray	1	No.		
H	Wall mounted (on ground floor only) Fire Hose Cabinet to details	1	No.		
	Total Carried to Next Page				

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
	Balance brought forward				
	Pressure Release Valve				
I	25mm dia Air Relief Valve as specified	1	No.		
	Breaching Inlet				
J	100mm 2-way horizontal mounted pumping in breeching inlet to BS 5041 Part 3 and horizontal inlet box with door fitted with Georgian wired glass panel to BS5041 Part 5. Inclussive of Breeching inlet cabinet as specified complete with access break glass and painted	1	No.		
	Painting				
K	Wire brush , clean, and paint complete installation with one coat of red oxide primer, undercoat, and gloss coat to Architects colour including banding and colour coding to British Standards	1	Sum		
	Pressure testing				
L	Allow for pressure testing of the entire Dry riser installation and obtain relevant test certificates endorsed by the Engineer or his representative.	1	Sum		
	Total Cost for Dry Riser To Main Summary Page				

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
	Foul Drainage (Ground Floor)				
	Supply, deliver and install the following uPVC (Unplasticized Polyvinyl chloride) to (KS ISO 1452 Part 1, 2, 3, 4 & 5) Heavy gauge soil and waste system. Allow for all the various sizes of adaptor, connectors, sockets, holderbats, clips etc not measured but required for the satisfactory functioning of the system.				
	Piping				
A	32mm diameter heavy duty grey uPVC pipe	60	LM		
B	40mm ditto	60	LM		
C	50mm ditto	120	LM		
D	75mm ditto	80	LM		
E	100mm ditto	80	LM		
F	100mm diameter heavy duty golden brown pipe	155	LM		
G	150mm diameter heavy duty golden brown pipe	300	LM		
	Extra over uPVC Pipeworks				
H	32mm sweep bend	15	No.		
I	40mm sweep bend	60	No.		
J	50mm sweep bend	15	No.		
K	75mm sweep bend	8	No.		
L	100mm sweep bend	22	No.		
M	150mm sweep bend	16	No.		
N	40mm 450 bend	22	No.		
O	50mm 450 bend	15	No.		
P	40mm sweep tee	25	No.		
Q	40 x 32mm reducer	15	No.		
R	75 x 40mm ditto	15	No.		
S	150 x 40mm ditto	8	No.		
T	40mm access plug	22	No.		
U	100mm bend WC connector	13	No.		
V	32mm bottle 'p' trap	15	No.		
X	40mm bottle 'p' trap	15	No.		
Y	150MM vent cowl	15	No.		
	Total Carried to Next Page				

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
	Total From Previous Page				
Z	100 x 50mm floor trap set complete with polycarbonate flush grating	17	No.		
AA	**Gulley Trap** Gully trap comprising of 100mm diameter golden brown uPVC gully piece, 100mm diameter uPVC trap spigot outlet with screws and washers, and 300 x 300mm masonry gully trap chamber with mild steel plate and a heavy duty iron cover.	25	No.		
BB	**Manholes** Construct manhole/ inspection chamber size 450 x 600 x 750mm deep internally in 200mm stone walls, 150mm concrete bed, water proof plaster, forming drain channels, medium duty cover frame in cast iron with recessed cover with concrete infill and all necessary formwork, excavation and soil disposal.	32	No.		
CC	**Excavations** Excavate trench for pipe not exceeding 100mm diameter and not exceeding 1.5m deep (average 600mm deep) and make good as before.	120	LM		
DD	Allow for hydrostatic pressure testing of drainage installation including provision of pipe plugs and other required fittings.	1	Item		
	Total Cost For Ground Floor Foul Drainage Installation				

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
	Foul Drainage (1St Floor to 10th Floor)				
	Supply, deliver and install the following uPVC (Unplasticized Polyvinyl chloride) to (KS ISO 1452 Part 1, 2, 3, 4 & 5) Heavy gauge soil and waste system. Allow for all the various sizes of adaptor, connectors, sockets, holderbats, clips etc not measured but required for the satisfactory functioning of the system.				
	Piping				
A	32mm diameter heavy duty grey uPVC pipe	20	LM		
B	40mm ditto	70	LM		
C	50mm ditto	40	LM		
D	100mm ditto	40	LM		
E	150mm ditto	120	LM		
	Extra over uPVC Pipings				
F	32mm sweep bend	15	No.		
G	40mm sweep bend	82	No.		
H	50mm sweep bend	15	No.		
I	40mm 450sweep bend	25	No.		
J	50mm 450sweep bend	15	No.		
K	50mm y-connector	8	No.		
L	50mm sweep tee	4	No.		
M	40mm sweep tee	32	No.		
N	40 x 32mm reducer	14	No.		
O	150 x 40mm reducer	8	No.		
P	150 x 50mm reducer	8	No.		
Q	150 x 100mm reducer	22	No.		
R	40mm access plug	25	No.		
S	100mm access plug	15	No.		
T	100mm single branch	2	No.		
U	150mm single branch	17	No.		
V	100mm WC bend/ horizontal connector	15	No.		
W	32mm bottle 'p' trap	17	No.		
	Total Carried to Next Page				

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
	Total From Previous Page				
X	100 x 50mm floor trap set complete with polycarbonate flush grating	17	No.		
Y	Allow for hydrostatic pressure testing of drainage installation including provision of pipe plugs and other required fittings.	1	Item		
	Sub Total for 1 Floor				
	TOTAL FOR 9 Floors	9		x 9	
	Total Cost For 1st to 10th floor Foul Drainage Installation				

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
	Rain Water Drainage				
	Supply, deliver and install UPVC (Unplasticized Polyvinyl chloride) to (KS ISO 1452 Part 1, 2, 3, 4 & 5) rainwater pipework. Allow for all flanges, couplings, nipples, connector joints, fixing clips holder bats etc as required in running length of pipework but not measured.				
	Piping				
A	100mm ditto	400	LM		
	Extra over piping for fittings:-				
B	100mm sweep bend	2	No.		
C	100mm single branch	13	No.		
D	100mm double branch	7	No.		
E	100mm flat roof rain water outlets	10	No.		
	Testing and Commissioning				
G	Allow for testing and commissioning of the rain water drainage installation to the satisfaction of the engineer.	1	Item		
	Total Cost For Rain Water Drainage Installation				

ITEM	DESCRIPTION	AMOUNT (KES)
	SUMMARY PAGE	
1.0	**Total Cost for Internal Plumbing**	
2.0	**Total Cost for Roof + Riser**	
3.0	**Total Cost for Sanitary Fittings**	
4.0	**Total Cost Carried For hose reel and associated pipework Installations**	
5.0	**Total Cost For Portable fire Extinguishers**	
6.0	**Total for Dry Riser Installation**	
7.0	**Total Cost For Ground Floor Foul Drainage Installation**	
8.0	**Total Cost For 1st to 10th floor Foul Drainage Installation**	
9.0	**Total Cost For Rain Water Drainage Installation**	
	Total carried to Mechanical Works Main Summary Page	

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
1.0	**Internal Plumbing Installations**				
	Supply, deliver install, Test and Commission: PP-R (Polypropylene Random Co-polymer) pipes PN 20 and fittings and fusion joints to (KS ISO 15874 Part 1, 2, 3 & 5) of approved manufacturer. Rates must allow for all Metal/plastic threaded adaptors where required for the connection of sanitary fixtures, valves, sockets, sliding and fixed joints etc. as required in the running lengths of pipework. The pipes shall run in floors and wall chase. The pipes will be pressure tested before the plastering of wall commences and as per the manufacturers recommended testing pressures.				
(i)	3 BR AHP				
	Pipe Works				
A	32mm Ø PPR Pipe	2	LM		
B	Ditto 25mm Ø	20	LM		
	Extra Over Pipe Work				
	Elbows/ Bends				
C	32mm Ø Elbows/ Bends	2	No.		
D	Ditto 25mm Ø	14	No.		
	Equal/Unequal Tees				
E	32 x 32 x 32mm	1	No.		
F	25 x 25 x 25mm	7	No.		
	Reducers				
G	32 x 25mm reducer	1	No.		
	Male/Female brass threaded adaptor				
J	25 x 20mm male/female threaded adaptor	2	No.		
K	25 x 15mm ditto	4	LM		
L	25 x 15mm male threaded bend	14	LM		
	Total Carried to Next Page				

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
	Total from Previous Page				
	Isolating valves				
M	25mm Ø Gate Valve as "Pegler" or Equivalent	1	No.		
	Shut off Angle Valve				
N	Brass plated 1/2" angle valve	7	No.		
	Check Meter				
O	25mm diameter water check meter	1	No.		
	Testing and Commissioning				
P	Allow for pressure testing of the Plumbing installation to the satisfaction of the Engineer including provision of necessary pipe plugs.	1	Item		
	Sub Total for 1 Units				
	TOTAL FOR 1 No. 3BR AHP (Per Floor)	1		x 1	
Total Cost of Plumbing Installation for 3BR AHP per Floor					

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
(ii)	3 BR Market				
	Pipe Works				
A	32mm Ø PPR Pipe	2	LM		
B	Ditto 25mm Ø	20	LM		
	Extra Over Pipe Work				
	Elbows/ Bends				
C	32mm Ø Elbows/ Bends	2	No.		
D	Ditto 25mm Ø	14	No.		
	Equal/Unequal Tees				
E	32 x 32 x 32mm	1	No.		
F	25 x 25 x 25mm	7	No.		
	Reducers				
G	32 x 25mm reducer	1	No.		
	Male/Female brass threaded adaptor				
J	25 x 20mm male/female threaded adaptor	2	No.		
K	25 x 15mm ditto	4	LM		
L	25 x 15mm male threaded bend	14	LM		
	Isolating valves				
M	25mm Ø Gate Valve as "Pegler" or Equivalent	1	No.		
	Shut off Angle Valve				
N	Brass plated 1/2" angle valve	7	No.		
	Check Meter				
O	25mm diameter water check meter	1	No.		
	Testing and Commissioning				
P	Allow for pressure testing of the Plumbing installation to the satisfaction of the Engineer including provision of necessary pipe plugs.	1	Item		
	Sub Total for 1 Units				
	TOTAL FOR 3 No. 3BR Market (Per Floor)	3		x 3	
Total Cost of Plumbing Installation for 3BR Market per Floor					

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
(iii)	2 BR AHP				
	Pipe Works				
A	32mm Ø PPR Pipe	2	LM		
B	Ditto 25mm Ø	15	LM		
	Extra Over Pipe Work				
	Elbows/ Bends				
C	32mm Ø Elbows/ Bends	2	No.		
D	Ditto 25mm Ø	8	No.		
	Equal/Unequal Tees				
E	32 x 32 x 32mm	1	No.		
F	25 x 25 x 25mm	4	No.		
	Reducers				
G	32 x 25mm reducer	1	No.		
	Male/Female brass threaded adaptor				
J	25 x 20mm male/female threaded adaptor	2	No.		
K	25 x 15mm ditto	4	LM		
L	25 x 15mm male threaded bend	8	LM		
	Isolating valves				
M	25mm Ø Gate Valve as "Pegler" or Equivalent	1	No.		
	Shut off Angle Valve				
N	Brass plated 1/2" angle valve	4	No.		
	Check Meter				
O	25mm diameter water check meter	1	No.		
	Testing and Commissioning				
P	Allow for pressure testing of the Plumbing installation to the satisfaction of the Engineer including provision of necessary pipe plugs.	1	Item		
	Sub Total for 1 Units				
	TOTAL FOR 1 No. 2BR AHP (Per Floor)	1		x 1	
Total Cost of Plumbing Installation for 2BR AHP per Floor					

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
(iv)	2 BR Market				
	Pipe Works				
A	32mm Ø PPR Pipe	2	LM		
B	Ditto 25mm Ø	20	LM		
	Extra Over Pipe Work				
	Elbows/ Bends				
C	32mm Ø Elbows/ Bends	2	No.		
D	Ditto 25mm Ø	14	No.		
	Equal/Unequal Tees				
E	32 x 32 x 32mm	1	No.		
F	25 x 25 x 25mm	7	No.		
	Reducers				
G	32 x 25mm reducer	1	No.		
	Male/Female brass threaded adaptor				
J	25 x 20mm male/female threaded adaptor	2	No.		
K	25 x 15mm ditto	4	LM		
L	25 x 15mm male threaded bend	14	LM		
	Isolating valves				
M	25mm Ø Gate Valve as "Pegler" or Equivalent	1	No.		
	Shut off Angle Valve				
N	Brass plated 1/2" angle valve	7	No.		
	Check Meter				
O	25mm diameter water check meter	1	No.		
	Testing and Commissioning				
P	Allow for pressure testing of the Plumbing installation to the satisfaction of the Engineer including provision of necessary pipe plugs.	1	Item		
	Sub Total for 1 Units				
	TOTAL FOR 3 No. 3BR Market (Per Floor)	3		x 3	
Total Cost of Plumbing Installation for 3BR Market per Floor					

ITEM	DESCRIPTION	AMOUNT (KES)
	Typical Floor Collection Page	
1	Total Cost For Plumbing Installation for 3BR AHP	
2	Total Cost For Plumbing Installation for 3Room Social	
3	Total Cost For Plumbing Installation for 2BR AHP	
4	Total Cost For Plumbing Installation for 2Room Social	
	Total Plumbing Cost Per Floor	
	Total Plumbing Cost for G + 9 Levels (x 10 Floors)	
	Total for All Floor Carried forward to Plumbing Collection Page	

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
2	**Risers and Roof Levels**				
	Pipe Works				
A	75mm Ø PPR pipe	50	LM		
B	Ditto 63mm Ø	50	LM		
B	Ditto 50mm Ø	50	LM		
C	Ditto 40mm Ø	40	LM		
	Extra Over Pipe Work				
	Elbows/ Bends				
D	75mm Ø Elbows/ Bends	12	No.		
E	Ditto 63mm Ø	25	No.		
F	Ditto 50mm Ø	8	No.		
G	Ditto 40mm Ø	16	No.		
H	Ditto 32mm Ø	16	No.		
I	Ditto 25mm Ø	8	No.		
	Equal/Unequal Tees				
J	63 x 63 x 63mm	10	No.		
K	40 x 40 x 40mm	8	No.		
L	40 x 40 x 32mm	16	No.		
M	32 x 32 x 32mm	4	No.		
N	32 x 32 x 25mm	4	No.		
O	25 x 25 x 25mm	12	No.		
	Reducers				
P	63 x 50mm reducer	6	No.		
Q	50 x 40mm reducer	6	No.		
R	40 x 32mm reducer	6	No.		
S	40 x 32mm reducer	6	No.		
T	32 x 25mm reducer	8	No.		
	Male/Female brass threaded adaptor				
U	40 x 32mm male/female threaded adaptor	5	No.		
V	32 x 25mm male/female threaded adaptor	7	No.		
	Total Carried to the Next Page				

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
	Total from Previous Page				
	Isolating valves				
W	65mm Ø Gate Valve as "Pegler" or Equivalent	1	No.		
X	40mm Ø Ditto	1	No.		
	Testing and Commissioning				
Y	Allow for pressure testing of the Plumbing installation to the satisfaction of the Engineer including provision of necessary pipe plugs.	1	Item		
	Sub Total for 1 Riser				
	TOTAL FOR 4 No. Risers	4		x 4	
	Total Cost of Riser & Roof Level Plumbing				

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
3	**SANITARY FITTINGS AND ACCESSORIES**				
A	**Water Closet (WC) Pan** Floor Standing Close Coupled WC Bowl complete with seat cover and cistern, flexible connection hoses, WC connector relevant fittings & accessories ***(Quote Install Only)***	15	No.		
B	**Wash Basin** Wall Hang Wash Basin 450x485x230m White Complte with bottle traps, flexible connection hoses and other accessories with cws only tap ***(Quote Install Only)***	15	No.		
C	**Shower Fittings** Shower fitting c/w 15mm diameter chrome plated stop cork, Instant shower fitting and 1/2" Cobra Star Wall mounted as Pegler or approved equivalent ***(Quote Install Only)***	15	No.		
D	**Bathroom Accessories** Medium Washroom bathroom set Consisitng of Toilet roll holder, soap dish holder, and Coat Hook ***(Quote Install Only)***	15	No.		
E	**Kitchen Sink** Stainless steel kitchen sink single drain, single bowl complete overflow and 40mm diameter plastic tubular p-trap PVC Bottle Trap and waste 1.5in x 40, Long Neck Wall type Bib Tap ***(Quote Install Only)***	8	Set		
	Sub Total for 1 Floor				
	TOTAL FOR 10 Floors	10		x 10	
	Total Carried to Next Page				

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
	FIRE PROTECTION				
	Hose Reel and Associated Pipework				
A	Supply and Install automatic 30 meters long, 25mm diameter hosereel and nozzle installed to KS 2003:2006	10	No.		
	Associated Pipework				
	GI Class 'B' tubing to KS06-259 with screwed and socketed joints to KS ISO 7-1:1994 including all range piping, fittings, hanagers, supports, brackets, and supports				
B	50mm diameter	65	LM		
C	25mm ditto	13	LM		
	Extra Over Piping For Fittings:-				
	Elbows/Various Bends				
D	50mm bend/elbow	7	No.		
E	25mm ditto	20	No.		
	Equal/Unequal tees				
F	50 x 50 x 50mm tee	10	No.		
G	50 x 50 x 25mm ditto	19	No.		
	Reducers				
H	50 x 25mm reducer	10	No.		
	Unions				
I	50mm diameter union	2	No.		
J	25mm ditto	20	No.		
	Valves				
K	25mm diameter quarter Turn hose reel isolation valve to be as PEGLER or approved equivalent.	10	No.		
	Painting				
L	Allow for Wire brushing , cleaning and painting of the complete fire fighting pipework installation with one coat of red oxide primer, undercoat, and gloss coat to specifications	1	Item		
Total Cost Carried For hose reel and associated pipework Installations					

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
	Portable Fire Protection Equipment				
	Supply, deliver, install, test and commission portable fire protection equipment with initial fill complete with all the necessary mounting accessories.				
A	9 litres, carbon dioxide gas extinguisher	10	No.		
B	4.5kg ABC dry powder extinguisher	10	No.		
C	Supply and fix signs indicating the words "FIRE POINT" in 80mm high letters	10	No.		
	Testing and Commissioning				
D	Allow for testing and commissioning of the fire pump installation to the satisfaction of the Engineer.	1	Item		
Total Cost For Portable fire Extinguishers					

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
	Supply , deliver and install Galvernised Iron (GI) Pipe KS 06-259 Class B, Groove fittings including fixing and jointing. Tenderers must allow in their pipework prices for Galvanised Support Brackets, Clamping screw, Threaded Rod, Bolts & all the couplings, connectors, joints etc. required in the running length of pipework and also where necessary, for pipe fixing clips, holderbats plugged and screwed, brackets and pipe sleeves through structural members.				
A	100mm diameter GI	45	LM		
	Extra over GI Pipe tubing for the following:				
	Bends				
B	100mm diameter bend	8	No.		
	Tees				
C	100mm ditto	10	No.		
	Reducers				
D	100x65mm GI Pipe	10	No.		
	Flanged Couplers				
E	100mm diameter GI union	20	No.		
	Landing Valve				
F	65mm diameter landing valve as Merry - Weather "Equery" constant pressure outlet with flanged inlet and 1No. 65mm dia female instantaneous outlet with blank cap and chain.	10	No.		
	Fire Hose				
G	65mm dia x30m long canvas hose complete with nozzle/ Spray	1	No.		
H	Wall mounted (on ground floor only) Fire Hose Cabinet to details	1	No.		
	Total Carried to Next Page				

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
	Balance brought forward				
	Pressure Release Valve				
I	25mm dia Air Relief Valve as specified	1	No.		
	Breaching Inlet				
J	100mm 2-way horizontal mounted pumping in breeching inlet to BS 5041 Part 3 and horizontal inlet box with door fitted with Georgian wired glass panel to BS5041 Part 5. Inclussive of Breeching inlet cabinet as specified complete with access break glass and painted	1	No.		
	Painting				
K	Wire brush , clean, and paint complete installation with one coat of red oxide primer, undercoat, and gloss coat to Architects colour including banding and colour coding to British Standards	1	Sum		
	Pressure testing				
L	Allow for pressure testing of the entire Dry riser installation and obtain relevant test certificates endorsed by the Engineer or his representative.	1	Sum		
	Total Cost for Dry Riser To Main Summary Page				

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
	Foul Drainage (Ground Floor)				
	Supply, deliver and install the following uPVC(Unplasticized Polyvinyl chloride) to(KS ISO 1452 Part 1, 2, 3, 4 & 5) Heavy gauge soil and waste system. Allow for all the various sizes of adaptor, connectors, sockets, holderbats, clips etc not measured but required for the satisfactory functioning of the system.				
	Piping				
A	32mm diameter heavy duty grey uPVC pipe	24	LM		
B	40mm ditto	36	LM		
C	50mm ditto	72	LM		
D	75mm ditto	90	LM		
E	100mm ditto	90	LM		
F	100mm diameter heavy duty pipe	120	LM		
G	150mm diameter heavy duty pipe	300	LM		
	Extra over uPVC Pipeworks				
H	32mm sweep bend	13	No.		
I	40mm sweep bend	60	No.		
J	50mm sweep bend	13	No.		
K	75mm sweep bend	6	No.		
L	100mm sweep bend	15	No.		
M	150mm sweep bend	6	No.		
N	40mm 45º bend	20	No.		
O	50mm Ditto	15	No.		
P	75mm Ditto	65	No.		
Q	150mm Ditto	60	No.		
R	40mm sweep tee	20	No.		
S	50mm sweep tee	18	No.		
T	75mm ditto	15	No.		
U	40 x 32mm reducer	60	No.		
V	75 x 40mm ditto	20	No.		
W	150 x 40mm reducer	6	No.		
X	40mm access plug	20	No.		
Y	50mm access plug	13	No.		
Z	75mm access plug	13	No.		
	Total Carried to Next Page				

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
	Total From Previous Page				
AA	100 x 50mm floor trap set complete with polycarbonate flush grating	25	No.		
BB	100mm WC bend connector	13	No.		
CC	32mm bottle 'p' trap	15	No.		
DD	40mm bottle 'p' trap	13	No.		
EE	150MM vent cowl	15	No.		
	Gulley Trap				
FF	Gully trap comprising of 100mm diameter golden brown uPVC gully piece, 100mm diameter uPVC trap spigot outlet with screws and washers, and 300 x 300mm masonry gully trap chamber with mild steel plate and a heavy duty iron cover.	25	No.		
	Manholes				
GG	Construct manhole/ inspection chamber size 450 x 600 x 750mm deep internally in 200mm stone walls, 150mm concrete bed, water proof plaster, forming drain channels, medium duty cover frame in cast iron with recessed cover with concrete infill and all necessary formwork, excavation and soil disposal.	32	No.		
	Excavations				
HH	Excavate trench for pipe not exceeding 100mm diameter and not exceeding 1.5m deep (average 600mm deep) and make good as before.	120	LM		
II	Allow for hydrostatic pressure testing of drainage installation including provision of pipe plugs and other required fittings.	1	Item		
	Total Cost For Ground Floor Foul Drainage Installation				

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
	Foul Drainage (1St Floor to 10th Floor)				
	Supply, deliver and install the following uPVC(Unplasticized Polyvinyl chloride) to(KS ISO 1452 Part 1, 2, 3, 4 & 5) Heavy gauge soil and waste system. Allow for all the various sizes of adaptor, connectors, sockets, holderbats, clips etc not measured but required for the satisfactory functioning of the system.				
	Piping				
A	32mm diameter heavy duty grey uPVC pipe	18	LM		
B	40mm ditto	60	LM		
C	50mm ditto	36	LM		
D	100mm ditto	30	LM		
E	150mm ditto	120	LM		
	Extra over uPVC Pipings				
F	32mm sweep bend	13	No.		
G	40mm sweep bend	80	No.		
H	50mm sweep bend	13	No.		
I	40mm 450sweep bend	24	No.		
J	50mm 450sweep bend	13	No.		
K	50mm y-connector	6	No.		
L	50mm sweep tee	2	No.		
M	40mm sweep tee	30	No.		
N	40 x 32mm reducer	13	No.		
O	150 x 40mm reducer	6	No.		
P	150 x 50mm reducer	6	No.		
Q	150 x 100mm reducer	20	No.		
R	40mm access plug	23	No.		
S	100mm access plug	13	No.		
T	100mm single branch	1	No.		
U	150mm single branch	15	No.		
V	100mm WC bend/ horizontal connector	13	No.		
W	32mm bottle 'p' trap	15	No.		
	Total Carried to Next Page				

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
	Total From Previous Page				
X	40mm bottle 'p' trap	13	No.		
Y	100 x 50mm floor trap set complete with polycarbonate flush grating	15	No.		
Z	Allow for hydrostatic pressure testing of drainage installation including provision of pipe plugs and other required fittings.	1	Item		
	Sub Total for 1 Floor				
	TOTAL FOR 9 Floors	9		x 9	
	Total Cost For 1st to 10th floor Foul Drainage Installation				

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
	Rain Water Drainage				
	Supply, deliver and install UPVC (Unplasticized Polyvinyl chloride) to (KS ISO 1452 Part 1, 2, 3, 4 & 5) rainwater pipework. Allow for all flanges, couplings, nipples, connector joints, fixing clips holder bats etc as required in running length of pipework but not measured.				
	Piping				
A	100mm ditto	400	LM		
	Extra over piping for fittings:-				
B	100mm sweep bend	2	No.		
C	100mm single branch	13	No.		
D	100mm double branch	7	No.		
E	100mm flat roof rain water outlets	10	No.		
	Testing and Commissioning				
G	Allow for testing and commissioning of the rain water drainage installation to the satisfaction of the engineer.	1	Item		
	Total Cost For Rain Water Drainage Installation				

ITEM	DESCRIPTION	AMOUNT (KES)
	SUMMARY PAGE	
1.0	**Total Cost for Internal Plumbing**	
2.0	**Total Cost for Roof + Riser**	
3.0	**Total Cost for Sanitary Fittings**	
4.0	**Total Cost Carried For hose reel and associated pipework Installations**	
5.0	**Total Cost For Portable fire Extinguishers**	
6.0	**Total for Dry Riser Installation**	
7.0	**Total Cost For Ground Floor Foul Drainage Installation**	
8.0	**Total Cost For 1st to 10th floor Foul Drainage Installation**	
9.0	**Total Cost For Rain Water Drainage Installation**	
	Total carried to Mechanical Works Main Summary Page	

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
1.0	**Internal Plumbing Installations**				
	Supply, deliver install, Test and Commission: PP-R (Polypropylene Random Co-polymer) pipes PN 20 and fittings and fusion joints to (KS ISO 15874 Part 1, 2, 3 & 5) of approved manufacturer. Rates must allow for all Metal/plastic threaded adaptors where required for the connection of sanitary fixtures, valves, sockets, sliding and fixed joints etc. as required in the running lengths of pipework. The pipes shall run in floors and wall chase. The pipes will be pressure tested before the plastering of wall commences and as per the manufacturers recommended testing pressures.				
(i)	3 BR AHP				
	Pipe Works				
A	32mm Ø PPR Pipe	2	LM		
B	Ditto 25mm Ø	20	LM		
	Extra Over Pipe Work				
	Elbows/ Bends				
C	32mm Ø Elbows/ Bends	2	No.		
D	Ditto 25mm Ø	14	No.		
	Equal/Unequal Tees				
E	32 x 32 x 32mm	1	No.		
F	25 x 25 x 25mm	7	No.		
	Reducers				
G	32 x 25mm reducer	1	No.		
	Male/Female brass threaded adaptor				
J	25 x 20mm male/female threaded adaptor	2	No.		
K	25 x 15mm ditto	4	LM		
L	25 x 15mm male threaded bend	14	LM		
	Total Carried to Next Page				

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
	Total from Previous Page				
	Isolating valves				
M	25mm Ø Gate Valve as "Pegler" or Equivalent	1	No.		
	Shut off Angle Valve				
N	Brass plated 1/2" angle valve	7	No.		
	Check Meter				
O	25mm diameter water check meter	1	No.		
	Testing and Commissioning				
P	Allow for pressure testing of the Plumbing installation to the satisfaction of the Engineer including provision of necessary pipe plugs.	1	Item		
	Sub Total for 1 Units				
	TOTAL FOR 1 No. 3BR AHP (Per Floor)	1		x 1	
Total Cost of Plumbing Installation for 3BR AHP per Floor					

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
(ii)	3 Room Social				
	Pipe Works				
A	32mm Ø PPR Pipe	2	LM		
B	Ditto 25mm Ø	15	LM		
	Extra Over Pipe Work				
	Elbows/ Bends				
C	32mm Ø Elbows/ Bends	2	No.		
D	Ditto 25mm Ø	8	No.		
	Equal/Unequal Tees				
E	32 x 32 x 32mm	1	No.		
F	25 x 25 x 25mm	4	No.		
	Reducers				
G	32 x 25mm reducer	1	No.		
	Male/Female brass threaded adaptor				
J	25 x 20mm male/female threaded adaptor	2	No.		
K	25 x 15mm ditto	4	LM		
L	25 x 15mm male threaded bend	8	LM		
	Isolating valves				
M	25mm Ø Gate Valve as "Pegler" or Equivalent	1	No.		
	Shut off Angle Valve				
N	Brass plated 1/2" angle valve	4	No.		
	Check Meter				
O	25mm diameter water check meter	1	No.		
	Testing and Commissioning				
P	Allow for pressure testing of the Plumbing installation to the satisfaction of the Engineer including provision of necessary pipe plugs.	1	Item		
	Sub Total for 1 Units				
	TOTAL FOR 1 No. 3Room Social (Per Floor)	1		x 1	
Total Cost of Plumbing Installation for 3Room Social per Floor					

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
(iii)	2 BR AHP				
	Pipe Works				
A	32mm Ø PPR Pipe	2	LM		
B	Ditto 25mm Ø	15	LM		
	Extra Over Pipe Work				
	Elbows/ Bends				
C	32mm Ø Elbows/ Bends	2	No.		
D	Ditto 25mm Ø	8	No.		
	Equal/Unequal Tees				
E	32 x 32 x 32mm	1	No.		
F	25 x 25 x 25mm	4	No.		
	Reducers				
G	32 x 25mm reducer	1	No.		
	Male/Female brass threaded adaptor				
J	25 x 20mm male/female threaded adaptor	2	No.		
K	25 x 15mm ditto	4	LM		
L	25 x 15mm male threaded bend	8	LM		
	Isolating valves				
M	25mm Ø Gate Valve as "Pegler" or Equivalent	1	No.		
	Shut off Angle Valve				
N	Brass plated 1/2" angle valve	4	No.		
	Check Meter				
O	25mm diameter water check meter	1	No.		
	Testing and Commissioning				
P	Allow for pressure testing of the Plumbing installation to the satisfaction of the Engineer including provision of necessary pipe plugs.	1	Item		
	Sub Total for 1 Units				
	TOTAL FOR 4 No. 2BR AHP (Per Floor)	4		x 4	
Total Cost of Plumbing Installation for 2BR AHP per Floor					

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
(iv)	2 Room Social				
	Pipe Works				
A	32mm Ø PPR Pipe	2	LM		
B	Ditto 25mm Ø	15	LM		
	Extra Over Pipe Work				
	Elbows/ Bends				
C	32mm Ø Elbows/ Bends	2	No.		
D	Ditto 25mm Ø	8	No.		
	Equal/Unequal Tees				
E	32 x 32 x 32mm	1	No.		
F	25 x 25 x 25mm	4	No.		
	Reducers				
G	32 x 25mm reducer	1	No.		
	Male/Female brass threaded adaptor				
J	25 x 20mm male/female threaded adaptor	2	No.		
K	25 x 15mm ditto	4	LM		
L	25 x 15mm male threaded bend	8	LM		
	Isolating valves				
M	25mm Ø Gate Valve as "Pegler" or Equivalent	1	No.		
	Shut off Angle Valve				
N	Brass plated 1/2" angle valve	4	No.		
	Check Meter				
O	25mm diameter water check meter	1	No.		
	Testing and Commissioning				
P	Allow for pressure testing of the Plumbing installation to the satisfaction of the Engineer including provision of necessary pipe plugs.	1	Item		
	Sub Total for 1 Units				
	TOTAL FOR 2 No. 2 Room Social (Per Floor)	2		x 2	
Total Cost of Plumbing Installation for 2Room Social per Floor					

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
(v)	1 Room Social				
	Pipe Works				
A	32mm Ø PPR Pipe	2	LM		
B	Ditto 25mm Ø	15	LM		
	Extra Over Pipe Work				
	Elbows/ Bends				
C	32mm Ø Elbows/ Bends	2	No.		
D	Ditto 25mm Ø	8	No.		
	Equal/Unequal Tees				
E	32 x 32 x 32mm	1	No.		
F	25 x 25 x 25mm	4	No.		
	Reducers				
G	32 x 25mm reducer	1	No.		
	Male/Female brass threaded adaptor				
J	25 x 20mm male/female threaded adaptor	2	No.		
K	25 x 15mm ditto	4	LM		
L	25 x 15mm male threaded bend	8	LM		
	Isolating valves				
M	25mm Ø Gate Valve as "Pegler" or Equivalent	1	No.		
	Shut off Angle Valve				
N	Brass plated 1/2" angle valve	4	No.		
	Check Meter				
O	25mm diameter water check meter	1	No.		
	Testing and Commissioning				
P	Allow for pressure testing of the Plumbing installation to the satisfaction of the Engineer including provision of necessary pipe plugs.	1	Item		
	Sub Total for 1 Units				
	TOTAL FOR 1 No. 1Room Social (Per Floor)	1		x 1	
Total Cost of Plumbing Installation for 1Room Social per Floor					

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
(vi)	Studio Apartment				
	Pipe Works				
A	32mm Ø PPR Pipe	2	LM		
B	Ditto 25mm Ø	15	LM		
	Extra Over Pipe Work				
	Elbows/ Bends				
C	32mm Ø Elbows/ Bends	2	No.		
D	Ditto 25mm Ø	8	No.		
	Equal/Unequal Tees				
E	32 x 32 x 32mm	1	No.		
F	25 x 25 x 25mm	4	No.		
	Reducers				
G	32 x 25mm reducer	1	No.		
	Male/Female brass threaded adaptor				
J	25 x 20mm male/female threaded adaptor	2	No.		
K	25 x 15mm ditto	4	LM		
L	25 x 15mm male threaded bend	8	LM		
	Isolating valves				
M	25mm Ø Gate Valve as "Pegler" or Equivalent	1	No.		
	Shut off Angle Valve				
N	Brass plated 1/2" angle valve	4	No.		
	Check Meter				
O	25mm diameter water check meter	1	No.		
	Testing and Commissioning				
P	Allow for pressure testing of the Plumbing installation to the satisfaction of the Engineer including provision of necessary pipe plugs.	1	Item		
	Sub Total for 1 Units				
	TOTAL FOR 2 No. Sudios (Per Floor)	2		x 2	
Total Cost of Plumbing Installation for 2Room Social per Floor					

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
(vii)	Apartments on Ground Floor				
	Pipe Works				
A	32mm Ø PPR Pipe	14	LM		
B	Ditto 25mm Ø	105	LM		
	Extra Over Pipe Work				
	Elbows/ Bends				
C	32mm Ø Elbows/ Bends	14	No.		
D	Ditto 25mm Ø	56	No.		
	Equal/Unequal Tees				
E	32 x 32 x 32mm	7	No.		
F	25 x 25 x 25mm	28	No.		
	Reducers				
G	32 x 25mm reducer	7	No.		
	Male/Female brass threaded adaptor				
J	25 x 20mm male/female threaded adaptor	14	No.		
K	25 x 15mm ditto	28	LM		
L	25 x 15mm male threaded bend	56	LM		
	Isolating valves				
M	25mm Ø Gate Valve as "Pegler" or Equivalent	7	No.		
	Shut off Angle Valve				
N	Brass plated 1/2" angle valve	28	No.		
	Check Meter				
O	25mm diameter water check meter	7	No.		
	Testing and Commissioning				
P	Allow for pressure testing of the Plumbing installation to the satisfaction of the Engineer including provision of necessary pipe plugs.	1	Item		
	Sub Total for 1 Units				
	TOTAL FOR GROUND FLOOR	1		x1	
Total Cost of Plumbing Installation for the Extra Studio					

ITEM	DESCRIPTION	AMOUNT (KES)
	Typical Floor Collection Page	
1	Total Cost For Plumbing Installation for 3BR AHP	
2	Total Cost For Plumbing Installation for 3Room Social	
3	Total Cost For Plumbing Installation for 2BR AHP	
4	Total Cost For Plumbing Installation for 2Room Social	
5	Total Cost For Plumbing Installation for 1Room Social	
6	Total Cost For Plumbing Installation for Studio Apartment	
7	Total Plumbing Cost Per Floor	
8	**Total Plumbing Cost for 1st to 1oth Flors (Item 7 x 9 Floors)**	
9	**Add Total Cost of Ground Floor Apartments**	
	Total Cost (Item 8 +7) of Plumbing Carried to Summary Page	

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
2	**Risers and Roof Levels**				
	Pipe Works				
A	75mm Ø PPR pipe	50	LM		
B	Ditto 63mm Ø	50	LM		
B	Ditto 50mm Ø	50	LM		
C	Ditto 40mm Ø	40	LM		
	Extra Over Pipe Work				
	Elbows/ Bends				
D	75mm Ø Elbows/ Bends	12	No.		
E	Ditto 63mm Ø	25	No.		
F	Ditto 50mm Ø	8	No.		
G	Ditto 40mm Ø	16	No.		
H	Ditto 32mm Ø	16	No.		
I	Ditto 25mm Ø	8	No.		
	Equal/Unequal Tees				
J	63 x 63 x 63mm	10	No.		
K	40 x 40 x 40mm	8	No.		
L	40 x 40 x 32mm	16	No.		
M	32 x 32 x 32mm	4	No.		
N	32 x 32 x 25mm	4	No.		
O	25 x 25 x 25mm	12	No.		
	Reducers				
P	63 x 50mm reducer	6	No.		
Q	50 x 40mm reducer	6	No.		
R	40 x 32mm reducer	6	No.		
S	40 x 32mm reducer	6	No.		
T	32 x 25mm reducer	8	No.		
	Male/Female brass threaded adaptor				
U	40 x 32mm male/female threaded adaptor	5	No.		
V	32 x 25mm male/female threaded adaptor	7	No.		
	Total Carried to the Next Page				

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
	Total from Previous Page				
	Isolating valves				
W	65mm Ø Gate Valve as "Pegler" or Equivalent	1	No.		
X	40mm Ø Ditto	1	No.		
	Testing and Commissioning				
Y	Allow for pressure testing of the Plumbing installation to the satisfaction of the Engineer including provision of necessary pipe plugs.	1	Item		
	Sub Total for 1 Riser				
	TOTAL FOR 4 No. Risers	4		x 4	
	Total Cost of Riser & Roof Level Plumbing				

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
3	**SANITARY FITTINGS AND ACCESSORIES**				
A	**Water Closet (WC) Pan** Floor Standing Close Coupled WC Bowl complete with seat cover and cistern, flexible connection hoses, WC connector relevant fittings & accessories ***(Quote Install Only)***	124	No.		
B	**Wash Basin** Wall Hang Wash Basin 450x485x230m White Complte with bottle traps, flexible connection hoses and other accessories with cws only tap ***(Quote Install Only)***	124	No.		
C	**Shower Fittings** Shower fitting c/w 15mm diameter chrome plated stop cork, Instant shower fitting and 1/2" Cobra Star Wall mounted as Pegler or approved equivalent ***(Quote Install Only)***	124	No.		
D	**Bathroom Accessories** Medium Washroom bathroom set Consisitng of Toilet roll holder, soap dish holder, and Coat Hook ***(Quote Install Only)***	124	No.		
E	**Kitchen Sink** Stainless steel kitchen sink single drain, single bowl complete overflow and 40mm diameter plastic tubular p-trap PVC Bottle Trap and waste 1.5in x 40, Long Neck Wall type Bib Tap ***(Quote Install Only)***	105	Set		
	Total Carried to Next Page				

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
	FIRE PROTECTION				
	Hose Reel and Associated Pipework				
A	Supply and Install automatic 30 meters long, 25mm diameter hosereel and nozzle installed to KS 2003:2006	10	No.		
	Associated Pipework				
	GI Class 'B' tubing to KS06-259 with screwed and socketed joints to KS ISO 7-1:1994 including all range piping, fittings, hanagers, supports, brackets, and supports				
B	50mm diameter	65	LM		
C	25mm ditto	13	LM		
	Extra Over Piping For Fittings:-				
	Elbows/Various Bends				
D	50mm bend/elbow	7	No.		
E	25mm ditto	20	No.		
	Equal/Unequal tees				
F	50 x 50 x 50mm tee	10	No.		
G	50 x 50 x 25mm ditto	19	No.		
	Reducers				
H	50 x 25mm reducer	10	No.		
	Unions				
I	50mm diameter union	2	No.		
J	25mm ditto	20	No.		
	Valves				
K	25mm diameter quarter Turn hose reel isolation valve to be as PEGLER or approved equivalent.	10	No.		
	Painting				
L	Allow for Wire brushing , cleaning and painting of the complete fire fighting pipework installation with one coat of red oxide primer, undercoat, and gloss coat to specifications	1	Item		
Total Cost Carried For hose reel and associated pipework Installations					

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
	Portable Fire Protection Equipment				
	Supply, deliver, install, test and commission portable fire protection equipment with initial fill complete with all the necessary mounting accessories.				
A	9 litres, carbon dioxide gas extinguisher	10	No.		
B	4.5kg ABC dry powder extinguisher	10	No.		
C	Supply and fix signs indicating the words "FIRE POINT" in 80mm high letters	10	No.		
	Testing and Commissioning				
D	Allow for testing and commissioning of the fire pump installation to the satisfaction of the Engineer.	1	Item		
Total Cost For Portable fire Extinguishers + Hose Reel Pump Installation					

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
	Dry Riser Installations Supply , deliver and install Galvernised Iron (GI) Pipe KS 06-259 Class B, Groove fittings including fixing and jointing. Tenderers must allow in their pipework prices for Galvanised Support Brackets, Clamping screw, Threaded Rod, Bolts & all the couplings, connectors, joints etc. required in the running length of pipework and also where necessary, for pipe fixing clips, holderbats plugged and screwed, brackets and pipe sleeves through structural members.				
A	100mm diameter GI	45	LM		
	<u>Extra over GI Pipe tubing for the following:</u>				
	Bends				
B	100mm diameter bend	8	No.		
	Tees				
C	100mm ditto	10	No.		
	Reducers				
D	100x65mm GI Pipe	10	No.		
	Flanged Couplers				
E	100mm diameter GI union	20	No.		
	Landing Valve				
F	65mm diameter landing valve as Merry - Weather "Equery" constant pressure outlet with flanged inlet and 1No. 65mm dia female instantaneous outlet with blank cap and chain.	10	No.		
	Fire Hose				
G	65mm dia x30m long canvas hose complete with nozzle/ Spray	1	No.		
H	Wall mounted (on ground floor only) Fire Hose Cabinet to details	1	No.		
	Total Carried to Next Page				

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
	Balance brought forward				
	Pressure Release Valve				
I	25mm dia Air Relief Valve as specified	1	No.		
	Breaching Inlet				
J	100mm 2-way horizontal mounted pumping in breeching inlet to BS 5041 Part 3 and horizontal inlet box with door fitted with Georgian wired glass panel to BS5041 Part 5. Inclussive of Breeching inlet cabinet as specified complete with access break glass and painted	1	No.		
	Painting				
K	Wire brush , clean, and paint complete installation with one coat of red oxide primer, undercoat, and gloss coat to Architects colour including banding and colour coding to British Standards	1	Sum		
	Pressure testing				
L	Allow for pressure testing of the entire Dry riser installation and obtain relevant test certificates endorsed by the Engineer or his representative.	1	Sum		
	Total Cost for Dry Riser To Main Summary Page				

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
	Foul Drainage (Ground Floor)				
	Supply, deliver and install the following uPVC(Unplasticized Polyvinyl chloride) to(KS ISO 1452 Part 1, 2, 3, 4 & 5) Heavy gauge soil and waste system. Allow for all the various sizes of adaptor, connectors, sockets, holderbats, clips etc not measured but required for the satisfactory functioning of the system.				
	Piping				
A	32mm diameter heavy duty grey uPVC pipe	60	LM		
B	40mm ditto	60	LM		
C	50mm ditto	120	LM		
D	75mm ditto	80	LM		
E	100mm ditto	80	LM		
F	100mm diameter heavy duty golden brown pipe	155	LM		
G	150mm diameter heavy duty golden brown pipe	300	LM		
	Extra over uPVC Pipeworks				
H	32mm sweep bend	15	No.		
I	40mm sweep bend	60	No.		
J	50mm sweep bend	15	No.		
K	75mm sweep bend	8	No.		
L	100mm sweep bend	22	No.		
M	150mm sweep bend	16	No.		
N	40mm 450 bend	22	No.		
O	50mm 450 bend	15	No.		
P	40mm sweep tee	25	No.		
Q	40 x 32mm reducer	15	No.		
R	75 x 40mm ditto	15	No.		
S	150 x 40mm ditto	8	No.		
T	40mm access plug	22	No.		
U	100mm bend WC connector	13	No.		
V	32mm bottle 'p' trap	15	No.		
X	40mm bottle 'p' trap	15	No.		
Y	150MM vent cowl	15	No.		
	Total Carried to Next Page				

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
	Total From Previous Page				
Z	100 x 50mm floor trap set complete with polycarbonate flush grating	17	No.		
AA	**Gulley Trap** Gully trap comprising of 100mm diameter golden brown uPVC gully piece, 100mm diameter uPVC trap spigot outlet with screws and washers, and 300 x 300mm masonry gully trap chamber with mild steel plate and a heavy duty iron cover.	25	No.		
BB	**Manholes** Construct manhole/ inspection chamber size 450 x 600 x 750mm deep internally in 200mm stone walls, 150mm concrete bed, water proof plaster, forming drain channels, medium duty cover frame in cast iron with recessed cover with concrete infill and all necessary formwork, excavation and soil disposal.	32	No.		
CC	**Excavations** Excavate trench for pipe not exceeding 100mm diameter and not exceeding 1.5m deep (average 600mm deep) and make good as before.	120	LM		
DD	Allow for hydrostatic pressure testing of drainage installation including provision of pipe plugs and other required fittings.	1	Item		
	Total Cost For Ground Floor Foul Drainage Installation				

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
	Foul Drainage (1St Floor to 10th Floor)				
	Supply, deliver and install the following uPVC(Unplasticized Polyvinyl chloride) to(KS ISO 1452 Part 1, 2, 3, 4 & 5) Heavy gauge soil and waste system. Allow for all the various sizes of adaptor, connectors, sockets, holderbats, clips etc not measured but required for the satisfactory functioning of the system.				
	Piping				
A	32mm diameter heavy duty grey uPVC pipe	20	LM		
B	40mm ditto	70	LM		
C	50mm ditto	40	LM		
D	100mm ditto	40	LM		
E	150mm ditto	120	LM		
	Extra over uPVC Pipings				
F	32mm sweep bend	15	No.		
G	40mm sweep bend	82	No.		
H	50mm sweep bend	15	No.		
I	40mm 450sweep bend	25	No.		
J	50mm 450sweep bend	15	No.		
K	50mm y-connector	8	No.		
L	50mm sweep tee	4	No.		
M	40mm sweep tee	32	No.		
N	40 x 32mm reducer	14	No.		
O	150 x 40mm reducer	8	No.		
P	150 x 50mm reducer	8	No.		
Q	150 x 100mm reducer	22	No.		
R	40mm access plug	25	No.		
S	100mm access plug	15	No.		
T	100mm single branch	2	No.		
U	150mm single branch	17	No.		
V	100mm WC bend/ horizontal connector	15	No.		
W	32mm bottle 'p' trap	17	No.		
	Total Carried to Next Page				

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
	Total From Previous Page				
X	100 x 50mm floor trap set complete with polycarbonate flush grating	17	No.		
Y	Allow for hydrostatic pressure testing of drainage installation including provision of pipe plugs and other required fittings.	1	Item		
	Sub Total for 1 Floor				
	TOTAL FOR 9 Floors	9		x 9	
	Total Cost For 1st to 10th floor Foul Drainage Installation				

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
	Rain Water Drainage				
	Supply, deliver and install UPVC (Unplasticized Polyvinyl chloride) to (KS ISO 1452 Part 1, 2, 3, 4 & 5) rainwater pipework. Allow for all flanges, couplings, nipples, connector joints, fixing clips holder bats etc as required in running length of pipework but not measured.				
	Piping				
A	100mm ditto	400	LM		
	Extra over piping for fittings:-				
B	100mm sweep bend	2	No.		
C	100mm single branch	13	No.		
D	100mm double branch	7	No.		
E	100mm flat roof rain water outlets	10	No.		
	Testing and Commissioning				
G	Allow for testing and commissioning of the rain water drainage installation to the satisfaction of the engineer.	1	Item		
	Total Cost For Rain Water Drainage Installation				

ITEM	DESCRIPTION	AMOUNT (KES)
	SUMMARY PAGE	
1.0	**Total Cost for Internal Plumbing**	
2.0	**Total Cost for Roof + Riser**	
3.0	**Total Cost for Sanitary Fittings**	
4.0	**Total Cost Carried For hose reel and associated pipework Installations**	
5.0	**Total Cost For Portable fire Extinguishers**	
6.0	**Total for Dry Riser Installation**	
7.0	**Total Cost For Ground Floor Foul Drainage Installation**	
8.0	**Total Cost For 1st to 10th floor Foul Drainage Installation**	
9.0	**Total Cost For Rain Water Drainage Installation**	
10.0	**Allow Ksh. 100,000/- PC for installing Provisions for Ground Floor Shops**	
	Total carried to Mechanical Works Main Summary Page	

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
	EXTERNAL WATER RETICULATION				
	Supply, install below HDPE PN 16 to EN12201, (KS ISO 4427Part 1, 2, 3 & 5) ground pipe providing, fixing, jointing, testing in position & commisioning, including excavation & backfilling as required				
	Note				
	Pipe connection, tees must be electrofusion/butt fussion fittings and be included in the pipe lengths rate. he pipes will be pressure tested before the plastering of wall commences and as per the manufacturers recommended testing pressures.				
	Underground Piping				
A	100Ø HDPE	120	m		
B	Ditto 75Ø	60	m		
C	Ditto 63Ø	30	m		
	Isolation Valves & Valve Chamber				
	Suppy and Install Isolation valves to BS EN 1074-2:2000 Standards. Standard precast concrete valve chamber made of concrete (1:3:6) base, including formwork, excavations backfilling and disposal.				
D	Ditto 100Ø	2	No.		
E	Ditto 75Ø	4	No.		
F	Ditto 63Ø	2	No.		
G	Ditto 50Ø	4	No.		
	Total Carried to Next Page				

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
	From previous page				
	Check/ Non- return Valve Valve Chamber & Valve Chamber				
	Suppy and Install brass check valves to EN BS 5352 Standards. Standard precast concrete valve chamber made of concrete (1:3:6) base, including formwork, excavations backfilling and disposal.				
H	Ditto 100Ø	2	No.		
I	Ditto 75Ø	4	No.		
J	Ditto 50Ø	2	No.		
	Water Meter				
	Supply and Install brass Water Meter to the engineer's approval as kent or equal and approved. Meters to include meter chambers in the rates				
K	Water meter 100Ø	1	No.		
L	Water meter 75Ø	4	No.		
M	Water meter 63Ø	2	No.		
N	Water meter 50Ø	2	No.		
	Garden Stand Pipe				
O	Stand pipe 15mm 2Metres long GMS stand pipe each complete witlh 15mm lockabler bib tap	5	No.		
	Total Carried to Next Page				

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
	From previous page				
	Supply and fix the following in PP-R PN 20 water pipes to (KS ISO 15874 Part 1, 2, 3 & 5), with fittings fixed to manufacturer's printed instructions. Tenderers must allow in their pipework tees, reducing branches, reducing tees, reducers, unions, nex hipples adapters etc, and pipes clips or holder bats, plugged and screwed. include for excavation and backfilling				
	Underground PPR Piping				
p	PPR 25Ø	120	m		
Q	Ditto 32Ø	150	m		
R	Pipe Sleeves 100mm diameter heavy duty PVC Class 41 pipe sleeves for crossing over pathways and driveways. The sleeves will be encased in 150mm concrete sorround.	20	m		
	Total Carried to Next Page				

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
	From previous page				
	Accessories for RC Tanks				
A	Accessories for **400m3 Reinforced Concrete Underground water Tank** and which are to be in paddle flanges: 2 No. 100mm diameter outlet pipe for domestic booster pumpset, 2 No. 100mm diameter for vent/overflow pipe, 2 No. 20mm diameter for level indicator on the side of the tank with well calibrated scale, air release and drain valve complete with connection adaptors and flanges. and 2 No. 100mm diameter high pressure calming inlet for fitting for the underground tank.	1	Item		
	Sterilization				
B	Allow for flushing out and sterilizing the whole system with chlorine to the satisfaction of the Project Engineer.	1	Sum		
	Testing and commissioning				
C	Allow for sterilization of the cold water system, pressure testing and commissioning of the Plumbing installation.	1	Sum		
	Total carried to Mechanical Works Main Summary Page				

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
1.0	**Internal Plumbing Installations**				
	Supply, deliver install, Test and Commission: PP-R (Polypropylene Random Co-polymer) pipes PN 20 and fittings and fusion joints to (KS ISO 15874 Part 1, 2, 3 & 5) of approved manufacturer. Rates must allow for all Metal/plastic threaded adaptors where required for the connection of sanitary fixtures, valves, sockets, sliding and fixed joints etc. as required in the running lengths of pipework. The pipes shall run in floors and wall chase. The pipes will be pressure tested before the plastering of wall commences and as per the manufacturers recommended testing pressures.				
(i)	Guard House				
	Pipe Works				
A	25mm Ø PPR Pipe	6	LM		
B	Ditto 20mm Ø	4	LM		
	Extra Over Pipe Work				
	Elbows/ Bends				
C	25mm Ø Elbows/ Bends	3	No.		
D	Ditto 20mm Ø	2	No.		
	Equal/Unequal Tees				
E	25 x 20 x 25mm	1	No.		
	Reducers				
F	25 x 20mm reducer	2	No.		
	Male/Female brass threaded adaptor				
G	25 x 20mm male/female threaded adaptor	2	No.		
H	25 x 15mm ditto	1	LM		
I	25 x 15mm male threaded bend	1	LM		
	Total Carried to Next Page				

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
	Total from Previous Page				
	Isolating valves				
J	25mm Ø Gate Valve as "Pegler" or Equivalent	1	No.		
	Shut off Angle Valve				
K	Brass plated 1/2" angle valve	3	No.		
	Check Meter				
L	25mm diameter water check meter	1	No.		
	Testing and Commissioning				
M	Allow for pressure testing of the Plumbing installation to the satisfaction of the Engineer including provision of necessary pipe plugs.	1	Item		
	Sub Total for 1				
	TOTAL	1		x 1	
Total Cost of Plumbing Installation Guard House					

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
2.0	**SANITARY FITTINGS AND ACCESSORIES**				
A	**Water Closet (WC) Pan** Floor Standing Close Coupled WC Bowl complete with seat cover and cistern, flexible connection hoses, WC connector relevant fittings & accessories***(Quote Install Only)***	1	No.		
B	**Wash Basin** Wall Hang Wash Basin 450x485x230m White Complte with bottle traps, flexible connection hoses and other accessories with cws only tap ***(Quote Install Only)***	1	No.		
D	**Shower Fittings** Shower fitting c/w 15mm diameter chrome plated stop cork, Instant shower fitting and 1/2" Cobra Star Wall mounted as Pegler or approved equivalent ***(Quote Install Only)***	1	No.		
	Sub Total for 1				
	TOTAL	1		x 1	
Total Carried to Next Page					

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
	Foul Drainage				
	Supply, deliver and install the following uPVC(Unplasticized Polyvinyl chloride) to(KS ISO 1452 Part 1, 2, 3, 4 & 5) Heavy gauge soil and waste system. Allow for all the various sizes of adaptor, connectors, sockets, holderbats, clips etc not measured but required for the satisfactory functioning of the system.				
	Piping				
A	32mm diameter heavy duty grey uPVC pipe	2	LM		
B	40mm ditto	3	LM		
C	50mm ditto	6	LM		
D	100mm ditto	4	LM		
E	100mm diameter heavy duty pipe	8	LM		
	Extra over uPVC Pipeworks				
F	32mm sweep bend	1	No.		
G	40mm sweep bend	1	No.		
H	50mm sweep bend	2	No.		
I	100mm sweep bend	1	No.		
J	40mm 45º bend	1	No.		
K	50mm Ditto	1	No.		
L	50mm sweep tee	2	No.		
M	40 x 32mm reducer	1	No.		
N	40mm access plug	1	No.		
	Total Carried to Next Page				

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
	Total From Previous Page				
A	100 x 50mm floor trap set complete with polycarbonate flush grating	2	No.		
B	100mm WC bend connector	1	No.		
C	32mm bottle 'p' trap	1	No.		
	Gulley Trap				
D	Gully trap comprising of 100mm diameter golden brown uPVC gully piece, 100mm diameter uPVC trap spigot outlet with screws and washers, and 300 x 300mm masonry gully trap chamber with mild steel plate and a heavy duty iron cover.	1	No.		
	Manholes				
E	Construct manhole/ inspection chamber size 450 x 600 x 750mm deep internally in 200mm stone walls, 150mm concrete bed, water proof plaster, forming drain channels, medium duty cover frame in cast iron with recessed cover with concrete infill and all necessary formwork, excavation and soil disposal.	1	No.		
	Excavations				
F	Excavate trench for pipe not exceeding 100mm diameter and not exceeding 1.5m deep (average 600mm deep) and make good as before.	8	LM		
G	Allow for hydrostatic pressure testing of drainage installation including provision of pipe plugs and other required fittings.	1	Item		
	Total Cost For Ground Floor Foul Drainage Installation				

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
	Rain Water Drainage				
	Supply, deliver and install UPVC (Unplasticized Polyvinyl chloride) to (KS ISO 1452 Part 1, 2, 3, 4 & 5) rainwater pipework. Allow for all flanges, couplings, nipples, connector joints, fixing clips holder bats etc as required in running length of pipework but not measured.				
	Piping				
A	100mm ditto	6	LM		
	Extra over piping for fittings:-				
B	100mm sweep bend	2	No.		
C	100mm single branch	2	No.		
D	100mm double branch	2	No.		
E	100mm flat roof rain water outlets	1	No.		
	Total Cost For Rain Water Drainage Installation				

ITEM	DESCRIPTION	AMOUNT (KES)
	SUMMARY PAGE	
1.0	**Total Cost for Internal Plumbing**	
2.0	**Total Cost for Sanitary Fittings**	
3.0	**Total Cost For Ground Floor Foul Drainage Installation**	
4.0	**Total Cost For Rain Water Drainage Installation**	
	Total carried to Mechanical Works Main Summary Page	

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
1.0	**Internal Plumbing Installations**				
	Supply, deliver install, Test and Commission: PP-R (Polypropylene Random Co-polymer) pipes PN 20 and fittings and fusion joints to (KS ISO 15874 Part 1, 2, 3 & 5) of approved manufacturer. Rates must allow for all Metal/plastic threaded adaptors where required for the connection of sanitary fixtures, valves, sockets, sliding and fixed joints etc. as required in the running lengths of pipework. The pipes shall run in floors and wall chase. The pipes will be pressure tested before the plastering of wall commences and as per the manufacturers recommended testing pressures.				
	Garbage Receptacle				
	Pipe Works				
A	25mm Ø PPR Pipe	2	LM		
B	Ditto 20mm Ø	2	LM		
	Extra Over Pipe Work				
	Elbows/ Bends				
C	25mm Ø Elbows/ Bends	3	No.		
D	Ditto 20mm Ø	2	No.		
	Equal/Unequal Tees				
E	25 x 20 x 25mm	1	No.		
	Reducers				
F	25 x 20mm reducer	2	No.		
	Male/Female brass threaded adaptor				
G	25 x 20mm male/female threaded adaptor	2	No.		
H	25 x 15mm ditto	1	LM		
I	25 x 15mm male threaded bend	1	LM		
	Total Carried to Next Page				

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
	Total from Previous Page				
	Isolating valves				
J	25mm Ø Gate Valve as "Pegler" or Equivalent	1	No.		
	Testing and Commissioning				
L	Allow for pressure testing of the Plumbing installation to the satisfaction of the Engineer including provision of necessary pipe plugs.	1	Item		
	Sub Total				
	TOTAL	1		x 1	
Total Cost of Plumbing Installation Guard House					

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
	Foul Drainage				
	Supply, deliver and install the following uPVC(Unplasticized Polyvinyl chloride) to(KS ISO 1452 Part 1, 2, 3, 4 & 5) Heavy gauge soil and waste system. Allow for all the various sizes of adaptor, connectors, sockets, holderbats, clips etc not measured but required for the satisfactory functioning of the system.				
	Piping				
A	50mm ditto	6	LM		
B	100mm ditto	4	LM		
C	100mm diameter heavy duty pipe	4	LM		
	Extra over uPVC Pipeworks				
D	50mm sweep bend	2	No.		
E	100mm sweep bend	1	No.		
	Total Carried to Next Page				

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
	Total From Previous Page				
F	**Gulley Trap** Gully trap comprising of 100mm diameter golden brown uPVC gully piece, 100mm diameter uPVC trap spigot outlet with screws and washers, and 300 x 300mm masonry gully trap chamber with mild steel plate and a heavy duty iron cover.	1	No.		
G	**Manholes** Construct manhole/ inspection chamber size 450 x 600 x 750mm deep internally in 200mm stone walls, 150mm concrete bed, water proof plaster, forming drain channels, medium duty cover frame in cast iron with recessed cover with concrete infill and all necessary formwork, excavation and soil disposal.	1	No.		
H	**Excavations** Excavate trench for pipe not exceeding 100mm diameter and not exceeding 1.5m deep (average 600mm deep) and make good as before.	4	LM		
	Total Cost For Ground Floor Foul Drainage Installation				

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
	Rain Water Drainage				
	Supply, deliver and install UPVC (Unplasticized Polyvinyl chloride) to (KS ISO 1452 Part 1, 2, 3, 4 & 5) rainwater pipework. Allow for all flanges, couplings, nipples, connector joints, fixing clips holder bats etc as required in running length of pipework but not measured.				
	Piping				
A	100mm ditto	6	LM		
	Extra over piping for fittings:-				
B	100mm sweep bend	2	No.		
C	100mm single branch	2	No.		
D	100mm double branch	2	No.		
E	100mm flat roof rain water outlets	1	No.		
	Total Cost For Rain Water Drainage Installation				

ITEM	DESCRIPTION	AMOUNT (KES)
	SUMMARY PAGE	
1.0	**Total Cost for Internal Plumbing**	
2.0	**Total Cost For Ground Floor Foul Drainage Installation**	
3.0	**Total Cost For Rain Water Drainage Installation**	
	Total carried to Mechanical Works Main Summary Page	

ELECTRICAL INSTALLATIONS

PROPOSED CHUKA AFFORDABLE HOUSING PROJECT
ELECTRICAL INSTALLATIONS BILL OF QUANTITIES
GRAND SUMMARY PAGE

ITEM	DESCRIPTION	Unit	Qty	RATE (KSHS)	AMOUNT (KSHS)
1	SUMMARY FOR INCOMING POWER & KPLC RELATED COSTS	Lot	1		
2	SUMMARY FOR ELECTRICAL SERVICES FOR AFFORDABLE HOUSING BLOCK TYPE A	No	1		
3	SUMMARY FOR ELECTRICAL SERVICES FOR AFFORDABLE HOUSING BLOCK TYPE B	No	2		
4	SUMMARY FOR ELECTRICAL SERVICES FOR AFFORDABLE HOUSING BLOCK TYPE C	No	1		
5	SUMMARY FOR EXTERNAL ELECTRICS	No	1		
6	SUMMARY FOR ELECTRICAL SERVICES FOR GUARD HOUSE	Lot	1		
7	SUMMARY FOR ELECTRICAL SERVICES FOR GARBAGE RECEPTACLE HOUSE	Lot	1		
	TOTALS FOR ELECTRICAL INSTALLATION SERVICES FOR PROPOSED CHUKA AFFORDABLE HOUSING PROJECT				
	Ommisions				
1.00	8No. Lifts Estimate at **KES.44,560,000.00**				
2.00	1No. 200KVA Generators Estimate at **KES.8,000,000.00**				
3.00	CCTV Installations at **KES.1,000,000.00**				
4.00	4No. LV Switchboards at **KES.4,000,000.00**				
5.00	Capital Contribution to KPLC For Power Connection at **KES.3,000,000.00**				
6.00	MATV Installation at **KES. 2,000,000.00**				
7.00	35No. Street Lighting Installations at **KES. 1,750,000.00**				
8.00	2No. Commercial Stalls at **KES. 100,000.00**				

Amount in Words: Kenya Shillings……
……
Official Stamp & Address:……
Tenderer's Signature:……...Date:……..……...……
Witness' Name:……Witness' Signature:…….……
Address:……...……
Date:……

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	BILL NO. 1				
	PROPOSED TYPICAL SOCIAL & AFFORDABLE UNITS BLOCK TYPE A				
(i)	**GROUND FLOOR**				
A.	**2 BEDROOM AHP UNITS**				
	SUPPLY, DELIVER , INSTALL ,SET TO WORK AND COMMISSION THE FOLLOWING:-				
	LIGHTING POINTS				
1.01	Lighting point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories for one way switching, but excluding the switch and luminaire.	No.	6		
	ii) Ditto as in item No. 1.01 but for two way switching	No.	4		
1.02	10A white moulded switch plate as Crabtree, MK Logic, Clipsal E- Series or approved equivalent as follows:-				
	i) 10A one gang one way switch	No.	3		
	ii) 10A one gang two way switch	No.	5		
	iii) 10A two gang two way switch	No.	2		
1.03	**LIGHTING FITTINGS**				
	a) Ceiling rose complete with 3 core flex cable, lamp holder and 11W led lamp as crabtree or approved equivalent **Type 'CR'**	No.	6		
	b) Spherical screwneck luminaire with opal glass and 16W compact fluorescent lamp as Astra, Micromark, Thorn or approved equivalent. "**Type BF"**	No.	2		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
	POWER AND SOCKET OUTLET POINTS				
1.04	13A SP socket point completely wired in 3 x 2.5mm^2 single core PVC insulated copper cables drawn in 25mm diameter heavy gauge PVC conduits including all accessories but excluding the 13A SP switched socket outlet.	No.	7		
1.05	Socket Outlet plates i) 13A SP twin switched socket outlet as MK 2536 or approved equivalent.	No.	7		
1.06	Instant shower water heater power points completely wired in 3 x 4mm^2 single core PVC insulated copper cables drawn in 25mm diameter heavy gauge PVC conduits including all accessories,but excluding the 40A DP connection unit	No.	1		
1.07	40A DP switched connection unit with neon indicator as MK or approved equivalent	No.	1		
1.08	Cooker outlet power points completely wired in 3 x 6.0mm^2 single core PVC insulated copper cables drawn in 32mm diameter heavy gauge PVC conduits including all accessories, but excluding the 45A Cooker connection unit	No.	1		
1.09	45A Moulded plate Cooker Control Unit complete with 13A fused Socket outlet as MK/Crabtree or approved equivalent.	No.	1		
1.10	45A moulded plate cooker connection unit as MK/Crabtree or approved equivalent:	No.	1		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
1.11	Domestic door bell point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories but excluding the bell.	No.	1		
1.12	240V/12V Ding dong domestic door bell	No.	1		
	TELEPHONE, DATA AND TV POINTS POINTS				
1.13	Data point comprising of draw wire in 25mm diameter Heavy Gauge PVC conduits including all accessories and blanking cover but excluding the Data socket outlet.	No.	1		
1.14	DTV Socket point comprising of draw wire in 25mm diameter Heavy Gauge PVC conduits including all accessories and blanking cover but excluding the DTV socket outlet.	No.	1		
1.15	300x 300x 100mm deep 16G galvanized adaptable	No.	2		
1.16	25mm diameter PVC HG conduit for ICT services and linking the Draw Boxes to the ICT ducts	LM	45		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
	POWER RETICULATION AND DISTRIBUTION BOARDS				
1.17	6 ways 100A SPN Consumer Unit `A' complete with 100A SPN integral isolator, but excluding the MCBs ,and as Schneider Electric Acti 9 or approved equivalent.	No.	1		
1.18	**MCBs for item above as Schneider Electric Acti 9**				
	i)10 A SP MCB	No.	1		
	ii)32 A SP MCB	No.	2		
	iii) 45 A SP MCB	No.	1		
	iv) Blanking plates	No.	2		
1.19	Sub-mains circuits for CU 'A ' above comprising of 3 x 10mm^2 single core PVC insulated copper cables drawn in 32mm heavy gauge conduits and running from the LV switchboard below the staircase.	LM	45		
	Total Carried Forward to Ground Floor Collection Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
B.	**3 BEDROOM AHP UNIT**				
	SUPPLY, DELIVER , INSTALL ,SET TO WORK AND COMMISSION THE FOLLOWING:-				
	LIGHTING POINTS				
1.01	Lighting point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories for one way switching, but excluding the switch and luminaire.	No.	4		
	ii) Ditto as in item No. 1.01 but for two way switching	No.	6		
1.02	10A white moulded switch plate as Crabtree, MK Logic, Clipsal E- Series or approved equivalent as follows:-				
	i) 10A one gang one way switch	No.	4		
	ii) 10A one gang two way switch	No.	8		
	iii) 10A two gang two way switch	No.	1		
1.03	**LIGHTING FITTINGS**				
	a) Ceiling rose complete with 3 core flex cable, lamp holder and 11W led lamp as crabtree or approved equivalent **Type 'CR'**	No.	7		
	b) Spherical screwneck luminaire with opal glass and 16W compact fluorescent lamp as Astra, Micromark, Thorn or approved equivalent. "**Type BF"**	No.	3		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
	POWER AND SOCKET OUTLET POINTS				
1.04	13A SP socket point completely wired in 3 x 2.5mm^2 single core PVC insulated copper cables drawn in 25mm diameter heavy gauge PVC conduits including all accessories but excluding the 13A SP switched socket outlet.	No.	8		
1.05	Socket Outlet plates i) 13A SP twin switched socket outlet as MK 2536 or equal & approved equivalent.	No.	8		
1.06	Instant shower water heater power points completely wired in 3 x 4mm^2 single core PVC insulated copper cables drawn in 25mm diameter heavy gauge PVC conduits including all accessories, but excluding the 40A DP connection unit	No.	2		
1.07	40A DP switched connection unit with neon indicator as MK or approved equivalent	No.	2		
1.08	Cooker outlet power points completely wired in 3 x 6.0mm^2 single core PVC insulated copper cables drawn in 32mm diameter heavy gauge PVC conduits including all accessories, but excluding the 45A DP connection unit	No.	1		
1.09	45A Moulded plate Cooker Control Unit complete with 13A fused socket outlet as MK/Crabtree or approved equivalent.	No.	1		
1.10	45A Moulded plate Cooker Control Unit complete with 13A fused Socket outlet as MK/Crabtree or approved equivalent.	No.	1		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
1.11	Domestic door bell point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories but excluding the bell.	No.	1		
1.12	240V/12V Ding dong domestic door bell	No.	1		
	TELEPHONE, DATA AND TV POINTS POINTS				
1.13	Data point comprising of draw wire in 25mm diameter Heavy Gauge PVC conduits including all accessories and blanking cover but excluding the telephone socket outlet.	No.	1		
1.14	DTV Socket point comprising of draw wire in 25mm diameter Heavy Gauge PVC conduits including all accessories and blanking cover but excluding the DTV socket outlet.	No.	1		
1.15	300x 300x 100mm deep 16G galvanized adaptable box.	No.	2		
1.16	25mm diameter PVC HG conduit for ICT services and linking the Draw Boxes to the ICT ducts	LM	45		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
	POWER RETICULATION AND DISTRIBUTION BOARDS				
1.17	6 ways 100A SPN Consumer Unit `A' complete with 100A SPN integral isolator ,but excluding the MCBs, and as Schneider Electric Acti 9 or approved equivalent.	No.	1		
1.18	**MCBs for item above as Schneider Electric Acti 9**				
	i)10 A SP MCB	No.	1		
	ii)32 A SP MCB	No.	3		
	iii) 45 A SP MCB	No.	1		
	iv) Blanking plates	No.	1		
1.19	Sub-mains circuits for CU 'A ' above comprising of 3 x 10mm^2 single core PVC insulated copper cables drawn in 32mm heavy gauge conduits and running from the Lv switchboard below the staircase.	LM	45		
	Total Carried Forward to the Ground Floor Collection Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
C.	**STUDIO SOCIAL UNITS**				
	SUPPLY, DELIVER , INSTALL ,SET TO WORK AND COMMISSION THE FOLLOWING:-				
	LIGHTING POINTS				
1.01	Lighting point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories for one way switching, but excluding the switch and luminaire.	No.	1		
	ii) Ditto as in item No. 1.01 but for two way switching	No.	2		
1.02	10A white moulded switch plate as Crabtree, MK Logic, Clipsal E- Series or approved equivalent as follows:-				
	i) 10A one gang one way switch	No.	1		
	ii) 10A one gang two way switch	No.	2		
	iii) 10A two gang two way switch	No.	1		
1.03	**LIGHTING FITTINGS**				
	a) Ceiling rose complete with 3 core flex cable, lamp holder and 11W led lamp as crabtree or approved equivalent **Type 'CR'**	No.	2		
	b) Spherical screwneck luminaire with opal glass and 16W compact fluorescent lamp as Astra, Micromark, Thorn or approved equivalent. "**Type BF"**	No.	1		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
	POWER AND SOCKET OUTLET POINTS				
1.04	13A SP socket point completely wired in 3 x 2.5mm^2 single core PVC insulated copper cables drawn in 25mm diameter heavy gauge PVC conduits including all accessories but excluding the 13A SP switched socket outlet.	No.	4		
1.05	Socket Outlet plates i) 13A SP twin switched socket outlet as MK 2536 or equal & approved equivalent.	No.	4		
1.06	Instant shower water heater power points completely wired in 3 x 4mm^2 single core PVC insulated copper cables drawn in 25mm diameter heavy gauge PVC conduits including all accessories ,but excluding the 40A DP connection unit	No.	1		
1.07	40A DP switched connection unit with neon indicator as MK or approved equivalent	No.	1		
1.08	Cooker outlet power points completely wired in 3 x 6.0mm^2 single core PVC insulated copper cables drawn in 32mm diameter heavy gauge PVC conduits including all accessories ,but excluding the 45A DP connection unit	No.	1		
1.09	45A Moulded plate Cooker Control Unit complete with 13A fused Socket outlet as MK/Crabtree or approved equivalent.	No.	1		
1.10	45A moulded plate cooker connection unit as MK/Crabtree or approved equivalent:	No.	1		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
1.11	Domestic door bell point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories but excluding the bell.	No.	1		
1.12	240V/12V Ding dong domestic door bell	No.	1		
	TELEPHONE, DATA AND TV POINTS POINTS				
1.13	Data point comprising of draw wire in 25mm diameter Heavy Gauge PVC conduits including all accessories and blanking plate but excluding the telephone socket outlet.	No.	1		
1.14	DTV Socket point comprising of draw wire in 25mm diameter Heavy Gauge PVC conduits including all accessories but excluding the DTV socket outlet.	No.	1		
1.15	300x 300x 100mm deep 16G galvanized adaptable box.	No.	2		
1.16	25mm diameter PVC HG conduit for ICT services and linking the Draw Boxes to the ICT ducts	LM	30		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
	POWER RETICULATION AND DISTRIBUTION BOARDS				
1.17	6 ways 100A SPN Consumer Unit `A' complete with 100A SPN integral isolator ,but excluding the MCBs ,and as Schneider Electric Acti 9 or approved equivalent.	No.	1		
1.18	**MCBs for item above as Schneider Electric Acti 9 or approved equivalent**				
	i)10 A SP MCB	No.	1		
	ii)32 A SP MCB	No.	3		
	iii) 45 A SP MCB	No.	1		
	iv) Blanking plates	No.	1		
1.19	Sub-mains circuits for CU 'A ' above comprising of 3 x 10mm^2 single core PVC insulated copper cables drawn in 32mm heavy gauge conduits and running from the LV switchboard below the staircase.	LM	30		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
D.	**2 ROOM/ 1 ROOM UNITS**				
	SUPPLY, DELIVER , INSTALL ,SET TO WORK AND COMMISSION THE FOLLOWING:-				
	LIGHTING POINTS				
1.01	Lighting point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories for one way switching, but excluding the switch and luminaire.	No.	2		
	ii) Ditto as in item No. 1.01 but for two way switching	No.	3		
1.02	10A white moulded switch plate as Crabtree, MK Logic, Clipsal E- Series or approved equivalent as follows:-				
	i) 10A two gang one way switch	No.	1		
	ii) 10A one gang two way switch	No.	3		
	iii) 10A two gang two way switch	No.	1		
1.03	**LIGHTING FITTINGS**				
	a) Ceiling rose complete with 3 core flex cable, lamp holder and 11W led lamp as crabtree or approved equivalent **Type 'CR'**	No.	4		
	b) Spherical screwneck luminaire with opal glass and 16W compact fluorescent lamp as Astra, Micromark, Thorn or approved equivalent. "**Type BF"**	No.	1		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
	POWER AND SOCKET OUTLET POINTS				
1.04	13A SP socket point completely wired in 3 x 2.5mm^2 single core PVC insulated copper cables drawn in 25mm diameter heavy gauge PVC conduits including all accessories but excluding the 13A SP switched socket outlet.	No.	6		
1.05	Socket Outlet plates i) 13A SP twin switched socket outlet as MK 2536 or equal & approved equivalent.	No.	6		
1.06	Instant shower water heater power points completely wired in 3 x 4mm^2 single core PVC insulated copper cables drawn in 25mm diameter heavy gauge PVC conduits including all accessories, but excluding the 40A DP connection unit	No.	1		
1.07	40A DP switched connection unit with neon indicator as MK or approved equivalent	No.	1		
1.08	Cooker outlet power points completely wired in 3 x 6.0mm^2 single core PVC insulated copper cables drawn in 32mm diameter heavy gauge PVC conduits including all accessories ,but excluding the 45A DP connection unit	No.	1		
1.09	45A Moulded plate Cooker Control Unit complete with 13A fused socket outlet as MK/Crabtree or approved equivalent.	No.	1		
1.10	45A moulded plate cooker connection unit as MK/Crabtree or approved equivalent:	No.	1		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
1.11	Domestic door bell point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories but excluding the bell.	No.	1		
1.12	240V/12V Ding dong domestic door bell	No.	1		
	TELEPHONE, DATA AND TV POINTS POINTS				
1.13	Data point comprising of draw wire in 25mm diameter Heavy Gauge PVC conduits including all accessories and blanking plate but excluding the data socket outlet.	No.	1		
1.14	DTV Socket point comprising of draw wire in 25mm diameter Heavy Gauge PVC conduits including all accessories but excluding the DTV socket outlet.	No.	1		
1.15	300x 300x 100mm deep 16G galvanized adaptable box.	No.	2		
1.16	25mm diameter PVC HG conduit for ICT services and linking the Draw Boxes to the ICT ducts	LM	20		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
	POWER RETICULATION AND DISTRIBUTION BOARDS				
1.17	6 ways 100A SPN Consumer Unit `A' complete with 100A SPN integral isolator, but excluding the MCBs ,and as Schneider Electric Acti 9 or approved equivalent.	No.	1		
1.18	**MCBs for item above as Schneider Electric Acti 9 or approved equivalent**				
	i)10 A SP MCB	No.	1		
	ii)32 A SP MCB	No.	3		
	iii) 45 A SP MCB	No.	1		
	iv) Blanking plates	No.	1		
1.19	Sub-mains circuits for CU 'A ' above comprising of 3 x 10mm^2 single core PVC insulated copper cables drawn in 32mm heavy gauge conduits and running from the LVswitchboard below the staircase.	LM	20		
	Total Carried Forward to Ground Floor Collection Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
E.	**3 ROOM SOCIAL UNIT**				
	SUPPLY, DELIVER , INSTALL ,SET TO WORK AND COMMISSION THE FOLLOWING:-				
	LIGHTING POINTS				
1.01	Lighting point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories for one way switching, but excluding the switch and luminaire.	No.	2		
	ii) Ditto as in item No. 1.01 but for two way switching	No.	5		
1.02	10A white moulded switch plate as Crabtree, MK Logic, Clipsal E- Series or approved equivalent as follows:-				
	i) 10A one gang one way switch	No.	1		
	ii) 10A one gang two way switch	No.	4		
	iii) 10A two gang two way switch	No.	3		
1.03	**LIGHTING FITTINGS**				
	a) Ceiling rose complete with 3 core flex cable, lamp holder and 11W led lamp as crabtree or approved equivalent **Type 'CR'**	No.	6		
	b) Spherical screwneck luminaire with opal glass	No.	1		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
	POWER AND SOCKET OUTLET POINTS				
1.04	13A SP socket point completely wired in 3 x 2.5mm^2 single core PVC insulated copper cables drawn in 25mm diameter heavy gauge PVC conduits including all accessories but excluding the 13A SP switched socket outlet.	No.	7		
1.05	Socket Outlet plates i) 13A SP twin switched socket outlet as MK 2536 or equal & approved equivalent.	No.	7		
1.06	Instant shower water heater power points completely wired in 3 x 4mm^2 single core PVC insulated copper cables drawn in 25mm diameter heavy gauge PVC conduits including all accessories, but excluding the 40A DP connection unit	No.	1		
1.07	40A DP switched connection unit with neon indicator as MK or approved equivalent	No.	1		
1.08	Cooker outlet power points completely wired in 3 x 6.0mm^2 single core PVC insulated copper cables drawn in 32mm diameter heavy gauge PVC conduits including all accessories, but excluding the 45A DP connection unit	No.	1		
1.09	45A Moulded plate Cooker Control Unit complete with 13A fused socket outlet as MK/Crabtree or approved equivalent.	No.	1		
1.10	45A Moulded plate Cooker Control Unit complete with 13A fused Socket outlet as MK/Crabtree or approved equivalent.	No.	1		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
1.11	Domestic door bell point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories but excluding the bell.	No.	1		
1.12	240V/12V Ding dong domestic door bell	No.	1		
	TELEPHONE, DATA AND TV POINTS POINTS				
1.13	Data point comprising of draw wire in 25mm diameter Heavy Gauge PVC conduits including all accessories and blanking cover but excluding the telephone socket outlet.	No.	1		
1.14	DTV Socket point comprising of draw wire in 25mm diameter Heavy Gauge PVC conduits including all accessories and blanking cover but excluding the DTV socket outlet.	No.	1		
1.15	300x 300x 100mm deep 16G galvanized adaptable box.	No.	2		
1.16	25mm diameter PVC HG conduit for ICT services and linking the Draw Boxes to the ICT ducts	Lm.	20		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
	POWER RETICULATION AND DISTRIBUTION BOARDS				
1.17	6 ways 100A SPN Consumer Unit `A' complete with 100A SPN integral isolator ,but excluding the MCBs, and as Schneider Electric Acti 9 or approved equivalent.	No.	1		
1.18	**MCBs for item above as Schneider Electric Acti 9**				
	i)10 A SP MCB	No.	1		
	ii)32 A SP MCB	No.	3		
	iii) 45 A SP MCB	No.	1		
	iv) Blanking plates	No.	1		
1.19	Sub-mains circuits for CU 'A ' above comprising of 3 x 10mm^2 single core PVC insulated copper cables drawn in 32mm heavy gauge conduits and running from the Lv switchboard below the staircase.	LM	20		
	Total Carried Forward to Ground Floor Collection Page				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
F.	**CORRIDOR/ LIFTS LOBBY AREA**				
	SUPPLY, DELIVER , INSTALL ,SET TO WORK AND COMMISSION THE FOLLOWING:-				
	LIGHTING POINTS				
1.01	Lighting point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories for two way switching, but excluding the switch and luminaire.	No.	31		
1.02	10A white moulded switch plate as Crabtree, MK Logic, Clipsal E- Series or approved equivalent as follows:-				
	i) 10A one gang two way switch	No.	4		
	ii) 10A two gang two way switch	No.	4		
1.03	**LIGHTING FITTINGS**				
	a) Circular shaped surface mounted led luminaire	No.	12		
	b) Emergency Maintained Circular shaped surfac	No.	3		
	c) 8W bulkbead luminaire ,polycarbonate base, and clear diffuser and installed inside the lift shaft As Thorn EWB/ETB bulkhead. "**Type G**"	No.	2		
	d) Bulkhead fitting with moulded glass diffuser c	No.	14		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
1.04	CCTV points in designtaed locations for survailance, comprising of 25mm diameter HG PVC conduits complete with draw wire and the blanking plate. Allow for draw boxes where all the conduits from each security point converge.	No.	6		
1.05	300x 300x 100mm deep 16 G galvanized adaptable box.	No.	2		
	LIGHTING CONTROL				
1.06	Presence sensor complete with assocaited wiring (light and motion sensor) as Osram Duo with the following characteristics: Operation voltage 220 - 240V 50Hz, detection area-12m dia minimum, settable light value, switch-off delay (if no motion detected), installation height - 5m minimum	No.	3		
1.07	24A, 240V, 2P DB/CU mounted silent operation contactor for Switching External lights complete with all accessories and as CRABTREE CIK24 or an approved equivalent	No.	2		
1.08	Photocell control unit and wired to energize the contactors complete with a D.P override switch as THORN QPK or approved equivalent	No.	2		
1.09	Water booster power points completely wired in 5 x 6mm^2 single core PVC insulated copper cables drawn in 38mm diameter heavy gauge PVC conduits including all accessories ,but excluding the the 40A TPN isolator	No.	1		
1.10	40A TPN isolator as MK or approved equivalent	No.	1		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
1.11	Lifts isolators power points completely wired in 5 x 6mm^2 single core PVC insulated copper cables drawn in 32mm diameter heavy gauge PVC conduits including all accessories ,but excluding the the 63A TPN isolator	No.	2		
1.12	63A TPN isolator as MK or approved equivalent	No.	2		
1.13	8 ways 100A TPN distribution boards 'T' complete with 100A TPN integral isolator ,but excluding the MCBs ,and as Schneider Electric Acti 9 or approved equivalent.	No.	1		
1.14	4 ways 100A SPN Consumer Unit `C' complete with 100A SPN integral isolator ,but excluding the MCBs ,and as Schneider Electric Acti 9 or approved equivalent for common services.	No.	5		
1.15	**MCBs for item above as Schneider Electric Acti 9**				
	i)10 A SP MCB	No.	6		
	ii) 32 A SP MCB	No.	4		
	iii) 40 A SP MCB	No.	5		
	iv) 32 A TP MCB	No.	3		
	v) Blanking plates	No.	8		
1.16	Sub-mains circuits for DB 'T' above comprising of 4 core 25mm^2 PVC/SWA/PVC cable drawn in cable tray/ 50mm diameter heavy gauge conduits and running from the Lv switchboard	LM	10		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
1.17	Sub-mains circuits for CU 'C ' above comprising of 3 x 10mm2 single core PVC insulated copper cables drawn in 32mm heavy gauge conduits and running from common distribution board.	LM	30		
1.18	200mm x 50mm galvanised metallic cable tray (Telecom, DTV, Internet Cables) gauge 14 (riser duct) c/w all mounting accessories bends, rawl bolts, threaded bolts, brackets,	LM.	60		
1.19	200mm x 50mm galvanised metallic cable tray (Power Cables) gauge 14 (riser duct) c/w all mounting accessories bends, rawl bolts, threaded bolts, brackets,	LM.	40		
	Total Carried Forward to Ground Floor Collection Pg.				

ITEM	DESCRIPTION	QTY	RATE (KSH)	AMOUNT (KSH)
	GROUND FLOOR SUMMARY PAGE			
1	Total Amount for 2 Bedroom AHP Unit	4		
2	Total Amount for 3 Bedroom AHP Unit	1		
3	Total Amount for Studio/1 Room AHP Unit	4		
4	Total Amount for 2 Room Social Unit	2		
5	Total Amount for 3 Room Social Unit	1		
6	Total Amount for Common Area	1		
	Total Carried Forward to Ground Floor Collection Pg.			

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
(ii)	**TYPICAL 1ST - 9TH FLOOR**				
A.	**2 BEDROOM AHP UNITS**				
	SUPPLY, DELIVER , INSTALL ,SET TO WORK AND COMMISSION THE FOLLOWING:-				
	LIGHTING POINTS				
1.01	Lighting point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories for one way switching, but excluding the switch and luminaire.	No.	6		
	ii) Ditto as in item No. 1.01 but for two way switching	No.	4		
1.02	10A white moulded switch plate as Crabtree, MK Logic, Clipsal E- Series or approved equivalent as follows:-				
	i) 10A one gang one way switch	No.	3		
	ii) 10A one gang two way switch	No.	5		
	iii) 10A two gang two way switch	No.	2		
1.03	**LIGHTING FITTINGS**				
	a) Ceiling rose complete with 3 core flex cable, lamp holder and 11W led lamp as crabtree or approved equivalent **Type 'CR'**	No.	6		
	b) Spherical screwneck luminaire with opal glass and 16W compact fluorescent lamp as Astra, Micromark, Thorn or approved equivalent. "**Type BF"**	No.	2		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
	POWER AND SOCKET OUTLET POINTS				
1.04	13A SP socket point completely wired in 3 x 2.5mm^2 single core PVC insulated copper cables drawn in 25mm diameter heavy gauge PVC conduits including all accessories but excluding the 13A SP switched socket outlet.	No.	7		
1.05	Socket Outlet plates i) 13A SP twin switched socket outlet as MK 2536 or approved equivalent.	No.	7		
1.06	Instant shower water heater power points completely wired in 3 x 4mm^2 single core PVC insulated copper cables drawn in 25mm diameter heavy gauge PVC conduits including all accessories,but excluding the 40A DP connection unit	No.	1		
1.07	40A DP switched connection unit with neon indicator as MK or approved equivalent	No.	1		
1.08	Cooker outlet power points completely wired in 3 x 6.0mm^2 single core PVC insulated copper cables drawn in 32mm diameter heavy gauge PVC conduits including all accessories, but excluding the 45A Cooker connection unit	No.	1		
1.09	45A Moulded plate Cooker Control Unit complete with 13A fused Socket outlet as MK/Crabtree or approved equivalent.	No.	1		
1.10	45A moulded plate cooker connection unit as MK/Crabtree or approved equivalent:	No.	1		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
1.11	Domestic door bell point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories but excluding the bell.	No.	1		
1.12	240V/12V Ding dong domestic door bell	No.	1		
	TELEPHONE, DATA AND TV POINTS POINTS				
1.13	Data point comprising of draw wire in 25mm diameter Heavy Gauge PVC conduits including all accessories and blanking cover but excluding the Data socket outlet.	No.	1		
1.14	DTV Socket point comprising of draw wire in 25mm diameter Heavy Gauge PVC conduits including all accessories and blanking cover but excluding the DTV socket outlet.	No.	1		
1.15	300x 300x 100mm deep 16G galvanized adaptable box.	No.	2		
1.16	25mm diameter PVC HG conduit for ICT services and linking the Draw Boxes to the ICT ducts	LM	45		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
	POWER RETICULATION AND DISTRIBUTION BOARDS				
1.17	6 ways 100A SPN Consumer Unit `A' complete with 100A SPN integral isolator, but excluding the MCBs ,and as Schneider Electric Acti 9 or approved equivalent.	No.	1		
1.18	**MCBs for item above as Schneider Electric Acti 9**				
	i)10 A SP MCB	No.	1		
	ii)32 A SP MCB	No.	2		
	iii) 45 A SP MCB	No.	1		
	iv) Blanking plates	No.	2		
1.19	Sub-mains circuits for CU 'A ' above comprising of 3 x 10mm^2 single core PVC insulated copper cables drawn in 32mm heavy gauge conduits and running from the LV switchboard below the staircase.	LM	65		
	Total Carried Forward to Typical Floor Collection Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
B.	**3 BEDROOM AHP UNIT**				
	SUPPLY, DELIVER , INSTALL ,SET TO WORK AND COMMISSION THE FOLLOWING:-				
	LIGHTING POINTS				
1.01	Lighting point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories for one way switching, but excluding the switch and luminaire.	No.	4		
	ii) Ditto as in item No. 1.01 but for two way switching	No.	6		
1.02	10A white moulded switch plate as Crabtree, MK Logic, Clipsal E- Series or approved equivalent as follows:-				
	i) 10A one gang one way switch	No.	4		
	ii) 10A one gang two way switch	No.	8		
	iii) 10A two gang two way switch	No.	1		
1.03	**LIGHTING FITTINGS**				
	a) Ceiling rose complete with 3 core flex cable, lamp holder and 11W led lamp as crabtree or approved equivalent **Type 'CR'**	No.	7		
	b) Spherical screwneck luminaire with opal glass and 16W compact fluorescent lamp as Astra, Micromark, Thorn or approved equivalent. "**Type BF"**	No.	3		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
	POWER AND SOCKET OUTLET POINTS				
1.04	13A SP socket point completely wired in 3 x 2.5mm^2 single core PVC insulated copper cables drawn in 25mm diameter heavy gauge PVC conduits including all accessories but excluding the 13A SP switched socket outlet.	No.	8		
1.05	Socket Outlet plates i) 13A SP twin switched socket outlet as MK 2536 or equal & approved equivalent.	No.	8		
1.06	Instant shower water heater power points completely wired in 3 x 4mm^2 single core PVC insulated copper cables drawn in 25mm diameter heavy gauge PVC conduits including all accessories, but excluding the 40A DP connection unit	No.	2		
1.07	40A DP switched connection unit with neon indicator as MK or approved equivalent	No.	2		
1.08	Cooker outlet power points completely wired in 3 x 6.0mm^2 single core PVC insulated copper cables drawn in 32mm diameter heavy gauge PVC conduits including all accessories, but excluding the 45A DP connection unit	No.	1		
1.09	45A Moulded plate Cooker Control Unit complete with 13A fused socket outlet as MK/Crabtree or approved equivalent.	No.	1		
1.10	45A Moulded plate Cooker Control Unit complete with 13A fused Socket outlet as MK/Crabtree or approved equivalent.	No.	1		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
1.11	Domestic door bell point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories but excluding the bell.	No.	1		
1.12	240V/12V Ding dong domestic door bell	No.	1		
	TELEPHONE, DATA AND TV POINTS POINTS				
1.13	Data point comprising of draw wire in 25mm diameter Heavy Gauge PVC conduits including all accessories and blanking cover but excluding the telephone socket outlet.	No.	1		
1.14	DTV Socket point comprising of draw wire in 25mm diameter Heavy Gauge PVC conduits including all accessories and blanking cover but excluding the DTV socket outlet.	No.	1		
1.15	300x 300x 100mm deep 16G galvanized adaptable box.	No.	2		
1.16	25 mm diameter PVC HG conduit for ICT services and linking the Draw Boxes to the ICT ducts	LM	45		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
	POWER RETICULATION AND DISTRIBUTION BOARDS				
1.17	6 ways 100A SPN Consumer Unit `A' complete with 100A SPN integral isolator ,but excluding the MCBs, and as Schneider Electric Acti 9 or approved equivalent.	No.	1		
1.18	**MCBs for item above as Schneider Electric Acti 9**				
	i)10 A SP MCB	No.	1		
	ii)32 A SP MCB	No.	3		
	iii) 45 A SP MCB	No.	1		
	iv) Blanking plates	No.	1		
1.19	Sub-mains circuits for CU 'A ' above comprising of 3 x 10mm^2 single core PVC insulated copper cables drawn in 32mm heavy gauge conduits and running from the Lv switchboard below the staircase.	LM	65		
	Total Carried Forward to Typical Floor Collection Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
C.	**STUDIO/1 ROOM UNITS**				
	SUPPLY, DELIVER , INSTALL ,SET TO WORK AND COMMISSION THE FOLLOWING:-				
	LIGHTING POINTS				
1.01	Lighting point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories for one way switching, but excluding the switch and luminaire.	No.	1		
	ii) Ditto as in item No. 1.01 but for two way switching	No.	2		
1.02	10A white moulded switch plate as Crabtree, MK Logic, Clipsal E- Series or approved equivalent as follows:-				
	i) 10A one gang one way switch	No.	1		
	ii) 10A one gang two way switch	No.	2		
	iii) 10A two gang two way switch	No.	1		
1.03	**LIGHTING FITTINGS**				
	a) Ceiling rose complete with 3 core flex cable, lamp holder and 11W led lamp as crabtree or approved equivalent **Type 'CR'**	No.	2		
	b) Spherical screwneck luminaire with opal glass and 16W compact fluorescent lamp as Astra, Micromark, Thorn or approved equivalent. "**Type BF"**	No.	1		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
	POWER AND SOCKET OUTLET POINTS				
1.04	13A SP socket point completely wired in 3 x 2.5mm^2 single core PVC insulated copper cables drawn in 25mm diameter heavy gauge PVC conduits including all accessories but excluding the 13A SP switched socket outlet.	No.	4		
1.05	Socket Outlet plates i) 13A SP twin switched socket outlet as MK 2536 or equal & approved equivalent.	No.	4		
1.06	Instant shower water heater power points completely wired in 3 x 4mm^2 single core PVC insulated copper cables drawn in 25mm diameter heavy gauge PVC conduits including all accessories ,but excluding the 40A DP connection unit	No.	1		
1.07	40A DP switched connection unit with neon indicator as MK or approved equivalent	No.	1		
1.08	Cooker outlet power points completely wired in 3 x 6.0mm^2 single core PVC insulated copper cables drawn in 32mm diameter heavy gauge PVC conduits including all accessories ,but excluding the 45A DP connection unit	No.	1		
1.09	45A Moulded plate Cooker Control Unit complete with 13A fused Socket outlet as MK/Crabtree or approved equivalent.	No.	1		
1.10	45A moulded plate cooker connection unit as MK/Crabtree or approved equivalent:	No.	1		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
1.11	Domestic door bell point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories but excluding the bell.	No.	1		
1.12	240V/12V Ding dong domestic door bell	No.	1		
	TELEPHONE, DATA AND TV POINTS POINTS				
1.13	Data point comprising of draw wire in 25mm diameter Heavy Gauge PVC conduits including all accessories and blanking plate but excluding the telephone socket outlet.	No.	1		
1.14	DTV Socket point comprising of draw wire in 25mm diameter Heavy Gauge PVC conduits including all accessories but excluding the DTV socket outlet.	No.	1		
1.15	300x 300x 100mm deep 16G galvanized adaptable box.	No.	2		
1.16	25mm diameter PVC HG conduit for ICT services and linking the Draw Boxes to the ICT ducts	LM	30		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
	POWER RETICULATION AND DISTRIBUTION BOARDS				
1.17	6 ways 100A SPN Consumer Unit `A' complete with 100A SPN integral isolator ,but excluding the MCBs ,and as Schneider Electric Acti 9 or approved equivalent.	No.	1		
1.18	**MCBs for item above as Schneider Electric Acti 9**				
	i)10 A SP MCB	No.	1		
	ii)32 A SP MCB	No.	3		
	iii) 45 A SP MCB	No.	1		
	iv) Blanking plates	No.	1		
1.19	Sub-mains circuits for CU 'A ' above comprising of 3 x 10mm^2 single core PVC insulated copper cables drawn in 32mm heavy gauge conduits and running from the LV switchboard below the staircase.	LM	50		
	Total Carried Forward to Typical Floor Collection Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
D.	**2 ROOM SOCIAL UNITS**				
	SUPPLY, DELIVER , INSTALL ,SET TO WORK AND COMMISSION THE FOLLOWING:-				
	LIGHTING POINTS				
1.01	Lighting point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories for one way switching, but excluding the switch and luminaire.	No.	2		
	ii) Ditto as in item No. 1.01 but for two way switching	No.	3		
1.02	10A white moulded switch plate as Crabtree, MK Logic, Clipsal E- Series or approved equivalent as follows:-				
	i) 10A two gang one way switch	No.	1		
	ii) 10A one gang two way switch	No.	3		
	iii) 10A two gang two way switch	No.	1		
1.03	**LIGHTING FITTINGS**				
	a) Ceiling rose complete with 3 core flex cable, lamp holder and 11W led lamp as crabtree or approved equivalent **Type 'CR'**	No.	4		
	b) Spherical screwneck luminaire with opal glass and 16W compact fluorescent lamp as Astra, Micromark, Thorn or approved equivalent. "**Type BF"**	No.	1		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
	POWER AND SOCKET OUTLET POINTS				
1.04	13A SP socket point completely wired in 3 x 2.5mm^2 single core PVC insulated copper cables drawn in 25mm diameter heavy gauge PVC conduits including all accessories but excluding the 13A SP switched socket outlet.	No.	6		
1.05	Socket Outlet plates i) 13A SP twin switched socket outlet as MK 2536 or equal & approved equivalent.	No.	6		
1.06	Instant shower water heater power points completely wired in 3 x 4mm^2 single core PVC insulated copper cables drawn in 25mm diameter heavy gauge PVC conduits including all accessories, but excluding the 40A DP connection unit	No.	1		
1.07	40A DP switched connection unit with neon indicator as MK or approved equivalent	No.	1		
1.08	Cooker outlet power points completely wired in 3 x 6.0mm^2 single core PVC insulated copper cables drawn in 32mm diameter heavy gauge PVC conduits including all accessories ,but excluding the 45A DP connection unit	No.	1		
1.09	45A Moulded plate Cooker Control Unit complete with 13A fused socket outlet as MK/Crabtree or approved equivalent.	No.	1		
1.10	45A moulded plate cooker connection unit as MK/Crabtree or approved equivalent:	No.	1		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
1.11	Domestic door bell point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories but excluding the bell.	No.	1		
1.12	240V/12V Ding dong domestic door bell	No.	1		
	TELEPHONE, DATA AND TV POINTS POINTS				
1.13	Data point comprising of draw wire in 25mm diameter Heavy Gauge PVC conduits including all accessories and blanking plate but excluding the data socket outlet.	No.	1		
1.14	DTV Socket point comprising of draw wire in 25mm diameter Heavy Gauge PVC conduits including all accessories but excluding the DTV socket outlet.	No.	1		
1.15	300x 300x 100mm deep 16G galvanized adaptable box.	No.	2		
1.16	25mm diameter PVC HG conduit for ICT services and linking the Draw Boxes to the ICT ducts	LM	20		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
	POWER RETICULATION AND DISTRIBUTION BOARDS				
1.17	6 ways 100A SPN Consumer Unit `A' complete with 100A SPN integral isolator, but excluding the MCBs ,and as Schneider Electric Acti 9 or approved equivalent.	No.	1		
1.18	**MCBs for item above as Schneider Electric Acti 9**				
	i)10 A SP MCB	No.	1		
	ii)32 A SP MCB	No.	3		
	iii) 45 A SP MCB	No.	1		
	iv) Blanking plates	No.	1		
1.19	Sub-mains circuits for CU 'A ' above comprising of 3 x 10mm^2 single core PVC insulated copper cables drawn in 32mm heavy gauge conduits and running from the LVswitchboard below the staircase.	LM	30		
	Total Carried Forward to Typical Floor Collection Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
E.	**3 ROOM SOCIAL UNIT**				
	SUPPLY, DELIVER , INSTALL ,SET TO WORK AND COMMISSION THE FOLLOWING:-				
	LIGHTING POINTS				
1.01	Lighting point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories for one way switching, but excluding the switch and luminaire.	No.	2		
	ii) Ditto as in item No. 1.01 but for two way switching	No.	5		
1.02	10A white moulded switch plate as Crabtree, MK Logic, Clipsal E- Series or approved equivalent as follows:-				
	i) 10A one gang one way switch	No.	1		
	ii) 10A one gang two way switch	No.	4		
	iii) 10A two gang two way switch	No.	3		
1.03	**LIGHTING FITTINGS**				
	a) Ceiling rose complete with 3 core flex cable, lamp holder and 11W led lamp as crabtree or approved equivalent **Type 'CR'**	No.	6		
	b) Spherical screwneck luminaire with opal glass and 16W compact fluorescent lamp as Astra, Micromark, Thorn or approved equivalent. "**Type BF"**	No.	1		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
	POWER AND SOCKET OUTLET POINTS				
1.04	13A SP socket point completely wired in 3 x 2.5mm^2 single core PVC insulated copper cables drawn in 25mm diameter heavy gauge PVC conduits including all accessories but excluding the 13A SP switched socket outlet.	No.	7		
1.05	Socket Outlet plates i) 13A SP twin switched socket outlet as MK 2536 or equal & approved equivalent.	No.	7		
1.06	Instant shower water heater power points completely wired in 3 x 4mm^2 single core PVC insulated copper cables drawn in 25mm diameter heavy gauge PVC conduits including all accessories, but excluding the 40A DP connection unit	No.	1		
1.07	40A DP switched connection unit with neon indicator as MK or approved equivalent	No.	1		
1.08	Cooker outlet power points completely wired in 3 x 6.0mm^2 single core PVC insulated copper cables drawn in 32mm diameter heavy gauge PVC conduits including all accessories, but excluding the 45A DP connection unit	No.	1		
1.09	45A Moulded plate Cooker Control Unit complete with 13A fused socket outlet as MK/Crabtree or approved equivalent.	No.	1		
1.10	45A Moulded plate Cooker Control Unit complete with 13A fused Socket outlet as MK/Crabtree or approved equivalent.	No.	1		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
1.11	Domestic door bell point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories but excluding the bell.	No.	1		
1.12	240V/12V Ding dong domestic door bell	No.	1		
	TELEPHONE, DATA AND TV POINTS POINTS				
1.13	Data point comprising of draw wire in 25mm diameter Heavy Gauge PVC conduits including all accessories and blanking cover but excluding the telephone socket outlet.	No.	1		
1.14	DTV Socket point comprising of draw wire in 25mm diameter Heavy Gauge PVC conduits including all accessories and blanking cover but excluding the DTV socket outlet.	No.	1		
1.15	300x 300x 100mm deep 16G galvanized adaptable box.	No.	2		
1.16	25mm diameter PVC HG conduit for ICT services and linking the Draw Boxes to the ICT ducts	Lm.	20		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
	POWER RETICULATION AND DISTRIBUTION BOARDS				
1.17	6 ways 100A SPN Consumer Unit `A' complete with 100A SPN integral isolator ,but excluding the MCBs, and as Schneider Electric Acti 9 or approved equivalent.	No.	1		
1.18	**MCBs for item above as Schneider Electric Acti 9**				
	i)10 A SP MCB	No.	1		
	ii)32 A SP MCB	No.	3		
	iii) 45 A SP MCB	No.	1		
	iv) Blanking plates	No.	1		
1.19	Sub-mains circuits for CU 'A ' above comprising of 3 x 10mm^2 single core PVC insulated copper cables drawn in 32mm heavy gauge conduits and running from the Lv switchboard below the staircase.	LM	45		
	Total Carried Forward to Typical Floor Collection Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
F.	**CORRIDOR/ LIFTS LOBBY AREA**				
	SUPPLY, DELIVER , INSTALL ,SET TO WORK AND COMMISSION THE FOLLOWING:-				
	LIGHTING POINTS				
1.01	Lighting point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories for two way switching, but excluding the switch and luminaire.	No.	17		
1.02	10A white moulded switch plate as Crabtree, MK Logic, Clipsal E- Series or approved equivalent as follows:-				
	i) 10A one gang two way switch	No.	4		
	ii) 10A two gang two way switch	No.	4		
1.03	**LIGHTING FITTINGS**				
	a) Circular shaped surface mounted led luminaire	No.	12		
	b) Emergency Maintained Circular shaped surfac	No.	3		
	c) 8W bulkbead luminaire ,polycarbonate base, and clear diffuser and installed inside the lift shaft As Thorn EWB/ETB bulkhead. "**Type G**"	No.	2		
	Total Carried Forward to Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
1.04	CCTV points in designtaed locations for survailance, comprising of 25mm diameter HG PVC conduits complete with draw wire and the blanking plate. Allow for draw boxes where all the conduits from each security point converge.	No.	6		
1.05	300x 300x 100mm deep 16G galvanized adaptable box.	No.	2		
	LIGHTING CONTROL				
1.06	Presence sensor complete with assocaited wiring (light and motion sensor) as Osram Duo with the following characteristics: Operation voltage 220 - 240V 50Hz, detection area-12m dia minimum, settable light value, switch-off delay (if no motion detected), installation height - 5m minimum	No.	3		
	Total Carried Forward to Next Pg.				

ITEM	DESCRIPTION	QTY	RATE (KSH)	AMOUNT (KSH)
	TYPICAL FLOOR SUMMARY			
1	Total Amount for 2 Bedroom AHP Unit	36		
2	Total Amount for 3 Bedroom AHP Unit	9		
3	Total Amount for Studio AHP Unit	18		
4	Total Amount for 1 Room Social Unit	9		
5	Total Amount for 2 Room Social Unit	18		
6	Total Amount for 3 Room Social Unit	9		
7	Total Amount for Common Area	9		
	Total for 9No.Typical Floor Carried Forward to Main Summary Page			

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
(iii)	**EARTHING AND LIGHTNING PROTECTION**				
	SUPPLY, DELIVER , INSTALL ,SET TO WORK AND COMMISSION THE FOLLOWING:-				
	Air Termination				
1.01	2000mm x15mmØ multiple point pure copper AirRods/ Termination with spikes as Furse Part No. RA240 or approved equivalent	No.	3		
1.02	Copper Air Rod Base as Furse Part No. SD105-H or approved equivalent	No.	3		
1.03	Copper Junction Clamps for copper tape as Furse Part No. CN105-H or approved equivalent	No.	3		
1.04	25mm x 3mm Tinned Copper Tape as Furse TC230 or approved equivalent	Lm.	130		
	Down Conductor				
1.05	25mm x 3mm Tinned Copper Tape as Furse TC230 or approved equivalent	Lm.	200		
1.06	Screwdown copper test clamp as Furse CT305 or approved equivalent	No.	3		
1.07	38mm Ø HG PVC conduits for drawing the down conductor above.	Lm.	10		
	Total Carried Forward to Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
	Earth Termination				
1.08	15mm Ø, 1500mm long solid copper earth rod c/w driving stud, coupling, and spike as Furse RC011 or approved equivalent	No	3		
1.09	Earth rod to tape clamp type A as Furse CR108 or approved equivalent	No.	3		
1.10	Concrete inspection earth pit Cat. No. PT 005 with 5 hole earth bar as Furse Cat. No. PT 006.	No.	2		
1.11	600mm x 600mm copper earth mat made from 25mm x 3mm copper tape at 300mm spacing, buried to permanent moisture level and complete with all clamps and 6m long 25mm x 3mm copper tape clamped to the down conductor, soil conditioning agents (marconite or bentonite) as necessary to achieve earthing resistance value below 10-Ohms	Lot	1		
1.12	Allow for earthing tests for the above and submission of the report to the engineer to BS7671 & BS62305 standards	No.	1		
	Bonding				
1.13	Bonding and clamping to all metal work including water pipes, gas pipes, hand-rails, smatv system, window frames, cladding, metal roof etc. and the main earth for the building.	Item	1		
	Total Carried Forward to Main Summary Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
(iv)	**LV SWITCHBOARD**				
	TAKE DELIVERY, STORE, INSTALL AND COMMISSION THE FOLLOWING:-				
1.01	Install purpose made Free-standing, fully wired front access metal clad main switchboard cubicle suitable for floor / wall mounting and manufactured in 14SWG galvanised mild steel sheet, to be finished in cream (or appropriate colour) powder coating. Wiring as shown on the schematic (the other details as per Particular Specification) and in compliance with IEC 60439 and Local KS standards, complete with the following:-	No.	1		
(i)	400Amps TP/N copper busbars - KPLC supply (Sealable)				
(ii)	400Amps MCCB as mains incomer adjustable				
(iii)	Space for 1No. 3-phase KPLC Common Services meter (kW, kWH, kVA, V, I etc), 63A TP MCB				
(iv)	111No. 63A DP MCBs for the sub-main cables				
(v)	1No. 100A DP MCBs for the sub-main cables				
(vi)	Space for KPLC cut-outs including studs for mounting KPLC seals				
(vii)	Sealable studs for all cover plate screws and all necessary accessories				
(viii)	6mm perspex viewing window for each section				
(ix)	Heavy duty rubber lining for all the perspex viewing windows				
(x)	4 No. Spare ways				
	Total Carried Forward to Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
1.02	Earthing for the switch-board under this section comprising 25x3mm copper tape lead, 1800mm long x 15mm diameter copper earth electrode as Furse or approved equivalent complete with driving stud and tape to rod clamp, 300mm x 300mm x 300mm deep concrete inspection earth pit with removable waterproof cover, 600mm x 600mm copper earth mat, soil conditioning agents (marconite and bentonite etc) necessary to achieve earthing value below 5-Ohms and all other necessary accessories	No.	1		
	Total Carried Forward to Main Summary Pg.				

ITEM	DESCRIPTION	AMOUNT (KSH)
	BLOCK TYPE A SUMMARY PAGE	
1	Total Amount for Ground Floor B/F Page D-25	
2	Total Amount for Typical 1st - 9th Floor B/F Page D-48	
3	Total Amount for Lightning Protection B/F Page D-50	
4	Total Amount for LV Switchboard B/F Page D-52	
TOTAL AMOUNT FOR BILL No. 1: TYPICAL 1NO. BLOCK TYPE A CARRIED FORWARD TO PRICE COLLECTION PAGE		

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	BILL NO. 2				
	PROPOSED TYPICAL AFFORDABLE & MARKET UNITS BLOCK TYPE B				
(i)	**GROUND FLOOR**				
A.	**2 BEDROOM AHP UNITS**				
	SUPPLY, DELIVER , INSTALL ,SET TO WORK AND COMMISSION THE FOLLOWING:-				
	LIGHTING POINTS				
2.01	i) Lighting point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories for one way switching, but excluding the switch and luminaire.	No.	3		
	ii) Ditto as in item No. 2.01 but for two way switching	No.	6		
2.02	10A white moulded switch plate as Crabtree, MK Logic, Clipsal E- Series or approved equivalent as follows:-				
	i) 10A one gang one way switch	No.	3		
	ii) 10A one gang two way switch	No.	6		
	iii) 10A two gang two way switch	No.	2		
2.03	**LIGHTING FITTINGS**				
	a) Ceiling rose complete with 3 core flex cable, lamp holder and 11W led lamp as crabtree or approved equivalent **Type 'CR'**	No.	6		
	b) Spherical screwneck luminaire with opal glass and 16W compact lamp as Astra, Micromark, Thorn or approved equivalent. "**Type BF"**	No.	2		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
	POWER AND SOCKET OUTLET POINTS				
2.04	13A SP socket point completely wired in 3 x 2.5mm^2 single core PVC insulated copper cables drawn in 25mm diameter heavy gauge PVC conduits including all accessories but excluding the 13A SP switched socket outlet.	No.	8		
2.05	Socket Outlet plates i) 13A SP twin switched socket outlet as MK 2536 or approved equivalent.	No.	8		
2.06	Instant shower water heater power points completely wired in 3 x 4mm^2 single core PVC insulated copper cables drawn in 25mm diameter heavy gauge PVC conduits including all accessories,but excluding the 40A DP connection unit	No.	1		
2.07	40A DP switched connection unit with neon indicator as MK or approved equivalent	No.	1		
2.08	Cooker outlet power points completely wired in 3 x 6.0mm^2 single core PVC insulated copper cables drawn in 32mm diameter heavy gauge PVC conduits including all accessories, but excluding the 45A Cooker connection unit	No.	1		
2.09	45A Moulded plate Cooker Control Unit complete with 13A fused Socket outlet as MK/Crabtree or approved equivalent.	No.	1		
2.10	45A moulded plate cooker connection unit as MK/Crabtree or approved equivalent:	No.	1		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
2.11	Domestic door bell point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories but excluding the bell.	No.	1		
2.12	240V/12V Ding dong domestic door bell as Oxford or approved equivalent	No.	1		
	TELEPHONE, DATA AND TV POINTS POINTS				
2.13	Data point comprising of draw wire in 25mm diameter Heavy Gauge PVC conduits including all accessories and blanking cover but excluding the Data socket outlet.	No.	1		
2.14	DTV Socket point comprising of draw wire in 25mm diameter Heavy Gauge PVC conduits including all accessories and blanking cover but excluding the DTV socket outlet.	No.	1		
2.15	300x 300x 100mm deep 16G galvanized adaptable box.	No.	2		
2.16	25mm diameter PVC HG conduit for ICT services and linking the Draw Boxes to the ICT ducts	Lm.	20		
	Total Carried Forward to Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
	POWER RETICULATION AND DISTRIBUTION BOARDS				
2.17	6 ways 100A SPN Consumer Unit `A' complete with 100A SPN integral isolator, but excluding the MCBs ,and as Schneider Electric Acti 9 or approved equivalent.	No.	1		
2.18	**MCBs for item above as Schneider Electric Acti 9**				
	i)10 A SP MCB	No.	1		
	ii)32 A SP MCB	No.	2		
	iii) 45 A SP MCB	No.	1		
	iv) Blanking plates	No.	2		
2.19	Sub-mains circuits for CU 'A ' above comprising of 3 x 10mm2 single core PVC insulated copper cables drawn in 32mm heavy gauge conduits and running from the LV switchboard below the staircase.	LM	20		
	Total Carried Forward to Ground Floor Collection Page				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
B.	**3 BEDROOM AHP UNITS**				
	SUPPLY, DELIVER , INSTALL ,SET TO WORK AND COMMISSION THE FOLLOWING:-				
	LIGHTING POINTS				
2.01	i) Lighting point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories for one way switching, but excluding the switch and luminaire.	No.	4		
	ii) Ditto as in item No. 2.01 but for two way switching	No.	8		
2.02	10A white moulded switch plate as Crabtree, MK Logic, Clipsal E- Series or approved equivalent as follows:-				
	i) 10A one gang one way switch	No.	5		
	ii) 10A one gang two way switch	No.	8		
	iii) 10A two gang two way switch	No.	2		
2.03	**LIGHTING FITTINGS**				
	a) Ceiling rose complete with 3 core flex cable, lamp holder and 11W led lamp as crabtree or approved equivalent **Type 'CR'**	No.	9		
	b) Spherical screwneck luminaire with opal glass and 16W compact lamp as Astra, Micromark, Thorn or approved equivalent. "**Type BF"**	No.	2		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
	POWER AND SOCKET OUTLET POINTS				
2.04	13A SP socket point completely wired in 3 x 2.5mm^2 single core PVC insulated copper cables drawn in 25mm diameter heavy gauge PVC conduits including all accessories but excluding the 13A SP switched socket outlet.	No.	11		
2.05	Socket Outlet plates i) 13A SP twin switched socket outlet as MK 2536 or equal & approved equivalent.	No.	11		
2.06	Instant shower water heater power points completely wired in 3 x 4mm^2 single core PVC insulated copper cables drawn in 25mm diameter heavy gauge PVC conduits including all accessories, but excluding the 40A DP connection unit	No.	2		
2.07	40A DP switched connection unit with neon indicator as MK or approved equivalent	No.	2		
2.08	Cooker outlet power points completely wired in 3 x 6.0mm^2 single core PVC insulated copper cables drawn in 32mm diameter heavy gauge PVC conduits including all accessories, but excluding the 45A DP connection unit	No.	1		
2.09	45A Moulded plate Cooker Control Unit complete with 13A fused socket outlet as MK/Crabtree or approved equivalent.	No.	1		
2.10	45A Moulded plate Cooker Control Unit complete with 13A fused Socket outlet as MK/Crabtree or approved equivalent.	No.	1		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
2.11	Domestic door bell point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories but excluding the bell.	No.	1		
2.12	240V/12V Ding dong domestic door bell as Oxfrod or approved equivalent	No.	1		
	TELEPHONE, DATA AND TV POINTS POINTS				
2.13	Data point comprising of draw wire in 25mm diameter Heavy Gauge PVC conduits including all accessories and blanking cover but excluding the telephone socket outlet.	No.	1		
2.14	DTV Socket point comprising of draw wire in 25mm diameter Heavy Gauge PVC conduits including all accessories and blanking cover but excluding the DTV socket outlet.	No.	1		
2.15	300x 300x 100mm deep 16G galvanized adaptable box.	No.	2		
2.16	25mm diameter PVC HG conduit for ICT services and linking the Draw Boxes to the ICT ducts	Lm.	20		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
	POWER RETICULATION AND DISTRIBUTION BOARDS				
2.17	6 ways 100A SPN Consumer Unit `A' complete with 100A SPN integral isolator ,but excluding the MCBs, and as Schneider Electric Acti 9 or approved equivalent.	No.	1		
2.18	**MCBs for item above as Schneider Electric Acti 9**				
	i)10 A SP MCB	No.	1		
	ii)32 A SP MCB	No.	3		
	iii) 45 A SP MCB	No.	1		
	iv) Blanking plates	No.	1		
2.19	Sub-mains circuits for CU 'A ' above comprising of 3 x 10mm2 single core PVC insulated copper cables drawn in 32mm heavy gauge conduits and running from the Lv switchboard below the staircase.	LM	45		
	Total Carried Forward to Ground Floor Collection Page				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
C.	**2 BEDROOM MARKET UNITS**				
	SUPPLY, DELIVER , INSTALL ,SET TO WORK AND COMMISSION THE FOLLOWING:-				
	LIGHTING POINTS				
2.01	i) Lighting point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories for one way switching, but excluding the switch and luminaire.	No.	5		
	ii) Ditto as in item No. 2.01 but for two way switching	No.	5		
2.02	10A white moulded switch plate as Crabtree, MK Logic, Clipsal E- Series or approved equivalent as follows:-				
	i) 10A one gang one way switch	No.	4		
	ii) 10A two gang one way switch	No.	1		
	iii) 10A one gang two way switch	No.	6		
	iv) 10A two gang two way switch	No.	2		
2.03	**LIGHTING FITTINGS**				
	a) Ceiling rose complete with 3 core flex cable, lamp holder and 11W led lamp as crabtree or approved equivalent **Type 'CR'**	No.	7		
	b) Spherical screwneck luminaire with opal glass and 16W compact lamp as Astra, Micromark, Thorn or approved equivalent. "**Type BF"**	No.	2		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
	POWER AND SOCKET OUTLET POINTS				
2.04	13A SP socket point completely wired in 3 x 2.5mm^2 single core PVC insulated copper cables drawn in 25mm diameter heavy gauge PVC conduits including all accessories but excluding the 13A SP switched socket outlet.	No.	9		
2.05	Socket Outlet plates i) 13A SP twin switched socket outlet as MK 2536 or equal & approved equivalent.	No.	9		
2.06	Instant shower water heater power points completely wired in 3 x 4mm^2 single core PVC insulated copper cables drawn in 25mm diameter heavy gauge PVC conduits including all accessories ,but excluding the 40A DP connection unit	No.	2		
2.07	40A DP switched connection unit with neon indicator as MK or approved equivalent	No.	2		
2.08	Cooker outlet power points completely wired in 3 x 6.0mm^2 single core PVC insulated copper cables drawn in 32mm diameter heavy gauge PVC conduits including all accessories ,but excluding the 45A DP connection unit	No.	1		
2.09	45A Moulded plate Cooker Control Unit complete with 13A fused Socket outlet as MK/Crabtree or approved equivalent.	No.	1		
2.10	45A moulded plate cooker connection unit as MK/Crabtree or approved equivalent:	No.	1		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
2.11	Domestic door bell point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories but excluding the bell.	No.	1		
2.12	240V/12V Ding dong domestic door bell	No.	1		
	TELEPHONE, DATA AND TV POINTS POINTS				
2.13	Data point comprising of draw wire in 25mm diameter Heavy Gauge PVC conduits including all accessories and blanking plate but excluding the telephone socket outlet.	No.	1		
2.14	DTV Socket point comprising of draw wire in 25mm diameter Heavy Gauge PVC conduits including all accessories but excluding the DTV socket outlet.	No.	1		
2.15	300x 300x 100mm deep 16G galvanized adaptable box.	No.	2		
2.16	25mm diameter PVC HG conduit for ICT services and linking the Draw Boxes to the ICT ducts	Lm.	40		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
	POWER RETICULATION AND DISTRIBUTION BOARDS				
2.17	6 ways 100A SPN Consumer Unit `A' complete with 100A SPN integral isolator ,but excluding the MCBs ,and as Schneider Electric Acti 9 or approved equivalent.	No.	1		
2.18	**MCBs for item above as Schneider Electric Acti 9**				
	i)10 A SP MCB	No.	1		
	ii)32 A SP MCB	No.	3		
	iii) 45 A SP MCB	No.	1		
	iv) Blanking plates	No.	1		
2.19	Sub-mains circuits for CU 'A ' above comprising of 3 x 10mm2 single core PVC insulated copper cables drawn in 32mm heavy gauge conduits and running from the LV switchboard below the staircase.	LM	40		
	Total Carried Forward to Ground Floor Collection Page				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
D.	**3 BEDROOM MARKET UNITS**				
	SUPPLY, DELIVER , INSTALL ,SET TO WORK AND COMMISSION THE FOLLOWING:-				
	LIGHTING POINTS				
2.01	Lighting point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories for one way switching, but excluding the switch and luminaire.	No.	5		
	ii) Ditto as in item No. 2.01 but for two way switching	No.	7		
2.02	10A white moulded switch plate as Crabtree, MK Logic, Clipsal E- Series or approved equivalent as follows:-				
	i) 10A one gang one way switch	No.	5		
	ii) 10A one gang two way switch	No.	6		
	iii) 10A two gang two way switch	No.	4		
2.03	**LIGHTING FITTINGS**				
	a) Ceiling rose complete with 3 core flex cable, lamp holder and 11W led lamp as crabtree or approved equivalent **Type 'CR'**	No.	8		
	b) Spherical screwneck luminaire with opal glass and 16W compact fluorescent lamp as Astra, Micromark, Thorn or approved equivalent. "**Type BF"**	No.	3		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
	POWER AND SOCKET OUTLET POINTS				
2.04	13A SP socket point completely wired in 3 x 2.5mm^2 single core PVC insulated copper cables drawn in 25mm diameter heavy gauge PVC conduits including all accessories but excluding the 13A SP switched socket outlet.	No.	12		
2.05	Socket Outlet plates i) 13A SP twin switched socket outlet as MK 2536 or equal & approved equivalent.	No.	12		
2.06	Instant shower water heater power points completely wired in 3 x 4mm^2 single core PVC insulated copper cables drawn in 25mm diameter heavy gauge PVC conduits including all accessories, but excluding the 40A DP connection unit	No.	2		
2.07	40A DP switched connection unit with neon indicator as MK or approved equivalent	No.	2		
2.08	Cooker outlet power points completely wired in 3 x 6.0mm^2 single core PVC insulated copper cables drawn in 32mm diameter heavy gauge PVC conduits including all accessories ,but excluding the 45A DP connection unit	No.	1		
2.09	45A Moulded plate Cooker Control Unit complete with 13A fused socket outlet as MK/Crabtree or approved equivalent.	No.	1		
2.10	45A moulded plate cooker connection unit as MK/Crabtree or approved equivalent:	No.	1		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
2.11	Domestic door bell point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories but excluding the bell.	No.	1		
2.12	240V/12V Ding dong domestic door bell as Oxford or approved equivalent	No.	1		
	TELEPHONE, DATA AND TV POINTS POINTS				
2.13	Data point comprising of draw wire in 25mm diameter Heavy Gauge PVC conduits including all accessories and blanking plate but excluding the data socket outlet.	No.	1		
2.14	DTV Socket point comprising of draw wire in 25mm diameter Heavy Gauge PVC conduits including all accessories but excluding the DTV socket outlet.	No.	1		
2.15	300x 300x 100mm deep 16G galvanized adaptable box.	No.	2		
2.16	32mm diameter PVC HG conduit for ICT services and linking the Draw Boxes to the ICT ducts	Lm.	40		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
	POWER RETICULATION AND DISTRIBUTION BOARDS				
2.17	6 ways 100A SPN Consumer Unit `A' complete with 100A SPN integral isolator, but excluding the MCBs ,and as Schneider Electric Acti 9 or approved equivalent.	No.	1		
2.18	**MCBs for item above as Schneider Electric Acti 9**				
	i)10 A SP MCB	No.	1		
	ii)32 A SP MCB	No.	3		
	iii) 45 A SP MCB	No.	1		
	iv) Blanking plates	No.	1		
2.19	Sub-mains circuits for CU 'A ' above comprising of 3 x 10mm2 single core PVC insulated copper cables drawn in 32mm heavy gauge conduits and running from the LVswitchboard below the staircase.	LM	40		
	Total Carried Forward to Ground Floor Collection Page				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
E.	**CORRIDOR/ LIFTS LOBBY AREA**				
	SUPPLY, DELIVER , INSTALL ,SET TO WORK AND COMMISSION THE FOLLOWING:-				
	LIGHTING POINTS				
2.01	Lighting point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories for two way switching, but excluding the switch and luminaire.	No.	32		
2.02	10A white moulded switch plate as Crabtree, MK Logic, Clipsal E- Series or approved equivalent as follows:-				
	i) 10A one gang two way switch	No.	4		
	ii) 10A two gang two way switch	No.	4		
2.03	**LIGHTING FITTINGS**				
	a) Circular shaped surface mounted led luminaire as Phillips Coreline Cat No. WL131V LED12S/840 PSED EL3 WH **"Type N"**	No.	15		
	b) Emergency Maintained Circular shaped surface mounted led luminaire as Phillips Coreline Cat No. WL131V LED12S/840 PSED EL3 WH **"Type Ne"**	No.	3		
	c) 8W bulkbead luminaire ,polycarbonate base, and clear diffuser and installed inside the lift shaft As Thorn EWB/ETB bulkhead. "**Type G"**	No.	2		
	d) Bulkhead fitting with moulded glass diffuser & Die Cast Aluminium base c/w 16W PL Lamp as Massive Sunderland Cat. No. 71410/01/31 for security lights. **"Type B"**	No.	14		
	Total Carried Forward to Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
2.04	CCTV points in designtaed locations for survailance, comprising of 25mm diameter HG PVC conduits complete with draw wire and the blanking plate. Allow for draw boxes where all the conduits from each security point converge.	No.	6		
2.05	300x 300x 100mm deep 16 G galvanized adaptable box.	No.	2		
	LIGHTING CONTROL				
2.06	Presence sensor complete with assocaited wiring (light and motion sensor) as Osram Duo with the following characteristics: Operation voltage 220 - 240V 50Hz, detection area-12m dia minimum, settable light value, switch-off delay (if no motion detected), installation height - 5m minimum	No.	3		
2.07	24A, 240V, 2P DB/CU mounted silent operation contactor for Switching External lights complete with all accessories and as CRABTREE CIK24 or an approved equivalent	No.	2		
2.08	Photocell control unit and wired to energize the contactors complete with a D.P override switch as THORN QPK or approved equivalent	No.	2		
2.09	Water booster power points completely wired in 5 x 6mm^2 single core PVC insulated copper cables drawn in 38mm diameter heavy gauge PVC conduits including all accessories ,but excluding the the 40A TPN isolator	No.	1		
	Total Carried Forward to Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
2.10	40A TPN isolator as MK or approved equivalent	No.	1		
2.11	Lifts isolators power points completely wired in 5 x 6mm^2 single core PVC insulated copper cables drawn in 32mm diameter heavy gauge PVC conduits including all accessories ,but excluding the the 63A TPN isolator	No.	2		
2.12	63A TPN isolator as MK or approved equivalent	No.	2		
2.13	8 ways 100A TPN distribution boards 'T' complete with 100A TPN integral isolator ,but excluding the MCBs ,and as Schneider Electric Acti 9 or approved equivalent.	No.	1		
2.14	4 ways 100A SPN Consumer Unit `C' complete with 100A SPN integral isolator ,but excluding the MCBs ,and as Schneider Electric Acti 9 or approved equivalent for common services.	No.	5		
2.15	**MCBs for item above as Schneider Electric Acti 9**				
	i)10 A SP MCB	No.	6		
	ii) 32 A SP MCB	No.	4		
	iii) 40 A SP MCB	No.	5		
	iv) 32 A TP MCB	No.	3		
	v) Blanking plates	No.	8		
2.16	Sub-mains circuits for DB 'T' above comprising of 4 core 25mm^2 PVC/SWA/PVC cable drawn in cable tray/ 50mm diameter heavy gauge conduits and running from the Lv switchboard	LM	30		
	Total Carried Forward to Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
2.17	Sub-mains circuits for CU 'C ' above comprising of 3 x 10mm2 single core PVC insulated copper cables drawn in 32mm heavy gauge conduits and running from common distribution board.	LM	60		
2.18	200mm x 50mm galvanised metallic cable tray (Telecom, DTV, Internet Cables) gauge 14 (riser duct) c/w all mounting accessories bends, rawl bolts, threaded bolts, brackets,	LM.	40		
2.19	300mm x 50mm galvanised metallic cable tray (Power Cables) gauge 14 (riser duct) c/w all mounting accessories bends, rawl bolts, threaded bolts, brackets,	LM.	40		
	Total Carried Forward to Ground Floor Collection Page				

ITEM	DESCRIPTION	QTY	RATE (KSH)	AMOUNT (KSH)
	GROUND FLOOR SUMMARY			
1	Total Amount for 2 Bedroom AHP Unit	1		
2	Total Amount for 3 Bedroom AHP Unit	1		
3	Total Amount for 2 Bedroom Market Unit	3		
4	Total Amount for 3 Bedroom Market Unit	3		
5	Total Amount for Ground Floor Lobby	1		
	Total Carried Forwad to Main Summary Page			

ITEM NO.	DESCRIPTION	UNIT	QTY	RATE KShs	AMOUNT KShs
	BILL NO. 2				
(ii)	**TYPICAL 1ST - 9TH FLOOR**				
A.	**2 BEDROOM AHP UNITS**				
	SUPPLY, DELIVER , INSTALL ,SET TO WORK AND COMMISSION THE FOLLOWING:-				
	LIGHTING POINTS				
2.01	i) Lighting point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories for one way switching, but excluding the switch and luminaire.	No.	3		
	ii) Ditto as in item No. 2.01 but for two way switching	No.	6		
2.02	10A white moulded switch plate as Crabtree, MK Logic, Clipsal E- Series or approved equivalent as follows:-				
	i) 10A one gang one way switch	No.	3		
	ii) 10A one gang two way switch	No.	6		
	iii) 10A two gang two way switch	No.	2		
2.03	**LIGHTING FITTINGS**				
	a) Ceiling rose complete with 3 core flex cable, lamp holder and 11W led lamp as crabtree or approved equivalent **Type 'CR'**	No.	6		
	b) Spherical screwneck luminaire with opal glass and 16W compact lamp as Astra, Micromark, Thornor equal & approved equivalent. "Type BF"	No.	2		
	Total Carried Forward to Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
	POWER AND SOCKET OUTLET POINTS				
2.04	13A SP socket point completely wired in 3 x 2.5mm^2 single core PVC insulated copper cables drawn in 25mm diameter heavy gauge PVC conduits including all accessories but excluding the 13A SP switched socket outlet.	No.	8		
2.05	Socket Outlet plates i) 13A SP twin switched socket outlet as MK 2536 or equal & approved equivalent.	No.	8		
2.06	Instant shower water heater power points completely wired in 3 x 4mm2 single core PVC insulated copper cables drawn in 25mm diameter heavy gauge PVC conduits including all accessories ,but excluding the 40A DP connection unit	No.	1		
2.07	40A DP switched connection unit with neon indicator as MK or approved equivalent	No.	1		
2.08	Cooker outlet power points completely wired in 3 x 6.0mm2 single core PVC insulated copper cables drawn in 32mm diameter heavy gauge PVC conduits including all accessories ,but excluding the 45A DP connection unit	No.	1		
2.09	45A Moulded plate Cooker Control Unit complete with 13A fused socket outlet as MK/Crabtree or approved equivalent.	No.	1		
2.10	45A moulded plate cooker connection unit as MK/Crabtree or approved equivalent:	No.	1		
	Total Carried Forward to Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
2.11	Domestic door bell point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories but excluding the bell.	No.	1		
2.12	240V/12V Ding dong domestic door bell	No.	1		
	TELEPHONE, DATA AND TV POINTS POINTS				
2.13	Data point comprising of draw wire in 25mm diameter Heavy Gauge PVC conduits including all accessories and blanking plate but excluding the data socket outlet.	No.	1		
2.14	DTV Socket point comprising of draw wire in 25mm diameter Heavy Gauge PVC conduits including all accessories but excluding the DTV socket outlet.	No.	1		
2.15	300x 300x 100mm deep 16G galvanized adaptable box.	No.	2		
2.16	25mm diameter PVC HG conduit for ICT services and linking the Draw Boxes to the ICT ducts	Lm.	20		
	Total Carried Forward to Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
	POWER RETICULATION AND DISTRIBUTION BOARDS				
2.17	6 ways 100A SPN Consumer Unit `A' complete with 100A SPN integral isolator ,but excluding the MCBs ,and as Schneider Electric Acti 9 or approved equivalent.	No.	1		
2.18	**MCBs for item above as Schneider Electric Acti 9**				
	i)10 A SP MCB	No.	1		
	ii)32 A SP MCB	No.	2		
	iii) 45 A SP MCB	No.	1		
	iv) Blanking plates	No.	2		
2.19	Sub-mains circuits for CU 'A ' above comprising of 3 x 10mm2 single core PVC insulated copper cables drawn in 32mm heavy gauge conduits and running from the Lv switchboard below the staircase.	LM	40		
	Total Carried Forward to First Floor Collection Page				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
B.	**3 BEDROOM AHP UNITS**				
	SUPPLY, DELIVER , INSTALL ,SET TO WORK AND COMMISSION THE FOLLOWING:-				
	LIGHTING POINTS				
2.01	Lighting point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories for one way switching, but excluding the switch and luminaire.	No.	4		
	ii) Ditto as in item No. 2.01 but for two way switching	No.	8		
2.02	10A white moulded switch plate as Crabtree, MK Logic, Clipsal E- Series or approved equivalent as follows:-				
	i) 10A one gang one way switch	No.	5		
	ii) 10A one gang two way switch	No.	8		
	iii) 10A two gang two way switch	No.	2		
2.03	**LIGHTING FITTINGS**				
	a) Ceiling rose complete with 3 core flex cable, lamp holder and 11W led lamp as crabtree or approved equivalent **Type 'CR'**	No.	9		
	b) Spherical screwneck luminaire with opal glass and 16W compact fluorescent lamp as Astra, Micromark, Thornor equal & approved equivalent. "Type BF"	No.	2		
	Total Carried Forward to Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
	POWER AND SOCKET OUTLET POINTS				
2.04	13A SP socket point completely wired in 3 x 2.5mm^2 single core PVC insulated copper cables drawn in 25mm diameter heavy gauge PVC conduits including all accessories but excluding the 13A SP switched socket outlet.	No.	11		
2.05	Socket Outlet plates i) 13A SP twin switched socket outlet as MK 2536 or equal & approved equivalent.	No.	11		
2.06	Instant shower water heater power points completely wired in 3 x 4mm2 single core PVC insulated copper cables drawn in 25mm diameter heavy gauge PVC conduits including all accessories ,but excluding the 40A DP connection unit	No.	2		
2.07	40A DP switched connection unit with neon indicator as MK or approved equivalent	No.	2		
2.08	Cooker outlet power points completely wired in 3 x 6.0mm2 single core PVC insulated copper cables drawn in 32mm diameter heavy gauge PVC conduits including all accessories ,but excluding the 45A DP connection unit	No.	1		
2.09	45A Moulded plate Cooker Control Unit complete with 13A fused socket outlet as MK/Crabtree or approved equivalent.	No.	1		
2.10	45A moulded plate cooker connection unit as MK/Crabtree or approved equivalent:	No.	1		
	Total Carried Forward to Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
2.11	Domestic door bell point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories but excluding the bell.	No.	1		
2.12	240V/12V Ding dong domestic door bell as Oxford or approved equivalent	No.	1		
	TELEPHONE, DATA AND TV POINTS POINTS				
2.13	Data point comprising of draw wire in 25mm diameter Heavy Gauge PVC conduits including all accessories and blanking plate but excluding the data socket outlet.	No.	1		
2.14	DTV Socket point comprising of draw wire in 25mm diameter Heavy Gauge PVC conduits including all accessories but excluding the DTV socket outlet.	No.	1		
2.15	300x 300x 100mm deep 16G galvanized adaptable box.	No.	2		
2.16	25mm diameter PVC HG conduit for ICT services and linking the Draw Boxes to the ICT ducts	Lm.	20		
	Total Carried Forward to Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
	POWER RETICULATION AND DISTRIBUTION BOARDS				
2.17	6 ways 100A SPN Consumer Unit `A' complete with 100A SPN integral isolator ,but excluding the MCBs ,and as Schneider Electric Acti 9 or approved equivalent.	No.	1		
2.18	**MCBs for item above as Schneider Electric Acti 9**				
	i)10 A SP MCB	No.	1		
	ii)32 A SP MCB	No.	3		
	iii) 45 A SP MCB	No.	1		
	iv) Blanking plates	No.	1		
2.19	Sub-mains circuits for CU 'A ' above comprising of 3 x 10mm2 single core PVC insulated copper cables drawn in 32mm heavy gauge conduits and running from the Lv switchboard below the staircase.	LM	65		
	Total Carried Forward to First Floor Collection Page				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
C.	**2 BEDROOM MARKET UNITS**				
	SUPPLY, DELIVER , INSTALL ,SET TO WORK AND COMMISSION THE FOLLOWING:-				
	LIGHTING POINTS				
2.01	Lighting point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories for one way switching, but excluding the switch and luminaire.	No.	5		
	ii) Ditto as in item No. 2.01 but for two way switching	No.	5		
2.02	10A white moulded switch plate as Crabtree, MK Logic, Clipsal E- Series or approved equivalent as follows:-				
	i) 10A one gang one way switch	No.	4		
	ii) 10A two gang one way switch	No.	1		
	iii) 10A one gang two way switch	No.	6		
	iv) 10A two gang two way switch	No.	2		
2.03	**LIGHTING FITTINGS**				
	a) Ceiling rose complete with 3 core flex cable, lamp holder and 11W led lamp as crabtree or approved equivalent **Type 'CR'**	No.	7		
	b) Spherical screwneck luminaire with opal glass and 16W compact lamp as Astra, Micromark, Thornor equal & approved equivalent. "Type BF"	No.	2		
	Total Carried Forward to Next Page				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
	POWER AND SOCKET OUTLET POINTS				
2.04	13A SP socket point completely wired in 3 x 2.5mm^2 single core PVC insulated copper cables drawn in 25mm diameter heavy gauge PVC conduits including all accessories but excluding the 13A SP switched socket outlet.	No.	9		
2.05	Socket Outlet plates i) 13A SP twin switched socket outlet as MK 2536 or equal & approved equivalent.	No.	9		
2.06	Instant shower water heater power points completely wired in 3 x 4mm2 single core PVC insulated copper cables drawn in 25mm diameter heavy gauge PVC conduits including all accessories ,but excluding the 40A DP connection unit	No.	2		
2.07	40A DP switched connection unit with neon indicator as MK or approved equivalent	No.	2		
2.08	Cooker outlet power points completely wired in 3 x 6.0mm2 single core PVC insulated copper cables drawn in 32mm diameter heavy gauge PVC conduits including all accessories ,but excluding the 45A DP connection unit	No.	1		
2.09	45A Moulded plate Cooker Control Unit complete with 13A fused socket outlet as MK/Crabtree or approved equivalent.	No.	1		
2.10	45A moulded plate cooker connection unit as MK/Crabtree or approved equivalent:	No.	1		
	Total Carried Forward to Next Page				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
2.11	Domestic door bell point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories but excluding the bell.	No.	1		
2.12	240V/12V Ding dong domestic door bell as Oxford or approved equivalent	No.	1		
	TELEPHONE, DATA AND TV POINTS POINTS				
2.13	Data point comprising of draw wire in 25mm diameter Heavy Gauge PVC conduits including all accessories and blanking plate but excluding the data socket outlet.	No.	1		
2.14	DTV Socket point comprising of draw wire in 25mm diameter Heavy Gauge PVC conduits including all accessories but excluding the DTV socket outlet.	No.	1		
2.15	300x 300x 100mm deep 16G galvanized adaptable box.	No.	2		
2.16	25mm diameter PVC HG conduit for ICT services and linking the Draw Boxes to the ICT ducts	Lm.	40		
	Total Carried Forward to Next Page				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
	POWER RETICULATION AND DISTRIBUTION BOARDS				
2.17	6 ways 100A SPN Consumer Unit `A' complete with 100A SPN integral isolator ,but excluding the MCBs ,and as Schneider Electric Acti 9 or approved equivalent.	No.	1		
2.18	**MCBs for item above as Schneider Electric Acti 9 or approved equivalent**				
	i)10 A SP MCB	No.	1		
	ii)32 A SP MCB	No.	3		
	iii) 45 A SP MCB	No.	1		
	iv) Blanking plates	No.	1		
2.19	Sub-mains circuits for CU 'A ' above comprising of 3 x 10mm2 single core PVC insulated copper cables drawn in 32mm heavy gauge conduits and running from the Lv switchboard below the staircase.	LM	60		
	Total Carried Forward to First Floor Collection Page				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
D.	**3 BEDROOM MARKET UNITS**				
	SUPPLY, DELIVER , INSTALL ,SET TO WORK AND COMMISSION THE FOLLOWING:-				
	LIGHTING POINTS				
2.01	Lighting point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories for one way switching, but excluding the switch and luminaire.	No.	5		
	ii) Ditto as in item No. 2.01 but for two way switching	No.	7		
2.02	10A white moulded switch plate as Crabtree, MK Logic, Clipsal E- Series or approved equivalent as follows:-				
	i) 10A one gang one way switch	No.	5		
	ii) 10A one gang two way switch	No.	6		
	iii) 10A two gang two way switch	No.	4		
2.03	**LIGHTING FITTINGS**				
	a) Ceiling rose complete with 3 core flex cable, lamp holder and 11W led lamp as crabtree or approved equivalent **Type 'CR'**	No.	8		
	b) Spherical screwneck luminaire with opal glass and 16W compact fluorescent lamp as Astra, Micromark, Thornor equal & approved equivalent. "Type BF"	No.	3		
	Total Carried Forward to Next Page				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
	POWER AND SOCKET OUTLET POINTS				
2.04	13A SP socket point completely wired in 3 x 2.5mm^2 single core PVC insulated copper cables drawn in 25mm diameter heavy gauge PVC conduits including all accessories but excluding the 13A SP switched socket outlet.	No.	12		
2.05	Socket Outlet plates i) 13A SP twin switched socket outlet as MK 2536 or equal & approved equivalent.	No.	12		
2.06	Instant shower water heater power points completely wired in 3 x 4mm2 single core PVC insulated copper cables drawn in 25mm diameter heavy gauge PVC conduits including all accessories ,but excluding the 40A DP connection unit	No.	2		
2.07	40A DP switched connection unit with neon indicator as MK or approved equivalent	No.	2		
2.08	Cooker outlet power points completely wired in 3 x 6.0mm2 single core PVC insulated copper cables drawn in 32mm diameter heavy gauge PVC conduits including all accessories ,but excluding the 45A DP connection unit	No.	1		
2.09	45A Moulded plate Cooker Control Unit complete with 13A fused socket outlet as MK/Crabtree or approved equivalent.	No.	1		
2.10	45A moulded plate cooker connection unit as MK/Crabtree or approved equivalent:	No.	1		
	Total Carried Forward to Next Page				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
2.11	Domestic door bell point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories but excluding the bell.	No.	1		
2.12	240V/12V Ding dong domestic door bell as Oxford or approved equivalent	No.	1		
	TELEPHONE, DATA AND TV POINTS POINTS				
2.13	Data point comprising of draw wire in 25mm diameter Heavy Gauge PVC conduits including all accessories and blanking plate but excluding the data socket outlet.	No.	1		
2.14	DTV Socket point comprising of draw wire in 25mm diameter Heavy Gauge PVC conduits including all accessories but excluding the DTV socket outlet.	No.	1		
2.15	300x 300x 100mm deep 16G galvanized adaptable box.	No.	2		
2.16	25mm diameter PVC HG conduit for ICT services and linking the Draw Boxes to the ICT ducts	Lm.	40		
	Total Carried Forward to Next Page				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
	POWER RETICULATION AND DISTRIBUTION BOARDS				
2.17	6 ways 100A SPN Consumer Unit `A' complete with 100A SPN integral isolator ,but excluding the MCBs ,and as Schneider Electric Acti 9 or approved equivalent.	No.	1		
2.18	**MCBs for item above as Schneider Electric Acti 9 or approved equivalent**				
	i)10 A SP MCB	No.	1		
	ii)32 A SP MCB	No.	3		
	iii) 45 A SP MCB	No.	1		
	iv) Blanking plates	No.	1		
2.19	Sub-mains circuits for CU 'A ' above comprising of 3 x 10mm2 single core PVC insulated copper cables drawn in 32mm heavy gauge conduits and running from the Lv switchboard below the staircase.	LM	60		
	Total Carried Forward to First Floor Collection Page				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
E.	**CORRIDOR/ LIFTS LOBBY AREA**				
	SUPPLY, DELIVER , INSTALL ,SET TO WORK AND COMMISSION THE FOLLOWING:-				
	LIGHTING POINTS				
2.01	Lighting point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories for two way switching, but excluding the switch and luminaire.	No.	18		
2.02	10A white moulded switch plate as Crabtree, MK Logic, Clipsal E- Series or approved equivalent as follows:-				
	i) 10A one gang two way switch	No.	4		
	ii) 10A two gang two way switch	No.	4		
2.03	**LIGHTING FITTINGS**				
	a) Circular shaped surface mounted led luminaire as Phillips Coreline Cat No. WL131V LED12S/840 PSED EL3 WH **"Type N"**	No.	15		
	b) Emergency Maintained Circular shaped surface mounted led luminaire as Phillips Coreline Cat No. WL131V LED12S/840 PSED EL3 WH **"Type Ne"**	No.	3		
	Total Carried Forward to Next Page				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
2.04	CCTV points in designtaed locations for survailance, comprising of 25mm diameter HG PVC conduits complete with draw wire and the blanking plate. Allow for draw boxes where all the conduits from each security point converge.	No.	6		
2.05	300x 300x 100mm deep 16G galvanized adaptable box.	No.	2		
	LIGHTING CONTROL				
2.06	Presence sensor complete with assocaited wiring (light and motion sensor) as Osram Duo with the following characteristics: Operation voltage 220 - 240V 50Hz, detection area-12m dia minimum, settable light value, switch-off delay (if no motion detected), installation height - 5m minimum	No.	3		
	Total Carried Forward to First Floor Collection Page				

ITEM	DESCRIPTION	QTY	RATE (KSH)	AMOUNT (KSH)
	TYPICAL FLOOR SUMMARY			
1	Total Amount for 2 Bedroom AHP Unit	9		
2	Total Amount for 3 Bedroom AHP Unit	9		
3	Total Amount for 2 Bedroom Market Unit	27		
4	Total Amount for 3 Bedroom Market Unit	27		
5	Total Amount for Lift Lobby Summary	9		
	Total for 9No. Typical Floors Carried Forward to Main Summary Page			

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
(iii)	**EARTHING AND LIGHTNING PROTECTION** SUPPLY, DELIVER , INSTALL ,SET TO WORK AND COMMISSION THE FOLLOWING:-				
	Air Termination				
2.01	2000mm x15mmØ multiple point pure copper AirRods/ Termination with spikes as Furse Part No. RA240 or approved equivalent	No.	3		
2.02	Copper Air Rod Base as Furse Part No. SD105-H or approved equivalent	No.	3		
2.03	Copper Junction Clamps for copper tape as Furse Part No. CN105-H or approved equivalent	No.	3		
2.04	25mm x 3mm Tinned Copper Tape as Furse TC230 or approved equivalent	Lm.	130		
	Down Conductor				
2.05	25mm x 3mm Tinned Copper Tape as Furse TC230 or approved equivalent	Lm.	200		
2.06	Screwdown copper test clamp as Furse CT305 or approved equivalent	No.	3		
2.07	38mm Ø HG PVC conduits for drawing the down conductor above.	Lm.	10		
	Total Carried Forward to Next Page				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
	Earth Termination				
2.08	15mm Ø, 1500mm long solid copper earth rod c/w driving stud, coupling, and spike as Furse RC011 or approved equivalent	No	3		
2.09	Earth rod to tape clamp type A as Furse CR108 or approved equivalent	No.	3		
2.10	Concrete inspection earth pit Cat. No. PT 005 with 5 hole earth bar as Furse Cat. No. PT 006.	No.	2		
2.11	600mm x 600mm copper earth mat made from 25mm x 3mm copper tape at 300mm spacing, buried to permanent moisture level and complete with all clamps and 6m long 25mm x 3mm copper tape clamped to the down conductor, soil conditioning agents (marconite or bentonite) as necessary to achieve earthing resistance value below 10-Ohms	Lot	1		
2.12	Allow for earthing tests for the above and submission of the report to the engineer to BS7671 & BS62305 standards	No.	1		
	Bonding				
2.13	Bonding and clamping to all metal work including water pipes, gas pipes, hand-rails, smatv system, window frames, cladding, metal roof etc. and the main earth for the building.	Item	1		
	Total Carried Forward to Main Summary Page				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
(iv)	**LV SWITCHBOARD**				
	TAKE DELIVERY, STORE, INSTALL AND COMMISSION THE FOLLOWING:-				
2.01	Install purpose made Free-standing, fully wired front access metal clad main switchboard cubicle suitable for floor / wall mounting and manufactured in 14SWG galvanised mild steel sheet, to be finished in cream (or appropriate colour) powder coating. Wiring as shown on the schematic (the other details as per Particular Specification) and in compliance with IEC 60439 and Local KS standards, complete with the following:-	No.	1		
(i)	400Amps TP/N copper busbars - KPLC supply (Sealable)				
(ii)	400Amps MCCB as mains incomer adjustable				
(iii)	Space for 1No. 3-phase KPLC Common Services meter (kW, kWH, kVA, V, I etc), 63A TP MCB				
(iv)	80No. 63A DP MCBs for the sub-main cables				
(v)	1No. 100A DP MCBs for the sub-main cables				
(vi)	Space for KPLC cut-outs including studs for mounting KPLC seals				
(vii)	Sealable studs for all cover plate screws and all necessary accessories				
(viii)	6mm perspex viewing window for each section				
(ix)	Heavy duty rubber lining for all the perspex viewing windows				
(x)	4 No. Spare ways				
	Total Carried Forward to Next Page				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
2.02	Earthing for the switch-board under this section comprising 25x3mm copper tape lead, 1800mm long x 15mm diameter copper earth electrode as Furse or approved equivalent complete with driving stud and tape to rod clamp, 300mm x 300mm x 300mm deep concrete inspection earth pit with removable waterproof cover, 600mm x 600mm copper earth mat, soil conditioning agents (marconite and bentonite etc) necessary to achieve earthing value below 5-Ohms and all other necessary accessories	No.	1		
	Total Carried Forward to Main Summary Page				

ITEM	DESCRIPTION	AMOUNT
	BLOCK TYPE B SUMMARY PAGE	
1	Total Amount for Ground Floor B/F Page D-21	
2	Total Amount for Typical 1st - 9th Floor B/F Page D-40	
3	Total Amount for Lightning Protection B/F Page D-42	
4	Total Amount for LV Switchboard B/F Page D-45	
TOTAL AMOUNT FOR BILL No. 2: TYPICAL 1NO. BLOCK TYPE B CARRIED FORWARD TO PRICE COLLECTION PAGE		

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	BILL NO. 3				
	PROPOSED TYPICAL SOCIAL & AFFORDABLE UNITS BLOCK TYPE C				
(i)	**GROUND FLOOR**				
A.	**2 BEDROOM AHP UNITS**				
	SUPPLY, DELIVER , INSTALL ,SET TO WORK AND COMMISSION THE FOLLOWING:-				
	LIGHTING POINTS				
1.01	Lighting point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories for one way switching, but excluding the switch and luminaire.	No.	6		
	ii) Ditto as in item No. 1.01 but for two way switching	No.	4		
1.02	10A white moulded switch plate as Crabtree, MK Logic, Clipsal E- Series or approved equivalent as follows:-				
	i) 10A one gang one way switch	No.	3		
	ii) 10A one gang two way switch	No.	5		
	iii) 10A two gang two way switch	No.	2		
1.03	**LIGHTING FITTINGS**				
	a) Ceiling rose complete with 3 core flex cable, lamp holder and 11W led lamp as crabtree or approved equivalent **Type 'CR'**	No.	6		
	b) Spherical screwneck luminaire with opal glass and 16W compact fluorescent lamp as Astra, Micromark, Thorn or approved equivalent. "**Type BF"**	No.	2		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
	POWER AND SOCKET OUTLET POINTS				
1.04	13A SP socket point completely wired in 3 x 2.5mm^2 single core PVC insulated copper cables drawn in 25mm diameter heavy gauge PVC conduits including all accessories but excluding the 13A SP switched socket outlet.	No.	7		
1.05	Socket Outlet plates i) 13A SP twin switched socket outlet as MK 2536 or approved equivalent.	No.	7		
1.06	Instant shower water heater power points completely wired in 3 x 4mm^2 single core PVC insulated copper cables drawn in 25mm diameter heavy gauge PVC conduits including all accessories,but excluding the 40A DP connection unit	No.	1		
1.07	40A DP switched connection unit with neon indicator as MK or approved equivalent	No.	1		
1.08	Cooker outlet power points completely wired in 3 x 6.0mm^2 single core PVC insulated copper cables drawn in 32mm diameter heavy gauge PVC conduits including all accessories, but excluding the 45A Cooker connection unit	No.	1		
1.09	45A Moulded plate Cooker Control Unit complete with 13A fused Socket outlet as MK/Crabtree or approved equivalent.	No.	1		
1.10	45A moulded plate cooker connection unit as MK/Crabtree or approved equivalent:	No.	1		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
1.11	Domestic door bell point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories but excluding the bell.	No.	1		
1.12	240V/12V Ding dong domestic door bell	No.	1		
	TELEPHONE, DATA AND TV POINTS POINTS				
1.13	Data point comprising of draw wire in 25mm diameter Heavy Gauge PVC conduits including all accessories and blanking cover but excluding the Data socket outlet.	No.	1		
1.14	DTV Socket point comprising of draw wire in 25mm diameter Heavy Gauge PVC conduits including all accessories and blanking cover but excluding the DTV socket outlet.	No.	1		
1.15	300x 300x 100mm deep 16G galvanized adaptable	No.	2		
1.16	25mm diameter PVC HG conduit for ICT services and linking the Draw Boxes to the ICT ducts	LM	45		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
	POWER RETICULATION AND DISTRIBUTION BOARDS				
1.17	6 ways 100A SPN Consumer Unit `A' complete with 100A SPN integral isolator, but excluding the MCBs ,and as Schneider Electric Acti 9 or approved equivalent.	No.	1		
1.18	**MCBs for item above as Schneider Electric Acti 9**				
	i)10 A SP MCB	No.	1		
	ii)32 A SP MCB	No.	2		
	iii) 45 A SP MCB	No.	1		
	iv) Blanking plates	No.	2		
1.19	Sub-mains circuits for CU 'A ' above comprising of 3 x 10mm^2 single core PVC insulated copper cables drawn in 32mm heavy gauge conduits and running from the LV switchboard below the staircase.	LM	45		
	Total Carried Forward to Ground Floor Collection Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
B.	**3 BEDROOM AHP UNIT**				
	SUPPLY, DELIVER , INSTALL ,SET TO WORK AND COMMISSION THE FOLLOWING:-				
	LIGHTING POINTS				
1.01	Lighting point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories for one way switching, but excluding the switch and luminaire.	No.	4		
	ii) Ditto as in item No. 1.01 but for two way switching	No.	6		
1.02	10A white moulded switch plate as Crabtree, MK Logic, Clipsal E- Series or approved equivalent as follows:-				
	i) 10A one gang one way switch	No.	4		
	ii) 10A one gang two way switch	No.	8		
	iii) 10A two gang two way switch	No.	1		
1.03	**LIGHTING FITTINGS**				
	a) Ceiling rose complete with 3 core flex cable, lamp holder and 11W led lamp as crabtree or approved equivalent **Type 'CR'**	No.	7		
	b) Spherical screwneck luminaire with opal glass and 16W compact fluorescent lamp as Astra, Micromark, Thorn or approved equivalent. "**Type BF"**	No.	3		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
	POWER AND SOCKET OUTLET POINTS				
1.04	13A SP socket point completely wired in 3 x 2.5mm^2 single core PVC insulated copper cables drawn in 25mm diameter heavy gauge PVC conduits including all accessories but excluding the 13A SP switched socket outlet.	No.	8		
1.05	Socket Outlet plates i) 13A SP twin switched socket outlet as MK 2536 or equal & approved equivalent.	No.	8		
1.06	Instant shower water heater power points completely wired in 3 x 4mm^2 single core PVC insulated copper cables drawn in 25mm diameter heavy gauge PVC conduits including all accessories, but excluding the 40A DP connection unit	No.	2		
1.07	40A DP switched connection unit with neon indicator as MK or approved equivalent	No.	2		
1.08	Cooker outlet power points completely wired in 3 x 6.0mm^2 single core PVC insulated copper cables drawn in 32mm diameter heavy gauge PVC conduits including all accessories, but excluding the 45A DP connection unit	No.	1		
1.09	45A Moulded plate Cooker Control Unit complete with 13A fused socket outlet as MK/Crabtree or approved equivalent.	No.	1		
1.10	45A Moulded plate Cooker Control Unit complete with 13A fused Socket outlet as MK/Crabtree or approved equivalent.	No.	1		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
1.11	Domestic door bell point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories but excluding the bell.	No.	1		
1.12	240V/12V Ding dong domestic door bell	No.	1		
	TELEPHONE, DATA AND TV POINTS POINTS				
1.13	Data point comprising of draw wire in 25mm diameter Heavy Gauge PVC conduits including all accessories and blanking cover but excluding the telephone socket outlet.	No.	1		
1.14	DTV Socket point comprising of draw wire in 25mm diameter Heavy Gauge PVC conduits including all accessories and blanking cover but excluding the DTV socket outlet.	No.	1		
1.15	300x 300x 100mm deep 16G galvanized adaptable box.	No.	2		
1.16	25mm diameter PVC HG conduit for ICT services and linking the Draw Boxes to the ICT ducts	LM	45		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
	POWER RETICULATION AND DISTRIBUTION BOARDS				
1.17	6 ways 100A SPN Consumer Unit `A' complete with 100A SPN integral isolator ,but excluding the MCBs, and as Schneider Electric Acti 9 or approved equivalent.	No.	1		
1.18	**MCBs for item above as Schneider Electric Acti 9**				
	i)10 A SP MCB	No.	1		
	ii)32 A SP MCB	No.	3		
	iii) 45 A SP MCB	No.	1		
	iv) Blanking plates	No.	1		
1.19	Sub-mains circuits for CU 'A ' above comprising of 3 x 10mm^2 single core PVC insulated copper cables drawn in 32mm heavy gauge conduits and running from the Lv switchboard below the staircase.	LM	45		
	Total Carried Forward to the Ground Floor Collection Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
C.	**STUDIO/1 ROOM UNITS**				
	SUPPLY, DELIVER , INSTALL ,SET TO WORK AND COMMISSION THE FOLLOWING:-				
	LIGHTING POINTS				
1.01	Lighting point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories for one way switching, but excluding the switch and luminaire.	No.	1		
	ii) Ditto as in item No. 1.01 but for two way switching	No.	2		
1.02	10A white moulded switch plate as Crabtree, MK Logic, Clipsal E- Series or approved equivalent as follows:-				
	i) 10A one gang one way switch	No.	1		
	ii) 10A one gang two way switch	No.	2		
	iii) 10A two gang two way switch	No.	1		
1.03	**LIGHTING FITTINGS**				
	a) Ceiling rose complete with 3 core flex cable, lamp holder and 11W led lamp as crabtree or approved equivalent **Type 'CR'**	No.	2		
	b) Spherical screwneck luminaire with opal glass and 16W compact fluorescent lamp as Astra, Micromark, Thorn or approved equivalent. "**Type BF"**	No.	1		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
	POWER AND SOCKET OUTLET POINTS				
1.04	13A SP socket point completely wired in 3 x 2.5mm^2 single core PVC insulated copper cables drawn in 25mm diameter heavy gauge PVC conduits including all accessories but excluding the 13A SP switched socket outlet.	No.	4		
1.05	Socket Outlet plates i) 13A SP twin switched socket outlet as MK 2536 or equal & approved equivalent.	No.	4		
1.06	Instant shower water heater power points completely wired in 3 x 4mm^2 single core PVC insulated copper cables drawn in 25mm diameter heavy gauge PVC conduits including all accessories ,but excluding the 40A DP connection unit	No.	1		
1.07	40A DP switched connection unit with neon indicator as MK or approved equivalent	No.	1		
1.08	Cooker outlet power points completely wired in 3 x 6.0mm^2 single core PVC insulated copper cables drawn in 32mm diameter heavy gauge PVC conduits including all accessories ,but excluding the 45A DP connection unit	No.	1		
1.09	45A Moulded plate Cooker Control Unit complete with 13A fused Socket outlet as MK/Crabtree or approved equivalent.	No.	1		
1.10	45A moulded plate cooker connection unit as MK/Crabtree or approved equivalent:	No.	1		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
1.11	Domestic door bell point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories but excluding the bell.	No.	1		
1.12	240V/12V Ding dong domestic door bell	No.	1		
	TELEPHONE, DATA AND TV POINTS POINTS				
1.13	Data point comprising of draw wire in 25mm diameter Heavy Gauge PVC conduits including all accessories and blanking plate but excluding the telephone socket outlet.	No.	1		
1.14	DTV Socket point comprising of draw wire in 25mm diameter Heavy Gauge PVC conduits including all accessories but excluding the DTV socket outlet.	No.	1		
1.15	300x 300x 100mm deep 16G galvanized adaptable box.	No.	2		
1.16	25mm diameter PVC HG conduit for ICT services and linking the Draw Boxes to the ICT ducts	LM	30		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
	POWER RETICULATION AND DISTRIBUTION BOARDS				
1.17	6 ways 100A SPN Consumer Unit `A' complete with 100A SPN integral isolator ,but excluding the MCBs ,and as Schneider Electric Acti 9 or approved equivalent.	No.	1		
1.18	**MCBs for item above as Schneider Electric Acti 9 or approved equivalent**				
	i)10 A SP MCB	No.	1		
	ii)32 A SP MCB	No.	3		
	iii) 45 A SP MCB	No.	1		
	iv) Blanking plates	No.	1		
1.19	Sub-mains circuits for CU 'A ' above comprising of 3 x 10mm^2 single core PVC insulated copper cables drawn in 32mm heavy gauge conduits and running from the LV switchboard below the staircase.	LM	30		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
D.	**RETAIL SHOPS**				
	SUPPLY, DELIVER , INSTALL ,SET TO WORK AND COMMISSION THE FOLLOWING:-				
	LIGHTING POINTS				
1.01	Lighting point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories for one way switching, but excluding the switch and luminaire.	No.	5		
1.02	10A white moulded switch plate as Crabtree, MK Logic, Clipsal E- Series or approved equivalent as follows:-				
	i) 10A one gang one way switch	No.	3		
1.03	**LIGHTING FITTINGS**				
	a) Ceiling rose complete with 3 core flex cable, lamp holder and 11W led lamp as crabtree or approved equivalent **Type 'CR'**	No.	3		
	b) Spherical screwneck luminaire with opal glass and 16W compact fluorescent lamp as Astra, Micromark, Thorn or approved equivalent. "**Type BF"**	No.	2		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
	POWER AND SOCKET OUTLET POINTS				
1.04	13A SP socket point completely wired in 3 x 2.5mm^2 single core PVC insulated copper cables drawn in 25mm diameter heavy gauge PVC conduits including all accessories but excluding the 13A SP switched socket outlet.	No.	2		
1.05	Socket Outlet plates i) 13A SP twin switched socket outlet as MK 2536 or equal & approved equivalent.	No.	2		
1.06	Instant shower water heater power points completely wired in 3 x 4mm^2 single core PVC insulated copper cables drawn in 25mm diameter heavy gauge PVC conduits including all accessories, but excluding the 40A DP connection unit	No.	1		
1.07	40A DP switched connection unit with neon indicator as MK or approved equivalent	No.	1		
	TELEPHONE, DATA AND TV POINTS POINTS				
1.08	Data point comprising of draw wire in 25mm diameter Heavy Gauge PVC conduits including all accessories and blanking plate but excluding the data socket outlet.	No.	1		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
	POWER RETICULATION AND DISTRIBUTION BOARDS				
1.09	4 ways 100A SPN Consumer Unit `A' complete with 100A SPN integral isolator, but excluding the MCBs ,and as Schneider Electric Acti 9 or approved equivalent.	No.	1		
1.10	**MCBs for item above as Schneider Electric Acti 9 or approved equivalent**				
	i)10 A SP MCB	No.	1		
	ii)32 A SP MCB	No.	2		
	iv) Blanking plates	No.	1		
1.11	Sub-mains circuits for CU 'A ' above comprising of 3 x 10mm^2 single core PVC insulated copper cables drawn in 32mm heavy gauge conduits and running from the LVswitchboard below the staircase.	LM	20		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
E.	**3 ROOM SOCIAL UNIT**				
	SUPPLY, DELIVER , INSTALL ,SET TO WORK AND COMMISSION THE FOLLOWING:-				
	LIGHTING POINTS				
1.01	Lighting point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories for one way switching, but excluding the switch and luminaire.	No.	2		
	ii) Ditto as in item No. 1.01 but for two way switching	No.	5		
1.02	10A white moulded switch plate as Crabtree, MK Logic, Clipsal E- Series or approved equivalent as follows:-				
	i) 10A one gang one way switch	No.	1		
	ii) 10A one gang two way switch	No.	4		
	iii) 10A two gang two way switch	No.	3		
1.03	**LIGHTING FITTINGS**				
	a) Ceiling rose complete with 3 core flex cable, lamp holder and 11W led lamp as crabtree or approved equivalent **Type 'CR'**	No.	6		
	b) Spherical screwneck luminaire with opal glass	No.	1		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
	POWER AND SOCKET OUTLET POINTS				
1.04	13A SP socket point completely wired in 3 x 2.5mm^2 single core PVC insulated copper cables drawn in 25mm diameter heavy gauge PVC conduits including all accessories but excluding the 13A SP switched socket outlet.	No.	7		
1.05	Socket Outlet plates i) 13A SP twin switched socket outlet as MK 2536 or equal & approved equivalent.	No.	7		
1.06	Instant shower water heater power points completely wired in 3 x 4mm^2 single core PVC insulated copper cables drawn in 25mm diameter heavy gauge PVC conduits including all accessories, but excluding the 40A DP connection unit	No.	1		
1.07	40A DP switched connection unit with neon indicator as MK or approved equivalent	No.	1		
1.08	Cooker outlet power points completely wired in 3 x 6.0mm^2 single core PVC insulated copper cables drawn in 32mm diameter heavy gauge PVC conduits including all accessories, but excluding the 45A DP connection unit	No.	1		
1.09	45A Moulded plate Cooker Control Unit complete with 13A fused socket outlet as MK/Crabtree or approved equivalent.	No.	1		
1.10	45A Moulded plate Cooker Control Unit complete with 13A fused Socket outlet as MK/Crabtree or approved equivalent.	No.	1		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
1.11	Domestic door bell point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories but excluding the bell.	No.	1		
1.12	240V/12V Ding dong domestic door bell	No.	1		
	TELEPHONE, DATA AND TV POINTS POINTS				
1.13	Data point comprising of draw wire in 25mm diameter Heavy Gauge PVC conduits including all accessories and blanking cover but excluding the telephone socket outlet.	No.	1		
1.14	DTV Socket point comprising of draw wire in 25mm diameter Heavy Gauge PVC conduits including all accessories and blanking cover but excluding the DTV socket outlet.	No.	1		
1.15	300x 300x 100mm deep 16G galvanized adaptable box.	No.	2		
1.16	25mm diameter PVC HG conduit for ICT services and linking the Draw Boxes to the ICT ducts	Lm.	20		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
	POWER RETICULATION AND DISTRIBUTION BOARDS				
1.17	6 ways 100A SPN Consumer Unit `A' complete with 100A SPN integral isolator ,but excluding the MCBs, and as Schneider Electric Acti 9 or approved equivalent.	No.	1		
1.18	**MCBs for item above as Schneider Electric Acti 9**				
	i)10 A SP MCB	No.	1		
	ii)32 A SP MCB	No.	3		
	iii) 45 A SP MCB	No.	1		
	iv) Blanking plates	No.	1		
1.19	Sub-mains circuits for CU 'A ' above comprising of 3 x 10mm^2 single core PVC insulated copper cables drawn in 32mm heavy gauge conduits and running from the Lv switchboard below the staircase.	LM	20		
	Total Carried Forward to Ground Floor Collection Page				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
F.	**CORRIDOR/ LIFTS LOBBY AREA**				
	SUPPLY, DELIVER , INSTALL ,SET TO WORK AND COMMISSION THE FOLLOWING:-				
	LIGHTING POINTS				
1.01	Lighting point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories for two way switching, but excluding the switch and luminaire.	No.	31		
1.02	10A white moulded switch plate as Crabtree, MK Logic, Clipsal E- Series or approved equivalent as follows:-				
	i) 10A one gang two way switch	No.	4		
	ii) 10A two gang two way switch	No.	4		
1.03	**LIGHTING FITTINGS**				
	a) Circular shaped surface mounted led luminaire	No.	12		
	b) Emergency Maintained Circular shaped surfac	No.	3		
	c) 8W bulkbead luminaire ,polycarbonate base, and clear diffuser and installed inside the lift shaft As Thorn EWB/ETB bulkhead. "**Type G**"	No.	2		
	d) Bulkhead fitting with moulded glass diffuser c	No.	14		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
1.04	CCTV points in designtaed locations for survailance, comprising of 25mm diameter HG PVC conduits complete with draw wire and the blanking plate. Allow for draw boxes where all the conduits from each security point converge.	No.	6		
1.05	300x 300x 100mm deep 16 G galvanized adaptable box.	No.	2		
	LIGHTING CONTROL				
1.06	Presence sensor complete with assocaited wiring (light and motion sensor) as Osram Duo with the following characteristics: Operation voltage 220 - 240V 50Hz, detection area-12m dia minimum, settable light value, switch-off delay (if no motion detected), installation height - 5m minimum	No.	3		
1.07	24A, 240V, 2P DB/CU mounted silent operation contactor for Switching External lights complete with all accessories and as CRABTREE CIK24 or an approved equivalent	No.	2		
1.08	Photocell control unit and wired to energize the contactors complete with a D.P override switch as THORN QPK or approved equivalent	No.	2		
1.09	Water booster power points completely wired in 5 x 6mm^2 single core PVC insulated copper cables drawn in 38mm diameter heavy gauge PVC conduits including all accessories ,but excluding the the 40A TPN isolator	No.	1		
1.10	40A TPN isolator as MK or approved equivalent	No.	1		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
1.11	Lifts isolators power points completely wired in 5 x 6mm^2 single core PVC insulated copper cables drawn in 32mm diameter heavy gauge PVC conduits including all accessories ,but excluding the the 63A TPN isolator	No.	2		
1.12	63A TPN isolator as MK or approved equivalent	No.	2		
1.13	8 ways 100A TPN distribution boards 'T' complete with 100A TPN integral isolator ,but excluding the MCBs ,and as Schneider Electric Acti 9 or approved equivalent.	No.	1		
1.14	4 ways 100A SPN Consumer Unit `C' complete with 100A SPN integral isolator ,but excluding the MCBs ,and as Schneider Electric Acti 9 or approved equivalent for common services.	No.	5		
1.15	**MCBs for item above as Schneider Electric Acti 9**				
	i)10 A SP MCB	No.	6		
	ii) 32 A SP MCB	No.	4		
	iii) 40 A SP MCB	No.	5		
	iv) 32 A TP MCB	No.	3		
	v) Blanking plates	No.	8		
1.16	Sub-mains circuits for DB 'T' above comprising of 4 core 25mm^2 PVC/SWA/PVC cable drawn in cable tray/ 50mm diameter heavy gauge conduits and running from the Lv switchboard	LM	10		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
1.17	Sub-mains circuits for CU 'C ' above comprising of 3 x 10mm2 single core PVC insulated copper cables drawn in 32mm heavy gauge conduits and running from common distribution board.	LM	30		
1.18	200mm x 50mm galvanised metallic cable tray (Telecom, DTV, Internet Cables) gauge 14 (riser duct) c/w all mounting accessories bends, rawl bolts, threaded bolts, brackets,	LM.	60		
1.19	200mm x 50mm galvanised metallic cable tray (Power Cables) gauge 14 (riser duct) c/w all mounting accessories bends, rawl bolts, threaded bolts, brackets,	LM.	40		
	Total Carried Forward to Ground Floor Collection Pg.				

ITEM	DESCRIPTION	QTY	RATE (KSH)	AMOUNT (KSH)
	GROUND FLOOR SUMMARY PAGE			
1	Total Amount for 2 Bedroom AHP Unit	1		
2	Total Amount for 3 Bedroom AHP Unit	1		
3	Total Amount for Studio/1 Room AHP Unit	3		
4	Total Amount for Retail Shops	9		
5	Total Amount for 3 Room Social Unit	1		
6	Total Amount for Common Area	1		
	Total Carried Forward to Ground Floor Collection Pg.			

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
(ii)	**TYPICAL 1ST - 9TH FLOOR**				
A.	**2 BEDROOM AHP UNITS**				
	SUPPLY, DELIVER , INSTALL ,SET TO WORK AND COMMISSION THE FOLLOWING:-				
	LIGHTING POINTS				
1.01	Lighting point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories for one way switching, but excluding the switch and luminaire.	No.	6		
	ii) Ditto as in item No. 1.01 but for two way switching	No.	4		
1.02	10A white moulded switch plate as Crabtree, MK Logic, Clipsal E- Series or approved equivalent as follows:-				
	i) 10A one gang one way switch	No.	3		
	ii) 10A one gang two way switch	No.	5		
	iii) 10A two gang two way switch	No.	2		
1.03	**LIGHTING FITTINGS**				
	a) Ceiling rose complete with 3 core flex cable, lamp holder and 11W led lamp as crabtree or approved equivalent **Type 'CR'**	No.	6		
	b) Spherical screwneck luminaire with opal glass and 16W compact fluorescent lamp as Astra, Micromark, Thorn or approved equivalent. "**Type BF"**	No.	2		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
	POWER AND SOCKET OUTLET POINTS				
1.04	13A SP socket point completely wired in 3 x 2.5mm^2 single core PVC insulated copper cables drawn in 25mm diameter heavy gauge PVC conduits including all accessories but excluding the 13A SP switched socket outlet.	No.	7		
1.05	Socket Outlet plates i) 13A SP twin switched socket outlet as MK 2536 or approved equivalent.	No.	7		
1.06	Instant shower water heater power points completely wired in 3 x 4mm^2 single core PVC insulated copper cables drawn in 25mm diameter heavy gauge PVC conduits including all accessories,but excluding the 40A DP connection unit	No.	1		
1.07	40A DP switched connection unit with neon indicator as MK or approved equivalent	No.	1		
1.08	Cooker outlet power points completely wired in 3 x 6.0mm^2 single core PVC insulated copper cables drawn in 32mm diameter heavy gauge PVC conduits including all accessories, but excluding the 45A Cooker connection unit	No.	1		
1.09	45A Moulded plate Cooker Control Unit complete with 13A fused Socket outlet as MK/Crabtree or approved equivalent.	No.	1		
1.10	45A moulded plate cooker connection unit as MK/Crabtree or approved equivalent:	No.	1		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
1.11	Domestic door bell point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories but excluding the bell.	No.	1		
1.12	240V/12V Ding dong domestic door bell	No.	1		
	TELEPHONE, DATA AND TV POINTS POINTS				
1.13	Data point comprising of draw wire in 25mm diameter Heavy Gauge PVC conduits including all accessories and blanking cover but excluding the Data socket outlet.	No.	1		
1.14	DTV Socket point comprising of draw wire in 25mm diameter Heavy Gauge PVC conduits including all accessories and blanking cover but excluding the DTV socket outlet.	No.	1		
1.15	300x 300x 100mm deep 16G galvanized adaptable box.	No.	2		
1.16	25mm diameter PVC HG conduit for ICT services and linking the Draw Boxes to the ICT ducts	LM	45		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
	POWER RETICULATION AND DISTRIBUTION BOARDS				
1.17	6 ways 100A SPN Consumer Unit `A' complete with 100A SPN integral isolator, but excluding the MCBs ,and as Schneider Electric Acti 9 or approved equivalent.	No.	1		
1.18	**MCBs for item above as Schneider Electric Acti 9**				
	i)10 A SP MCB	No.	1		
	ii)32 A SP MCB	No.	2		
	iii) 45 A SP MCB	No.	1		
	iv) Blanking plates	No.	2		
1.19	Sub-mains circuits for CU 'A ' above comprising of 3 x 10mm^2 single core PVC insulated copper cables drawn in 32mm heavy gauge conduits and running from the LV switchboard below the staircase.	LM	65		
	Total Carried Forward to Typical Floor Collection Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
B.	**3 BEDROOM AHP UNIT**				
	SUPPLY, DELIVER , INSTALL ,SET TO WORK AND COMMISSION THE FOLLOWING:-				
	LIGHTING POINTS				
1.01	Lighting point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories for one way switching, but excluding the switch and luminaire.	No.	4		
	ii) Ditto as in item No. 1.01 but for two way switching	No.	6		
1.02	10A white moulded switch plate as Crabtree, MK Logic, Clipsal E- Series or approved equivalent as follows:-				
	i) 10A one gang one way switch	No.	4		
	ii) 10A one gang two way switch	No.	8		
	iii) 10A two gang two way switch	No.	1		
1.03	**LIGHTING FITTINGS**				
	a) Ceiling rose complete with 3 core flex cable, lamp holder and 11W led lamp as crabtree or approved equivalent **Type 'CR'**	No.	7		
	b) Spherical screwneck luminaire with opal glass and 16W compact fluorescent lamp as Astra, Micromark, Thorn or approved equivalent. "**Type BF"**	No.	3		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
	POWER AND SOCKET OUTLET POINTS				
1.04	13A SP socket point completely wired in 3 x 2.5mm^2 single core PVC insulated copper cables drawn in 25mm diameter heavy gauge PVC conduits including all accessories but excluding the 13A SP switched socket outlet.	No.	8		
1.05	Socket Outlet plates i) 13A SP twin switched socket outlet as MK 2536 or equal & approved equivalent.	No.	8		
1.06	Instant shower water heater power points completely wired in 3 x 4mm^2 single core PVC insulated copper cables drawn in 25mm diameter heavy gauge PVC conduits including all accessories, but excluding the 40A DP connection unit	No.	2		
1.07	40A DP switched connection unit with neon indicator as MK or approved equivalent	No.	2		
1.08	Cooker outlet power points completely wired in 3 x 6.0mm^2 single core PVC insulated copper cables drawn in 32mm diameter heavy gauge PVC conduits including all accessories, but excluding the 45A DP connection unit	No.	1		
1.09	45A Moulded plate Cooker Control Unit complete with 13A fused socket outlet as MK/Crabtree or approved equivalent.	No.	1		
1.10	45A Moulded plate Cooker Control Unit complete with 13A fused Socket outlet as MK/Crabtree or approved equivalent.	No.	1		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
1.11	Domestic door bell point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories but excluding the bell.	No.	1		
1.12	240V/12V Ding dong domestic door bell	No.	1		
	TELEPHONE, DATA AND TV POINTS POINTS				
1.13	Data point comprising of draw wire in 25mm diameter Heavy Gauge PVC conduits including all accessories and blanking cover but excluding the telephone socket outlet.	No.	1		
1.14	DTV Socket point comprising of draw wire in 25mm diameter Heavy Gauge PVC conduits including all accessories and blanking cover but excluding the DTV socket outlet.	No.	1		
1.15	300x 300x 100mm deep 16G galvanized adaptable box.	No.	2		
1.16	25 mm diameter PVC HG conduit for ICT services and linking the Draw Boxes to the ICT ducts	LM	45		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
	POWER RETICULATION AND DISTRIBUTION BOARDS				
1.17	6 ways 100A SPN Consumer Unit `A' complete with 100A SPN integral isolator ,but excluding the MCBs, and as Schneider Electric Acti 9 or approved equivalent.	No.	1		
1.18	**MCBs for item above as Schneider Electric Acti 9**				
	i)10 A SP MCB	No.	1		
	ii)32 A SP MCB	No.	3		
	iii) 45 A SP MCB	No.	1		
	iv) Blanking plates	No.	1		
1.19	Sub-mains circuits for CU 'A ' above comprising of 3 x 10mm^2 single core PVC insulated copper cables drawn in 32mm heavy gauge conduits and running from the Lv switchboard below the staircase.	LM	65		
	Total Carried Forward to Typical Floor Collection Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
C.	**STUDIO/1 ROOM UNITS**				
	SUPPLY, DELIVER , INSTALL ,SET TO WORK AND COMMISSION THE FOLLOWING:-				
	LIGHTING POINTS				
1.01	Lighting point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories for one way switching, but excluding the switch and luminaire.	No.	1		
	ii) Ditto as in item No. 1.01 but for two way switching	No.	2		
1.02	10A white moulded switch plate as Crabtree, MK Logic, Clipsal E- Series or approved equivalent as follows:-				
	i) 10A one gang one way switch	No.	1		
	ii) 10A one gang two way switch	No.	2		
	iii) 10A two gang two way switch	No.	1		
1.03	**LIGHTING FITTINGS**				
	a) Ceiling rose complete with 3 core flex cable, lamp holder and 11W led lamp as crabtree or approved equivalent **Type 'CR'**	No.	2		
	b) Spherical screwneck luminaire with opal glass and 16W compact fluorescent lamp as Astra, Micromark, Thorn or approved equivalent. "**Type BF"**	No.	1		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
	POWER AND SOCKET OUTLET POINTS				
1.04	13A SP socket point completely wired in 3 x 2.5mm^2 single core PVC insulated copper cables drawn in 25mm diameter heavy gauge PVC conduits including all accessories but excluding the 13A SP switched socket outlet.	No.	4		
1.05	Socket Outlet plates i) 13A SP twin switched socket outlet as MK 2536 or equal & approved equivalent.	No.	4		
1.06	Instant shower water heater power points completely wired in 3 x 4mm^2 single core PVC insulated copper cables drawn in 25mm diameter heavy gauge PVC conduits including all accessories ,but excluding the 40A DP connection unit	No.	1		
1.07	40A DP switched connection unit with neon indicator as MK or approved equivalent	No.	1		
1.08	Cooker outlet power points completely wired in 3 x 6.0mm^2 single core PVC insulated copper cables drawn in 32mm diameter heavy gauge PVC conduits including all accessories ,but excluding the 45A DP connection unit	No.	1		
1.09	45A Moulded plate Cooker Control Unit complete with 13A fused Socket outlet as MK/Crabtree or approved equivalent.	No.	1		
1.10	45A moulded plate cooker connection unit as MK/Crabtree or approved equivalent:	No.	1		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
1.11	Domestic door bell point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories but excluding the bell.	No.	1		
1.12	240V/12V Ding dong domestic door bell	No.	1		
	TELEPHONE, DATA AND TV POINTS POINTS				
1.13	Data point comprising of draw wire in 25mm diameter Heavy Gauge PVC conduits including all accessories and blanking plate but excluding the telephone socket outlet.	No.	1		
1.14	DTV Socket point comprising of draw wire in 25mm diameter Heavy Gauge PVC conduits including all accessories but excluding the DTV socket outlet.	No.	1		
1.15	300x 300x 100mm deep 16G galvanized adaptable box.	No.	2		
1.16	25mm diameter PVC HG conduit for ICT services and linking the Draw Boxes to the ICT ducts	LM	30		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
	POWER RETICULATION AND DISTRIBUTION BOARDS				
1.17	6 ways 100A SPN Consumer Unit `A' complete with 100A SPN integral isolator ,but excluding the MCBs ,and as Schneider Electric Acti 9 or approved equivalent.	No.	1		
1.18	**MCBs for item above as Schneider Electric Acti 9**				
	i)10 A SP MCB	No.	1		
	ii)32 A SP MCB	No.	3		
	iii) 45 A SP MCB	No.	1		
	iv) Blanking plates	No.	1		
1.19	Sub-mains circuits for CU 'A ' above comprising of 3 x 10mm^2 single core PVC insulated copper cables drawn in 32mm heavy gauge conduits and running from the LV switchboard below the staircase.	LM	50		
	Total Carried Forward to Typical Floor Collection Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
D.	**2 ROOM SOCIAL UNITS**				
	SUPPLY, DELIVER , INSTALL ,SET TO WORK AND COMMISSION THE FOLLOWING:-				
	LIGHTING POINTS				
1.01	Lighting point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories for one way switching, but excluding the switch and luminaire.	No.	2		
	ii) Ditto as in item No. 1.01 but for two way switching	No.	3		
1.02	10A white moulded switch plate as Crabtree, MK Logic, Clipsal E- Series or approved equivalent as follows:-				
	i) 10A two gang one way switch	No.	1		
	ii) 10A one gang two way switch	No.	3		
	iii) 10A two gang two way switch	No.	1		
1.03	**LIGHTING FITTINGS**				
	a) Ceiling rose complete with 3 core flex cable, lamp holder and 11W led lamp as crabtree or approved equivalent **Type 'CR'**	No.	4		
	b) Spherical screwneck luminaire with opal glass and 16W compact fluorescent lamp as Astra, Micromark, Thorn or approved equivalent. "**Type BF"**	No.	1		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
	POWER AND SOCKET OUTLET POINTS				
1.04	13A SP socket point completely wired in 3 x 2.5mm^2 single core PVC insulated copper cables drawn in 25mm diameter heavy gauge PVC conduits including all accessories but excluding the 13A SP switched socket outlet.	No.	6		
1.05	Socket Outlet plates i) 13A SP twin switched socket outlet as MK 2536 or equal & approved equivalent.	No.	6		
1.06	Instant shower water heater power points completely wired in 3 x 4mm^2 single core PVC insulated copper cables drawn in 25mm diameter heavy gauge PVC conduits including all accessories, but excluding the 40A DP connection unit	No.	1		
1.07	40A DP switched connection unit with neon indicator as MK or approved equivalent	No.	1		
1.08	Cooker outlet power points completely wired in 3 x 6.0mm^2 single core PVC insulated copper cables drawn in 32mm diameter heavy gauge PVC conduits including all accessories ,but excluding the 45A DP connection unit	No.	1		
1.09	45A Moulded plate Cooker Control Unit complete with 13A fused socket outlet as MK/Crabtree or approved equivalent.	No.	1		
1.10	45A moulded plate cooker connection unit as MK/Crabtree or approved equivalent:	No.	1		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
1.11	Domestic door bell point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories but excluding the bell.	No.	1		
1.12	240V/12V Ding dong domestic door bell	No.	1		
	TELEPHONE, DATA AND TV POINTS POINTS				
1.13	Data point comprising of draw wire in 25mm diameter Heavy Gauge PVC conduits including all accessories and blanking plate but excluding the data socket outlet.	No.	1		
1.14	DTV Socket point comprising of draw wire in 25mm diameter Heavy Gauge PVC conduits including all accessories but excluding the DTV socket outlet.	No.	1		
1.15	300x 300x 100mm deep 16G galvanized adaptable box.	No.	2		
1.16	25mm diameter PVC HG conduit for ICT services and linking the Draw Boxes to the ICT ducts	LM	20		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
	POWER RETICULATION AND DISTRIBUTION BOARDS				
1.17	6 ways 100A SPN Consumer Unit `A' complete with 100A SPN integral isolator, but excluding the MCBs ,and as Schneider Electric Acti 9 or approved equivalent.	No.	1		
1.18	**MCBs for item above as Schneider Electric Acti 9**				
	i)10 A SP MCB	No.	1		
	ii)32 A SP MCB	No.	3		
	iii) 45 A SP MCB	No.	1		
	iv) Blanking plates	No.	1		
1.19	Sub-mains circuits for CU 'A ' above comprising of 3 x 10mm^2 single core PVC insulated copper cables drawn in 32mm heavy gauge conduits and running from the LVswitchboard below the staircase.	LM	30		
	Total Carried Forward to Typical Floor Collection Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
E.	**3 ROOM SOCIAL UNIT**				
	SUPPLY, DELIVER , INSTALL ,SET TO WORK AND COMMISSION THE FOLLOWING:-				
	LIGHTING POINTS				
1.01	Lighting point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories for one way switching, but excluding the switch and luminaire.	No.	2		
	ii) Ditto as in item No. 1.01 but for two way switching	No.	5		
1.02	10A white moulded switch plate as Crabtree, MK Logic, Clipsal E- Series or approved equivalent as follows:-				
	i) 10A one gang one way switch	No.	1		
	ii) 10A one gang two way switch	No.	4		
	iii) 10A two gang two way switch	No.	3		
1.03	**LIGHTING FITTINGS**				
	a) Ceiling rose complete with 3 core flex cable, lamp holder and 11W led lamp as crabtree or approved equivalent **Type 'CR'**	No.	6		
	b) Spherical screwneck luminaire with opal glass and 16W compact fluorescent lamp as Astra, Micromark, Thorn or approved equivalent. "**Type BF"**	No.	1		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
	POWER AND SOCKET OUTLET POINTS				
1.04	13A SP socket point completely wired in 3 x 2.5mm^2 single core PVC insulated copper cables drawn in 25mm diameter heavy gauge PVC conduits including all accessories but excluding the 13A SP switched socket outlet.	No.	7		
1.05	Socket Outlet plates i) 13A SP twin switched socket outlet as MK 2536 or equal & approved equivalent.	No.	7		
1.06	Instant shower water heater power points completely wired in 3 x 4mm^2 single core PVC insulated copper cables drawn in 25mm diameter heavy gauge PVC conduits including all accessories, but excluding the 40A DP connection unit	No.	1		
1.07	40A DP switched connection unit with neon indicator as MK or approved equivalent	No.	1		
1.08	Cooker outlet power points completely wired in 3 x 6.0mm^2 single core PVC insulated copper cables drawn in 32mm diameter heavy gauge PVC conduits including all accessories, but excluding the 45A DP connection unit	No.	1		
1.09	45A Moulded plate Cooker Control Unit complete with 13A fused socket outlet as MK/Crabtree or approved equivalent.	No.	1		
1.10	45A Moulded plate Cooker Control Unit complete with 13A fused Socket outlet as MK/Crabtree or approved equivalent.	No.	1		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
1.11	Domestic door bell point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories but excluding the bell.	No.	1		
1.12	240V/12V Ding dong domestic door bell	No.	1		
	TELEPHONE, DATA AND TV POINTS POINTS				
1.13	Data point comprising of draw wire in 25mm diameter Heavy Gauge PVC conduits including all accessories and blanking cover but excluding the telephone socket outlet.	No.	1		
1.14	DTV Socket point comprising of draw wire in 25mm diameter Heavy Gauge PVC conduits including all accessories and blanking cover but excluding the DTV socket outlet.	No.	1		
1.15	300x 300x 100mm deep 16G galvanized adaptable box.	No.	2		
1.16	25mm diameter PVC HG conduit for ICT services and linking the Draw Boxes to the ICT ducts	Lm.	20		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
	POWER RETICULATION AND DISTRIBUTION BOARDS				
1.17	6 ways 100A SPN Consumer Unit `A' complete with 100A SPN integral isolator ,but excluding the MCBs, and as Schneider Electric Acti 9 or approved equivalent.	No.	1		
1.18	**MCBs for item above as Schneider Electric Acti 9**				
	i)10 A SP MCB	No.	1		
	ii)32 A SP MCB	No.	3		
	iii) 45 A SP MCB	No.	1		
	iv) Blanking plates	No.	1		
1.19	Sub-mains circuits for CU 'A ' above comprising of 3 x 10mm^2 single core PVC insulated copper cables drawn in 32mm heavy gauge conduits and running from the Lv switchboard below the staircase.	LM	45		
	Total Carried Forward to Typical Floor Collection Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
F.	**CORRIDOR/ LIFTS LOBBY AREA**				
	SUPPLY, DELIVER , INSTALL ,SET TO WORK AND COMMISSION THE FOLLOWING:-				
	LIGHTING POINTS				
1.01	Lighting point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories for two way switching, but excluding the switch and luminaire.	No.	17		
1.02	10A white moulded switch plate as Crabtree, MK Logic, Clipsal E- Series or approved equivalent as follows:-				
	i) 10A one gang two way switch	No.	4		
	ii) 10A two gang two way switch	No.	4		
1.03	**LIGHTING FITTINGS**				
	a) Circular shaped surface mounted led luminaire	No.	12		
	b) Emergency Maintained Circular shaped surfac	No.	3		
	c) 8W bulkbead luminaire ,polycarbonate base, and clear diffuser and installed inside the lift shaft As Thorn EWB/ETB bulkhead. "**Type G**"	No.	2		
	Total Carried Forward to Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
1.04	CCTV points in designtaed locations for survailance, comprising of 25mm diameter HG PVC conduits complete with draw wire and the blanking plate. Allow for draw boxes where all the conduits from each security point converge.	No.	6		
1.05	300x 300x 100mm deep 16G galvanized adaptable box.	No.	2		
	LIGHTING CONTROL				
1.06	Presence sensor complete with assocaited wiring (light and motion sensor) as Osram Duo with the following characteristics: Operation voltage 220 - 240V 50Hz, detection area-12m dia minimum, settable light value, switch-off delay (if no motion detected), installation height - 5m minimum	No.	3		
	Total Carried Forward to Next Pg.				

ITEM	DESCRIPTION	QTY	RATE (KSH)	AMOUNT (KSH)
	TYPICAL FLOOR SUMMARY			
1	Total Amount for 2 Bedroom AHP Unit	36		
2	Total Amount for 3 Bedroom AHP Unit	9		
3	Total Amount for Studio AHP Unit	18		
4	Total Amount for 1 Room Social Unit	9		
5	Total Amount for 2 Room Social Unit	18		
6	Total Amount for 3 Room Social Unit	9		
7	Total Amount for Common Area	9		
	Total for 9No.Typical Floor Carried Forward to Main Summary Page			

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
(iii)	**EARTHING AND LIGHTNING PROTECTION**				
	SUPPLY, DELIVER , INSTALL ,SET TO WORK AND COMMISSION THE FOLLOWING:-				
	Air Termination				
1.01	2000mm x15mmØ multiple point pure copper AirRods/ Termination with spikes as Furse Part No. RA240 or approved equivalent	No.	3		
1.02	Copper Air Rod Base as Furse Part No. SD105-H or approved equivalent	No.	3		
1.03	Copper Junction Clamps for copper tape as Furse Part No. CN105-H or approved equivalent	No.	3		
1.04	25mm x 3mm Tinned Copper Tape as Furse TC230 or approved equivalent	Lm.	130		
	Down Conductor				
1.05	25mm x 3mm Tinned Copper Tape as Furse TC230 or approved equivalent	Lm.	200		
1.06	Screwdown copper test clamp as Furse CT305 or approved equivalent	No.	3		
1.07	38mm Ø HG PVC conduits for drawing the down conductor above.	Lm.	10		
	Total Carried Forward to Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
	Earth Termination				
1.08	15mm Ø, 1500mm long solid copper earth rod c/w driving stud, coupling, and spike as Furse RC011 or approved equivalent	No	3		
1.09	Earth rod to tape clamp type A as Furse CR108 or approved equivalent	No.	3		
1.10	Concrete inspection earth pit Cat. No. PT 005 with 5 hole earth bar as Furse Cat. No. PT 006.	No.	2		
1.11	600mm x 600mm copper earth mat made from 25mm x 3mm copper tape at 300mm spacing, buried to permanent moisture level and complete with all clamps and 6m long 25mm x 3mm copper tape clamped to the down conductor, soil conditioning agents (marconite or bentonite) as necessary to achieve earthing resistance value below 10-Ohms	Lot	1		
1.12	Allow for earthing tests for the above and submission of the report to the engineer to BS7671 & BS62305 standards	No.	1		
	Bonding				
1.13	Bonding and clamping to all metal work including water pipes, gas pipes, hand-rails, smatv system, window frames, cladding, metal roof etc. and the main earth for the building.	Item	1		
	Total Carried Forward to Main Summary Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
(iv)	**LV SWITCHBOARD**				
	TAKE DELIVERY, STORE, INSTALL AND COMMISSION THE FOLLOWING:-				
1.01	Install purpose made Free-standing, fully wired front access metal clad main switchboard cubicle suitable for floor / wall mounting and manufactured in 14SWG galvanised mild steel sheet, to be finished in cream (or appropriate colour) powder coating. Wiring as shown on the schematic (the other details as per Particular Specification) and in compliance with IEC 60439 and Local KS standards, complete with the following:-	No.	1		
(i)	400Amps TP/N copper busbars - KPLC supply (Sealable)				
(ii)	400Amps MCCB as mains incomer adjustable				
(iii)	Space for 1No. 3-phase KPLC Common Services meter (kW, kWH, kVA, V, I etc), 63A TP MCB				
(iv)	114No. 63A DP MCBs for the sub-main cables				
(v)	1No. 100A DP MCBs for the sub-main cables				
(vi)	Space for KPLC cut-outs including studs for mounting KPLC seals				
(vii)	Sealable studs for all cover plate screws and all necessary accessories				
(viii)	6mm perspex viewing window for each section				
(ix)	Heavy duty rubber lining for all the perspex viewing windows				
(x)	4 No. Spare ways				
	Total Carried Forward to Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
1.02	Earthing for the switch-board under this section comprising 25x3mm copper tape lead, 1800mm long x 15mm diameter copper earth electrode as Furse or approved equivalent complete with driving stud and tape to rod clamp, 300mm x 300mm x 300mm deep concrete inspection earth pit with removable waterproof cover, 600mm x 600mm copper earth mat, soil conditioning agents (marconite and bentonite etc) necessary to achieve earthing value below 5-Ohms and all other necessary accessories	No.	1		
	Total Carried Forward to Main Summary Pg.				

ITEM	DESCRIPTION	AMOUNT (KSH)
	BLOCK TYPE A SUMMARY PAGE	
1	Total Amount for Ground Floor B/F Page D-25	
2	Total Amount for Typical 1st - 9th Floor B/F Page D-48	
3	Total Amount for Lightning Protection B/F Page D-50	
4	Total Amount for LV Switchboard B/F Page D-52	
TOTAL AMOUNT FOR BILL No. 1: TYPICAL 1NO. BLOCK TYPE C CARRIED FORWARD TO PRICE COLLECTION PAGE		

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	BILL NO. 4				
i)	**EXTENAL SERVICES**				
	Take delivery, Install, test and Commission the following;				
	STREET LIGHTING				
A	Cylindrical-conical pole 8 meters with single arm and tube, in hot-dipped galvanized steel painted with anchor bolts complete with photovoltaic solar panel minimum 305Wp LED light 1x2B - 80W nominal - 24V - 4000K - >190lm/W NiMH battery 24V 4P, on top of pole,	No	35		
ii)	**POWER HOUSE ELECTRICS**				
C	All lighting points wired in 1.5mm² PVC cu cables in 20mm diameterHG PVC conduit embedded in wall fabrics, roof structure and floor slabs complete with switches as shown on the contract drawings	No	20		
	POWER				
D	4way 63A SPN CU as SCHNEIDER or Equivalent and Approved complete with MCBs or equal and approved.	No	1		
E	All socket outlet points wired in 2.5mm² PVC cable in conduit embedded in floor slabs and in metal trunking complete with 13A twin socket outlet as shown on the drawing	No	4		
F	Provisions for points including laying of conduits and provision of outlet boxes for the following:				
	i) Surveillance Cameras	No	2		
	Total Carried Forward to Main Summary Page				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	BILL NO. 5				
i)	**INCOMING POWER**				
	KPLC RELATED WORKS				
A	150mm diameter Heavy gauge duct for incoming underground H.V. cables with 1:3:6 concrete surround	M	650		
B	900 x 900 x 900 concrete manhole complete with Manhole covers and Hatari(Danger) Sign indelibly engraved at the top	No	30		
C	Hatari(Danger) sign concerete slabs	No	30		
D	Attendance on Kenya Power and Lighting Co. Ltd.	Sum	1		
E	Complete Earthing system to KPLC requirements	Sum	1		
F	Any other item to complete the installation in this section.	Sum	1		
TOTAL AMOUNT FOR BILL No. 5: INCOMING POWER CARRIED FORWARD TO PRICE COLLECTION PAGE					

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	BILL NO. 6				
A.	**GUARD HOUSE**				
	SUPPLY, DELIVER , INSTALL ,SET TO WORK AND COMMISSION THE FOLLOWING:-				
	LIGHTING POINTS				
7.01	Lighting point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories for one way switching, but excluding the switch and luminaire.	No.	4.00		
7.02	10A white moulded switch plate as Crabtree, MK Logic, Clipsal E- Series or approved equivalent as follows:-				
	i) 10A one gang one way switch	No.	2.00		
7.03	**LIGHTING FITTINGS**				
	a) Circular shaped surface mounted led luminaire as Phillips Coreline Cat No. WL131V LED12S/840 PSED EL3 WH **"Type N"**	No.	1.00		
	b) Bulkhead fitting with moulded glass diffuser & Die Cast Aluminium base c/w 16W PL Lamp as Massive Sunderland Cat. No. 71410/01/31 for security lights. **"Type B"**	No.	3.00		
7.04	CCTV points in designtaed locations for survailance, comprising of 25mm diameter HG PVC conduits complete with draw wire and the blanking plate. Allow for draw boxes where all the conduits from each security point converge.	No.	2.00		
	Total Carried Forward to Next Page				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
7.05	300x 300x 100mm deep 16 G galvanized adaptable box.	No.	1.00		
7.06	24A, 240V, 2P DB/CU mounted silent operation contactor for Switching External lights complete with all accessories and as CRABTREE CIK24 or an approved equivalent	No.	1.00		
7.07	Photocell control unit and wired to energize the contactors complete with a D.P override switch as THORN QPK or approved equivalent	No.	1.00		
	POWER AND SOCKET OUTLET POINTS				
7.08	13A SP socket point completely wired in 3 x 2.5mm^2 single core PVC insulated copper cables drawn in 25mm diameter heavy gauge PVC conduits including all accessories but excluding the 13A SP switched socket outlet.	No.	3.00		
7.09	Socket Outlet plates i) 13A SP twin switched socket outlet as MK 2536 or equal & approved equivalent.	No.	3.00		
	TELEPHONE, DATA AND TV POINTS POINTS				
7.10	Data point comprising of draw wire in 25mm diameter Heavy Gauge PVC conduits including all accessories and blanking plate but excluding the data socket outlet.	No.	1.00		
7.11	6 ways 100A SPN Consumer Unit `G' complete with 100A SPN integral isolator, but excluding the MCBs ,and as Schneider Electric Acti 9 or approved equivalent.	No.	1.00		
	Total Carried Forward to Next Page				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
7.12	**MCBs for item above as Schneider Electric Acti 9 or approved equivalent**				
	i)10 A SP MCB	No.	1.00		
	ii)32 A SP MCB	No.	1.00		
	iii) Blanking plates	No.	4.00		
7.13	Sub-mains circuits for CU 'G' above comprising of 2 core 6mm2 PVC/SWA/PVC cable drawn in 32mm diameter heavy gauge conduits for gate house	LM	35.00		
TOTAL AMOUNT FOR BILL No. 6 GUARD HOUSE CARRIED FORWARD TO GRAND SUMMARY PAGE					

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	BILL NO. 7				
A.	**GARBAGE RECEPTACLE**				
	SUPPLY, DELIVER , INSTALL ,SET TO WORK AND COMMISSION THE FOLLOWING:-				
	LIGHTING POINTS				
7.01	Lighting point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories for one way switching, but excluding the switch and luminaire.	No.	4.00		
	ii) Ditto as in item No. 5.01 but for two way switching	No.	4.00		
7.02	10A white moulded switch plate as Crabtree, MK Logic, Clipsal E- Series or approved equivalent as follows:-				
	i) 10A one gang one way switch	No.	4.00		
	ii) 10A one gang two way switch	No.	2.00		
7.03	**LIGHTING FITTINGS**				
	a) Circular shaped surface mounted led luminaire as Phillips Coreline Cat No. WL131V LED12S/840 PSED EL3 WH **"Type N"**	No.	4.00		
	b) Bulkhead fitting with moulded glass diffuser & Die Cast Aluminium base c/w 16W PL Lamp as Massive Sunderland Cat. No. 71410/01/31 for security lights. **"Type B"**	No.	4.00		
7.04	CCTV points in designtaed locations for survailance, comprising of 25mm diameter HG PVC conduits complete with draw wire and the blanking plate. Allow for draw boxes where all the conduits from each security point converge.	No.	2.00		
	Total Carried Forward to Next Page				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
7.05	300x 300x 100mm deep 16 G galvanized adaptable box.	No.	1.00		
7.06	24A, 240V, 2P DB/CU mounted silent operation contactor for Switching External lights complete with all accessories and as CRABTREE CIK24 or an approved equivalent	No.	1.00		
7.07	Photocell control unit and wired to energize the contactors complete with a D.P override switch as THORN QPK or approved equivalent	No.	1.00		
7.08	6 ways 100A SPN Consumer Unit `G' complete with 100A SPN integral isolator, but excluding the MCBs ,and as Schneider Electric Acti 9 or approved equivalent.	No.	1.00		
7.09	**MCBs for item above as Schneider Electric Acti 9 or approved equivalent**				
	i)10 A SP MCB	No.	1.00		
	ii)32 A SP MCB	No.	1.00		
	iii) Blanking plates	No.	4.00		
7.13	Sub-mains circuits for CU 'G' above comprising of 2 core 6mm2 PVC/SWA/PVC cable drawn in 32mm diameter heavy gauge conduits for gate house	LM	35.00		
	TOTAL AMOUNT FOR BILL No. 7 GARBAGE RECEPTACLE CARRIED FORWARD TO GRAND SUMMARY PAGE				

PROVISIONAL SUMS & PRIME COST SUMS

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BILL NO.15 - PROVISIONAL SUMS				
	GROUND RELATED CONDITIONS				
A	Allow a provisional sum of Kenya Shillings One million and five hundred thousand (KSHS. 1,500,000) for foundations and site related contingencies as per Engineers specifications.	SUM	1		
	COMMERCIAL BLOCK				
B	Allow a provisional sum of Kenya Shillings One Million Two Hundred and Three Thousand (KSHS. 1,203,000) for constructing a commercial block as per the Architect's instructions	SUM	1		
	BIODIGESTER				
C	Allow a provisional sum of Kenya Shillings Twenty Five Million (KSHS 25,000,000) for a concrete biodigester inclusive of waste water treatment plant to be executed as authorized by the Engineer	SUM	1		
	LANDSCAPING				
D	Allow a provisional sum of Kenya Shillings Two Million Eight Hundred and Ninety One Thousand(KSHS. 2,891,000) for landscaping as per Engineers specifications.	SUM	1		
	CLOTHES DRYING AREAS				
E	Allow a provisional sum of Kenya Shillings Nine Hundred Thousand (KSHS. 900,000) for hanging lines at clothes drying areas as per Engineers specifications.	SUM	1		
	IMPROVEMENT OF COMMUNITY FACILITIES				
F	Allow a provisional sum of Kenya Shillings Twenty Eight Million (KSHS. 28,000,000) for Improvement of community facilities in the neighbourhood. Community project to be advised by the Project Engineer	SUM			
	2.0 PRIME COST SUMS				
G	Allow a prime cost of Five Hundred Thousand Only (KSHs. 500,000) for ground breaking, project launch, commissioning and project handover	SUM	1		
H	Allow for profits and overheads	%			
I	Allow for attendance	Sum			
J	Allow a prime cost of One Million (KSHs. 1,000,000) for Marketing and sales support to Boma Yangu	SUM	1		
K	Allow for profits and overheads	%			
L	Allow for attendance	Sum			
M	Allow a prime cost of Five Hundred Thousand (KSHs. 500,000) for preparation of renders and printing	SUM	1		
N	Allow for profits and overheads	%			
O	Allow for attendance	Sum			

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	ELECTRICAL INSTALLATIONS				
	KPLC RELATED WORKS				
A	Allow a P.C. sum of three million (Ksh. 3,000,000) for capital contribution to Kenya Power and Lighting Company for power connection	Sum	1		
B	Allow for profits and overheads	%			
C	Allow for attendance	Sum			
	LIFTS INSTALLATIONS				
D	Allow a Prime cost sum of Forty Four Million Five Hundred and Sixty Thousand (KSHS 44,560,000) for Lift installations to be executed by a Nominated subcontractor.	Sum	1		
E	Add for profit	%			
F	Allow for general and special attendance	Sum			
	GENERATOR INSTALLATIONS				
G	Allow a Prime cost sum of Eight million for generator installations to be executed by a Nominated subcontractor.	Sum	1		
H	Add for profit	%			
I	Allow for general and special attendance	Sum			
	STREET LIGHTING INSTALLATIONS				
J	Allow a Prime cost sum of One million and Seven Hundred and Fifty Thousand (Ksh. 1,750,000) for street lighting installations to be executed by a Nominated subcontractor.	Sum	1		
K	Add for profit	%			
L	Allow for general and special attendance	Sum			
	Carried to Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	CCTV INSTALLATIONS				
A	Allow a Prime cost sum of One million for CCTV installations to be executed by a Nominated subcontractor.	Sum	1		
B	Add for profit	%			
C	Allow for general and special attendance	Sum			
	LV SWITCHBOARDS INSTALLATIONS				
D	Allow a Prime cost sum of Four million for LV Switchboards installations to be executed by a Nominated subcontractor.	Sum	1		
E	Add for profit	%			
F	Allow for general and special attendance	Sum			
	MATV INSTALLATIONS				
G	Allow a Prime cost sum of Two million (Ksh. 2,000,000) for MATV installations to be executed by a Nominated subcontractor.	Sum	1		
H	Add for profit	%			
I	Allow for general and special attendance	Sum			
	COMMERCIAL STALLS				
J	Allow a Prime cost sum of One hundred thousand for commercial stalls electrical installations to be executed by a Nominated subcontractor.	Sum	1		
K	Add for profit	%			
L	Allow for general and special attendance	Sum			
	MECHANICAL INSTALLATIONS				
	SANITARY FITTINGS				
M	Allow a Prime cost sum of Nine million, two hundred and thirty two thousand for supply of sanitary fittings to be executed by a Nominated subcontractor.	Sum	1		
N	Add for profit	%			
O	Allow for general and special attendance	Sum			
	Carried to Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BOOSTER PUMPS				
A	Allow a Prime cost sum of Two million and One hundred thousand for supply of booster pumps to be executed by a Nominated subcontractor.	Sum	1		
B	Add for profit	%			
C	Allow for general and special attendance	Sum			
	ROOF LEVEL WATER TANKS				
D	Allow a Prime cost sum of Eight million for supply of roof level water tanks to be executed by a Nominated subcontractor.	Sum	1		
E	Add for profit	%			
F	Allow for general and special attendance	Sum			
	ROOF LEVEL HOSE REEL PUMPS				
G	Allow a Prime cost sum of eight hundred thousand for supply of roof level hose reel pumps to be executed by a Nominated subcontractor.	Sum	1		
H	Add for profit	%			
I	Allow for general and special attendance	Sum			
	WASTER WATER TREATMENT				
J	Allow a Prime cost sum of sixteen million and eight hundred thousand for waste water equipment installations to be executed by a Nominated subcontractor.	Sum	1		
K	Add for profit	%			
L	Allow for general and special attendance	Sum			
	BOREHOLE INSTALLATION				
M	Allow a Prime cost sum of four million and five hundred thousand for borehole drilling and equipping to be executed by a Nominated subcontractor.	Sum	1		
N	Add for profit	%			
O	Allow for general and special attendance	Sum			
	Carried to Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	EXTERNAL RETICULATION OF COUNCIL WATER				
A	Allow a Prime cost sum of one hundred and twenty thousand and eight hundred for external reticulation of council water to be executed by a Nominated subcontractor.	Sum	1		
B	Add for profit	%			
C	Allow for general and special attendance	Sum			
	EXTERNAL RETICULATION BOREHOLE WATER INSTALLATION				
D	Allow a Prime cost sum of One hundred thousand for external reticulation borehole water installation to be executed by a Nominated subcontractor.	Sum	1		
E	Add for profit	%			
F	Allow for general and special attendance	Sum			
	LPG External Reeticulation				
	Allow a Prime cost sum of One Million for LPG installation works	Sum	1		
G	Add for profit	%			
H	Allow for general and special attendance	Sum			
	Commercial Stalls				
	Allow a Prime cost sum of sixty thousand for mechanical installations in the commercial stalls	Sum	1		
G	Add for profit	%			
H	Allow for general and special attendance	Sum			
	Carried to Collection				
	BILL NO.15 - PROVISIONAL SUMS				
	Collection Page				
	Total brought forward from Page 1				
	Total brought forward from Page 2				
	Total brought forward from Page 3				
	Total brought forward from Page 4				
	Total brought forward from Page 5				
	TOTAL FOR PROVISIONAL SUM AND PRIME COST SUM CARRIED TO GRAND SUMMARY				

GRAND SUMMARY

AFFORDABLE HOUSING PROGRAMME

PROPOSED CONSTRUCTION OF CHUKA PW AHP PROJECT, CHUKA IGAMBANG'OMBE CONSTITUENCY, THARAKA NITHI COUNTY WITH INFRASTRUCTURE WORKS

GRAND SUMMARY

ITEM	DESCRIPTION	PAGE	FOR TENDERER USE ONLY	FOR OFFICIAL USE
1.00	PARTICULAR PRELIMINARIES	PP/7		
2.00	GENERAL PRELIMINARIES	GP/22		
3.00	PROJECT PROVISIONS	PR/2		
4.00	BUILDERS WORK BLOCK TYPE A	A/19		
5.00	BUILDERS WORK BLOCK TYPE B	B/19		
6.00	BUILDERS WORK BLOCK TYPE C	C/19		
7.00	GARBAGE RECEPTACLE	R/12		
8.00	GUARD HOUSE	GH/16		
9.00	BOUNDARY WALLING	BW/8		
10.00	BASKETBALL PITCH	BP/10		
11.00	POWER HOUSE	PH/12		
12.00	UNDERGROUND WATER TANK	UWT/4		
13.00	CIVIL WORKS - ROADS	CR/4		
14.00	CIVIL WORKS - SEWER	SW/8		
15.00	MECHANICAL INSTALLATIONS	M/1		
16.00	ELECTRICAL INSTALLATIONS	E/1		
17.00	PROVISIONAL SUMS & P C SUMS	PS/5		
	SUB-TOTAL			
	ADD CONTINGENCY (2%)	**2%**		
	Less: CONTRACTORS TENDER DISCOUNT			
	GRAND TOTAL CARRIED TO FORM OF TENDER (VAT INCLUSIVE)			

AMOUNT IN WORDS : KENYA SHILLINGS .....

.....

TENDERER'S NAME .....

ADDRESS .....

DATE .....

TENDERER'S SIGNATURE .....

WITNESS'S NAME.....

ADDRESS .....

DATE .....

WITNESS SIGNATURE.....

PROPOSED CONSTRUCTION OF AFFORDABLE HOUSING AND ASSOCIATED SOCIAL INFRASTRUCTURE

COST PER SQM CALCULATION

1.0	**CONSTRUCTION COST**		
			Amount
1.1	Total Tender Sum (A)	Kshs	……

2.0	**TENDER SUM EXCLUSIONS**	**Amount**	**Total**
2.1	Boundary Wall		
2.2	Civil works - Roads & Parking		
2.3	Underground/Surface Water Tank		
2.4	Basketball Pitch		
2.5	Biodigester		
2.6	Foul Water Drainage		
2.7	Landscaping		
2.8	Ground Breaking, Marketing & Renders		
2.9	Civil works -sewer reticulation		
2.10	Provisional sums& prime cost sums		
2.11	Project Provisions		
3.0	**Services Installations provisonal sums**		
	i) Backup Generators		
	ii) CCTV Installations		
	iii) LV Switchboards Distribution Boards		
	iv) KPLC For Power Connection		
	v) Water Booster Pumps		
	vi) GRP Roof Level Water Tanks		
	vii) Hose Reel Pumps		
	viii) Borehole Drillling & Equiping		
	ix) External Reticulation Borehole Water		
	x) External Reticulation Council Water		
	xi) LPG External Reticulation Provision		
	Total Exclusions (B)	**Kshs**	**-**
	Total Project Cost Less Exclusions (C = A-B)		**-**

4.0	**COST PER SQM CALCULATION**		
4.1	Total Tender Sum (A)	Kshs	……
4.2	Total Project Cost Less Exclusions (C.)	Kshs	……
4.3	Gross Built up Area *(Brought forward from project data sheet) (D)*		**24,626.62** Sqm
4.4	**Built up Area Cost per Sqm (C / D)**	Kshs	…… Per Sqm
4.5	**Overall Cost per Sqm (A / D)**	Kshs	…… Per Sqm

As detailed in the Bills of Quantities

Provided as an Annex

CHUKA

AFFORDABLE HOUSING PROGRAMME

N

LEGEND

- **AHP + MARKET UNITS BLOCK**
- **SOCIAL + AHP BLOCK**
- **SOCIAL + AHP BLOCK** (with shops)
- **COMMERCIAL BLOCK**
- **GARBAGE RECEPTACLE**
- **GUARD HOUSE**

MASTER PLAN
Scale: 1:500

GENERAL NOTES

1. This drawing to be read in conjunction with Engineers' drawings.
2. All dimensions are in mm unless otherwise specified.
3. Drawings are not to be scaled. Only figured dimensions should be used.
4. The contractor must check and verify all dimensions before commencement of work and if necessary confirm with the architect.

CONSTRUCTION

Approved anti-termite treatment & 1000 gauge polythene sheeting cover to be provided under all ground floor concrete slab on compacted hardcore to approval.
DPC to be 3ply bituminous felt to be provided under all walls.

STRUCTURAL

1. All Black cotton soil to be removed from below all building and paved surfaces
2. All reinforced concrete work will be in accordance with structural drawings.
3. Foundation depths to be determined on site to S.E approval
4. All walls less than 200mm thick to be reinforced with hoop iron at every alternate course.
5. All adjacent R.C work and masonry walls to be tied with strap irons at every course

MECHANICAL

1. All Plumbing and Drainage Work to comply with specifications
2. S.V.P denotes soil vent pipe and to be provided at the head of the drainage
3. Where drainage is shown under driveways and slabs, to be encased in 150mm thick concrete surround.
4. All underground foul and waste drain pipes shall be of PVC to comply with BS5255
5. All ICs within building area, driveway and parking to have heavy duty,double-seal airtight covers and walls to be 200mm.
6. Minimum slope in the drain pipes to be 1%
7. No chases for pipes will be allowed in the slabs
8. Sleeves will be allowed with written approval from S.E.
9. No cutting of concrete without express approval of the Architect or S.E
10. All testing of pipes must be coordinated with electrical and any conflicts must be resolved before works begin
11. Permanent vents denoted as P.V to be provided as shown on plan.

ELECTRICAL

All conduits must be laid before plastering

PROJECT:
PROPOSED ECONOMIC STIMULUS PROGRAM MARKET

CLIENT:
Name: STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT
Signature:_ _ _ _ _ _ **Date:**_ _ _ _ _ _

DRAWING TITLE:
SITE PLAN: CHUKA PUBLIC WORKS G+9 AFFORDABLE HOUSING PROJECT

SCALE:
1:500

DRAWN BY:
M.Z

CHECKED BY:
Name:_ _ _ _ _ _ _ _ _ _ _ _ _ _ _
Signature:_ _ _ _ _ _ **Date:**_ _ _ _ _ _

DATE:

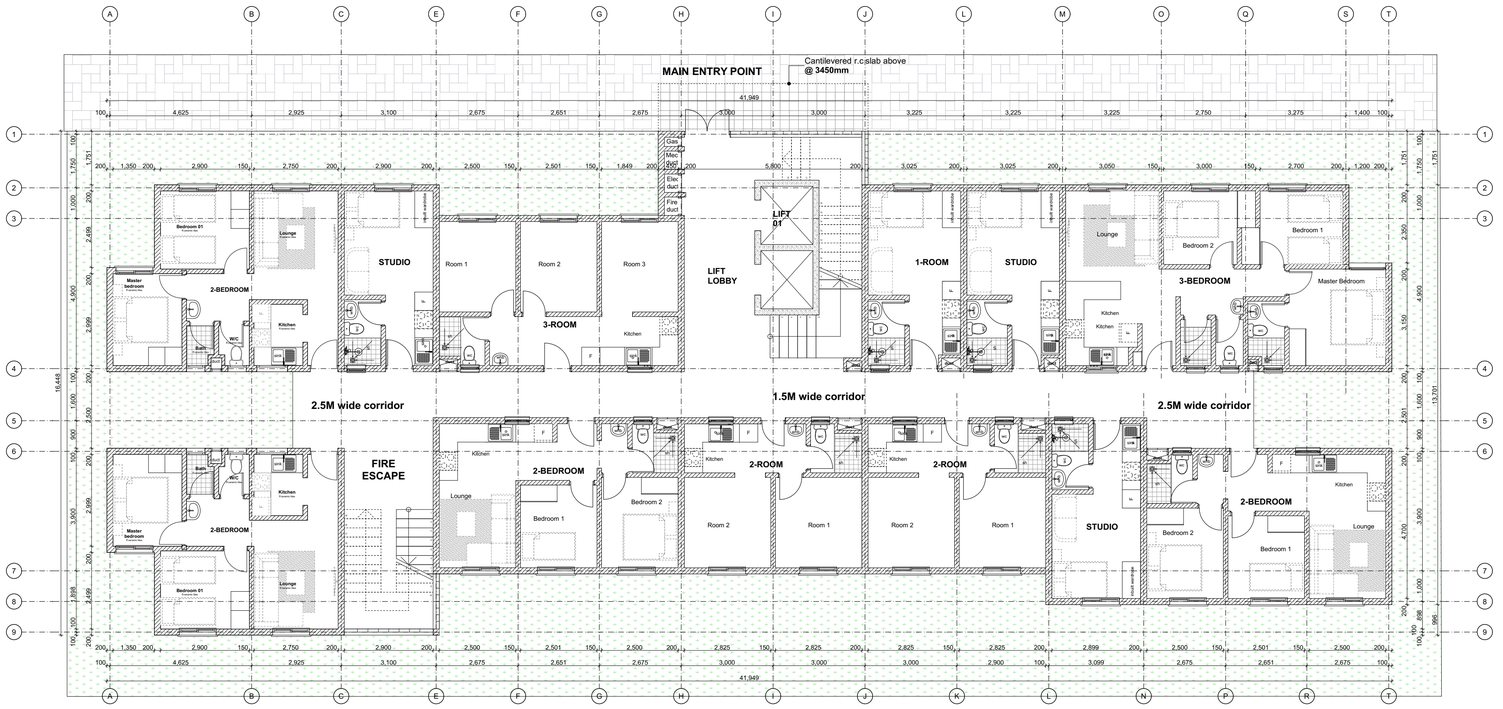
MINISTRY OF LANDS, PUBLIC WORKS, HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT FOR HOUSING & URBAN DEVELOPMENT

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA

BLOCK A

AFFORDABLE HOUSING PROGRAMME



PROPOSED REVISED TYPICAL SOCIAL+ AFFORDABLE UNITS BLOCK TYPE A_GROUND FLOOR PLAN

UNIT BREAK DOWN_ UNIT BREAK DOWN					
1_ROOM	2_ROOM	3_ROOM	STUDIO	2_BEDROOM	3_BEDROOM
1	2	1	3	4	1

PROPOSED TYPICAL SOCIAL+ AFFORDABLE UNITS BLOCK TYPE A_TYPICAL 1ST FLOOR PLAN

UNIT BREAK DOWN_ UNIT BREAK DOWN					
1_ROOM	2_ROOM	3_ROOM	STUDIO	2_BEDROOM	3_BEDROOM
1	2	1	2	4	1

BLOCK TYPOLOGY A [G+9]

GENERAL NOTES

1. This drawing to be read in conjunction with Engineers' drawings.
2. All dimensions are in mm unless otherwise specified.
3. Drawings are not to be scaled. Only figured dimensions should be used.
4. The contractor must check and verify all dimensions before commencement of work and if necessary confirm with the architect.

CONSTRUCTION

Approved anti-termite treatment & 1000 gauge polythene sheeting cover to be provided under all ground floor concrete slab on compacted hardcore to approval.
DPC to be 3ply bituminous felt to be provided under all walls.

STRUCTURAL

1. All Black cotton soil to be removed from below all building and paved surfaces
2. All reinforced concrete work will be in accordance with structural drawings.
3. Foundation depths to be determined on site to S.E approval
4. All walls less than 200mm thick to be reinforced with hoop iron at every alternate course.
5. All adjacent R.C work and masonry walls to be tied with strap irons at every course

MECHANICAL

1. All Plumbing and Drainage Work to comply with specifications
2. S.V.P denotes soil vent pipe and to be provided at the head of the drainage
3. Where drainage is shown under driveways and slabs, to be encased in 150mm thick concrete surround.
4. All underground foul and waste drain pipes shall be of PVC to comply with BS5255
5. All ICs within building area, driveway and parking to have heavy duty,double-seal airtight covers and walls to be 200mm.
6. Minimum slope in the drain pipes to be 1%
7. No chases for pipes will be allowed in the slabs
8. Sleeves will be allowed with written approval from S.E.
9. No cutting of concrete without express approval of the Architect or S.E
10. All testing of pipes must be coordinated with electrical and any conflicts must be resolved before works begin
11. Permanent vents denoted as P.V to be provided as shown on plan.

ELECTRICAL

All conduits must be laid before plastering

PROJECT:
PROPOSED AFFORDABLE HOUSING DEVELOPMENT IN

CLIENT:
Name: STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT
Signature: **Date:**

DRAWING TITLE:
BLOCK A _FLOOR PLANS

SCALE: 1:100

DRAWN BY:
ML

CHECKED BY:
Name:
Signature: **Date:**

DATE:

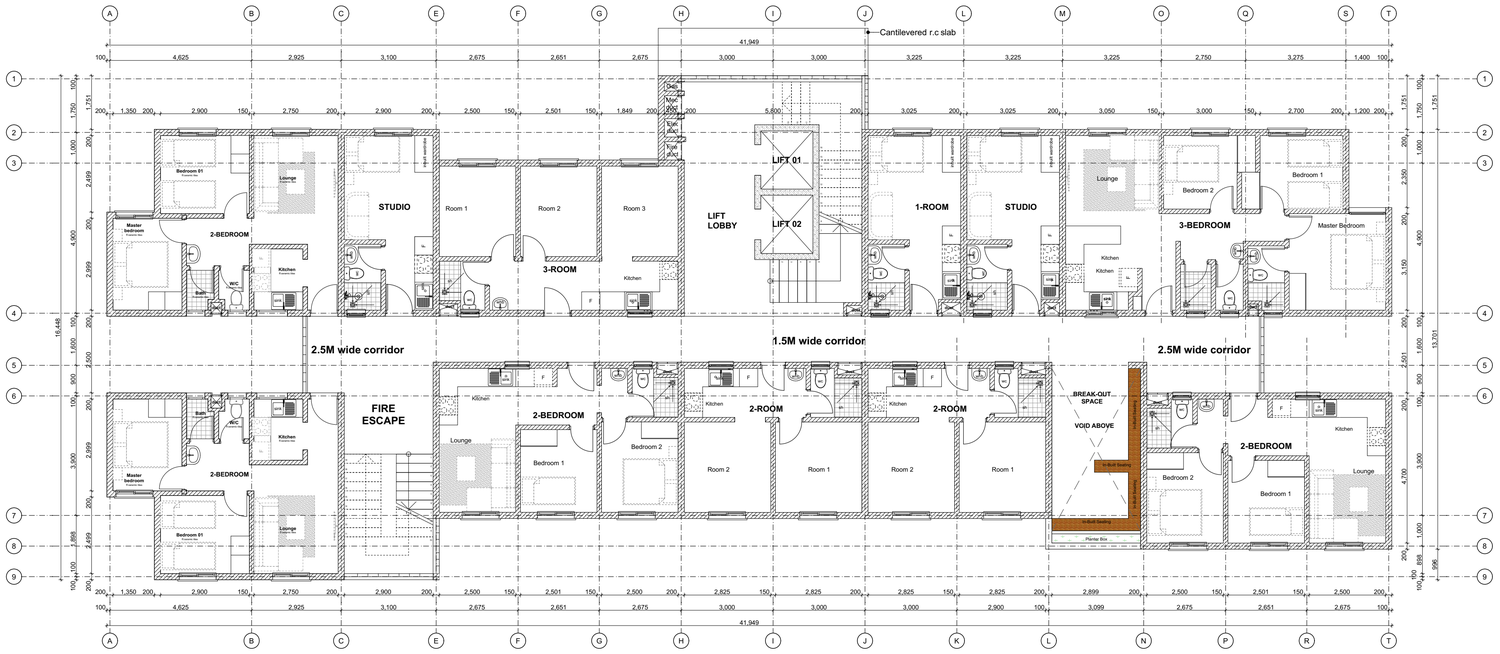
MINISTRY OF LANDS, PUBLIC WORKS, HOUSINGANDURBAN DEVELOPMENT

STATE DEPARTMENT FOR HOUSING & URBAN DEVELOPMENT

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA

PROPOSED TYPICAL SOCIAL+ AFFORDABLE UNITS BLOCK TYPE A_TYPICAL 2ND ABD 9TH FLOOR PLAN

UNIT BREAK DOWN_ UNIT BREAK DOWN					
1_ROOM	2_ROOM	3_ROOM	STUDIO	2_BEDROOM	3_BEDROOM
1	2	1	2	4	1



PROPOSED TYPICAL SOCIAL+ AFFORDABLE UNITS BLOCK TYPE A_TYPICAL 3RD AND 7TH FLOOR PLAN

UNIT BREAK DOWN_ UNIT BREAK DOWN					
1_ROOM	2_ROOM	3_ROOM	STUDIO	2_BEDROOM	3_BEDROOM
1	2	1	2	4	1

BLOCK TYPOLOGY A [G+9]

GENERAL NOTES

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2. All dimensions are in mm unless otherwise specified.
3. Drawings are not to be scaled. Only figured dimensions should be used.
4. The contractor must check and verify all dimensions before commencement of work and if necessary confirm with the architect.

CONSTRUCTION

Approved anti-termite treatment & 1000 gauge polythene sheeting cover to be provided under all ground floor concrete slab on compacted hardcore to approval.
DPC to be 3ply bituminous felt to be provided under all walls.

STRUCTURAL

1. All Black cotton soil to be removed from below all building and paved surfaces
2. All reinforced concrete work will be in accordance with structural drawings.
3. Foundation depths to be determined on site to S.E approval
4. All walls less than 200mm thick to be reinforced with hoop iron at every alternate course.
5. All adjacent R.C work and masonry walls to be tied with strap irons at every course

MECHANICAL

1. All Plumbing and Drainage Work to comply with specifications
2. S.V.P denotes soil vent pipe and to be provided at the head of the drainage
3. Where drainage is shown under driveways and slabs, to be encased in 150mm thick concrete surround.
4. All underground foul and waste drain pipes shall be of PVC to comply with BS5255
5. All ICs within building area, driveway and parking to have heavy duty,double-seal airtight covers and walls to be 200mm.
6. Minimum slope in the drain pipes to be 1%
7. No chases for pipes will be allowed in the slabs
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10. All testing of pipes must be coordinated with electrical and any conflicts must be resolved before works begin
11. Permanent vents denoted as P.V to be provided as shown on plan.

ELECTRICAL

All conduits must be laid before plastering

PROJECT:
PROPOSED AFFORDABLE HOUSING DEVELOPMENT IN

CLIENT:
Name: STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT
Signature: _____ **Date:** _____

DRAWING TITLE:
BLOCK A _FLOOR PLANS

SCALE: 1:100

DRAWN BY:
ML

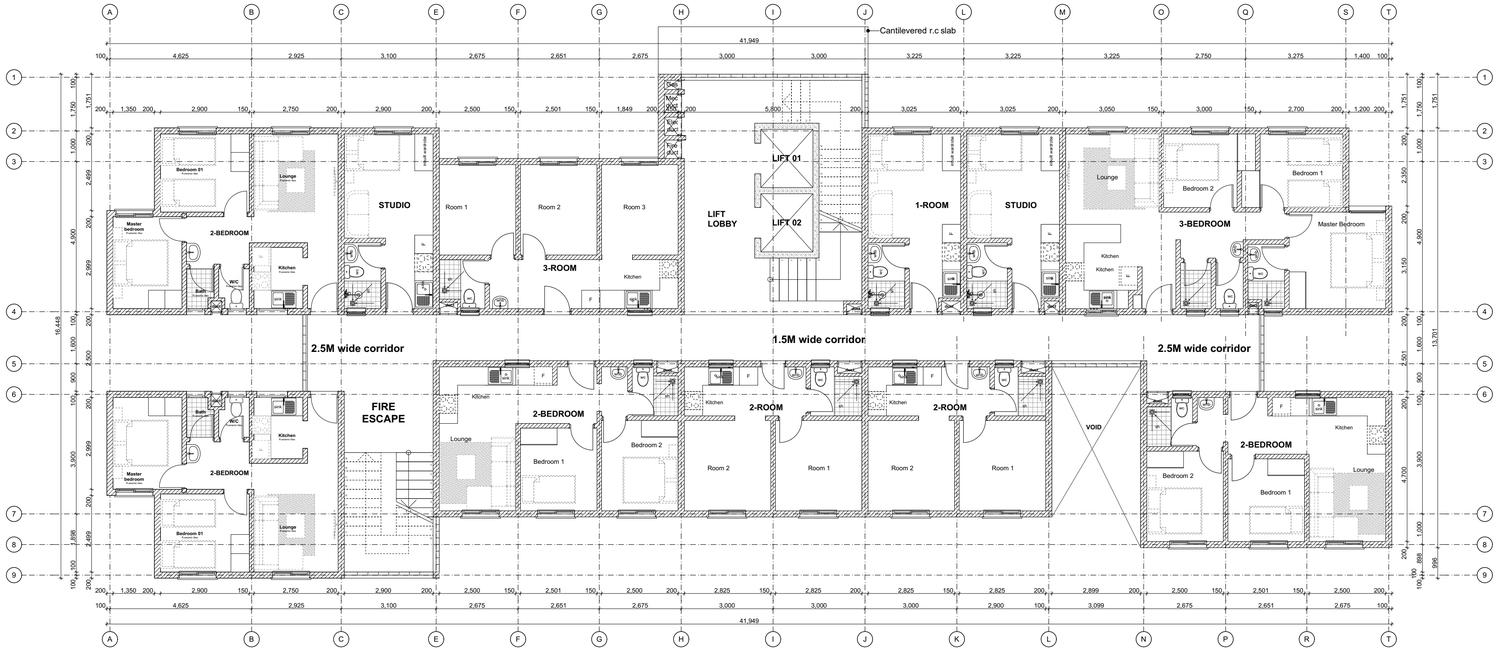
CHECKED BY:
Name: _____
Signature: _____ **Date:** _____

DATE:

MINISTRY OF LANDS, PUBLIC WORKS, HOUSINGANDURBAN DEVELOPMENT

STATE DEPARTMENT FOR HOUSING & URBAN DEVELOPMENT

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA



PROPOSED TYPICAL SOCIAL+ AFFORDABLE UNITS BLOCK TYPE A_TYPICAL 4TH AND 8TH FLOOR PLAN

UNIT BREAK DOWN_ UNIT BREAK DOWN					
1_ROOM	2_ROOM	3_ROOM	STUDIO	2_BEDROOM	3_BEDROOM
1	2	1	2	4	1

PROPOSED TYPICAL SOCIAL+ AFFORDABLE UNITS BLOCK TYPE A_TYPICAL 5TH FLOOR PLAN

UNIT BREAK DOWN_ UNIT BREAK DOWN					
1_ROOM	2_ROOM	3_ROOM	STUDIO	2_BEDROOM	3_BEDROOM
1	2	1	2	4	1

BLOCK TYPOLOGY A [G+9]

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CONSTRUCTION

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DPC to be 3ply bituminous felt to be provided under all walls.

STRUCTURAL

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5. All adjacent R.C work and masonry walls to be tied with strap irons at every course

MECHANICAL

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2. S.V.P denotes soil vent pipe and to be provided at the head of the drainage
3. Where drainage is shown under driveways and slabs, to be encased in 150mm thick concrete surround.
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ELECTRICAL

All conduits must be laid before plastering

PROJECT:
PROPOSED AFFORDABLE HOUSING DEVELOPMENT IN

CLIENT:
Name: STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT
Signature: _____ **Date:** _____

DRAWING TITLE:
BLOCK A _FLOOR PLANS

SCALE: 1:100

DRAWN BY:
ML

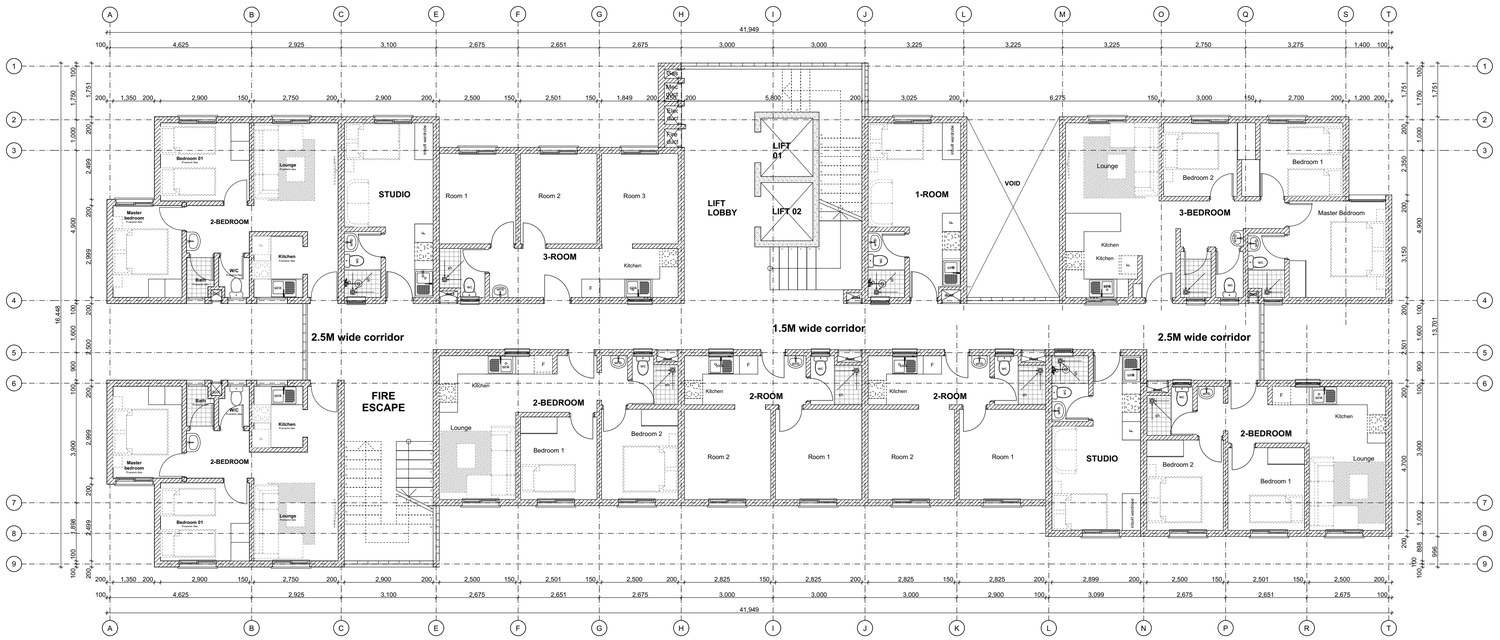
CHECKED BY:
Name: _____
Signature: _____ **Date:** _____

DATE:

MINISTRY OF LANDS, PUBLIC WORKS, HOUSINGANDURBAN DEVELOPMENT

STATE DEPARTMENT FOR HOUSING & URBAN DEVELOPMENT

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA



PROPOSED TYPICAL SOCIAL+ AFFORDABLE UNITS BLOCK TYPE A_TYPICAL 6TH FLOOR PLAN

UNIT BREAK DOWN_ UNIT BREAK DOWN					
1_ROOM	2_ROOM	3_ROOM	STUDIO	2_BEDROOM	3_BEDROOM
1	2	1	2	4	1

BLOCK TYPOLOGY A [G+9]

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ELECTRICAL

All conduits must be laid before plastering

PROJECT:
PROPOSED AFFORDABLE HOUSING DEVELOPMENT IN

CLIENT:
Name: STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT
Signature: _____ **Date:** _____

DRAWING TITLE:
BLOCK A _FLOOR PLANS

SCALE: 1:100

DRAWN BY:
ML

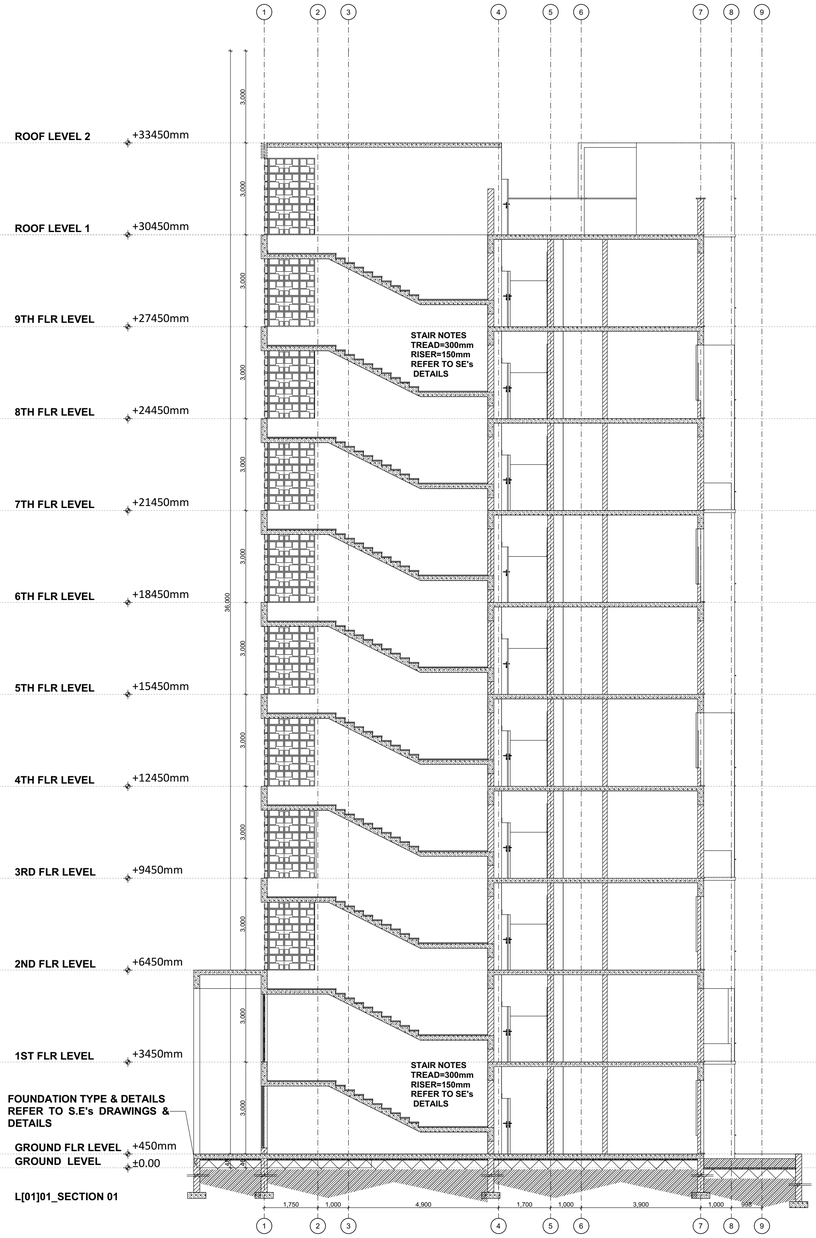
CHECKED BY:
Name: _____
Signature: _____ **Date:** _____

DATE:

MINISTRY OF LANDS, PUBLIC WORKS, HOUSINGANDURBAN DEVELOPMENT

STATE DEPARTMENT FOR HOUSING & URBAN DEVELOPMENT

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA



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ELECTRICAL

All conduits must be laid before plastering

PROJECT:
PROPOSED AFFORDABLE HOUSING DEVELOPMENT IN

CLIENT:
Name: STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT
Signature: _____ **Date:** _____

DRAWING TITLE:
GENERIC BLOCK_TYPE A_G+9_SECTION & ELEVATION

SCALE: 1:100

DRAWN BY:
ML

CHECKED BY:
Name: _____
Signature: _____ **Date:** _____

DATE:

MINISTRY OF LANDS, PUBLIC WORKS, HOUSINGANDURBAN DEVELOPMENT

STATE DEPARTMENT FOR HOUSING & URBAN DEVELOPMENT

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA

L[02]02_REAR ELEVATION

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ELECTRICAL

All conduits must be laid before plastering

PROJECT:
PROPOSED AFFORDABLE HOUSING DEVELOPMENT IN

CLIENT:
Name: STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT
Signature: _____ **Date:** _____

DRAWING TITLE:
GENERIC BLOCK_TYPE A_G+9_ ELEVATION

SCALE: 1:100

DRAWN BY:
ML

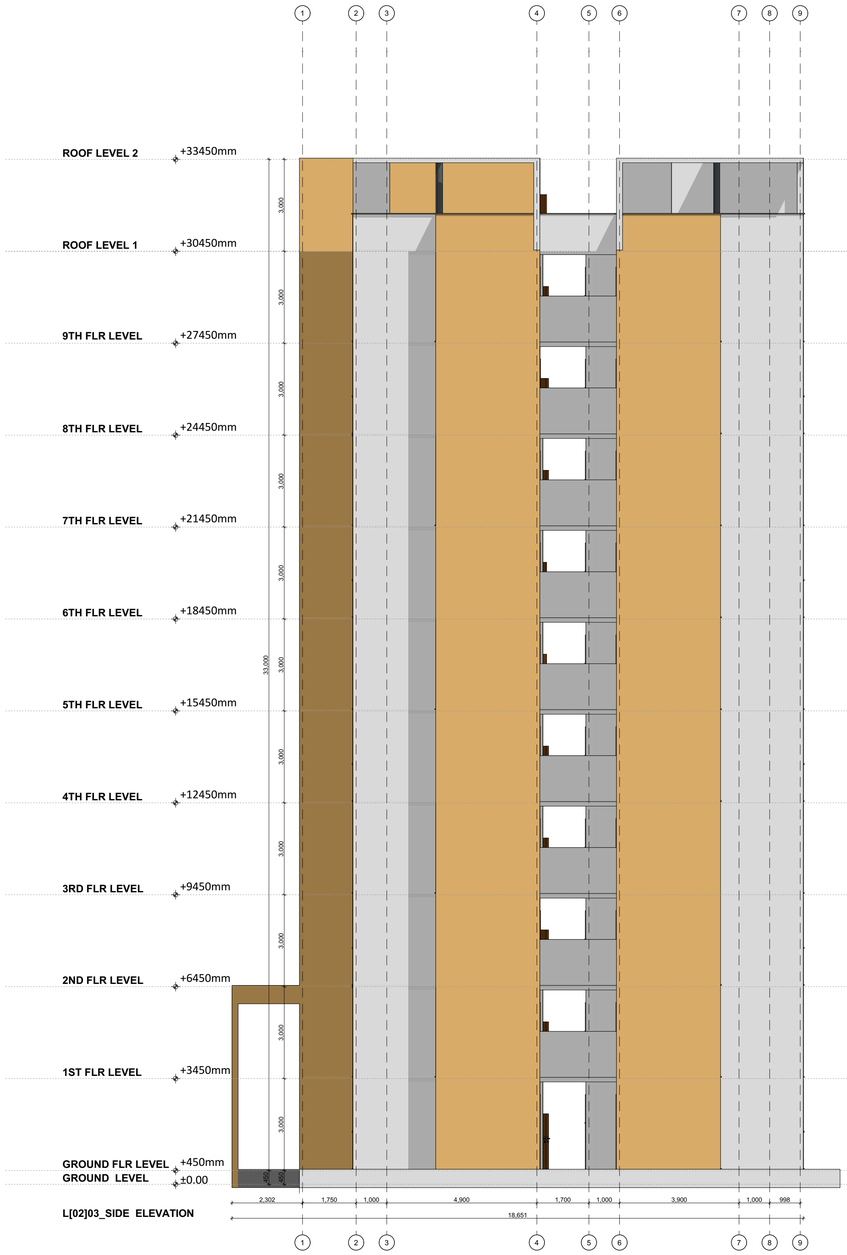
CHECKED BY:
Name: _____
Signature: _____ **Date:** _____

DATE:

MINISTRY OF LANDS, PUBLIC WORKS, HOUSINGANDURBAN DEVELOPMENT

STATE DEPARTMENT FOR HOUSING & URBAN DEVELOPMENT

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA



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ELECTRICAL

All conduits must be laid before plastering

PROJECT:

PROPOSED AFFORDABLE HOUSING DEVELOPMENT IN

CLIENT:

Name: STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

Signature: _ _ _ _ _ _ _ **Date:** _ _ _ _ _ _ _

DRAWING TITLE:

GENERIC BLOCK_TYPE A_G+9_ ELEVATIONS

SCALE: 1:100

DRAWN BY:

ML

CHECKED BY:

Name: _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

Signature: _ _ _ _ _ _ _ **Date:** _ _ _ _ _ _ _

DATE:

MINISTRY OF LANDS, PUBLIC WORKS, HOUSINGANDURBAN DEVELOPMENT

STATE DEPARTMENT FOR HOUSING & URBAN DEVELOPMENT

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA

BLOCK B

AFFORDABLE HOUSING PROGRAMME

PROPOSED REVISED TYPICAL AFFORDABLE + MARKET UNITS BLOCK TYPE B_GROUND FLOOR PLAN

UNIT BREAK DOWN_ UNIT BREAK DOWN			
AFFORDABLE UNITS		MARKET UNITS	
2_BEDROOM	3_BEDROOM	2_BEDROOM	3_BEDROOM
1	1	3	3

PROPOSED TYPICAL AFFORDABLE + MARKET UNITS BLOCK TYPE B_TYPICAL 1ST-9TH FLOOR LEVEL

UNIT BREAK DOWN_ UNIT BREAK DOWN			
AFFORDABLE UNITS		MARKET UNITS	
2_BEDROOM	3_BEDROOM	2_BEDROOM	3_BEDROOM
1	1	3	3

GENERAL NOTES

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DPC to be 3ply bituminous felt to be provided under all walls.

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ELECTRICAL

All conduits must be laid before plastering

PROJECT:
PROPOSED AFFORDABLE HOUSING DEVELOPMENT IN

CLIENT:
Name: STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT
Signature: _____ **Date:** _____

DRAWING TITLE:
BLOCK TYPE B G+9 _FLOOR PLANS

SCALE: 1:100

DRAWN BY:
ML

CHECKED BY:
Name: _____
Signature: _____ **Date:** _____

DATE:

MINISTRY OF LANDS, PUBLIC WORKS, HOUSINGANDURBAN DEVELOPMENT

STATE DEPARTMENT FOR HOUSING & URBAN DEVELOPMENT

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA

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PROJECT:

PROPOSED AFFORDABLE HOUSING DEVELOPMENT IN

CLIENT:

Name: STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

Signature: _ _ _ _ _ _ _ **Date:** _ _ _ _ _ _ _

DRAWING TITLE:

GENERIC BLOCK_TYPE B_G+9_SECTION

SCALE: 1:100

DRAWN BY:

ML

CHECKED BY:

Name: _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

Signature: _ _ _ _ _ _ _ **Date:** _ _ _ _ _ _ _

DATE:

MINISTRY OF LANDS, PUBLIC WORKS, HOUSINGANDURBAN DEVELOPMENT

STATE DEPARTMENT FOR HOUSING & URBAN DEVELOPMENT

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA

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ELECTRICAL

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PROJECT:

PROPOSED AFFORDABLE HOUSING DEVELOPMENT IN

CLIENT:

Name: STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

Signature: _____ **Date:** _____

DRAWING TITLE:

GENERIC BLOCK_TYPE B_G+9_ELEVATION

SCALE: 1:100

DRAWN BY:

ML

CHECKED BY:

Name: _____

Signature: _____ **Date:** _____

DATE:

MINISTRY OF LANDS, PUBLIC WORKS, HOUSINGANDURBAN DEVELOPMENT

STATE DEPARTMENT FOR HOUSING & URBAN DEVELOPMENT

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8. Sleeves will be allowed with written approval from S.E.
9. No cutting of concrete without express approval of the Architect or S.E
10. All testing of pipes must be coordinated with electrical and any conflicts must be resolved before works begin
11. Permanent vents denoted as P.V to be provided as shown on plan.

ELECTRICAL

All conduits must be laid before plastering

PROJECT:
PROPOSED AFFORDABLE HOUSING DEVELOPMENT IN

CLIENT:
Name: STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT
Signature: _____ **Date:** _____

DRAWING TITLE:
GENERIC BLOCK_TYPE B_G+9_ELEVATION

SCALE: 1:100

DRAWN BY:
ML

CHECKED BY:
Name: _____
Signature: _____ **Date:** _____

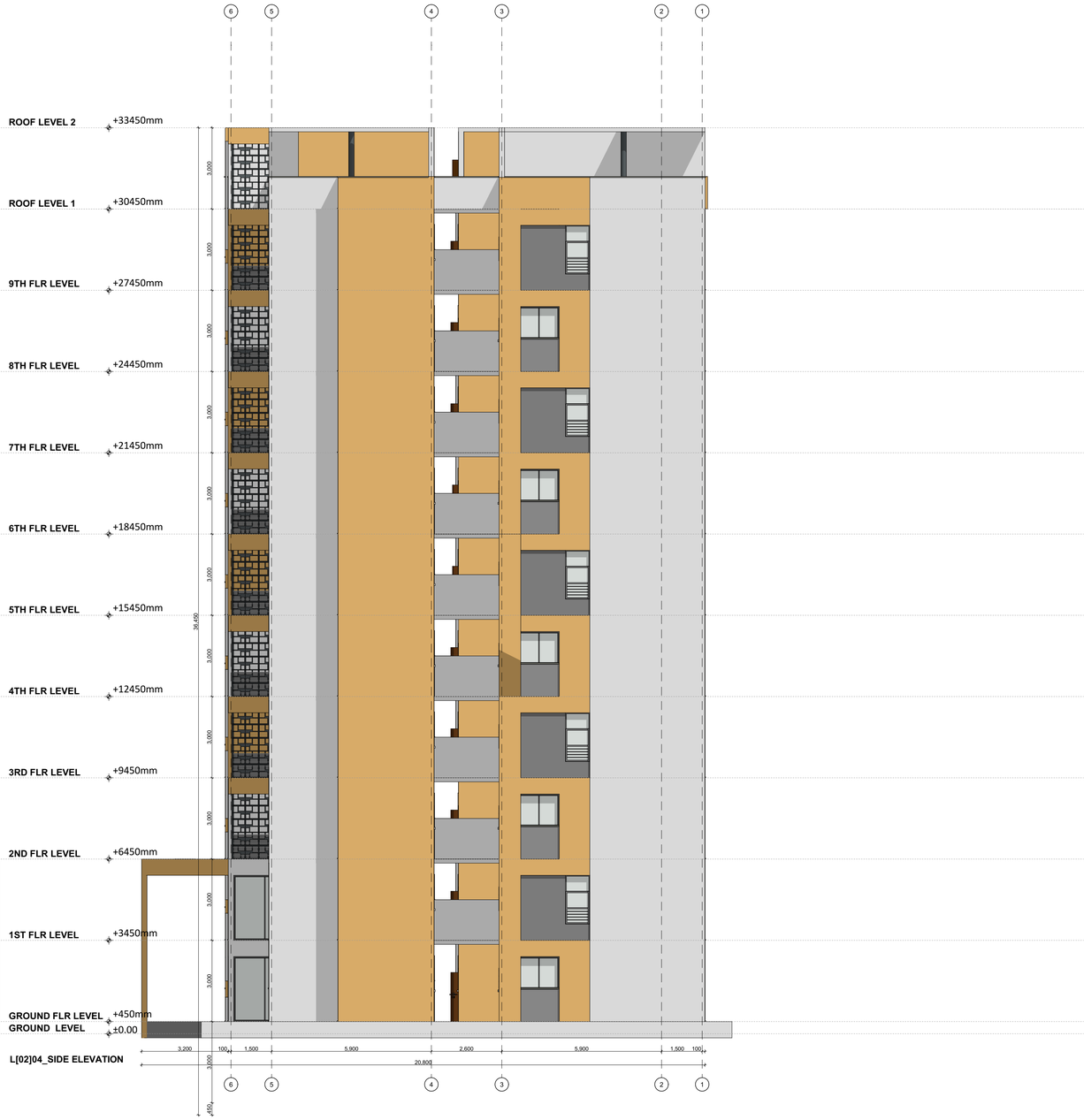
DATE:

MINISTRY OF LANDS, PUBLIC WORKS, HOUSINGANDURBAN DEVELOPMENT

STATE DEPARTMENT FOR HOUSING & URBAN DEVELOPMENT

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA

L[02]03_SIDE ELEVATION



L[02]04_SIDE ELEVATION

GENERAL NOTES

1. This drawing to be read in conjunction with Engineers' drawings.
2. All dimensions are in mm unless otherwise specified.
3. Drawings are not to be scaled. Only figured dimensions should be used.
4. The contractor must check and verify all dimensions before commencement of work and if necessary confirm with the architect.

CONSTRUCTION

Approved anti-termite treatment & 1000 gauge polythene sheeting cover to be provided under all ground floor concrete slab on compacted hardcore to approval.
DPC to be 3ply bituminous felt to be provided under all walls.

STRUCTURAL

1. All Black cotton soil to be removed from below all building and paved surfaces
2. All reinforced concrete work will be in accordance with structural drawings.
3. Foundation depths to be determined on site to S.E approval
4. All walls less than 200mm thick to be reinforced with hoop iron at every alternate course.
5. All adjacent R.C work and masonry walls to be tied with strap irons at every course

MECHANICAL

1. All Plumbing and Drainage Work to comply with specifications
2. S.V.P denotes soil vent pipe and to be provided at the head of the drainage
3. Where drainage is shown under driveways and slabs, to be encased in 150mm thick concrete surround.
4. All underground foul and waste drain pipes shall be of PVC to comply with BS5255
5. All ICs within building area, driveway and parking to have heavy duty,double-seal airtight covers and walls to be 200mm.
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11. Permanent vents denoted as P.V to be provided as shown on plan.

ELECTRICAL

All conduits must be laid before plastering

PROJECT:

PROPOSED AFFORDABLE HOUSING DEVELOPMENT IN

CLIENT:

Name: STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

Signature: _____ **Date:** _____

DRAWING TITLE:

GENERIC BLOCK_TYPE B_G+9 ELEVATIONS

SCALE: 1:100

DRAWN BY:

ML

CHECKED BY:

Name: _____

Signature: _____ **Date:** _____

DATE:

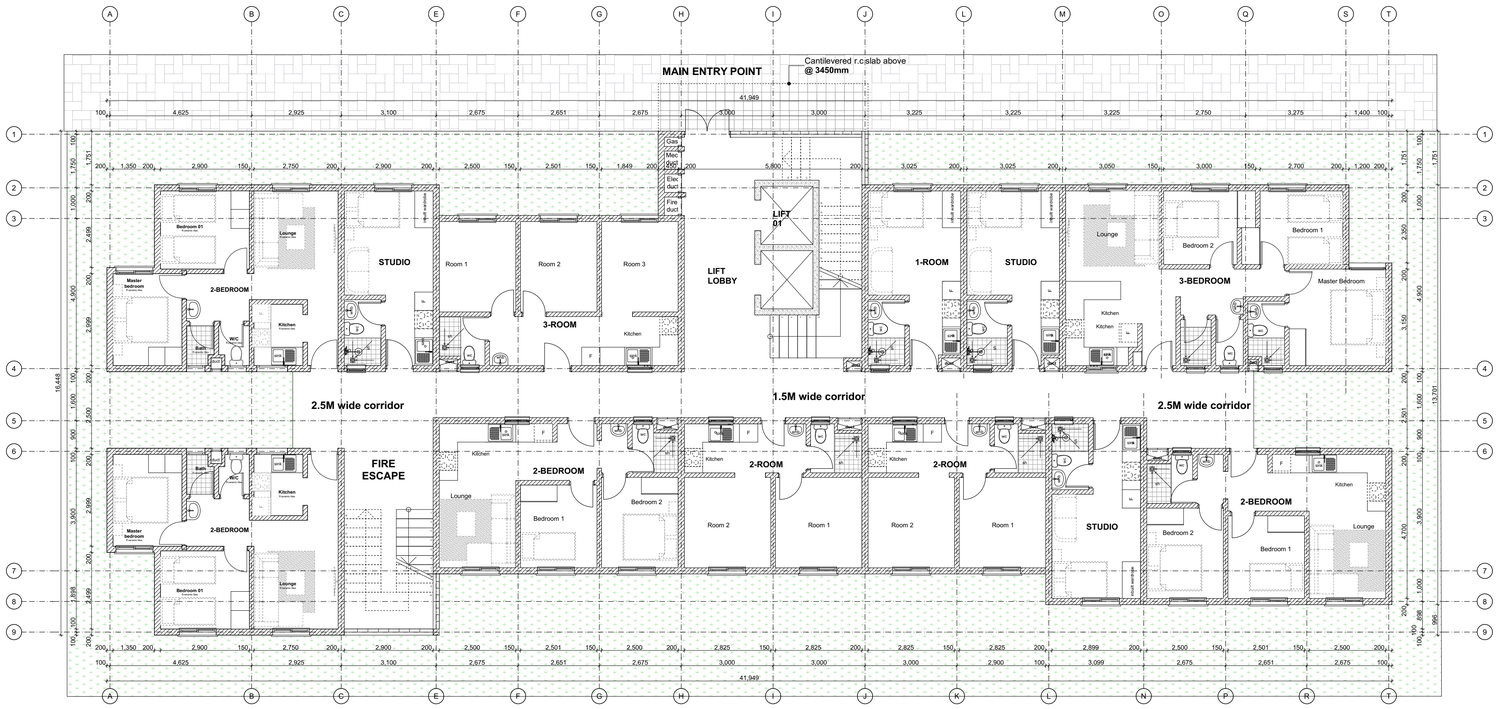
MINISTRY OF LANDS, PUBLIC WORKS, HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT FOR HOUSING & URBAN DEVELOPMENT

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA

BLOCK C

AFFORDABLE HOUSING PROGRAMME



PROPOSED REVISED TYPICAL SOCIAL+ AFFORDABLE UNITS BLOCK TYPE C_GROUND FLOOR PLAN

UNIT BREAK DOWN_ UNIT BREAK DOWN					
1_ROOM	2_ROOM	3_ROOM	STUDIO	2_BEDROOM	3_BEDROOM
1	2	1	3	4	1

PROPOSED TYPICAL SOCIAL+ AFFORDABLE UNITS BLOCK TYPE C_TYPICAL 1ST FLOOR PLAN

UNIT BREAK DOWN_ UNIT BREAK DOWN					
1_ROOM	2_ROOM	3_ROOM	STUDIO	2_BEDROOM	3_BEDROOM
1	2	1	2	4	1

BLOCK TYPOLOGY C [G+9]

GENERAL NOTES

1. This drawing to be read in conjunction with Engineers' drawings.
2. All dimensions are in mm unless otherwise specified.
3. Drawings are not to be scaled. Only figured dimensions should be used.
4. The contractor must check and verify all dimensions before commencement of work and if necessary confirm with the architect.

CONSTRUCTION

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DPC to be 3ply bituminous felt to be provided under all walls.

STRUCTURAL

1. All Black cotton soil to be removed from below all building and paved surfaces
2. All reinforced concrete work will be in accordance with structural drawings.
3. Foundation depths to be determined on site to S.E approval
4. All walls less than 200mm thick to be reinforced with hoop iron at every alternate course.
5. All adjacent R.C work and masonry walls to be tied with strap irons at every course

MECHANICAL

1. All Plumbing and Drainage Work to comply with specifications
2. S.V.P denotes soil vent pipe and to be provided at the head of the drainage
3. Where drainage is shown under driveways and slabs, to be encased in 150mm thick concrete surround.
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5. All ICs within building area, driveway and parking to have heavy duty,double-seal airtight covers and walls to be 200mm.
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8. Sleeves will be allowed with written approval from S.E.
9. No cutting of concrete without express approval of the Architect or S.E
10. All testing of pipes must be coordinated with electrical and any conflicts must be resolved before works begin
11. Permanent vents denoted as P.V to be provided as shown on plan.

ELECTRICAL

All conduits must be laid before plastering

PROJECT:
PROPOSED AFFORDABLE HOUSING DEVELOPMENT IN

CLIENT:
Name: STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT
Signature: **Date:**

DRAWING TITLE:
BLOCK C _FLOOR PLANS

SCALE: 1:100

DRAWN BY:
ML

CHECKED BY:
Name:
Signature: **Date:**

DATE:

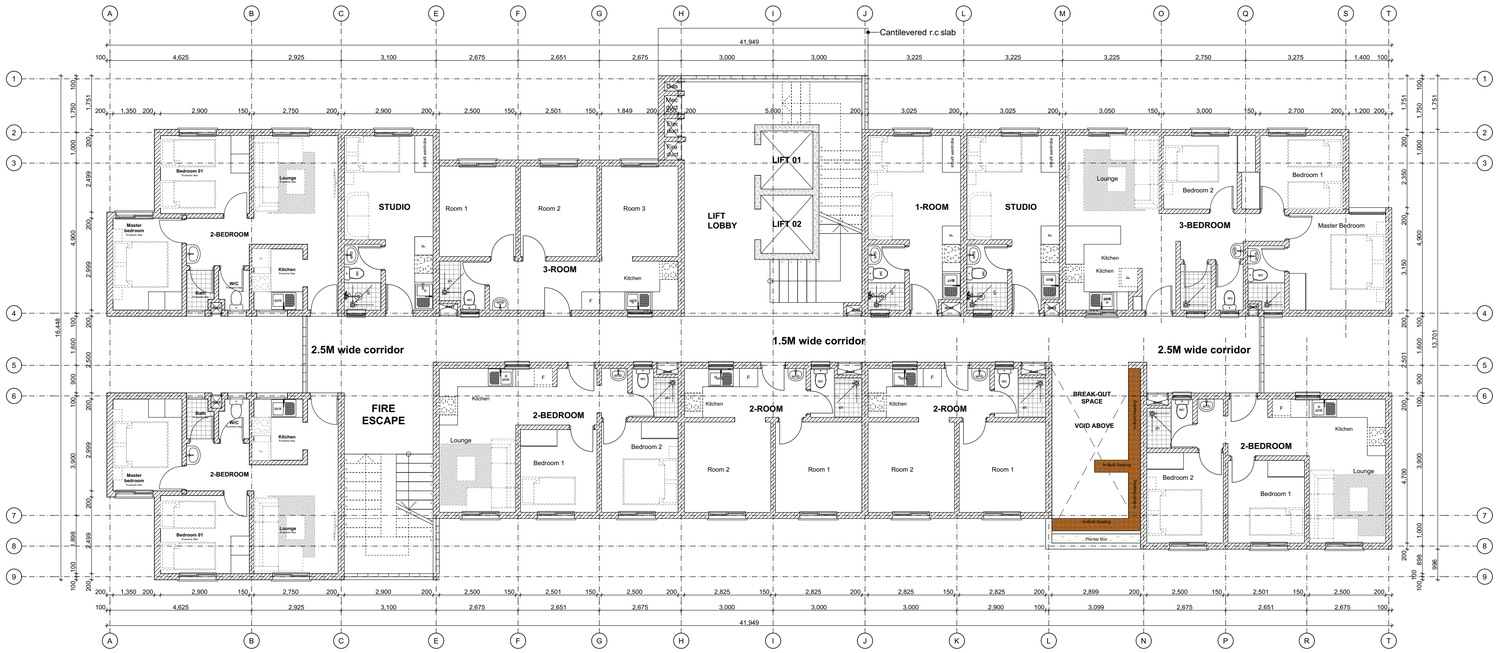
MINISTRY OF LANDS, PUBLIC WORKS, HOUSINGANDURBAN DEVELOPMENT

STATE DEPARTMENT FOR HOUSING & URBAN DEVELOPMENT

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA

PROPOSED TYPICAL SOCIAL+ AFFORDABLE UNITS BLOCK TYPE C_TYPICAL 2ND ABD 9TH FLOOR PLAN

UNIT BREAK DOWN_ UNIT BREAK DOWN					
1_ROOM	2_ROOM	3_ROOM	STUDIO	2_BEDROOM	3_BEDROOM
1	2	1	2	4	1



PROPOSED TYPICAL SOCIAL+ AFFORDABLE UNITS BLOCK TYPE C_TYPICAL 3RD AND 7TH FLOOR PLAN

UNIT BREAK DOWN_ UNIT BREAK DOWN					
1_ROOM	2_ROOM	3_ROOM	STUDIO	2_BEDROOM	3_BEDROOM
1	2	1	2	4	1

BLOCK TYPOLOGY C [G+9]

GENERAL NOTES

1. This drawing to be read in conjunction with Engineers' drawings.
2. All dimensions are in mm unless otherwise specified.
3. Drawings are not to be scaled. Only figured dimensions should be used.
4. The contractor must check and verify all dimensions before commencement of work and if necessary confirm with the architect.

CONSTRUCTION

Approved anti-termite treatment & 1000 gauge polythene sheeting cover to be provided under all ground floor concrete slab on compacted hardcore to approval.
DPC to be 3ply bituminous felt to be provided under all walls.

STRUCTURAL

1. All Black cotton soil to be removed from below all building and paved surfaces
2. All reinforced concrete work will be in accordance with structural drawings.
3. Foundation depths to be determined on site to S.E approval
4. All walls less than 200mm thick to be reinforced with hoop iron at every alternate course.
5. All adjacent R.C work and masonry walls to be tied with strap irons at every course

MECHANICAL

1. All Plumbing and Drainage Work to comply with specifications
2. S.V.P denotes soil vent pipe and to be provided at the head of the drainage
3. Where drainage is shown under driveways and slabs, to be encased in 150mm thick concrete surround.
4. All underground foul and waste drain pipes shall be of PVC to comply with BS5255
5. All ICs within building area, driveway and parking to have heavy duty,double-seal airtight covers and walls to be 200mm.
6. Minimum slope in the drain pipes to be 1%
7. No chases for pipes will be allowed in the slabs
8. Sleeves will be allowed with written approval from S.E.
9. No cutting of concrete without express approval of the Architect or S.E
10. All testing of pipes must be coordinated with electrical and any conflicts must be resolved before works begin
11. Permanent vents denoted as P.V to be provided as shown on plan.

ELECTRICAL

All conduits must be laid before plastering

PROJECT:
PROPOSED AFFORDABLE HOUSING DEVELOPMENT IN

CLIENT:
Name: STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT
Signature: _____ **Date:** _____

DRAWING TITLE:
BLOCK C _FLOOR PLANS

SCALE: 1:100

DRAWN BY:
ML

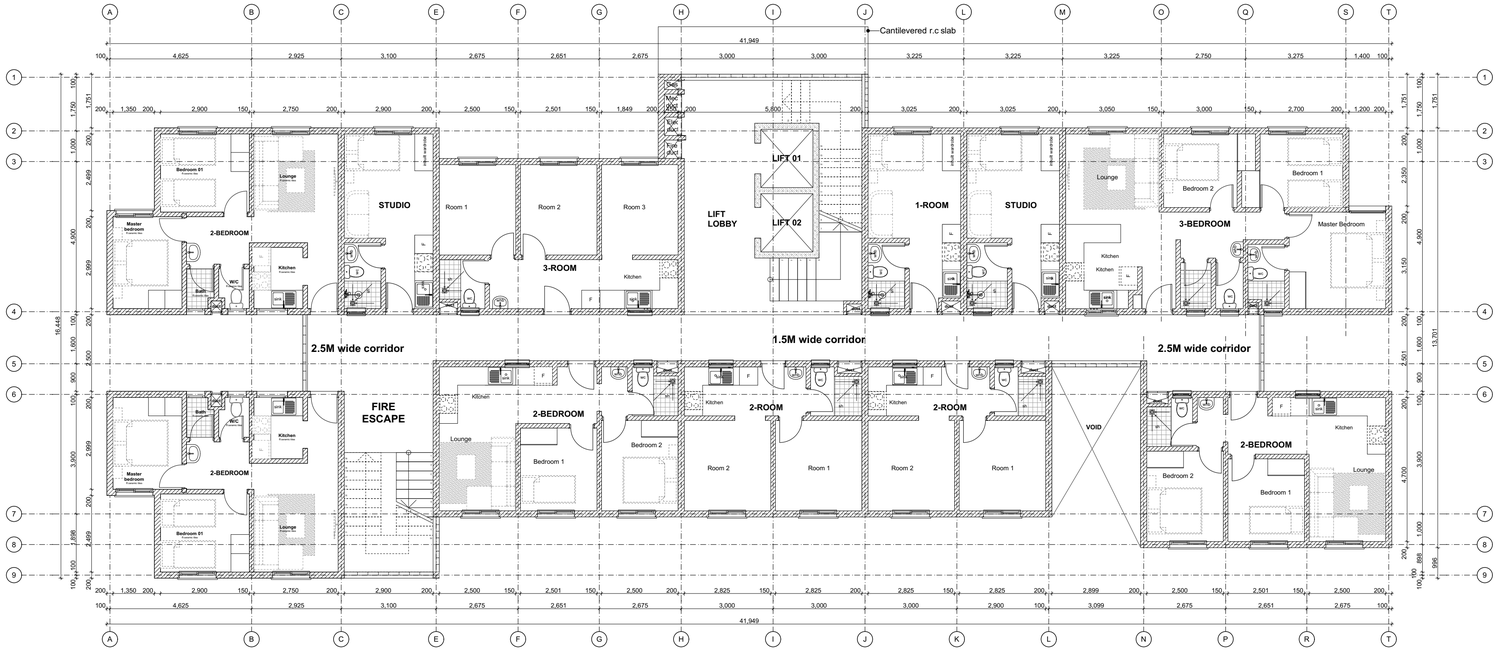
CHECKED BY:
Name: _____
Signature: _____ **Date:** _____

DATE:

MINISTRY OF LANDS, PUBLIC WORKS, HOUSINGANDURBAN DEVELOPMENT

STATE DEPARTMENT FOR HOUSING & URBAN DEVELOPMENT

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA



PROPOSED TYPICAL SOCIAL+ AFFORDABLE UNITS BLOCK TYPE C_TYPICAL 4TH AND 8TH FLOOR PLAN

UNIT BREAK DOWN_ UNIT BREAK DOWN					
1_ROOM	2_ROOM	3_ROOM	STUDIO	2_BEDROOM	3_BEDROOM
1	2	1	2	4	1

PROPOSED TYPICAL SOCIAL+ AFFORDABLE UNITS BLOCK TYPE C_TYPICAL 5TH FLOOR PLAN

UNIT BREAK DOWN_ UNIT BREAK DOWN					
1_ROOM	2_ROOM	3_ROOM	STUDIO	2_BEDROOM	3_BEDROOM
1	2	1	2	4	1

BLOCK TYPOLOGY C [G+9]

GENERAL NOTES

1. This drawing to be read in conjunction with Engineers' drawings.
2. All dimensions are in mm unless otherwise specified.
3. Drawings are not to be scaled. Only figured dimensions should be used.
4. The contractor must check and verify all dimensions before commencement of work and if necessary confirm with the architect.

CONSTRUCTION

Approved anti-termite treatment & 1000 gauge polythene sheeting cover to be provided under all ground floor concrete slab on compacted hardcore to approval.
DPC to be 3ply bituminous felt to be provided under all walls.

STRUCTURAL

1. All Black cotton soil to be removed from below all building and paved surfaces
2. All reinforced concrete work will be in accordance with structural drawings.
3. Foundation depths to be determined on site to S.E approval
4. All walls less than 200mm thick to be reinforced with hoop iron at every alternate course.
5. All adjacent R.C work and masonry walls to be tied with strap irons at every course

MECHANICAL

1. All Plumbing and Drainage Work to comply with specifications
2. S.V.P denotes soil vent pipe and to be provided at the head of the drainage
3. Where drainage is shown under driveways and slabs, to be encased in 150mm thick concrete surround.
4. All underground foul and waste drain pipes shall be of PVC to comply with BS5255
5. All ICs within building area, driveway and parking to have heavy duty,double-seal airtight covers and walls to be 200mm.
6. Minimum slope in the drain pipes to be 1%
7. No chases for pipes will be allowed in the slabs
8. Sleeves will be allowed with written approval from S.E.
9. No cutting of concrete without express approval of the Architect or S.E
10. All testing of pipes must be coordinated with electrical and any conflicts must be resolved before works begin
11. Permanent vents denoted as P.V to be provided as shown on plan.

ELECTRICAL

All conduits must be laid before plastering

PROJECT:
PROPOSED AFFORDABLE HOUSING DEVELOPMENT IN

CLIENT:
Name: STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT
Signature: _____ **Date:** _____

DRAWING TITLE:
BLOCK C _FLOOR PLANS

SCALE: 1:100

DRAWN BY:
ML

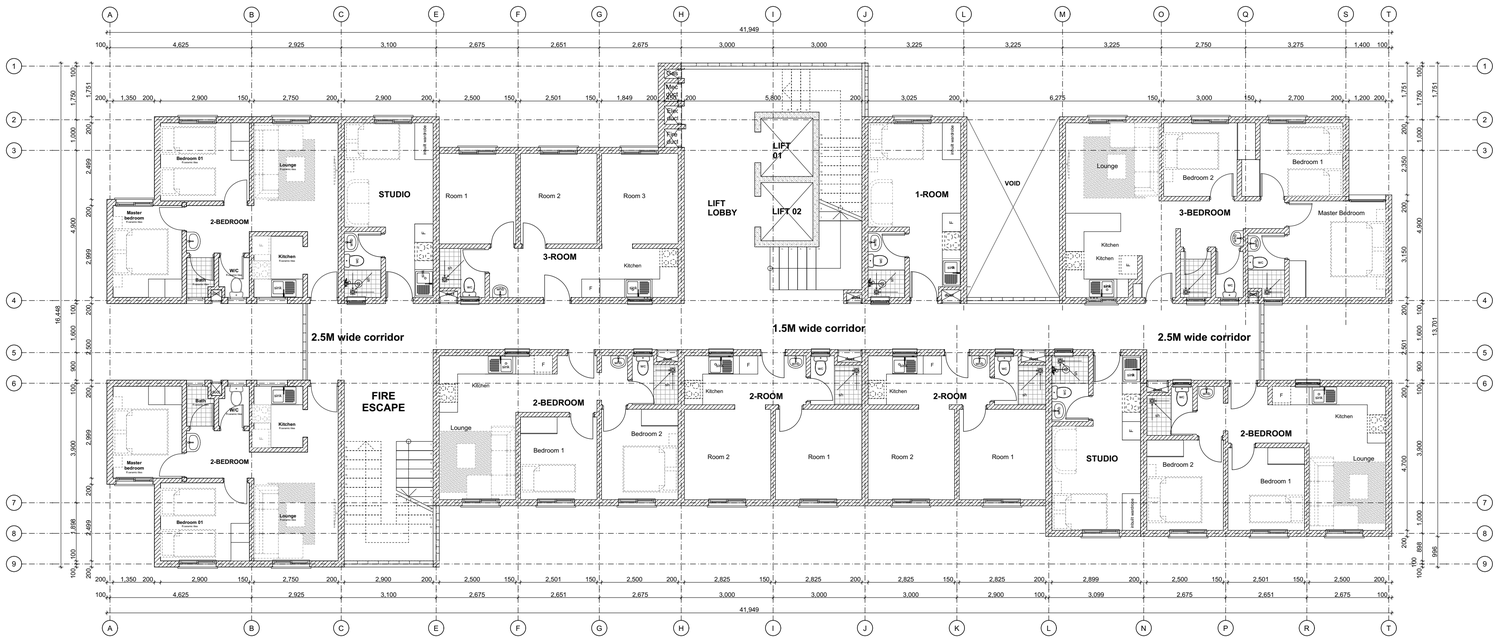
CHECKED BY:
Name: _____
Signature: _____ **Date:** _____

DATE:

MINISTRY OF LANDS, PUBLIC WORKS, HOUSINGANDURBAN DEVELOPMENT

STATE DEPARTMENT FOR HOUSING & URBAN DEVELOPMENT

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA



PROPOSED TYPICAL SOCIAL+ AFFORDABLE UNITS BLOCK TYPE C_TYPICAL 6TH FLOOR PLAN

UNIT BREAK DOWN_ UNIT BREAK DOWN					
1_ROOM	2_ROOM	3_ROOM	STUDIO	2_BEDROOM	3_BEDROOM
1	2	1	2	4	1

BLOCK TYPOLOGY C [G+9]

GENERAL NOTES

1. This drawing to be read in conjunction with Engineers' drawings.
2. All dimensions are in mm unless otherwise specified.
3. Drawings are not to be scaled. Only figured dimensions should be used.
4. The contractor must check and verify all dimensions before commencement of work and if necessary confirm with the architect.

CONSTRUCTION

Approved anti-termite treatment & 1000 gauge polythene sheeting cover to be provided under all ground floor concrete slab on compacted hardcore to approval.
DPC to be 3ply bituminous felt to be provided under all walls.

STRUCTURAL

1. All Black cotton soil to be removed from below all building and paved surfaces
2. All reinforced concrete work will be in accordance with structural drawings.
3. Foundation depths to be determined on site to S.E approval
4. All walls less than 200mm thick to be reinforced with hoop iron at every alternate course.
5. All adjacent R.C work and masonry walls to be tied with strap irons at every course

MECHANICAL

1. All Plumbing and Drainage Work to comply with specifications
2. S.V.P denotes soil vent pipe and to be provided at the head of the drainage
3. Where drainage is shown under driveways and slabs, to be encased in 150mm thick concrete surround.
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7. No chases for pipes will be allowed in the slabs
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9. No cutting of concrete without express approval of the Architect or S.E
10. All testing of pipes must be coordinated with electrical and any conflicts must be resolved before works begin
11. Permanent vents denoted as P.V to be provided as shown on plan.

ELECTRICAL

All conduits must be laid before plastering

PROJECT:
PROPOSED AFFORDABLE HOUSING DEVELOPMENT IN

CLIENT:
Name: STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT
Signature: _____ **Date:** _____

DRAWING TITLE:
BLOCK C _FLOOR PLANS

SCALE: 1:100

DRAWN BY:
ML

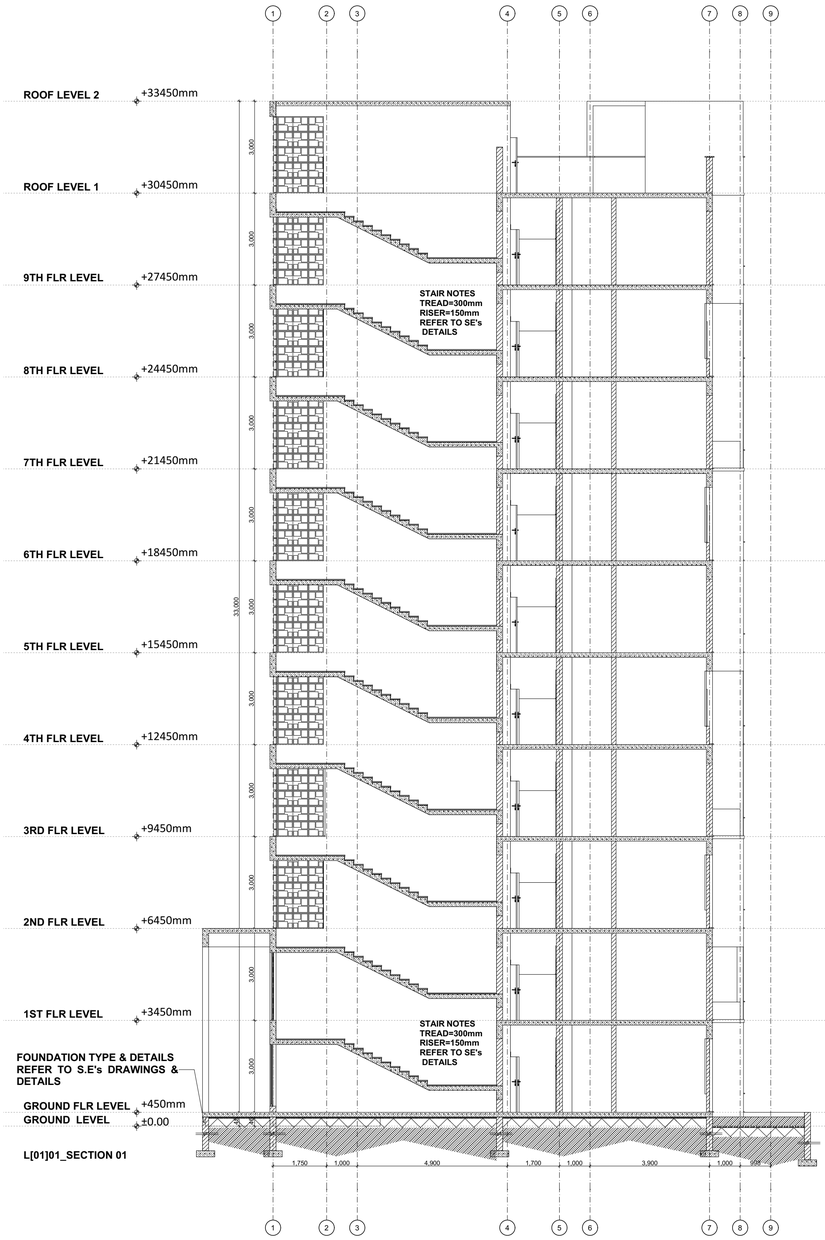
CHECKED BY:
Name: _____
Signature: _____ **Date:** _____

DATE:

MINISTRY OF LANDS, PUBLIC WORKS, HOUSINGANDURBAN DEVELOPMENT

STATE DEPARTMENT FOR HOUSING & URBAN DEVELOPMENT

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA



L[01]01_SECTION 01

L[02]01_FRONT ELEVATION

GENERAL NOTES

1. This drawing to be read in conjunction with Engineers' drawings.
2. All dimensions are in mm unless otherwise specified.
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CONSTRUCTION

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DPC to be 3ply bituminous felt to be provided under all walls.

STRUCTURAL

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MECHANICAL

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11. Permanent vents denoted as P.V to be provided as shown on plan.

ELECTRICAL

All conduits must be laid before plastering

PROJECT:
PROPOSED AFFORDABLE HOUSING DEVELOPMENT IN

CLIENT:
Name: STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT
Signature: _____ **Date:** _____

DRAWING TITLE:
GENERIC BLOCK_TYPE C_G+9_SECTION & ELEVATION

SCALE: 1:100

DRAWN BY:
ML

CHECKED BY:
Name: _____
Signature: _____ **Date:** _____

DATE:

MINISTRY OF LANDS, PUBLIC WORKS, HOUSINGANDURBAN DEVELOPMENT

STATE DEPARTMENT FOR HOUSING & URBAN DEVELOPMENT

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA

L[02]02_REAR ELEVATION

GENERAL NOTES

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CONSTRUCTION

Approved anti-termite treatment & 1000 gauge polythene sheeting cover to be provided under all ground floor concrete slab on compacted hardcore to approval.
DPC to be 3ply bituminous felt to be provided under all walls.

STRUCTURAL

1. All Black cotton soil to be removed from below all building and paved surfaces
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3. Foundation depths to be determined on site to S.E approval
4. All walls less than 200mm thick to be reinforced with hoop iron at every alternate course.
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MECHANICAL

1. All Plumbing and Drainage Work to comply with specifications
2. S.V.P denotes soil vent pipe and to be provided at the head of the drainage
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ELECTRICAL

All conduits must be laid before plastering

PROJECT:
PROPOSED AFFORDABLE HOUSING DEVELOPMENT IN

CLIENT:
Name: STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT
Signature: _____ **Date:** _____

DRAWING TITLE:
GENERIC BLOCK_TYPE C_G+9_ ELEVATION

SCALE: 1:100

DRAWN BY:
ML

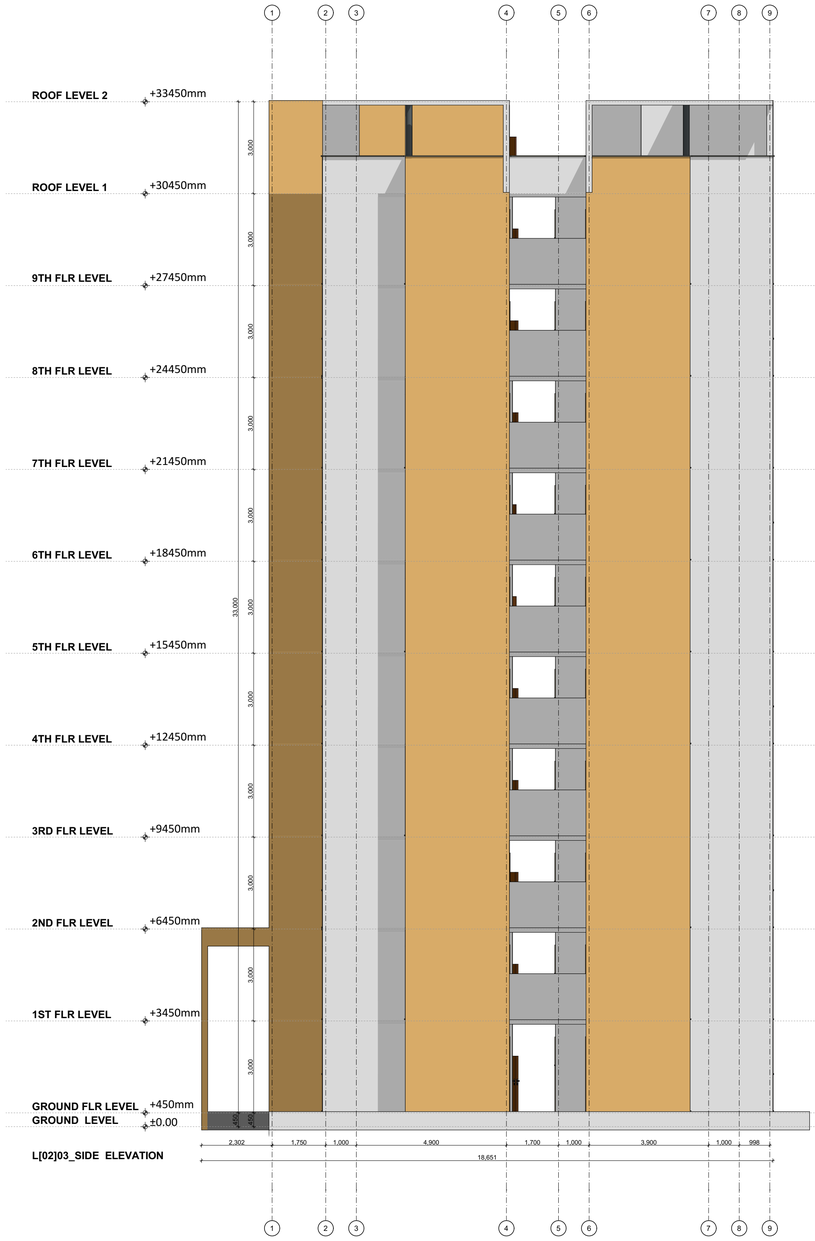
CHECKED BY:
Name: _____
Signature: _____ **Date:** _____

DATE:

MINISTRY OF LANDS, PUBLIC WORKS, HOUSINGANDURBAN DEVELOPMENT

STATE DEPARTMENT FOR HOUSING & URBAN DEVELOPMENT

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA



GENERAL NOTES

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CONSTRUCTION

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DPC to be 3ply bituminous felt to be provided under all walls.

STRUCTURAL

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ELECTRICAL

All conduits must be laid before plastering

PROJECT:
PROPOSED AFFORDABLE HOUSING DEVELOPMENT IN

CLIENT:
Name: STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT
Signature: _____ **Date:** _____

DRAWING TITLE:
GENERIC BLOCK_TYPE C_G+14_ ELEVATIONS

SCALE: 1:100

DRAWN BY:
ML

CHECKED BY:
Name: _____
Signature: _____ **Date:** _____

DATE:

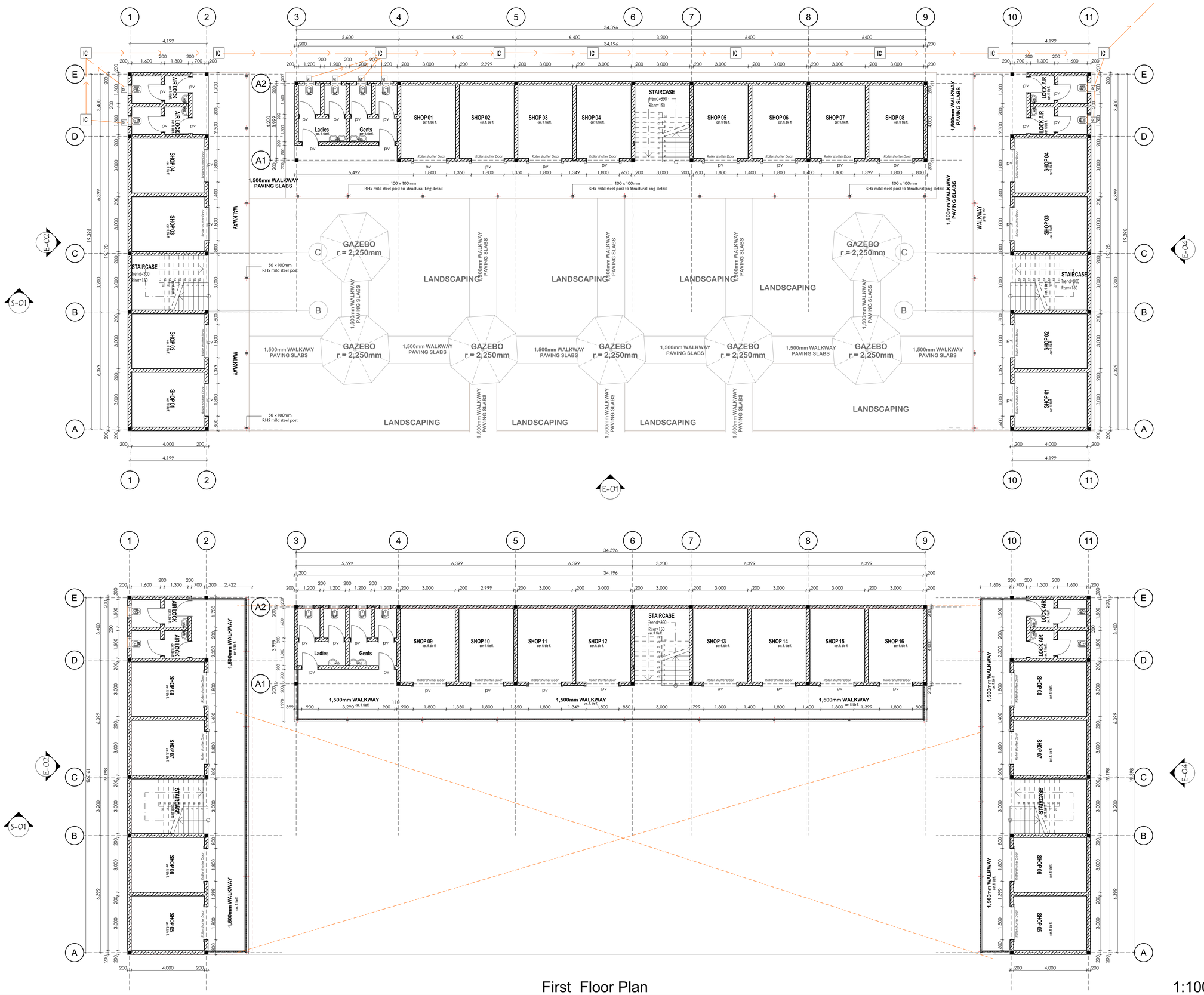
MINISTRY OF LANDS, PUBLIC WORKS, HOUSINGANDURBAN DEVELOPMENT

STATE DEPARTMENT FOR HOUSING & URBAN DEVELOPMENT

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA

STALLS

AFFORDABLE HOUSING PROGRAMME



1. First Floor Plan 1:100

GENERAL NOTES

1. This drawing to be read in conjunction with Engineers' drawings.
2. All dimensions are in mm unless otherwise specified.
3. Drawings are not to be scaled . Only figured dimensions should be used.
4. The contractor must check and verify all dimensions before commencement of work and if necessary confirm with the architect.

CONSTRUCTION

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STRUCTURAL

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5. All ICs within building area driveway and parking to have heavy duty,double-seal airtight covers and walls to be 200mm.
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7. No chases for pipes will be allowed in the slabs
8. Sleeves will be allowed with written approval from S.E.
9. No cutting of concrete without express approval of the Architect or S.E
10. All testing of pipes must be coordinated with electrical and any conflicts must be resolved before works begin
11. Permanent vents denoted as P.V to be provided as shown on plan.

ELECTRICAL

All conduits must be laid before plastering

PROJECT:
PROPOSED AFFORDABLE HOUSING DEVELOPMENT IN
BAHATI, THIKA TOWN CONSTITUENCY, KIAMBU COUNTY

CLIENT:
Name: STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT
Signature:_ _ _ _ _ _ **Date:**_ _ _ _ _ _

DRAWING TITLE:
AFFORDABLE UNITS BLOCK TYPE A

SCALE:
1:100

DRAWN BY:

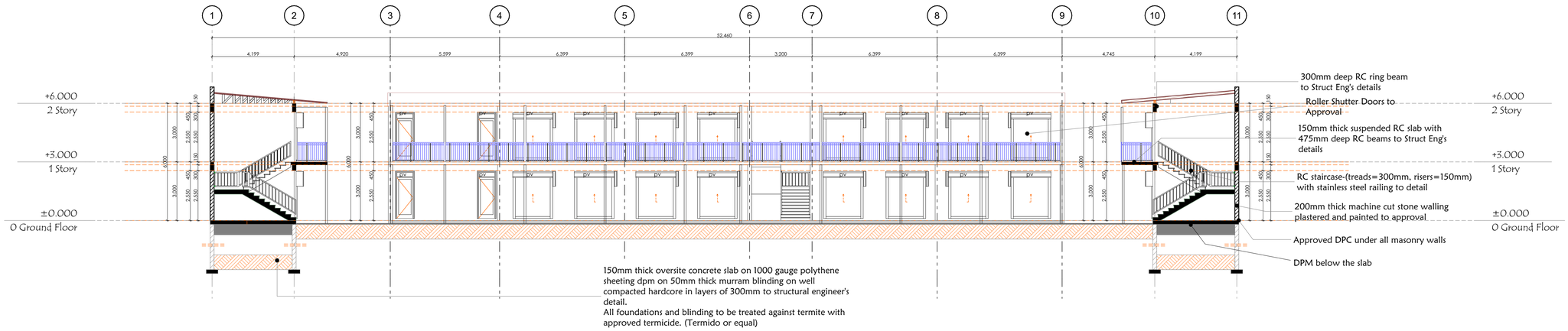
CHECKED BY:
Name:_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
Signature:_ _ _ _ _ _ **Date:**_ _ _ _ _ _

DATE:

MINISTRY OF LANDS , PUBLIC WORKS , HOUSING AND URBAN DEVELOPMENT

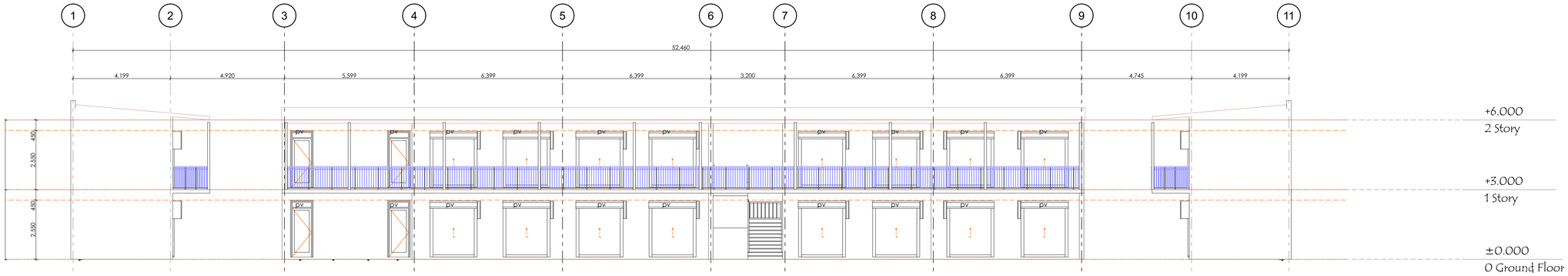
STATE DEPARTMENT FOR HOUSING & URBAN DEVELOPMENT

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA



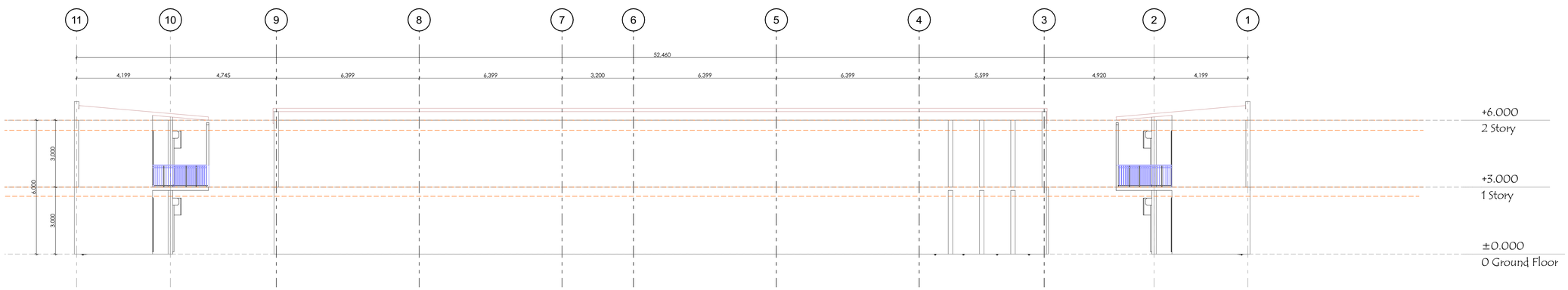
S-01

SECTION



E-01

ELEVATION 01



E-03

Elevation 03

1:103.

GENERAL NOTES

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CONSTRUCTION

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DPC to be 3ply bituminous felt to be provided under all walls.

STRUCTURAL

1. All Black cotton soil to be removed from below all building and paved surfaces
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3. Foundation depths to be determined on site to S.E approval
4. All walls less than 200mm thick to be reinforced with hoop iron at every alternate course.
5. All adjacent R.C work and masonry walls to be tied with strap irons at every course

MECHANICAL

1. All Plumbing and Drainage Work to comply with specifications
2. S.V.P denotes soil vent pipe and to be provided at the head of the drainage
3. Where drainage is shown under driveways and slabs, to be encased in 150mm thick concrete surround.
4. All underground foul and waste drain pipes shall be of PVC to comply with BS.5255
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9. No cutting of concrete without express approval of the Architect or S.E
10. All testing of pipes must be coordinated with electrical and any conflicts must be resolved before works begin
11. Permanent vents denoted as P.V to be provided as shown on plan.

ELECTRICAL

All conduits must be laid before plastering

PROJECT:
PROPOSED AFFORDABLE HOUSING DEVELOPMENT IN
BAHATI, THIKA TOWN CONSTITUENCY, KIAMBU COUNTY

CLIENT:
Name: STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT
Signature:_ _ _ _ _ _ **Date:**_ _ _ _ _ _

DRAWING TITLE:
AFFORDABLE UNITS BLOCK TYPE A

SCALE:
1:100

DRAWN BY:

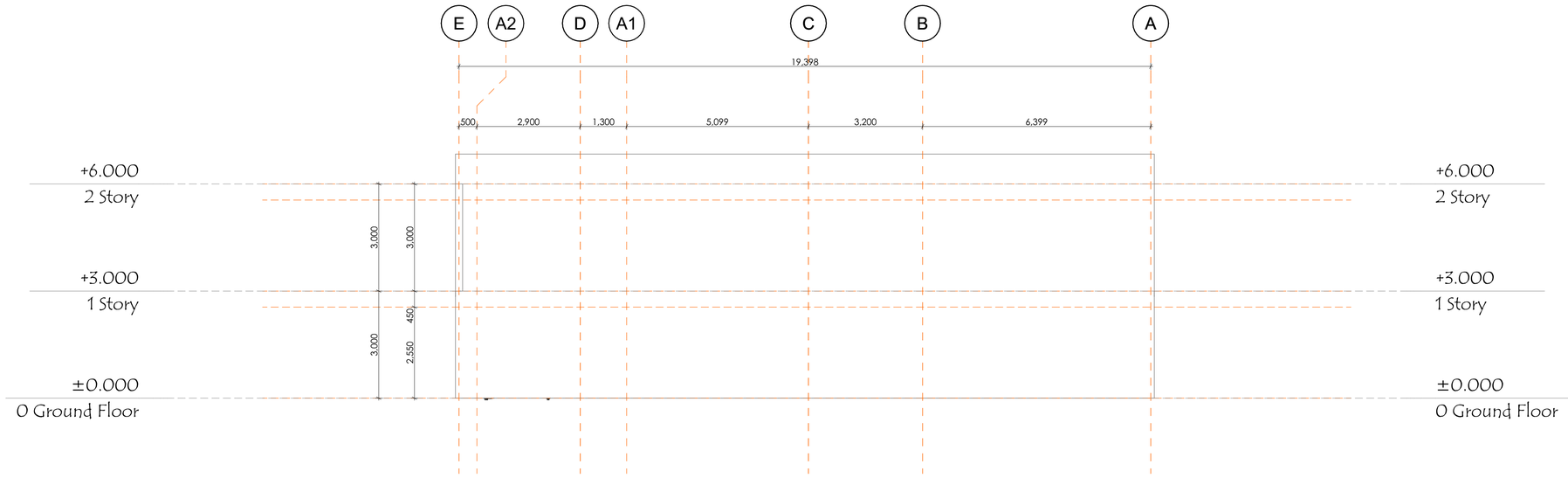
CHECKED BY:
Name:_ _ _ _ _ _ _ _ _ _ _ _ _ _
Signature:_ _ _ _ _ _ **Date:**_ _ _ _ _ _

DATE:

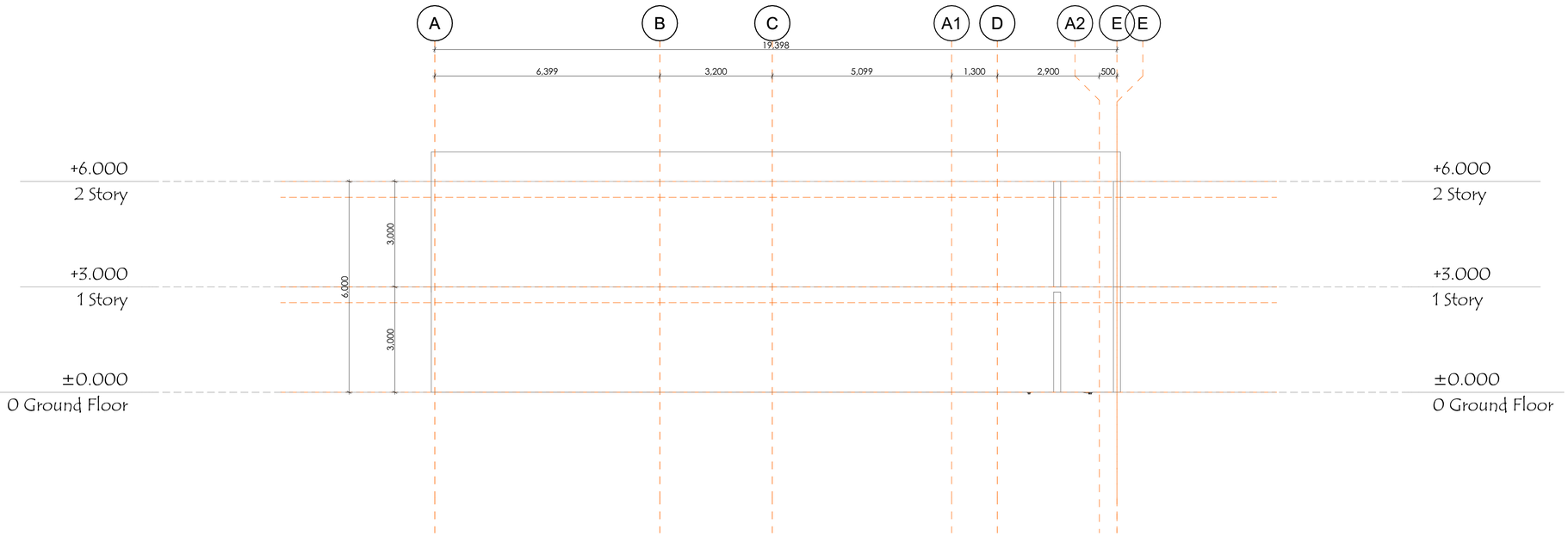
MINISTRY OF LANDS , PUBLIC WORKS , HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT FOR HOUSING & URBAN DEVELOPMENT

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA



E-02 ELEVATION 02 1:75



ELEVATION 04 1:75

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ELECTRICAL

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PROJECT:
PROPOSED AFFORDABLE HOUSING DEVELOPMENT IN
BAHATI, THIKA TOWN CONSTITUENCY, KIAMBU COUNTY

CLIENT:
Name: STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT
Signature:_ _ _ _ _ _ **Date:**_ _ _ _ _ _

DRAWING TITLE:
AFFORDABLE UNITS BLOCK TYPE A

SCALE:
1:100

DRAWN BY:

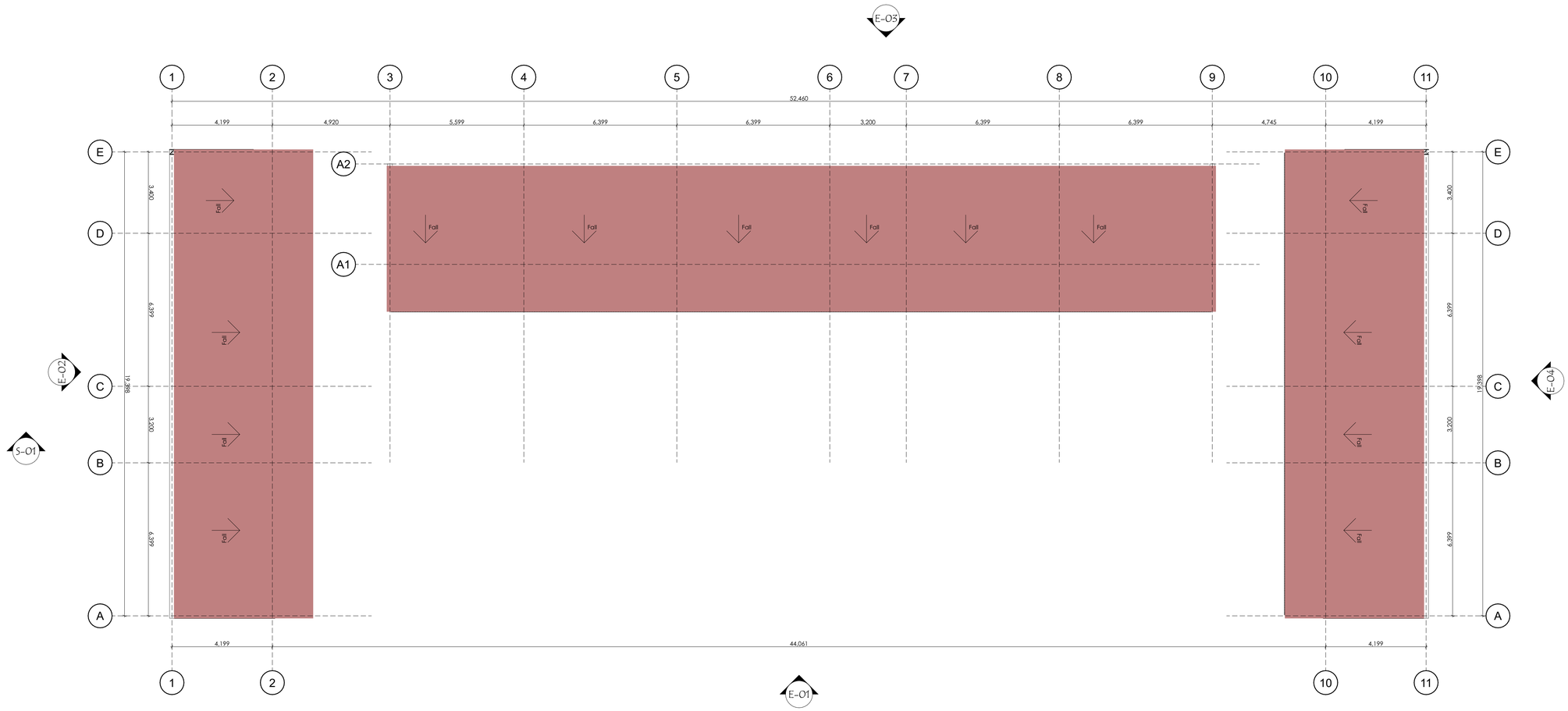
CHECKED BY:
Name:_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
Signature:_ _ _ _ _ _ **Date:**_ _ _ _ _ _

DATE:

MINISTRY OF LANDS, PUBLIC WORKS, HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT FOR HOUSING & URBAN DEVELOPMENT

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA



2. ROOF PLAN 1:100

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ELECTRICAL

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PROJECT:
PROPOSED AFFORDABLE HOUSING DEVELOPMENT IN
BAHATI, THIKA TOWN CONSTITUENCY, KIAMBU COUNTY

CLIENT:
Name: STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT
Signature:_ _ _ _ _ _ **Date:**_ _ _ _ _ _

DRAWING TITLE:
AFFORDABLE UNITS BLOCK TYPE A

SCALE:
1:100

DRAWN BY:

CHECKED BY:
Name:_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
Signature:_ _ _ _ _ _ **Date:**_ _ _ _ _ _

DATE:

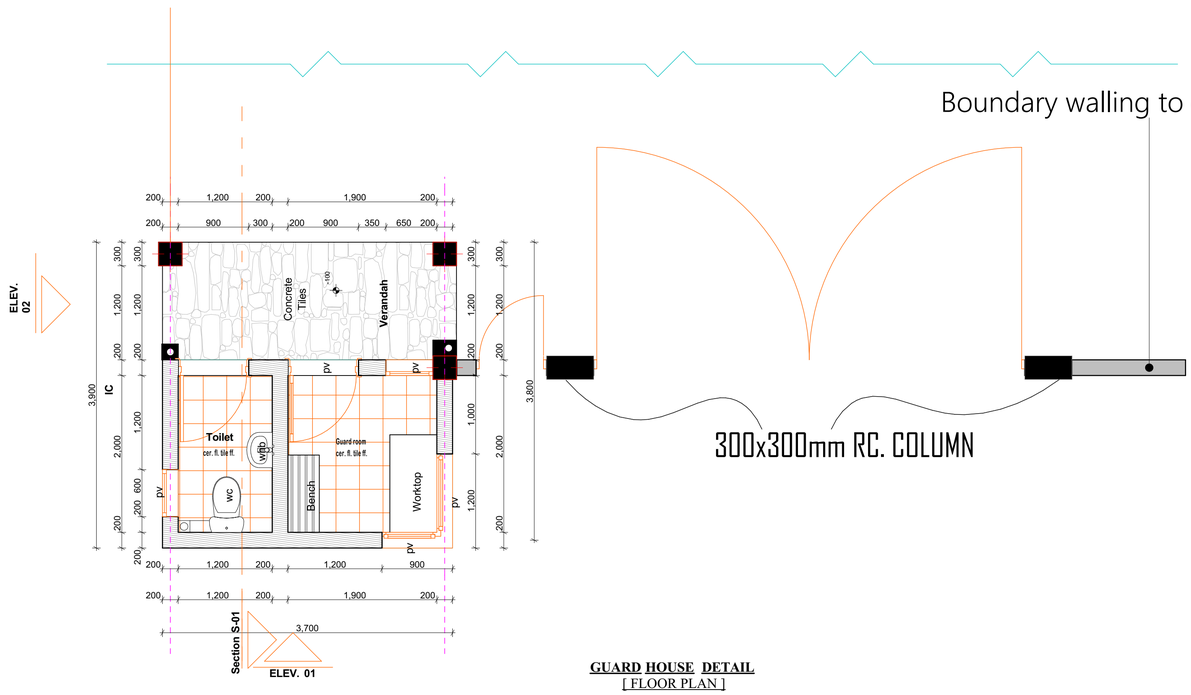
MINISTRY OF LANDS , PUBLIC WORKS , HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT FOR HOUSING & URBAN DEVELOPMENT

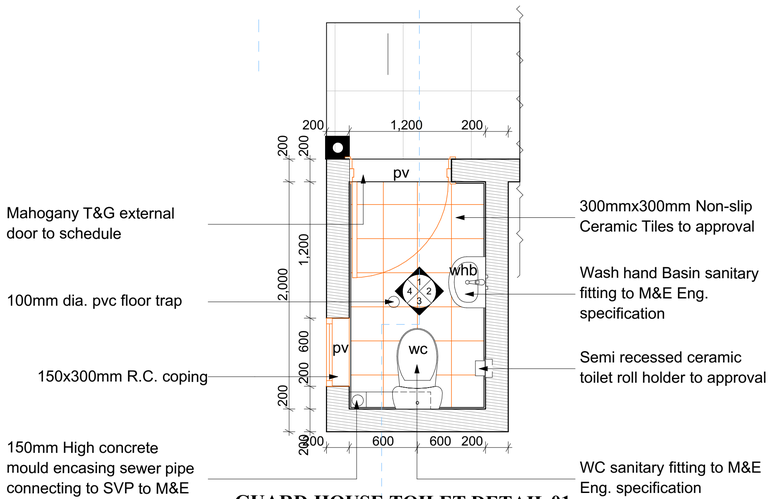
FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA

GATE HOUSE

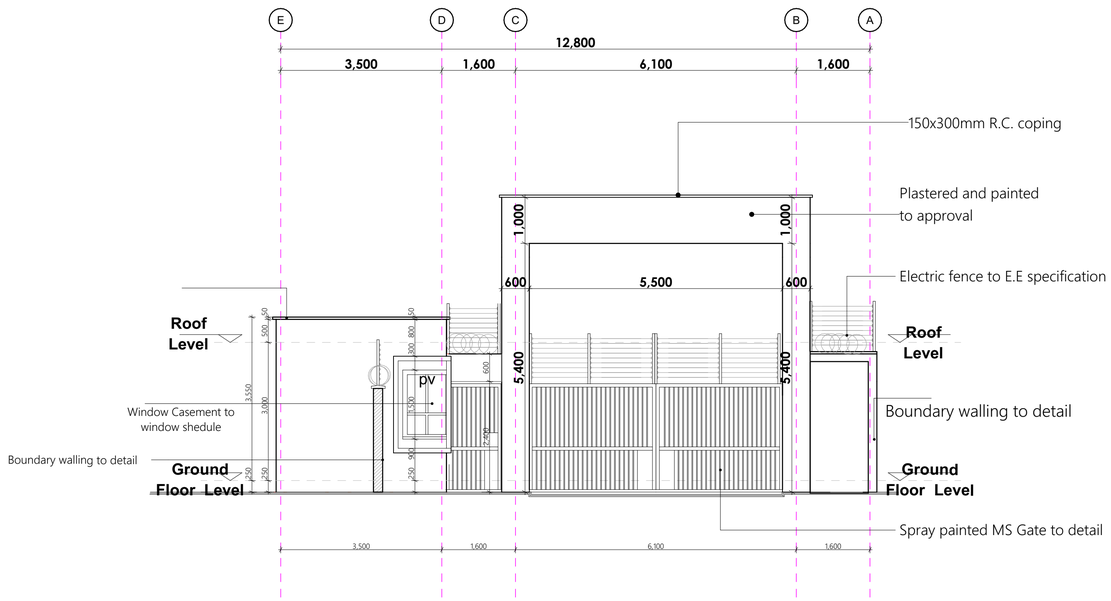
AFFORDABLE HOUSING PROGRAMME



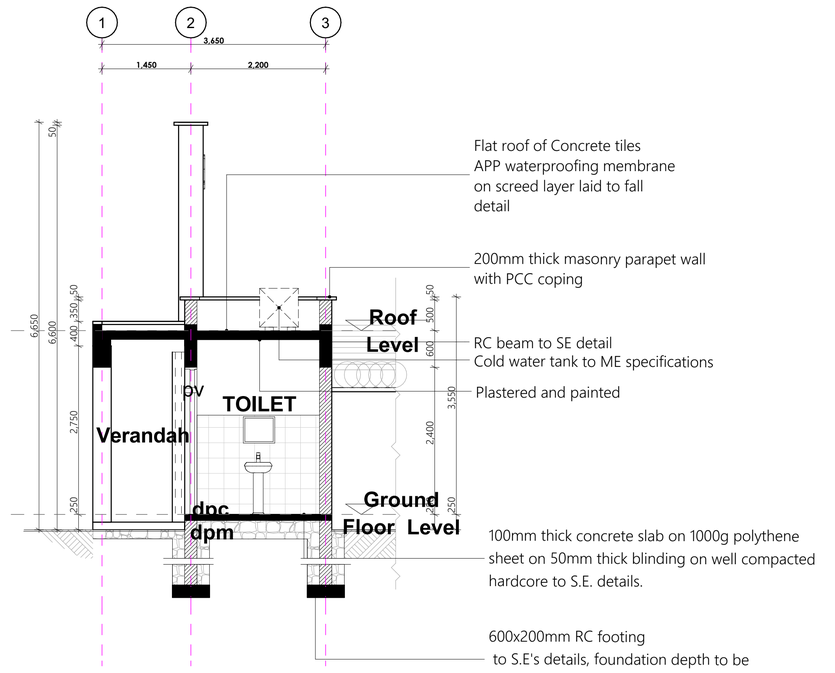
GUARD HOUSE DETAIL
[FLOOR PLAN]



GUARD HOUSE TOILET DETAIL 01
[FLOOR PLAN]



ELEVATION 01



Section S-01

GENERAL NOTES

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ELECTRICAL

All conduits must be laid before plastering

PROJECT:
PROPOSED AFFORDABLE HOUSING DEVELOPMENT IN

CLIENT:
Name: STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT
Signature: _____ **Date:** _____

DRAWING TITLE:
GATE HOUSE DETAILS

SCALE:
1:20, 1:75

DRAWN BY:

CHECKED BY:
Name: _____
Signature: _____ **Date:** 13/03/2024

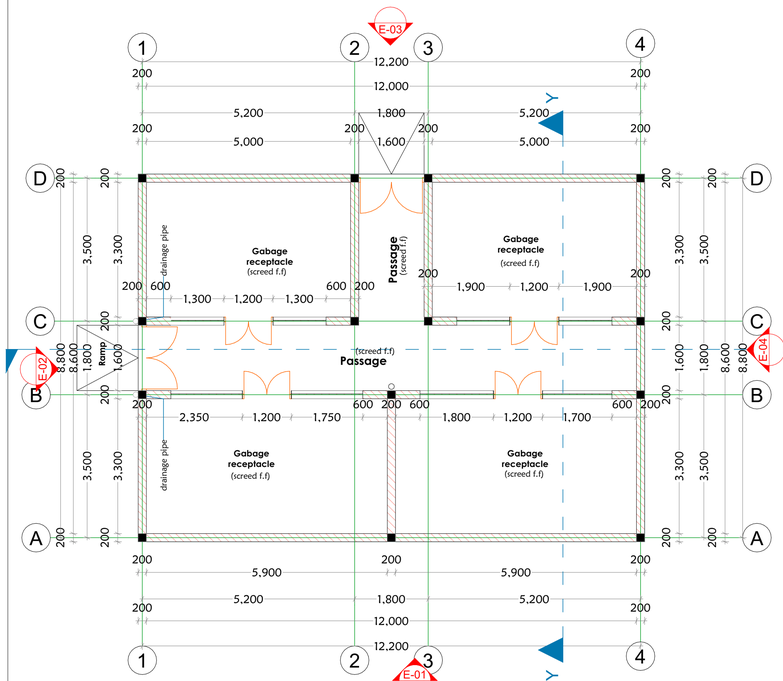
DATE:

MINISTRY OF LANDS, PUBLIC WORKS, HOUSING AND URBAN DEVELOPMENT
STATE DEPARTMENT FOR HOUSING & URBAN DEVELOPMENT

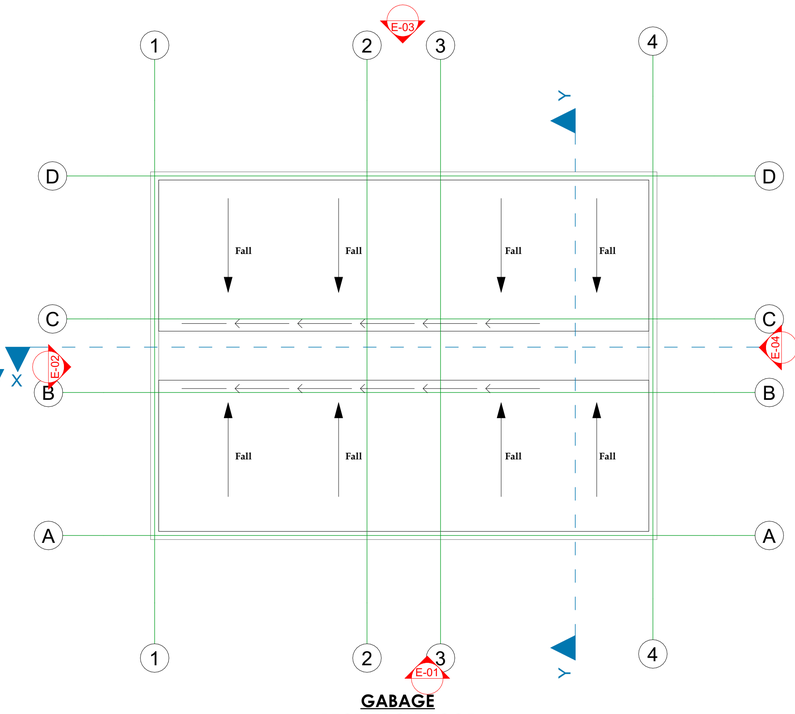
FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA

GARBAGE RECEPTACLE

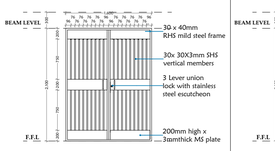
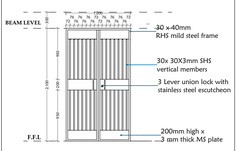
AFFORDABLE HOUSING PROGRAMME

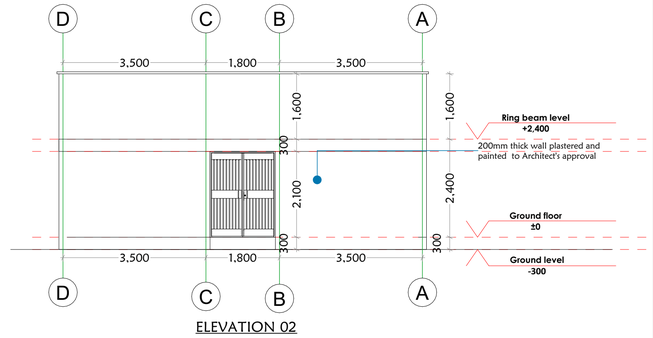


GABAGE RECEPTACLE FLOOR PLAN

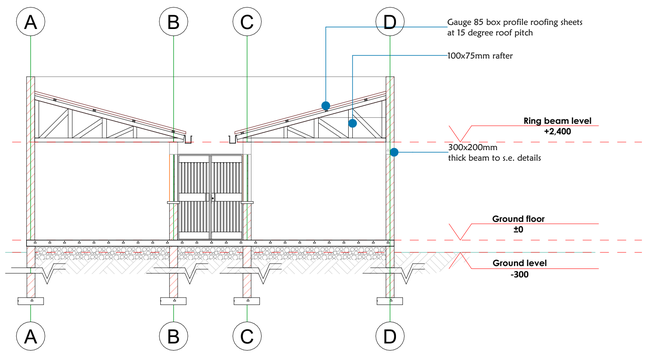


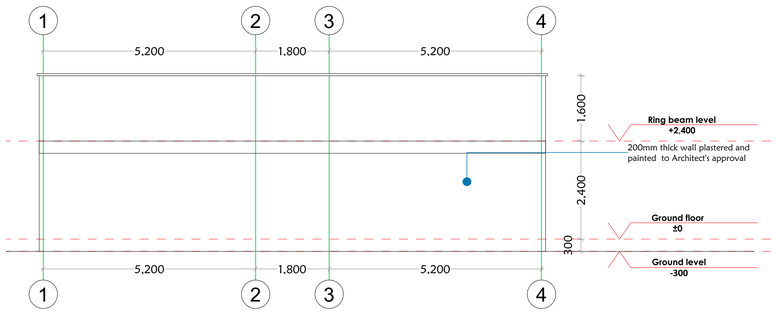
GABAGE RECEPTACLE ROOF PLAN

DOOR SCHEDULE		
		
	30 x 40mm RHS mild steel frame 30x 30X3mm SHS vertical members 3 Lever union lock with stainless steel escutcheon 200mm high x 3ammthick MS plate	30 x 40mm RHS mild steel frame 30x 30X3mm SHS vertical members 3 Lever union lock with stainless steel escutcheon 200mm high x 3 mm thick MS plate
DOOR NO.	01	02
DOOR TYPE	SPRAY PAINTED STEEL CASEMENT EXTERIOR DOOR	SPRAY PAINTED STEEL CASEMENT EXTERIOR DOOR
DOOR NO.S & LOCATION		
IRON MONGERY	-11/2 PAIRS OF HEAVY DUTY PIN TYPE HINGES -1 NO. RUBBER DOOR STOP -1 NO. 3 LEVER UNION LOCK -2 NO. 300 MM STAINLESS STEEL DOOR HANDLE	-11/2 PAIRS OF HEAVY DUTY PIN TYPE HINGES -1 NO. RUBBER DOOR STOP -1 NO. 3 LEVER UNION LOCK -2 NO. 300 MM STAINLESS STEEL DOOR HANDLE
FINISHES	ONE COAT PRIMER, TWO COATS GLOSS PAINT	ONE COAT PRIMER, TWO COATS GLOSS PAINT

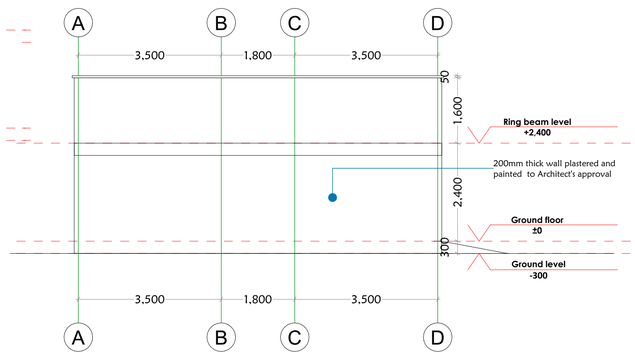


ELEVATION 02

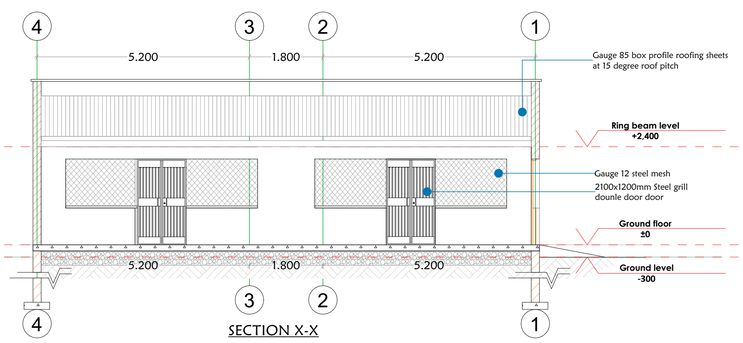




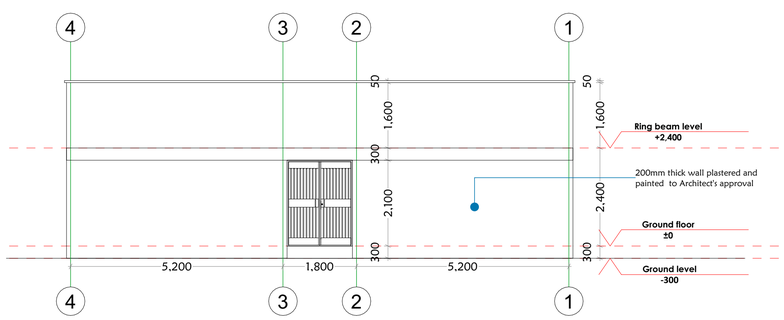
ELEVATION 01



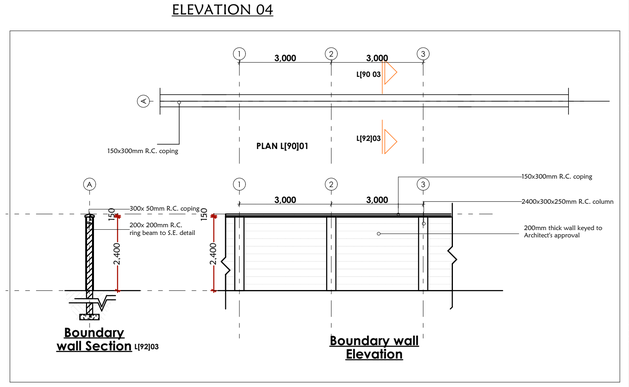
ELEVATION 04



SECTION X-X



ELEVATION 03



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ELECTRICAL

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PROJECT:
PROPOSED AFFORDABLE HOUSING DEVELOPMENT IN

CLIENT:
Name: STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT
Signature:_____ **Date:**_____

DRAWING TITLE:
FLOOR PLANS, SECT'S & ELEV'S

SCALE:

DRAWN BY: F.G.W.

CHECKED BY:
Name:_____
Signature:_____ **Date:**_____

DATE:

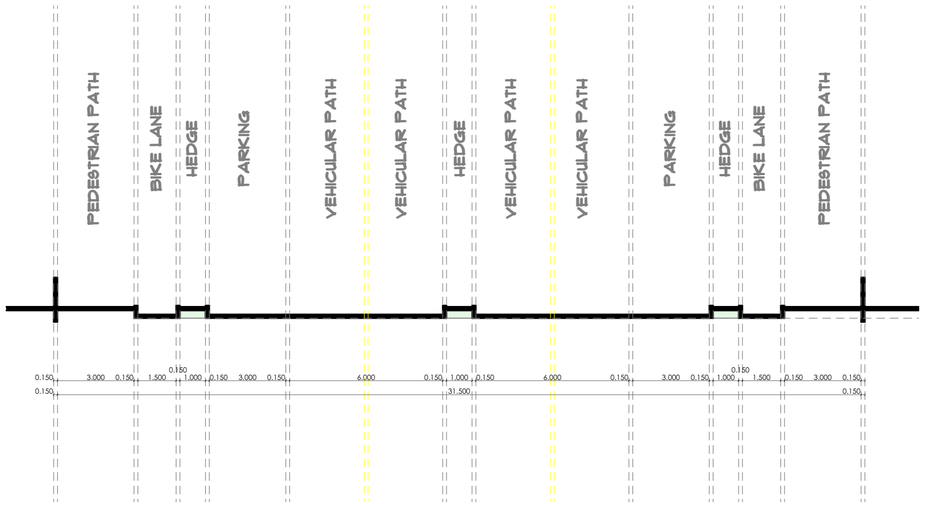
MINISTRY OF LANDS , PUBLIC WORKS , HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT FOR HOUSING & URBAN DEVELOPMENT

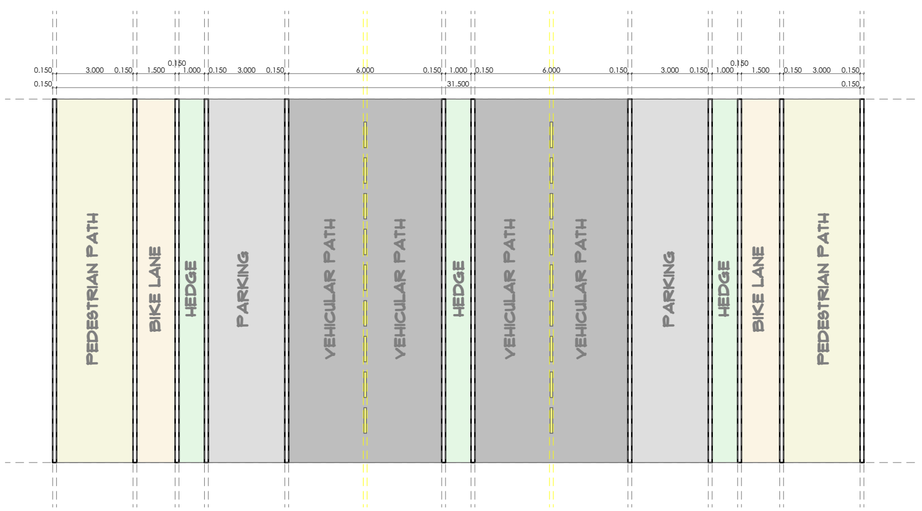
FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA

ROADS

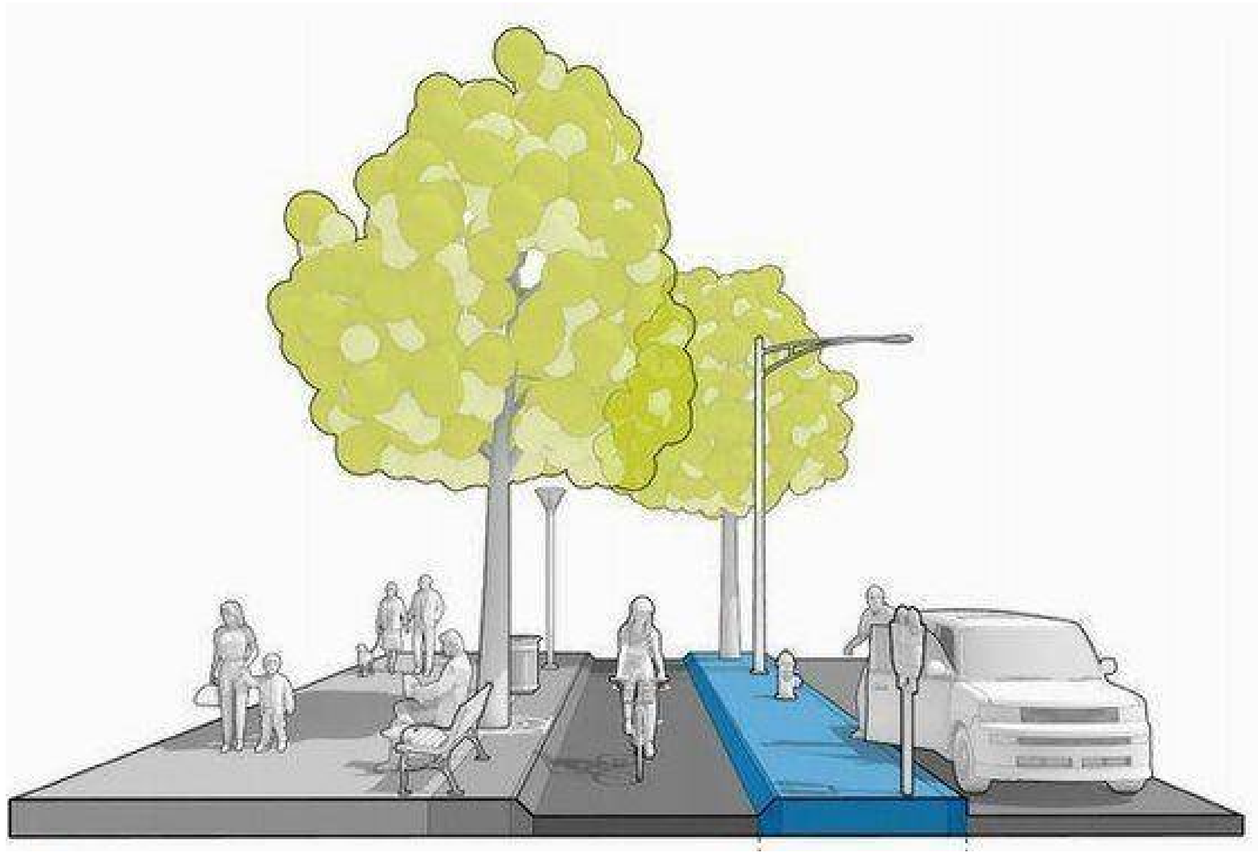
AFFORDABLE HOUSING PROGRAMME



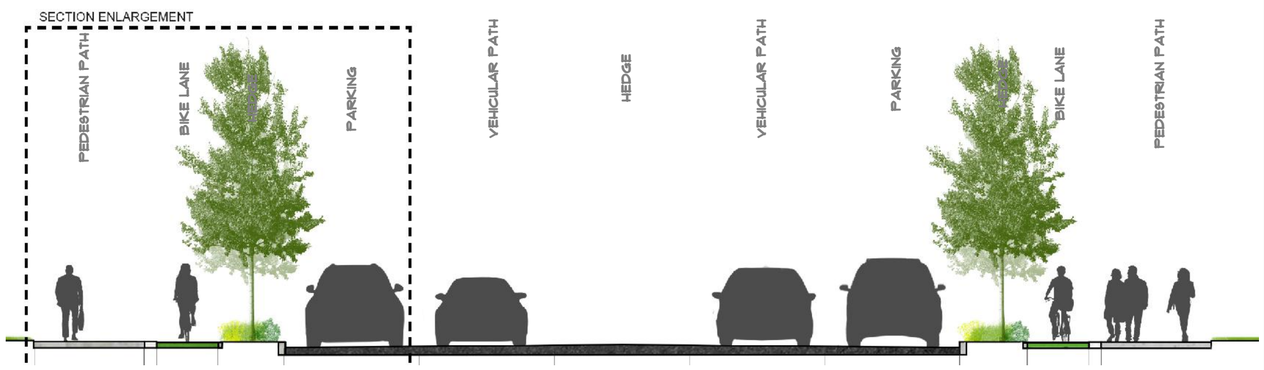
ROAD SECTIONAL PROFILE



ROAD DESIGN OPTION A



PEDESTRIAN PATH AND ROAD INTERACTION ILLUSTRATION



ROAD SECTIONAL PROFILE ILLUSTRATION

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ELECTRICAL

All conduits must be laid before plastering

PROJECT:
PROPOSED AFFORDABLE HOUSING DEVELOPMENT IN

CLIENT:
Name: STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT
Signature:_ _ _ _ _ _ _ **Date:**_ _ _ _ _ _

DRAWING TITLE:
ROAD DESIGN **OPTION A**

SCALE:
1:500

DRAWN BY:
ML

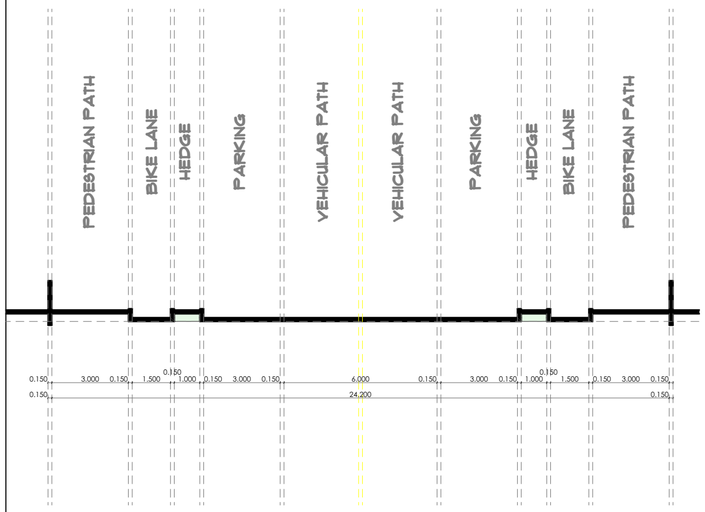
CHECKED BY:
Name:_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
Signature:_ _ _ _ _ _ _ **Date:**_ _ _ _ _ _

DATE:
MAY 2023

MINISTRY OF LANDS, PUBLIC WORKS, HOUSING AND URBAN DEVELOPMENT

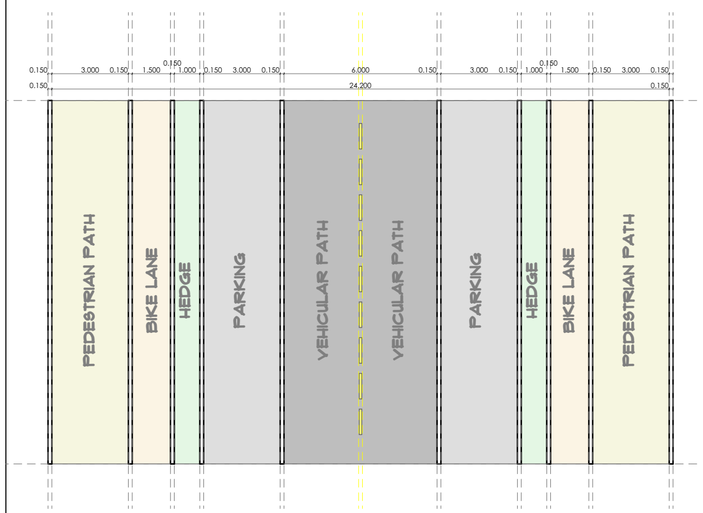
STATE DEPARTMENT FOR HOUSING & URBAN DEVELOPMENT

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA



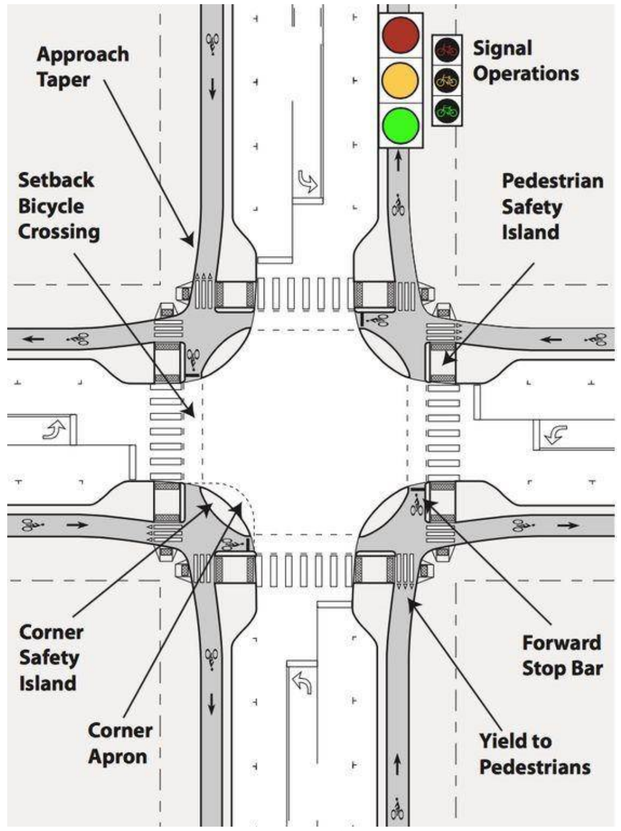
ROAD SECTIONAL PROFILE

ROAD ACTIVITY FLOW ILLUSTRATION

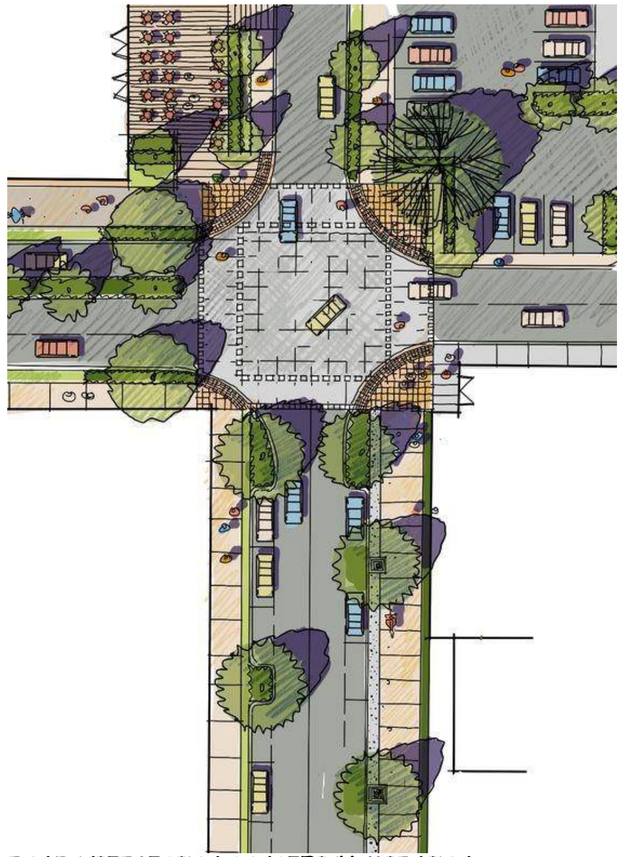


ROAD DESIGN OPTION B

BIKE LANE AND VEHICULAR TRAFFIC INTERACTION ILLUSTRATION



ROAD INTERSECTION CONCEPT ILLUSTRATION



ROAD INTERSECTION CONCEPT ILLUSTRATION

GENERAL NOTES

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3. Drawings are not to be scaled. Only figured dimensions should be used.
4. The contractor must check and verify all dimensions before commencement of work and if necessary confirm with the architect.

CONSTRUCTION

Approved anti-termite treatment & 1000 gauge polythene sheeting cover to be provided under all ground floor concrete slab on compacted hardcore to approval.
DPC to be 3ply bituminous felt to be provided under all walls.

STRUCTURAL

1. All Black cotton soil to be removed from below all building and paved surfaces
2. All reinforced concrete work will be in accordance with structural drawings.
3. Foundation depths to be determined on site to S.E approval
4. All walls less than 200mm thick to be reinforced with hoop iron at every alternate course.
5. All adjacent R.C work and masonry walls to be tied with strap irons at every course

MECHANICAL

1. All Plumbing and Drainage Work to comply with specifications
2. S.V.P denotes soil vent pipe and to be provided at the head of the drainage
3. Where drainage is shown under driveways and slabs, to be encased in 150mm thick concrete surround.
4. All underground foul and waste drain pipes shall be of PVC to comply with BS5255
5. All ICs within building area, driveway and parking to have heavy duty,double-seal airtight covers and walls to be 200mm.
6. Minimum slope in the drain pipes to be 1%
7. No chases for pipes will be allowed in the slabs
8. Sleeves will be allowed with written approval from S.E.
9. No cutting of concrete without express approval of the Architect or S.E
10. All testing of pipes must be coordinated with electrical and any conflicts must be resolved before works begin
11. Permanent vents denoted as P.V to be provided as shown on plan.

ELECTRICAL

All conduits must be laid before plastering

PROJECT:
PROPOSED AFFORDABLE HOUSING DEVELOPMENT IN

CLIENT:
Name: STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT
Signature:_ _ _ _ _ _ **Date:**_ _ _ _ _ _

DRAWING TITLE:
ROAD DESIGN **OPTION B**

SCALE:
1:500

DRAWN BY:
ML

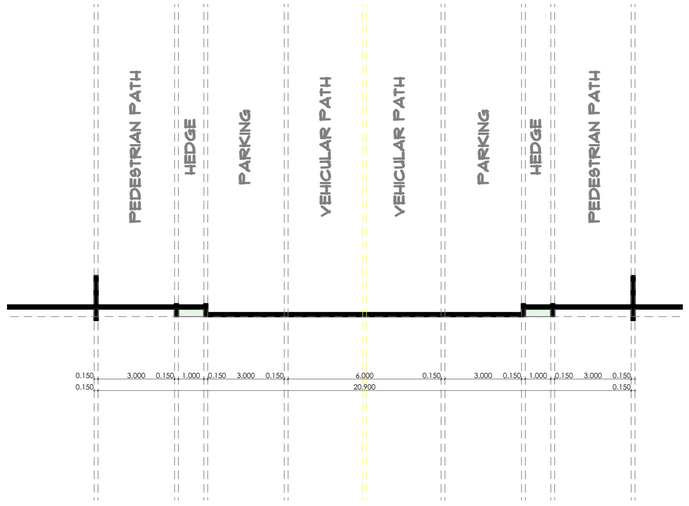
CHECKED BY:
Name:_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
Signature:_ _ _ _ _ _ **Date:**_ _ _ _ _ _

DATE:
MAY 2023

MINISTRY OF LANDS, PUBLIC WORKS, HOUSING AND URBAN DEVELOPMENT

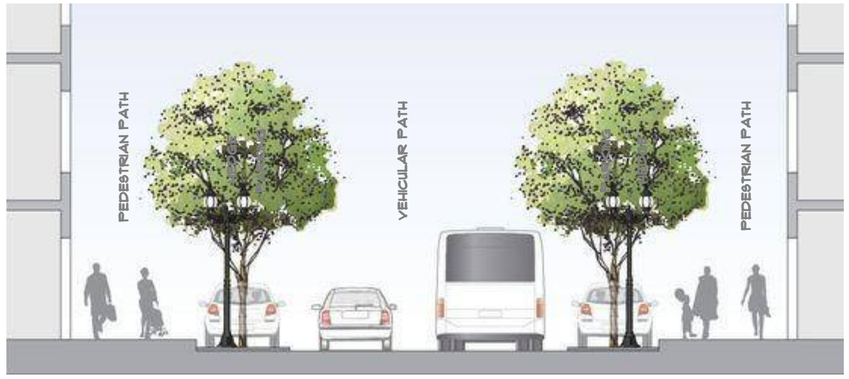
STATE DEPARTMENT FOR HOUSING & URBAN DEVELOPMENT

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA

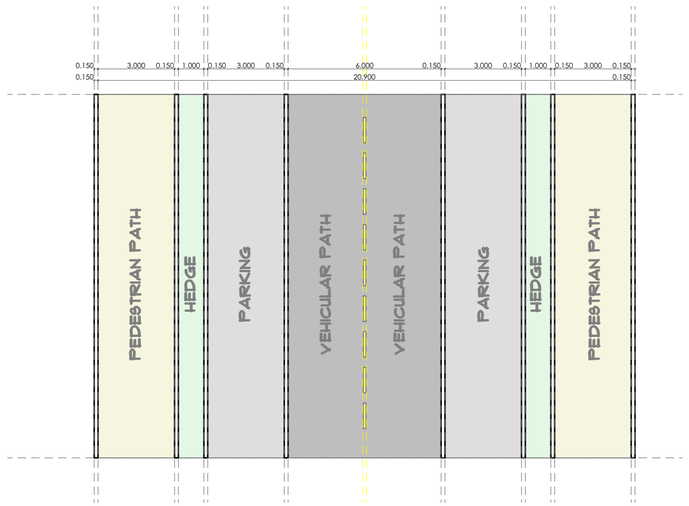


ROAD SECTIONAL PROFILE

ROAD ACTIVITY FLOW ILLUSTRATION

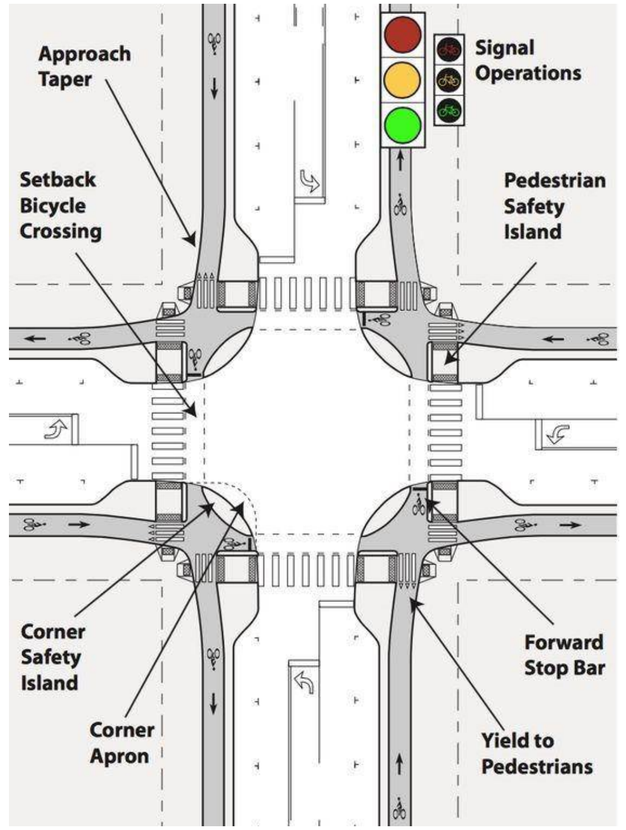


ROAD SECTIONAL PROFILE CONCEPT ILLUSTRATION

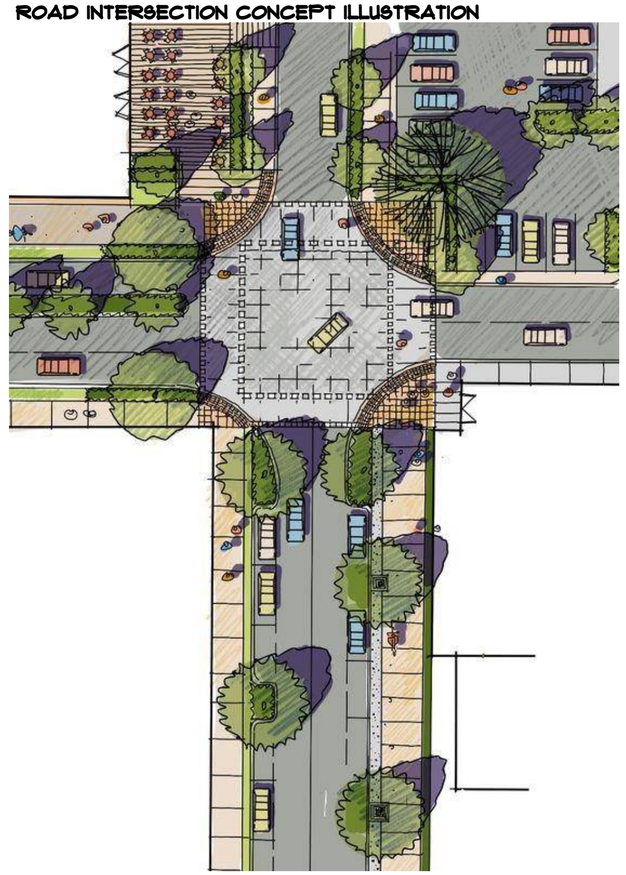


ROAD DESIGN OPTION C

ROAD INTERSECTION CONCEPT ILLUSTRATION



ROAD INTERSECTION CONCEPT ILLUSTRATION



ROAD INTERSECTION CONCEPT ILLUSTRATION

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CONSTRUCTION

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DPC to be 3ply bituminous felt to be provided under all walls.

STRUCTURAL

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MECHANICAL

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10. All testing of pipes must be coordinated with electrical and any conflicts must be resolved before works begin
11. Permanent vents denoted as P.V to be provided as shown on plan.

ELECTRICAL

All conduits must be laid before plastering

PROJECT:
PROPOSED AFFORDABLE HOUSING DEVELOPMENT IN

CLIENT:
Name: STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT
Signature:_ _ _ _ _ _ _ **Date:**_ _ _ _ _ _

DRAWING TITLE:
ROAD DESIGN **OPTION C**

SCALE:
1:500

DRAWN BY:
ML

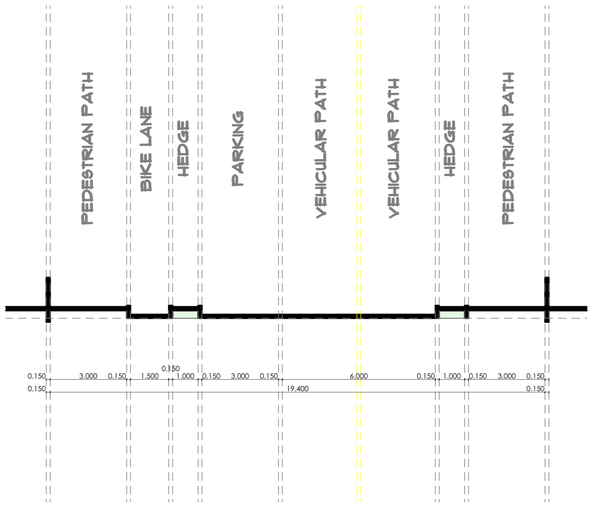
CHECKED BY:
Name:_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
Signature:_ _ _ _ _ _ _ **Date:**_ _ _ _ _ _

DATE:
MAY 2023

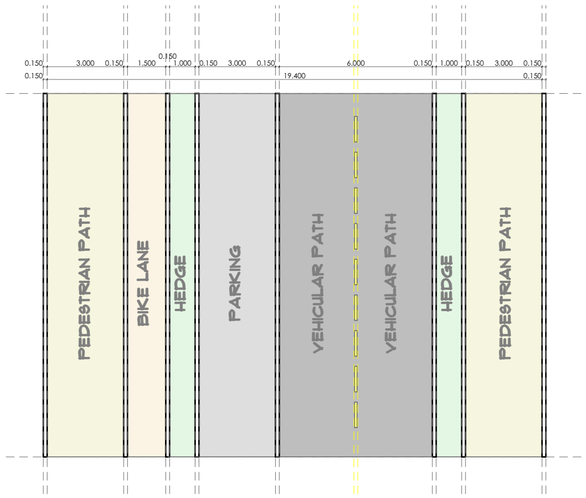
MINISTRY OF LANDS, PUBLIC WORKS, HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT FOR HOUSING & URBAN DEVELOPMENT

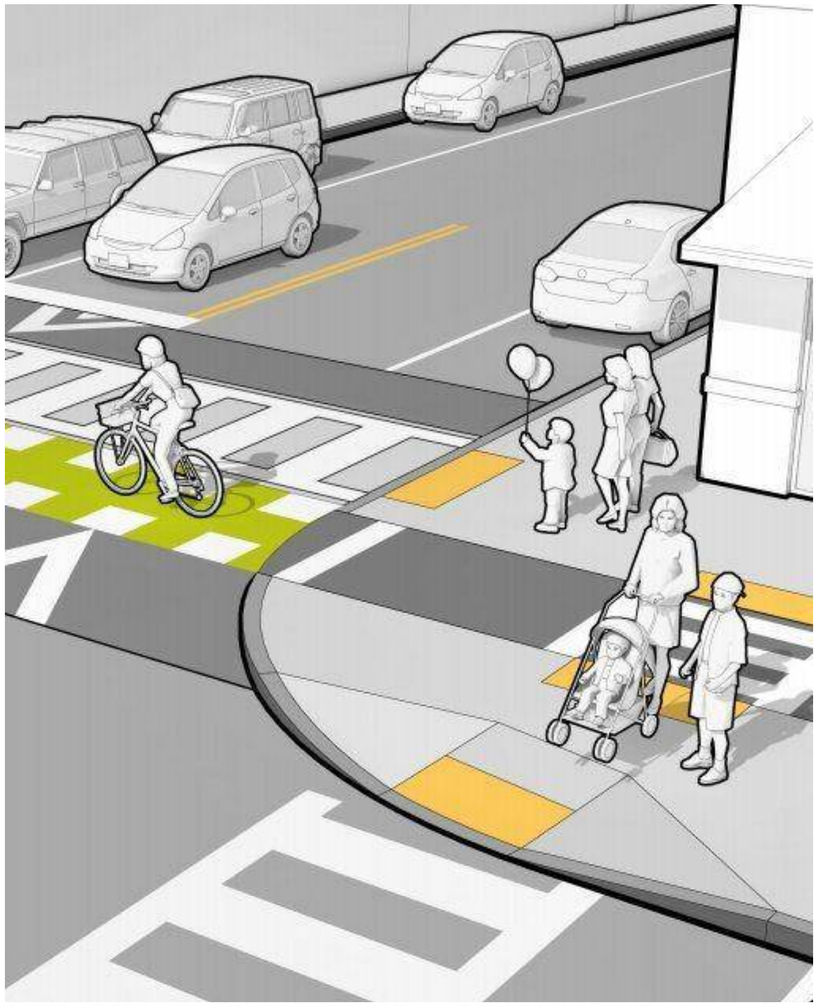
FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA



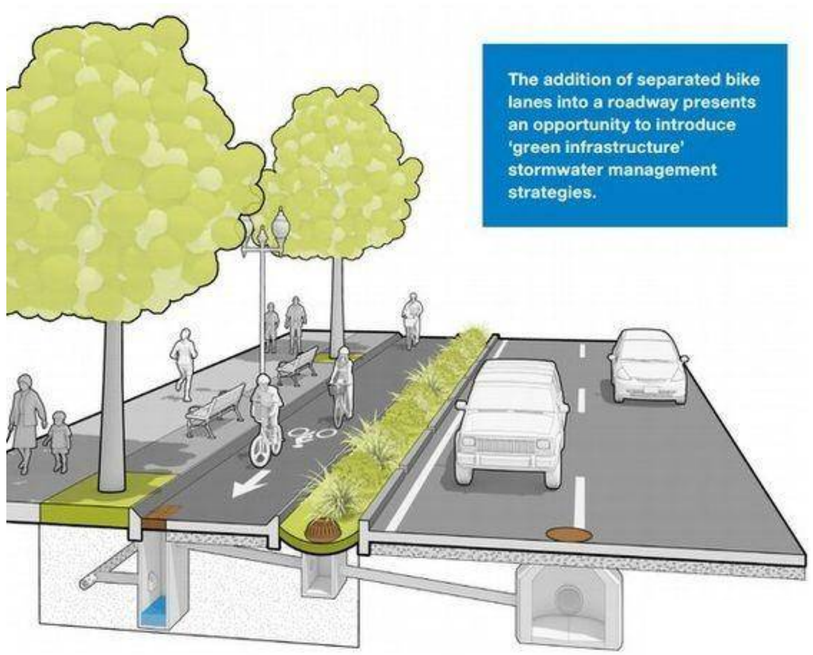
ROAD SECTIONAL PROFILE



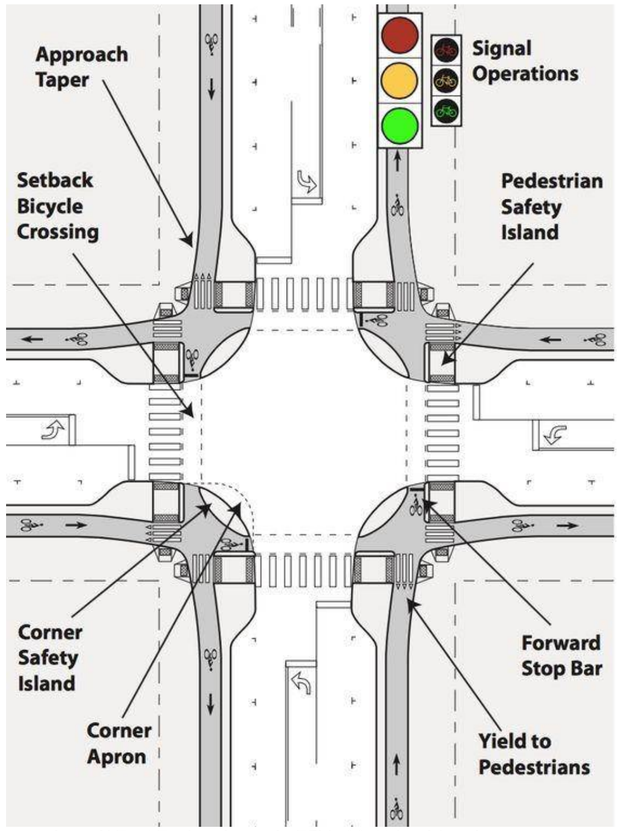
ROAD DESIGN OPTION D



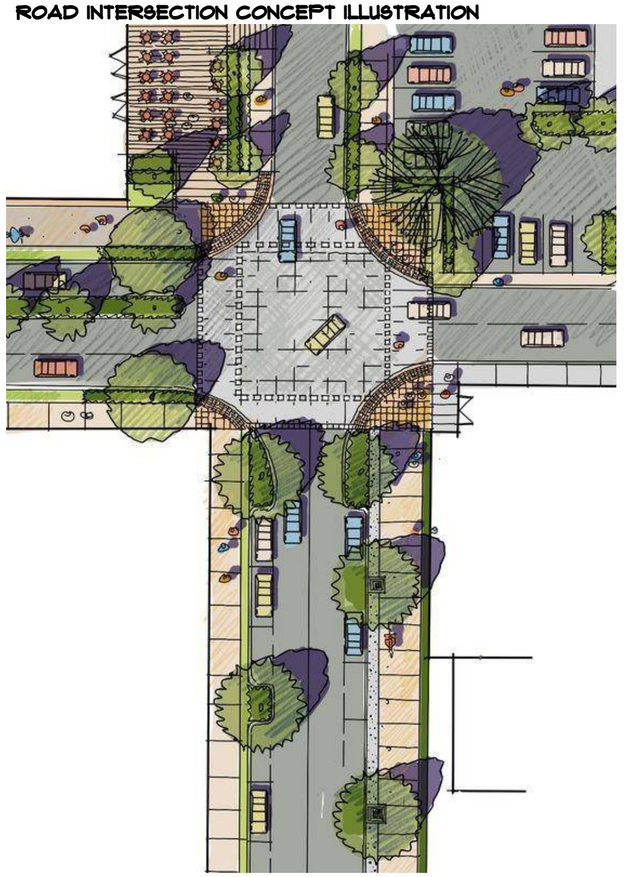
SAFETY PRECAUTION DESIGN AT ROAD INTERSECTIONS ILLUSTRATION



BIKE LANE AND VEHICULAR TRAFFIC INTERACTION ILLUSTRATION



ROAD INTERSECTION CONCEPT ILLUSTRATION



ROAD INTERSECTION CONCEPT ILLUSTRATION

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STRUCTURAL

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ELECTRICAL

All conduits must be laid before plastering

PROJECT:
PROPOSED AFFORDABLE HOUSING DEVELOPMENT IN

CLIENT:
Name: STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT
Signature:_ _ _ _ _ _ **Date:**_ _ _ _ _ _

DRAWING TITLE:
ROAD DESIGN **OPTION D**

SCALE:
1:500

DRAWN BY:
ML

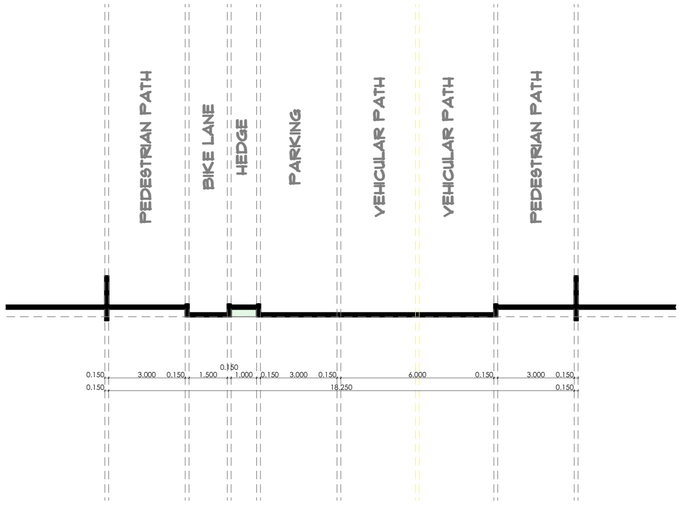
CHECKED BY:
Name:_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
Signature:_ _ _ _ _ _ **Date:**_ _ _ _ _ _

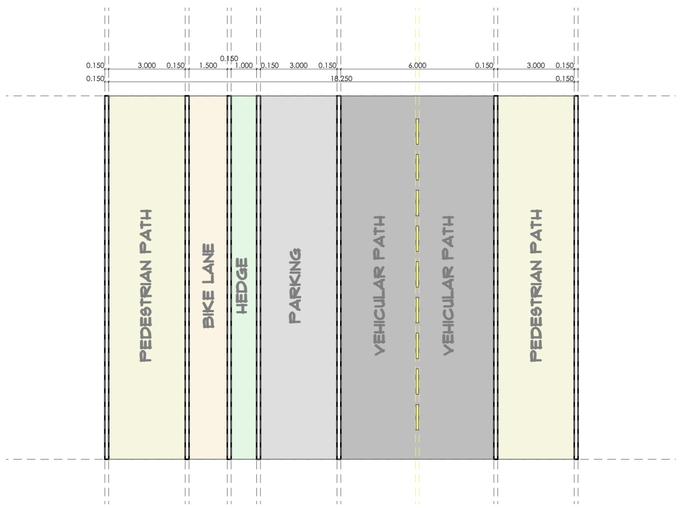
DATE:
MAY 2023

MINISTRY OF LANDS, PUBLIC WORKS, HOUSING AND URBAN DEVELOPMENT

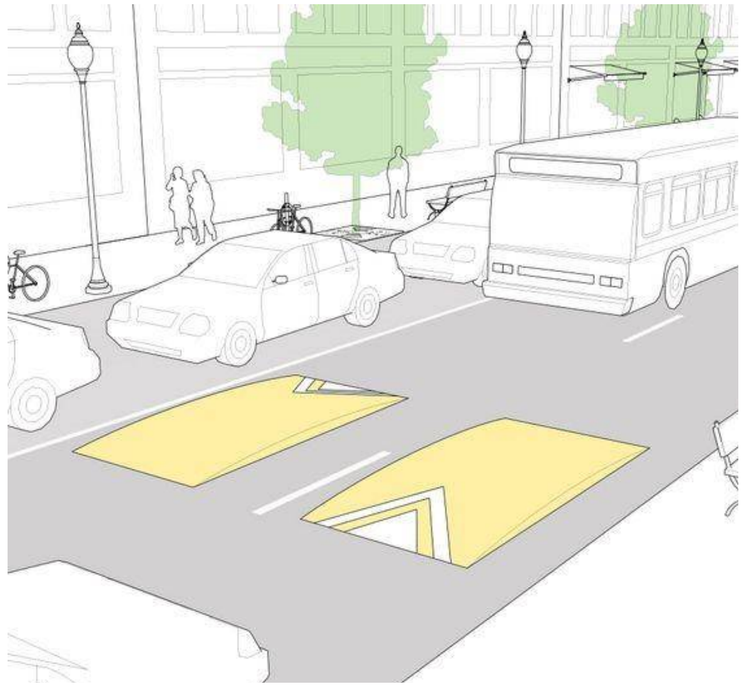
STATE DEPARTMENT FOR HOUSING & URBAN DEVELOPMENT

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA

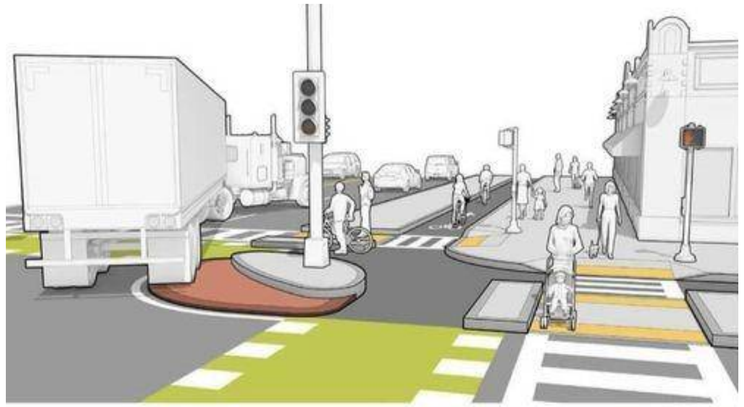




ROAD DESIGN OPTION E

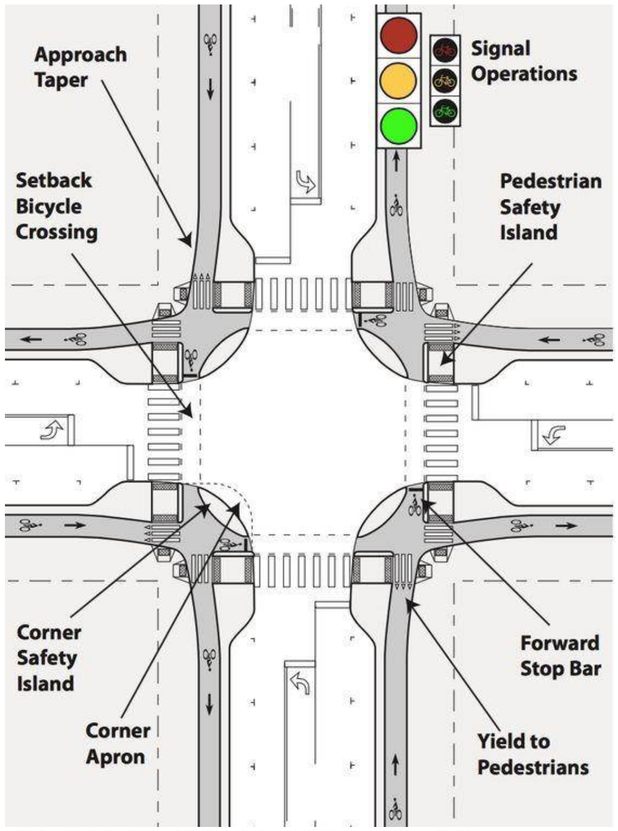


ROAD ACTIVITY FLOW ILLUSTRATION

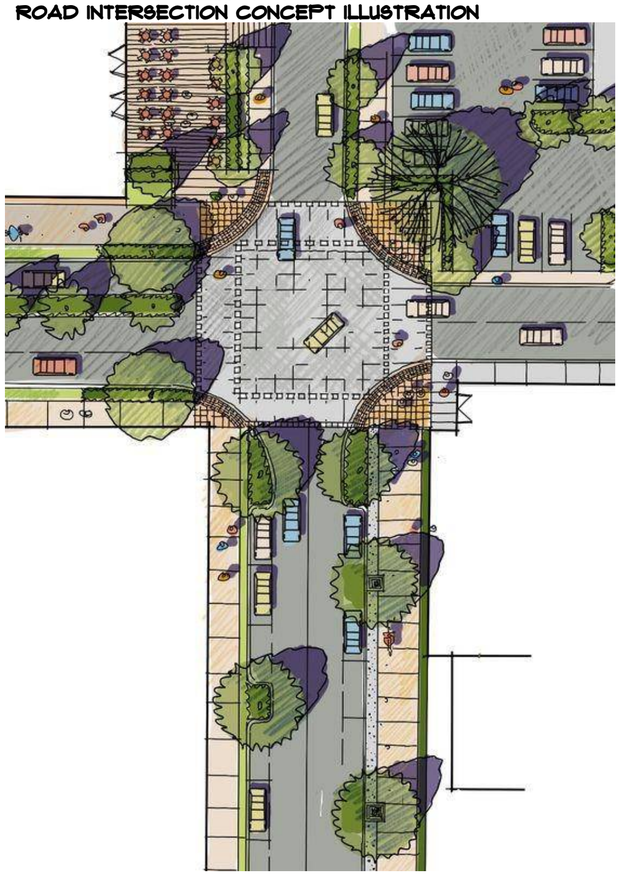


SAFETY PRECAUTION DESIGN AT ROAD INTERSECTIONS ILLUSTRATION

BIKE LANE AND VEHICULAR TRAFFIC INTERACTION ILLUSTRATION



ROAD INTERSECTION CONCEPT ILLUSTRATION



ROAD INTERSECTION CONCEPT ILLUSTRATION

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ELECTRICAL

All conduits must be laid before plastering

PROJECT:
PROPOSED AFFORDABLE HOUSING DEVELOPMENT IN

CLIENT:
Name: STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT
Signature:_ _ _ _ _ _ _ **Date:**_ _ _ _ _ _

DRAWING TITLE:
ROAD DESIGN **OPTION E**

SCALE:
1:500

DRAWN BY:
ML

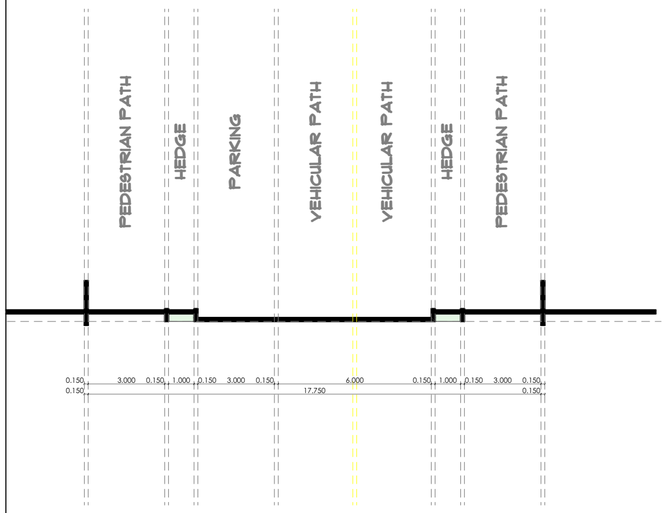
CHECKED BY:
Name:_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
Signature:_ _ _ _ _ _ _ **Date:**_ _ _ _ _ _

DATE:
MAY 2023

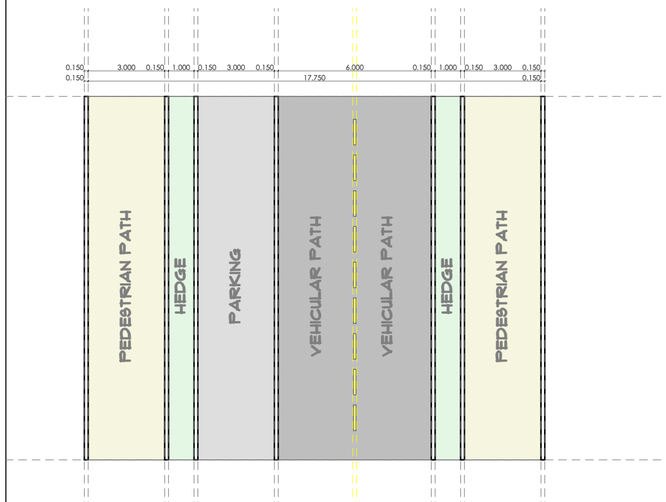
MINISTRY OF LANDS, PUBLIC WORKS, HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT FOR HOUSING & URBAN DEVELOPMENT

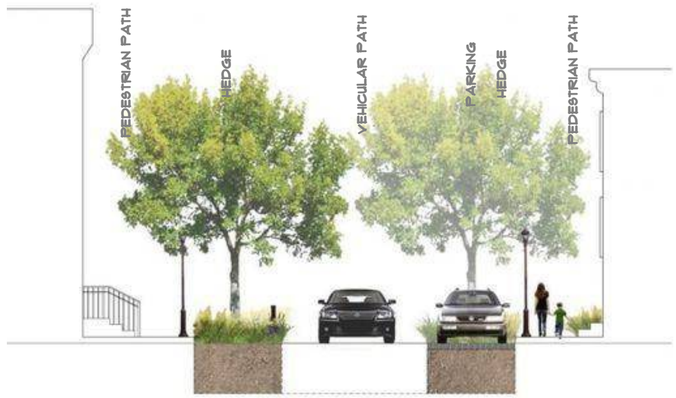
FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA



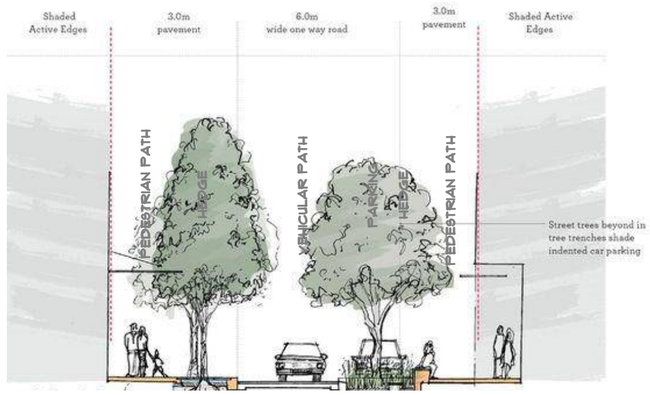
ROAD SECTIONAL PROFILE



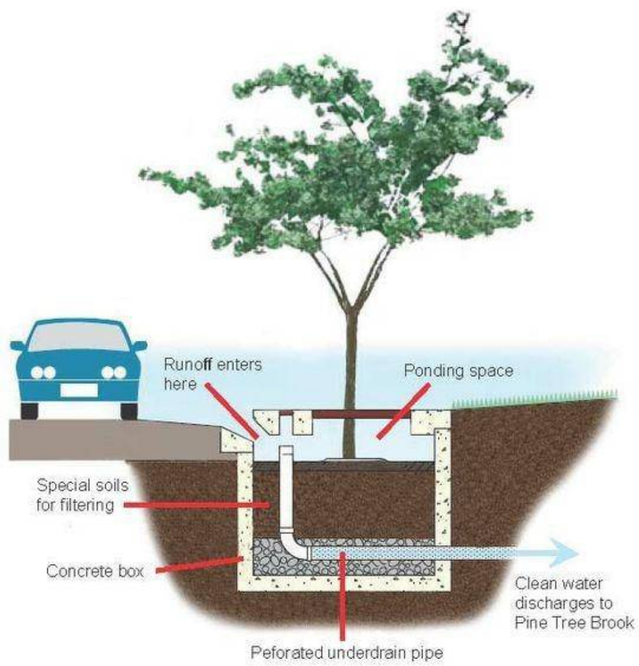
ROAD DESIGN OPTION F



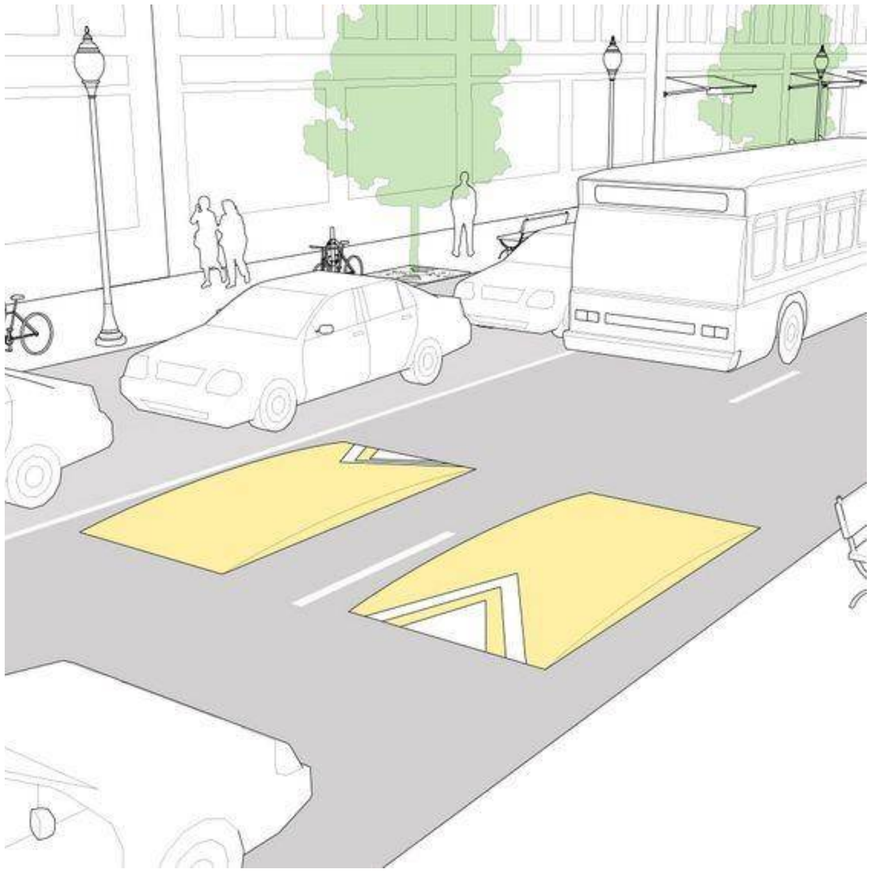
ROAD SECTIONAL PROFILE CONCEPT ILLUSTRATION



ROAD SECTIONAL PROFILE CONCEPT ILLUSTRATION



ROAD DRAINAGE TO HEDGE DETAIL CONCEPT



ROAD ACTIVITY FLOW ILLUSTRATION

ROAD ACTIVITY FLOW ILLUSTRATION

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PROJECT:
PROPOSED AFFORDABLE HOUSING DEVELOPMENT IN

CLIENT:
Name: STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT
Signature:_ _ _ _ _ _ **Date:**_ _ _ _ _ _

DRAWING TITLE:
ROAD DESIGN **OPTION F**

SCALE:
1:500

DRAWN BY:
ML

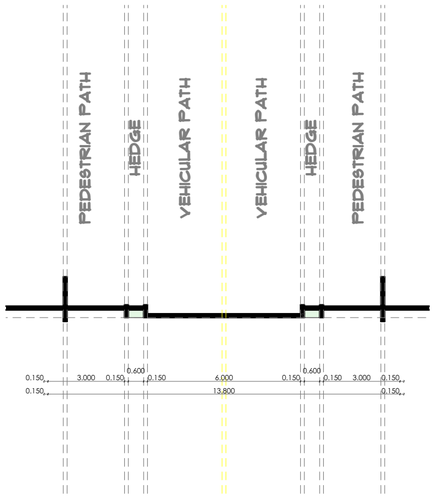
CHECKED BY:
Name:_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
Signature:_ _ _ _ _ _ **Date:**_ _ _ _ _ _

DATE:
MAY 2023

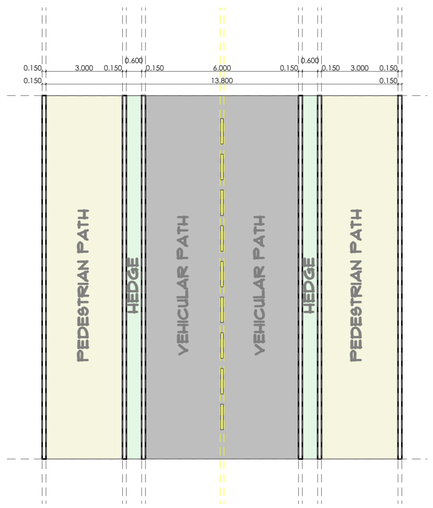
MINISTRY OF LANDS, PUBLIC WORKS, HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT FOR HOUSING & URBAN DEVELOPMENT

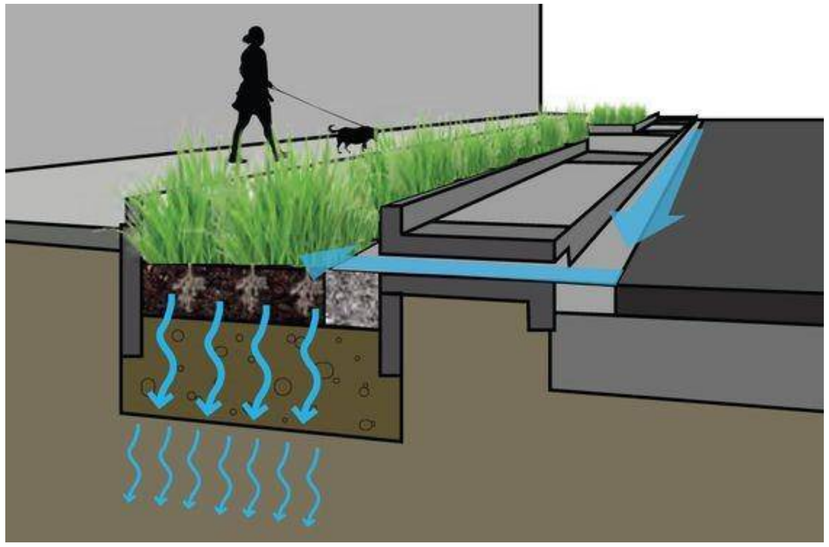
FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA



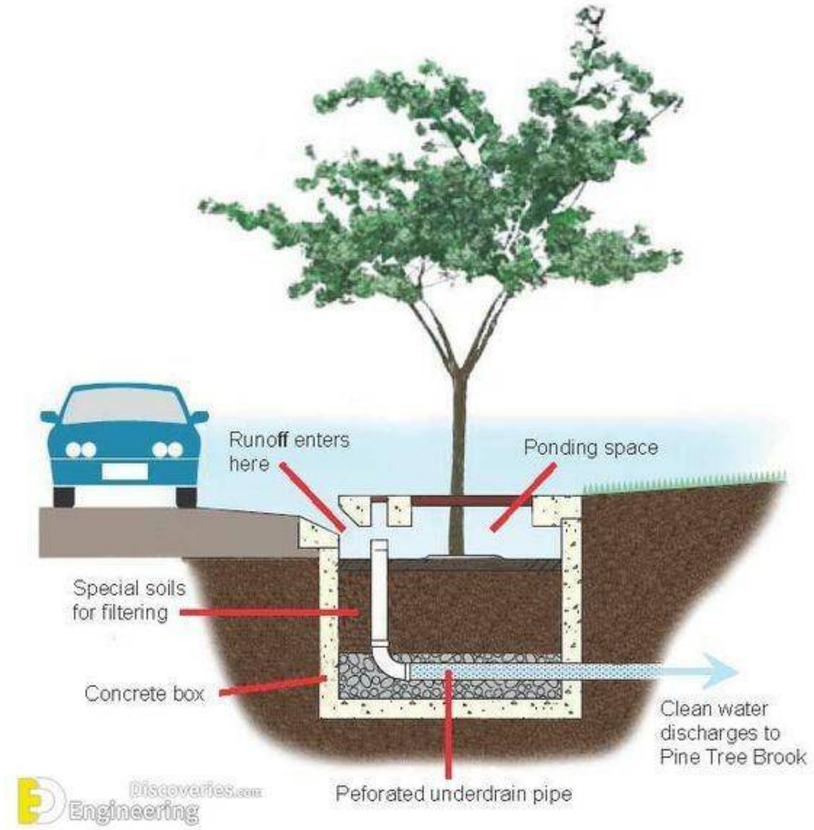
ROAD SECTIONAL PROFILE



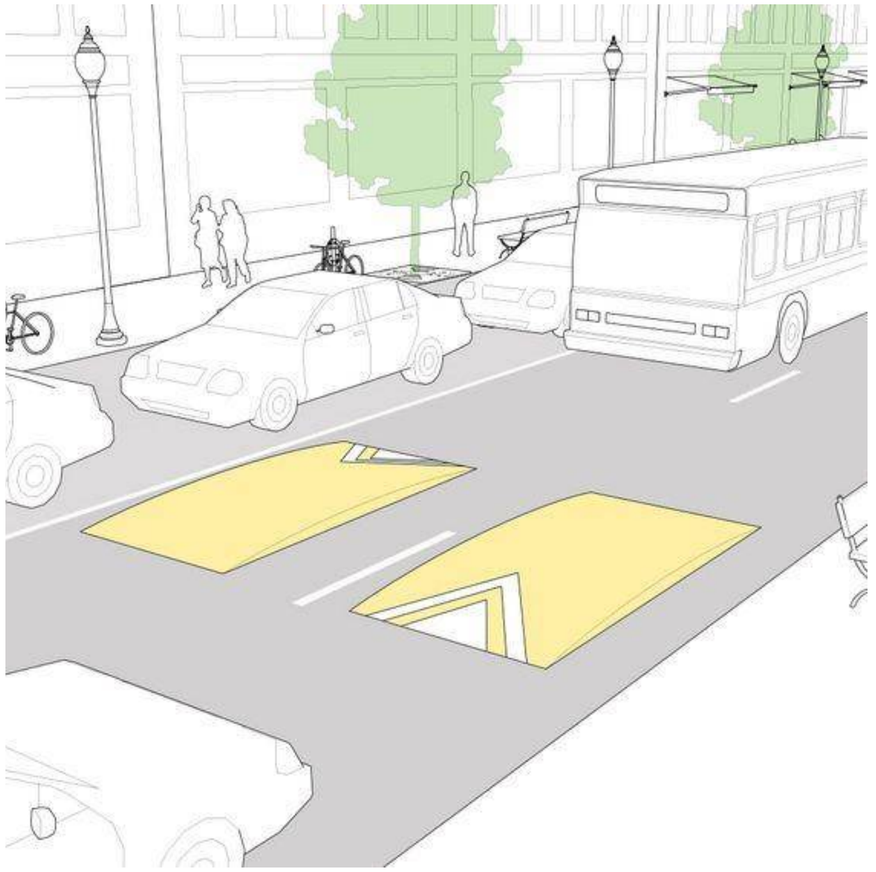
ROAD DESIGN OPTION G



ROAD DRAINAGE TO HEDGE DETAIL CONCEPT



ROAD DRAINAGE TO HEDGE DETAIL CONCEPT



ROAD ACTIVITY FLOW ILLUSTRATION

ROAD ACTIVITY FLOW ILLUSTRATION

GENERAL NOTES

1. This drawing to be read in conjunction with Engineers' drawings.
2. All dimensions are in mm unless otherwise specified.
3. Drawings are not to be scaled. Only figured dimensions should be used.
4. The contractor must check and verify all dimensions before commencement of work and if necessary confirm with the architect.

CONSTRUCTION

Approved anti-termite treatment & 1000 gauge polythene sheeting cover to be provided under all ground floor concrete slab on compacted hardcore to approval.
DPC to be 3ply bituminous felt to be provided under all walls.

STRUCTURAL

1. All Black cotton soil to be removed from below all building and paved surfaces
2. All reinforced concrete work will be in accordance with structural drawings.
3. Foundation depths to be determined on site to S.E approval
4. All walls less than 200mm thick to be reinforced with hoop iron at every alternate course.
5. All adjacent R.C work and masonry walls to be tied with strap irons at every course

MECHANICAL

1. All Plumbing and Drainage Work to comply with specifications
2. S.V.P denotes soil vent pipe and to be provided at the head of the drainage
3. Where drainage is shown under driveways and slabs, to be encased in 150mm thick concrete surround.
4. All underground foul and waste drain pipes shall be of PVC to comply with BS5255
5. All ICs within building area, driveway and parking to have heavy duty,double-seal airtight covers and walls to be 200mm.
6. Minimum slope in the drain pipes to be 1%
7. No chases for pipes will be allowed in the slabs
8. Sleeves will be allowed with written approval from S.E.
9. No cutting of concrete without express approval of the Architect or S.E
10. All testing of pipes must be coordinated with electrical and any conflicts must be resolved before works begin
11. Permanent vents denoted as P.V to be provided as shown on plan.

ELECTRICAL

All conduits must be laid before plastering

PROJECT:
PROPOSED AFFORDABLE HOUSING DEVELOPMENT IN

CLIENT:
Name: STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT
Signature:_ _ _ _ _ _ _ **Date:**_ _ _ _ _ _

DRAWING TITLE:
ROAD DESIGN **OPTION G**

SCALE:
1:500

DRAWN BY:
ML

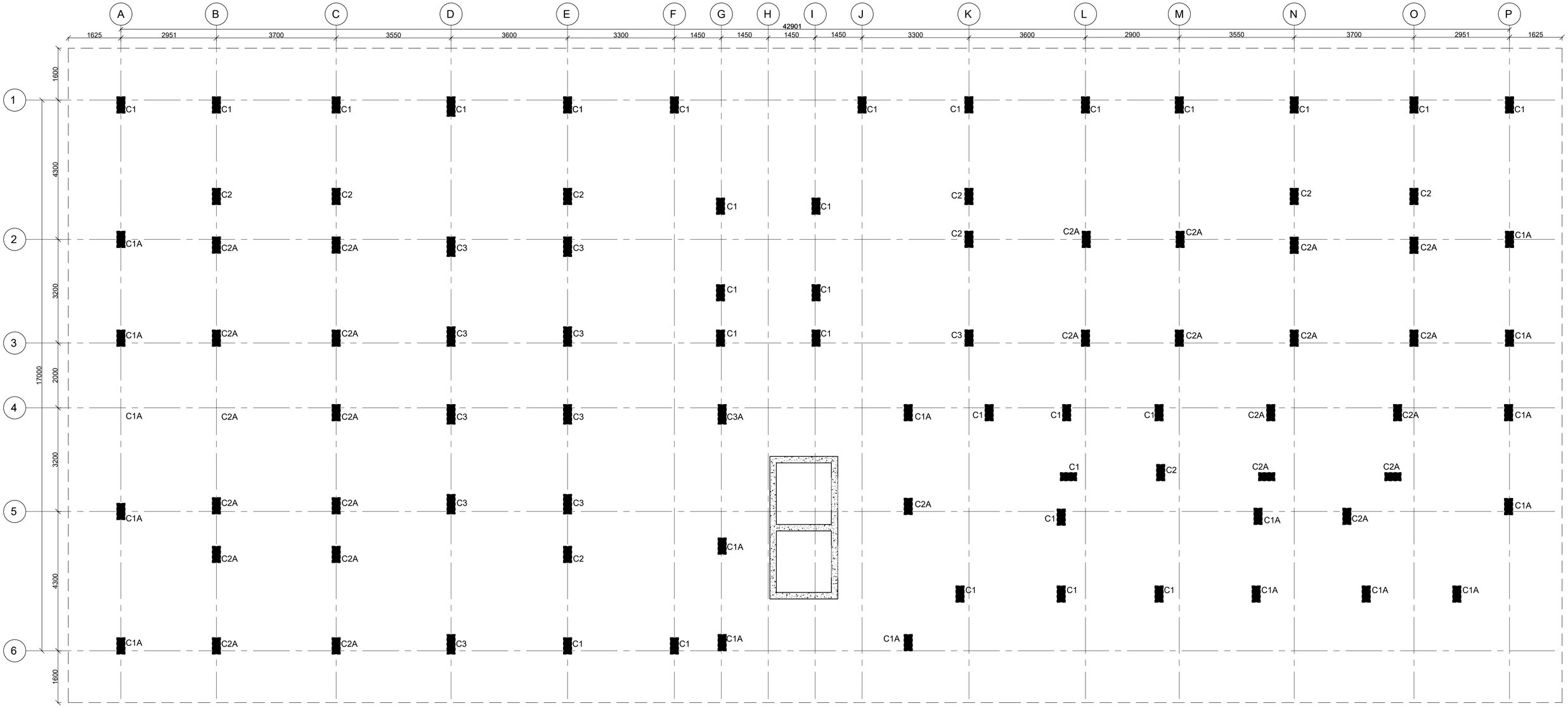
CHECKED BY:
Name:_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
Signature:_ _ _ _ _ _ _ **Date:**_ _ _ _ _ _

DATE:
MAY 2023

MINISTRY OF LANDS, PUBLIC WORKS, HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT FOR HOUSING & URBAN DEVELOPMENT

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA



FOUNDATION LAYOUT
RAFT 750mm DEEP
SCALE 1:60

NOTE:

1. Foundations to be excavated to a minimum depth of 3.0m
2. Introduce a 300x200 ground beam over all the foundation wallings
3. All masonry units to be machine cut blocks

NOTES
1. All dimensions are in millimetres unless otherwise stated.
2. All reinforcements must be checked and approved by project structural engineer prior to concreting.
3. All reinforced concrete to be Class 25 mix and blinding concrete to be Class 15 mix.
4. Only figured dimensions to be taken from this drawing.
5. Any descripancy indimensions to be reported to the project consultants i.e architect or engineer.

6. Symbols; T-TMT Rebars to BS 4461: T - Top face, B - Bottom face
7. Cover to reinforcement; Slabs - 20mm, Beams - 25mm,Columns - 40mm, Foundations -50mm
8. All structural steel be grade 43A.
9. All welds are 6mm thick.
10. All structural steel to be painted with anti-rust primmer paint.

Client
MINISTRY OF LANDS, PUBLIC WORKS, HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

STRUCTURAL ENGINEER:

Designed by: M.K.M | *Checked by: R.M.O*

Approved by: SECRETARY, HOUSING DEPARTMENT

Date: 29TH MARCH 2024 | *Scale: As shown*

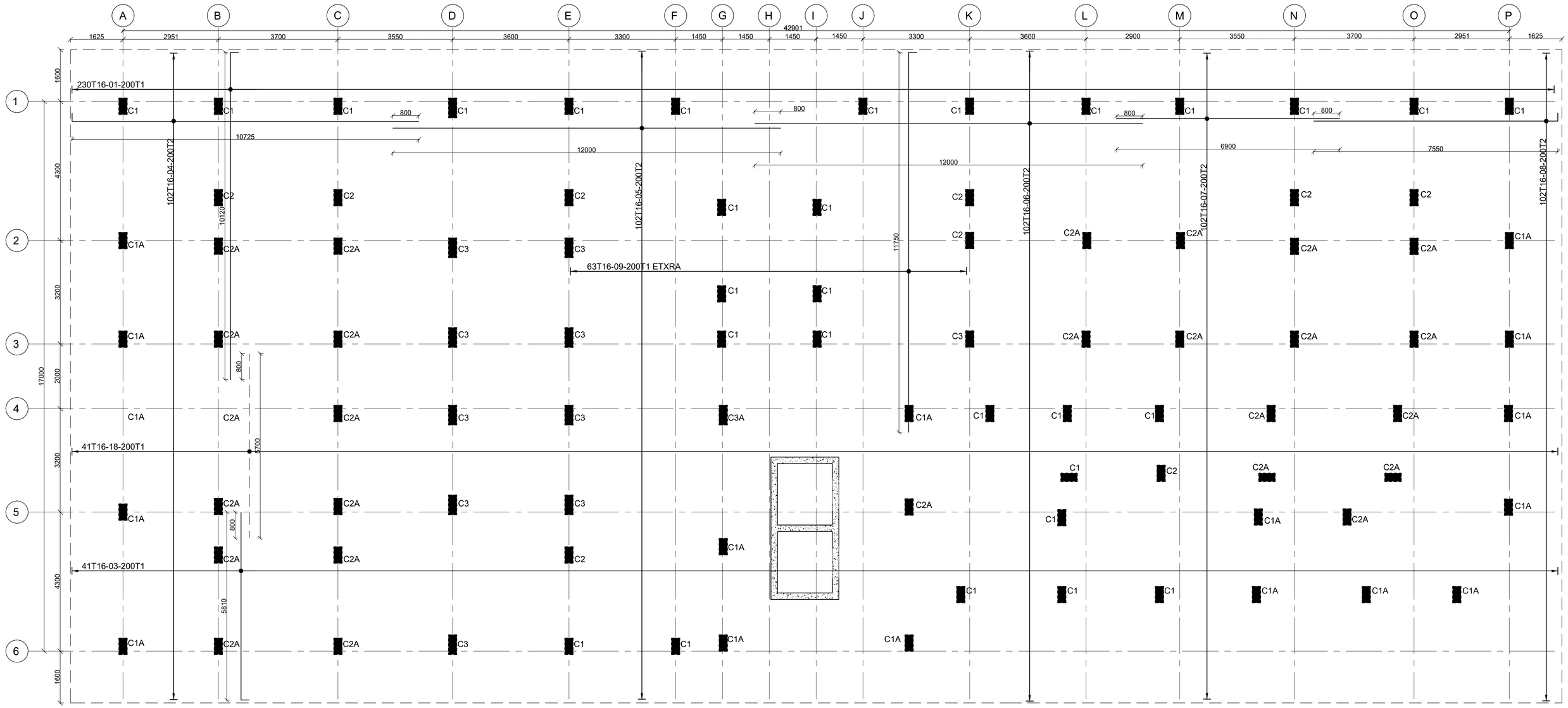
Drawing Number: AHP-G+9-BLKB 01A

Project
PROPOSED AFFORDABLE HOUSING PROGRAM-G+9 BLOCK B CHUKA

Title
FOUNDATION LAYOUT.

Revisions

No.	Description	Date



TOP BARS (T1/T2)
SCALE 1:60

NOTE:

1. Foundations to be excavated to a minimum depth of 3.0m
2. Introduce a 300x200 ground beam over all the foundation wallings
3. All masonry units to be machine cut blocks

NOTES
1. All dimensions are in millimetres unless otherwise stated.
2. All reinforcements must be checked and approved by project structural engineer prior to concreting.
3. All reinforced concrete to be Class 25 mix and blinding concrete to be Class 15 mix.
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6. Symbols; T-TMT Rebars to BS 4461: T - Top face, B - Bottom face
7. Cover to reinforcement; Slabs - 20mm, Beams - 25mm,Columns - 40mm, Foundations -50mm
8. All structural steel be grade 43A.
9. All welds are 6mm thick.
10. All structural steel to be painted with anti-rust primmer paint.

Client
MINISTRY OF LANDS, PUBLIC WORKS, HOUSING AND URBAN DEVELOPMENT
STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

STRUCTURAL ENGINEER:

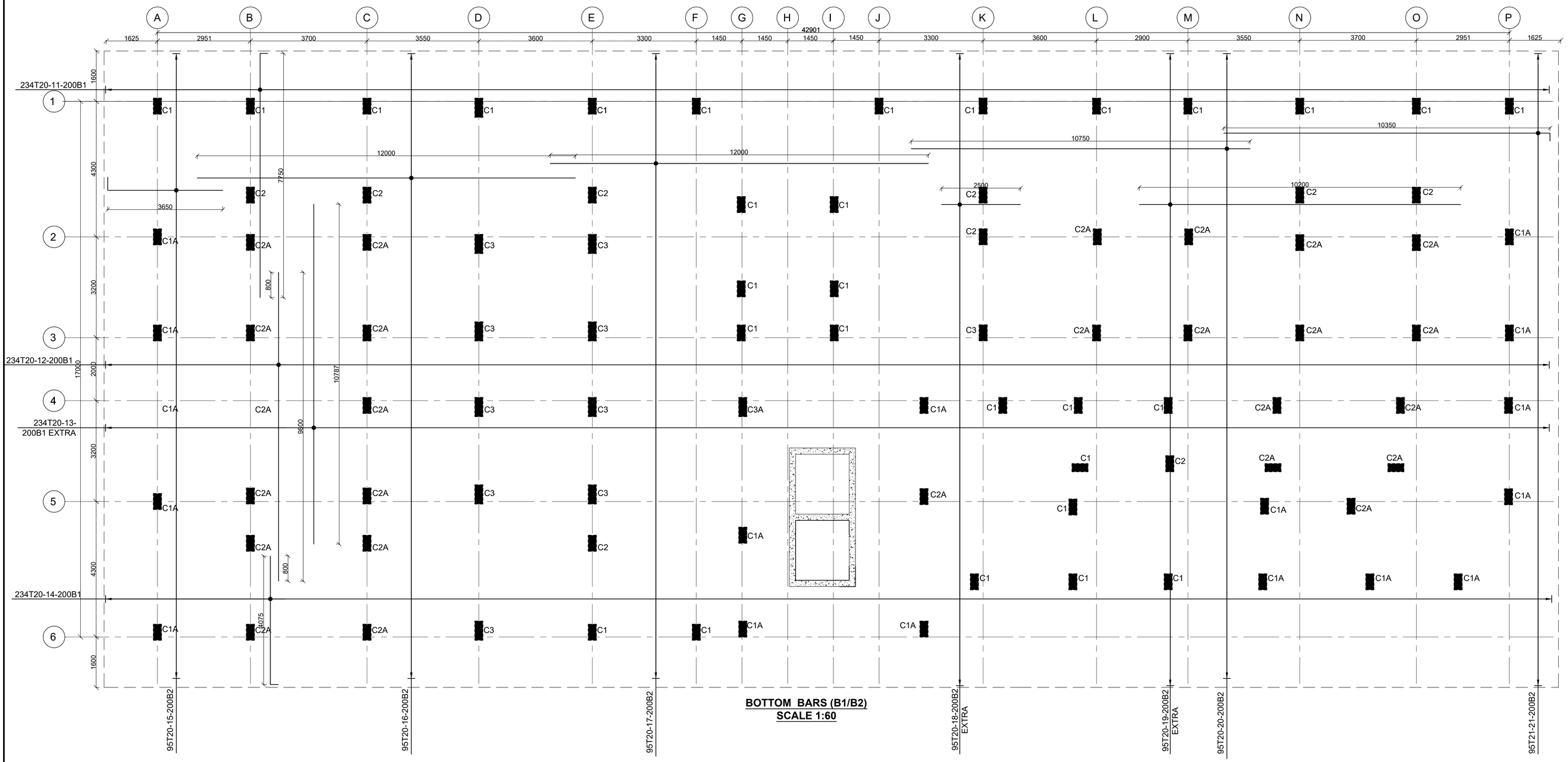
Designed by: M.K.M | *Checked by: R.M.O*
Approved by: SECRETARY, HOUSING DEPARTMENT
Date: 29TH MARCH 2024 | *Scale: As shown*
Drawing Number: AHP-G+9-BLKB 01

Project
PROPOSED AFFORDABLE HOUSING PROGRAM-G+9 BLOCK B CHUKA

Title
FOUNDATION LAYOUT-TOP BARS.

Revisions

No.	Description	Date



BOTTOM BARS (B1/B2)
SCALE 1:60

NOTE:

1. Foundations to be excavated to a minimum depth of 3.0m
2. Introduce a 300x200 ground beam over all the foundation wallings
3. All masonry units to be machine cut blocks

NOTES
1. All dimensions are in millimetres unless otherwise stated.
2. All reinforcements must be checked and approved by project structural engineer prior to concreting.
3. All reinforced concrete to be Class 25 mix and blinding concrete to be Class 15 mix.
4. Only figured dimensions to be taken from this drawing.
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6. Symbols; T-TMT Rebars to BS 4461: T - Top face B - Bottom face
7. Cover to reinforcement; Slabs - 20mm, Beams - 25mm,Columns - 40mm, Foundations -50mm
8. All structural steel be grade 43A.
9. All welds are 6mm thick.
10. All structural steel to be painted with anti-rust primmer paint.

Client
MINISTRY OF LANDS, PUBLIC WORKS, HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

STRUCTURAL ENGINEER:

Designed by: M.K.M | *Checked by: R.M.O*

Approved by: SECRETARY, HOUSING DEPARTMENT

Date: 29TH MARCH 2024 | *Scale: As shown*

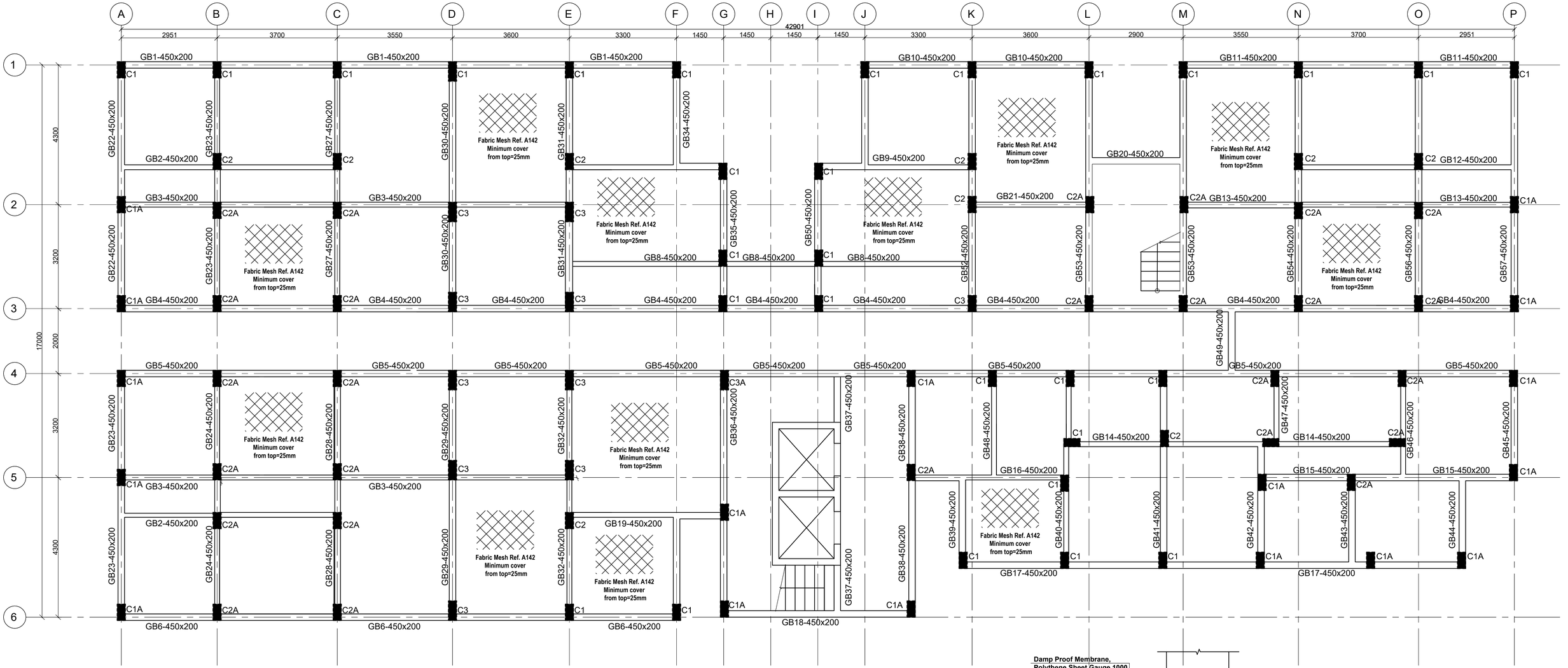
Drawing Number: AHP-G+9-BLKB 02

Project
PROPOSED AFFORDABLE HOUSING PROGRAM-G+9 BLOCK B CHUKA

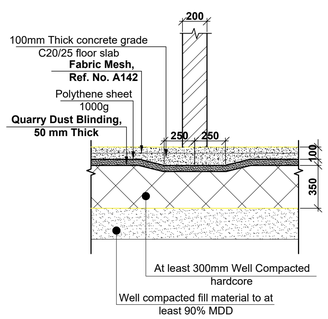
Title
FOUNDATION LAYOUT-BOTTOM BARS.

Revisions

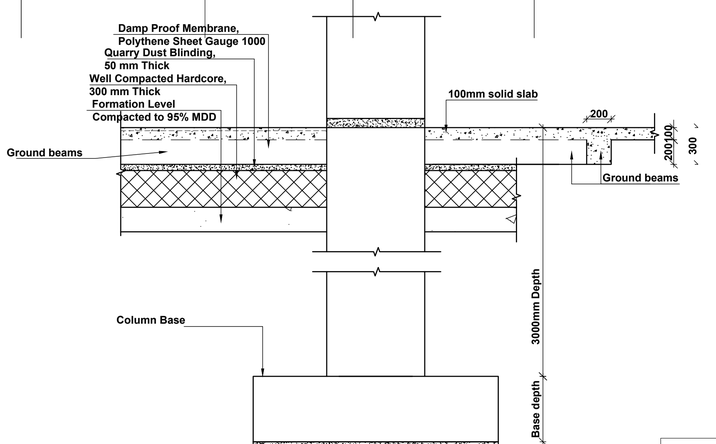
No.	Description	Date



GROUND FLOOR LAYOUT
100mm THICK SOLID SLAB ON GRADE
SCALE 1:60



SLAB THICKENING SECTION THROUGH
WALLS WITHOUT GROUND BEAMS
SCALE 1:25



TYPICAL SECTION THROUGH GROUND BEAM
SCALE 1:25

NOTE:

1. Foundations to be excavated to a minimum depth of 3.0m
2. Introduce a 300x200 ground beam over all the foundation wallings
3. All masonry units to be machine cut blocks

NOTES
1. All dimensions are in millimetres unless otherwise stated.
2. All reinforcements must be checked and approved by project structural engineer prior to concreting.
3. All reinforced concrete to be Class 25 mix and blinding concrete to be Class 15 mix.
4. Only figured dimensions to be taken from this drawing.
5. Any descripancy indimensions to be reported to the project consultants i.e architect or engineer.

6. Symbols; T-TMT Rebars to BS 4461: T - Top face
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7. Cover to reinforcement; Slabs - 20mm, Beams - 25mm,Columns - 40mm, Foundations -50mm
8. All structural steel be grade 43A.
9. All welds are 6mm thick.
10. All structural steel to be painted with anti-rust primmer paint.

Client
MINISTRY OF LANDS, PUBLIC WORKS, HOUSING AND URBAN DEVELOPMENT
STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

STRUCTURAL ENGINEER:

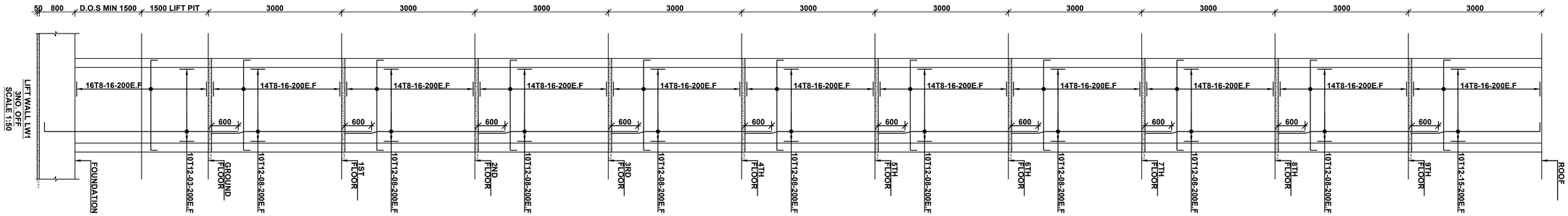
Designed by: M.K.M | *Checked by: R.M.O*
Approved by: SECRETARY, HOUSING DEPARTMENT
Date: 29TH MARCH 2024 | *Scale: As shown*
Drawing Number: AHP-G+9-BLKB 03

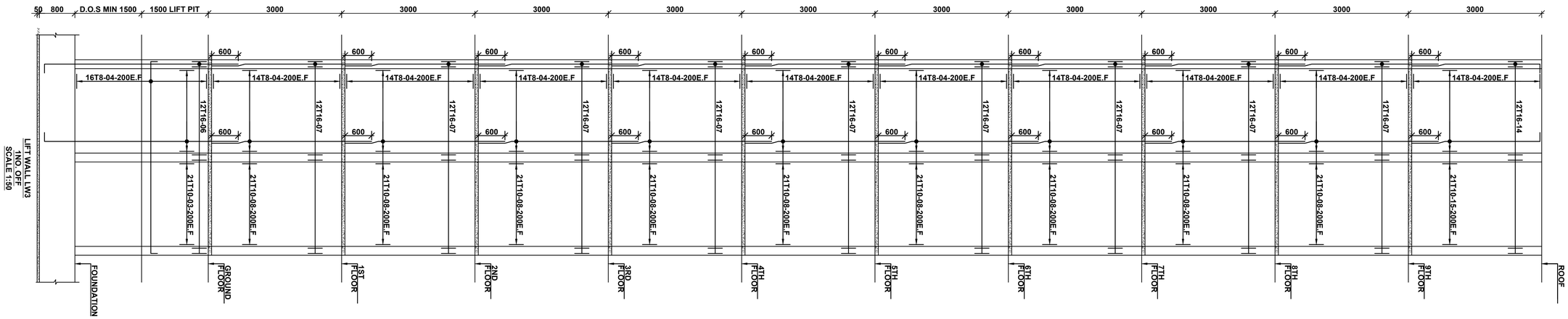
Project
PROPOSED AFFORDABLE HOUSING PROGRAM-G+9 BLOCK B CHUKA

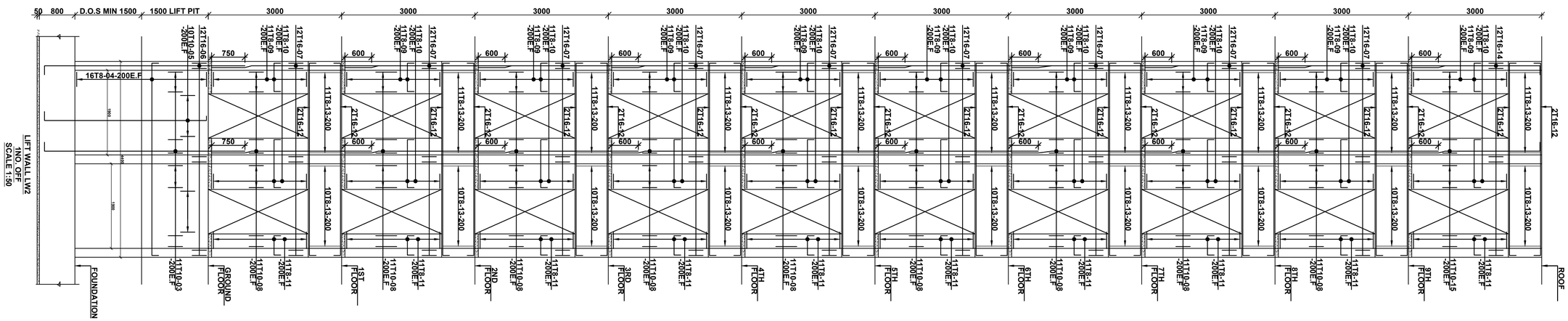
Title
GROUND FLOOR LAYOUT.

Revisions

No.	Description	Date







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8. All structural steel be grade 43A.
9. All welds are 6mm thick.
10. All structural steel to be painted with anti-rust primmer paint.

Client
MINISTRY OF LANDS, PUBLIC WORKS, HOUSING AND URBAN DEVELOPMENT
STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

STRUCTURAL ENGINEER:

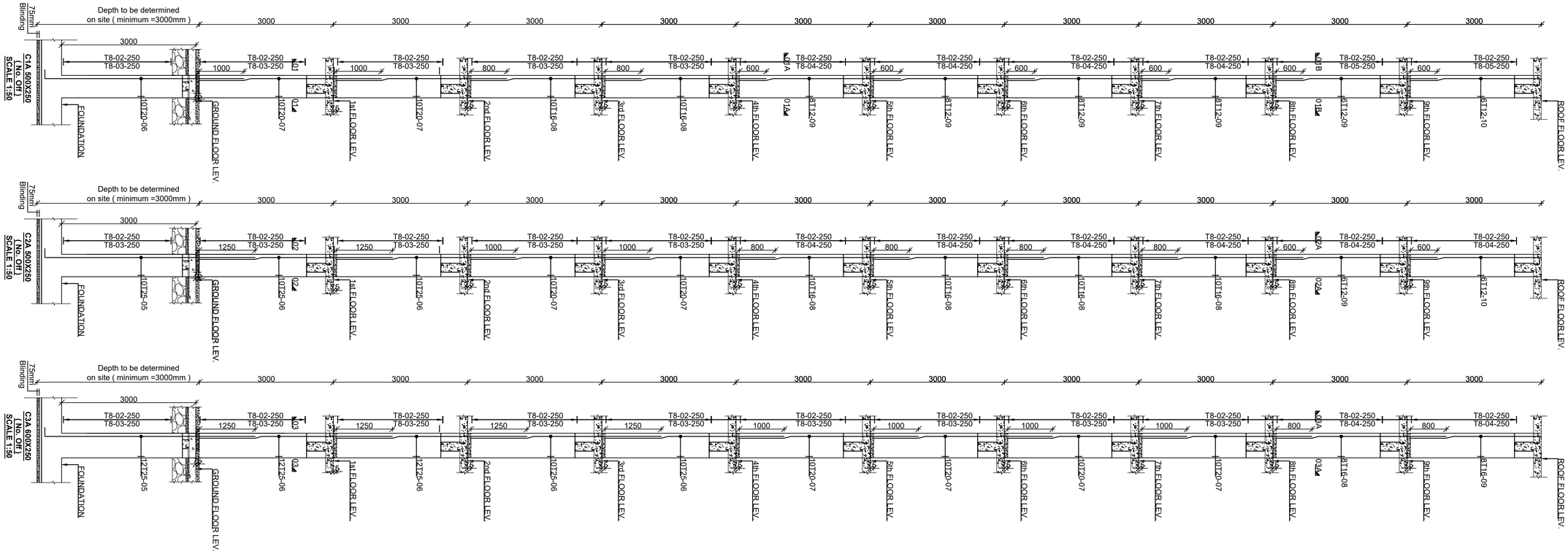
Designed by: M.K.M | *Checked by: R.M.O*
Approved by: SECRETARY, HOUSING DEPARTMENT
Date: 29TH MARCH 2024 | *Scale: As shown*
Drawing Number: AHP-G+9-BLKB 04

Project
PROPOSED AFFORDABLE HOUSING PROGRAM-G+9 BLOCK B CHUKA

Title
LIFT DETAILS

Revisions

No.	Description	Date



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Client
MINISTRY OF LANDS, PUBLIC WORKS, HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

STRUCTURAL ENGINEER:

Designed by: M.K.M | *Checked by: R.M.O*

Approved by: SECRETARY, HOUSING DEPARTMENT

Date: 29TH MARCH 2024 | *Scale: As shown*

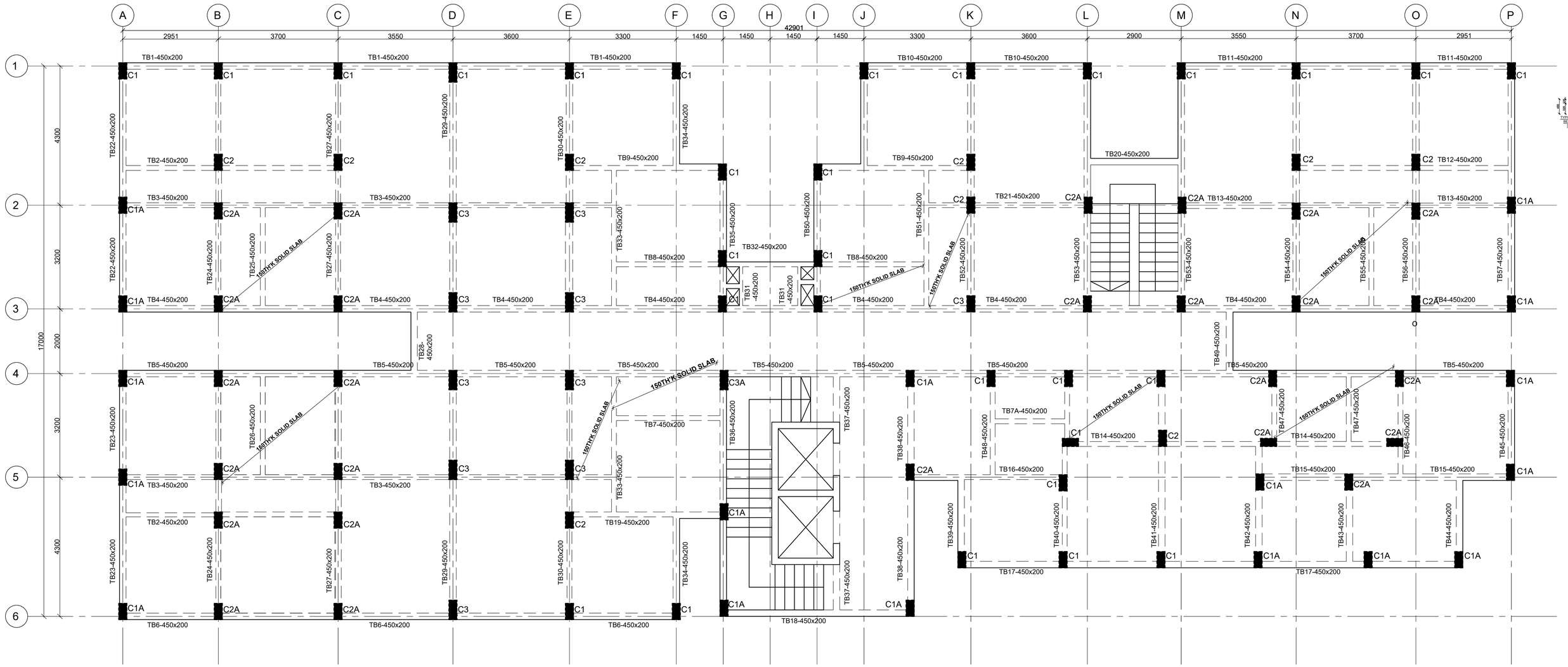
Drawing Number: AHP-G+9-BLKB 05

Project
PROPOSED AFFORDABLE HOUSING PROGRAM-G+9 BLOCK B CHUKA

Title
COLUMN DETAILS.

Revisions

No.	Description	Date



TYPICAL 1ST FLOOR LAYOUT
130mm THICK SOLID SLAB UNLESS SPECIFIED OTHERWISE
SCALE 1:60

NOTE:

1. Foundations to be excavated to a minimum depth of 3.0m
2. Introduce a 300x200 ground beam over all the foundation wallings
3. All masonry units to be machine cut blocks

NOTES
1. All dimensions are in millimetres unless otherwise stated.
2. All reinforcements must be checked and approved by project structural engineer prior to concreting.
3. All reinforced concrete to be Class 25 mix and blinding concrete to be Class 15 mix.
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Client
MINISTRY OF LANDS, PUBLIC WORKS, HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

STRUCTURAL ENGINEER:

Designed by: M.K.M | *Checked by: R.M.O*

Approved by: SECRETARY, HOUSING DEPARTMENT

Date: 29TH MARCH 2024 | *Scale: As shown*

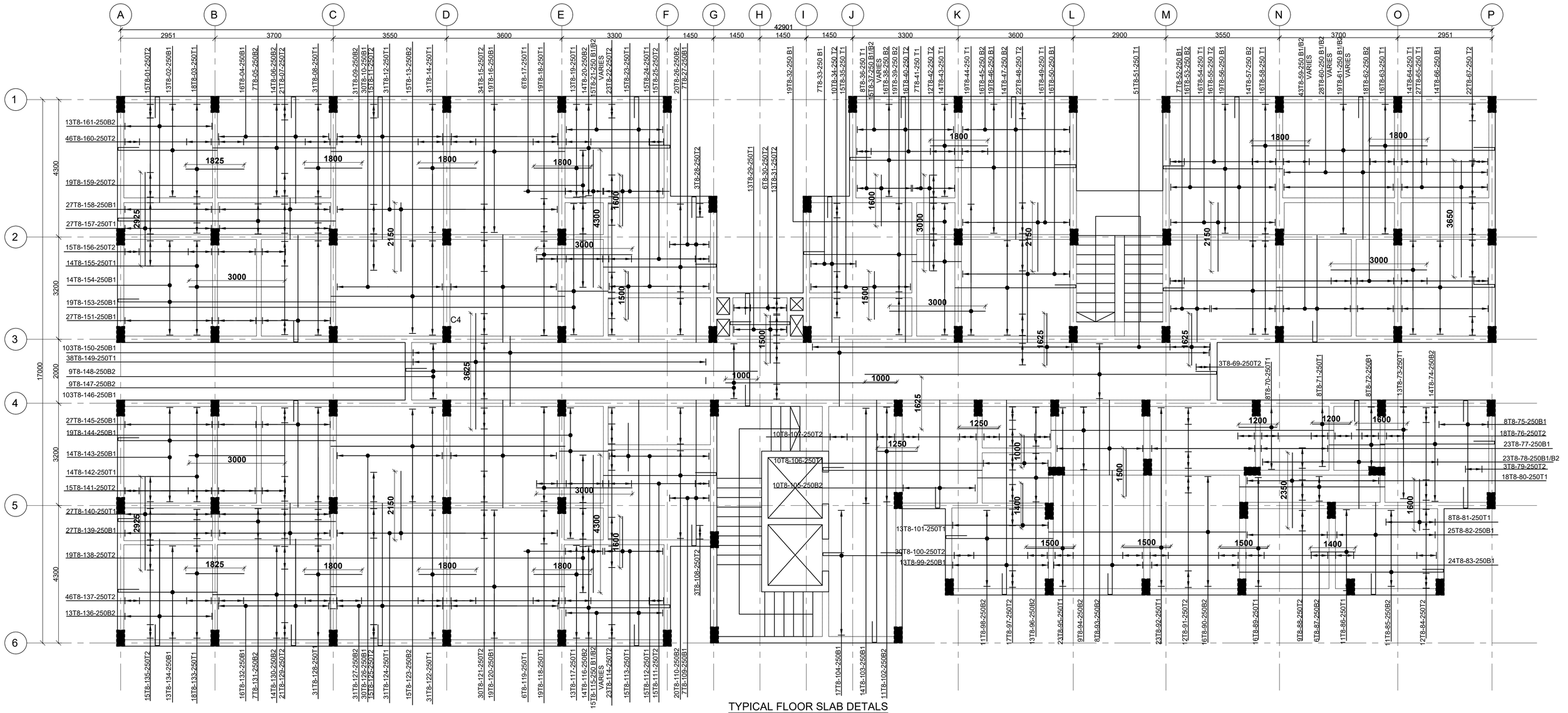
Drawing Number: AHP-G+9-BLKB 06

Project
PROPOSED AFFORDABLE HOUSING PROGRAM-G+9 BLOCK B CHUKA

Title
TYPICAL FLOOR LAYOUT.

Revisions

No.	Description	Date



TYPICAL FLOOR SLAB DETAILS
130mm THICK SOLID SLAB UNLESS SPECIFIED OTHERWISE
SCALE 1:60

NOTE:

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2. Introduce a 300x200 ground beam over all the foundation wallings
3. All masonry units to be machine cut blocks

NOTES
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2. All reinforcements must be checked and approved by project structural engineer prior to concreting.
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9. All welds are 6mm thick.
10. All structural steel to be painted with anti-rust primmer paint.

Client
MINISTRY OF LANDS, PUBLIC WORKS, HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

STRUCTURAL ENGINEER:

Designed by: M.K.M | *Checked by: R.M.O*

Approved by: SECRETARY, HOUSING DEPARTMENT

Date: 29TH MARCH 2024 | *Scale: As shown*

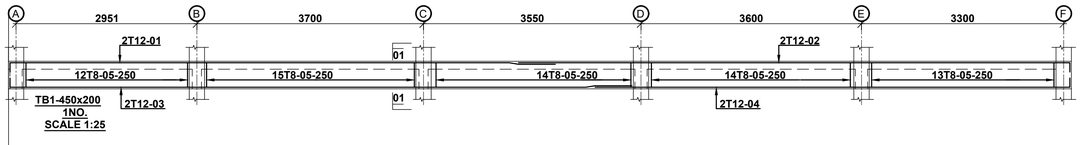
Drawing Number: AHP-G+9-BLKB 07

Project
PROPOSED AFFORDABLE HOUSING PROGRAM-G+9 BLOCK B CHUKA

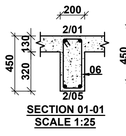
Title
TYPICAL SLAB DETAILS.

Revisions

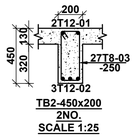
No.	Description	Date



TB1-450x200
1NO.
SCALE 1:25



SECTION 01-01
SCALE 1:25



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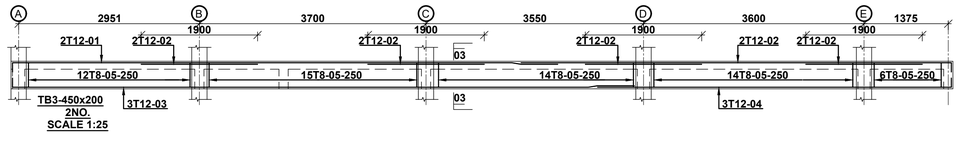
SCALE 1:25



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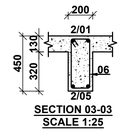
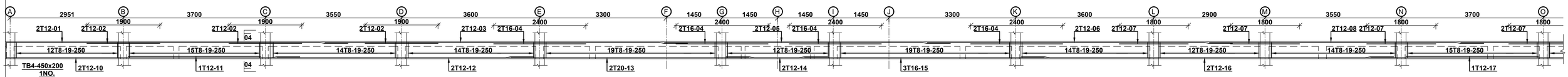
SCALE 1:25



SECTION 03-03
SCALE 1:25



TB4-450x200
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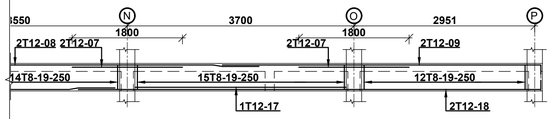
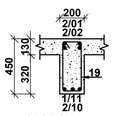
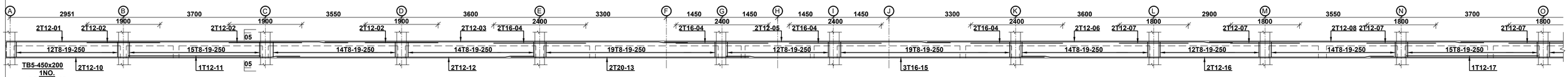
SCALE 1:25





SECTION 04-04
SCALE 1:25



TB5-450x200
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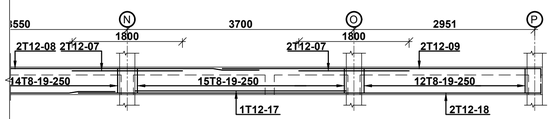
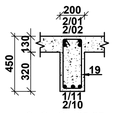
SCALE 1:25





SECTION 05-05
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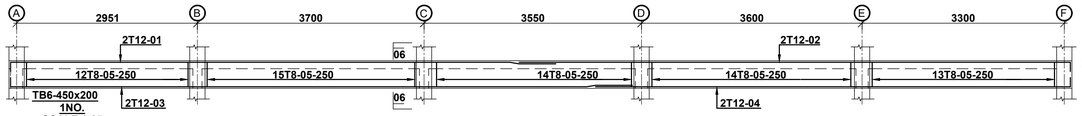

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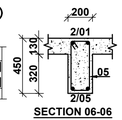
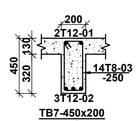


SECTION 06-06
SCALE 1:25



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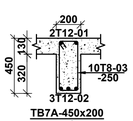

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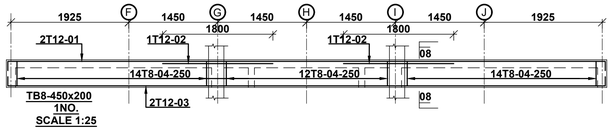

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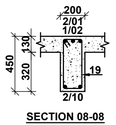

SECTION 08-08
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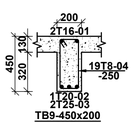

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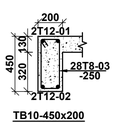

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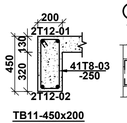

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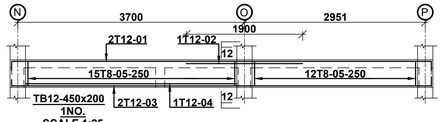

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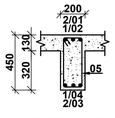

SECTION 12-12
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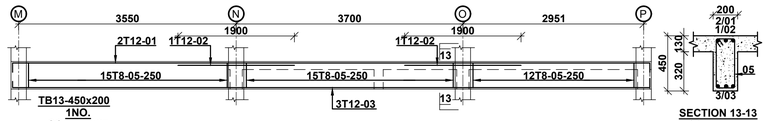

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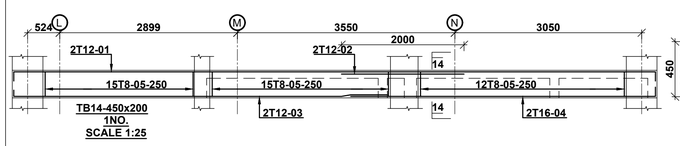
SECTION 13-13
SCALE 1:25



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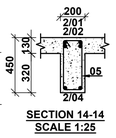
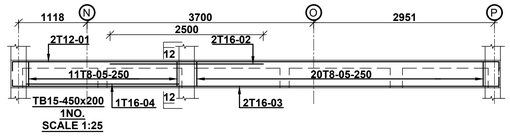


SECTION 14-14
SCALE 1:25



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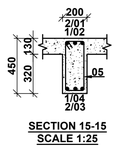

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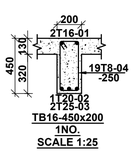

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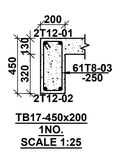

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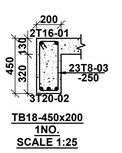

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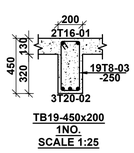

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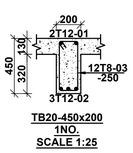

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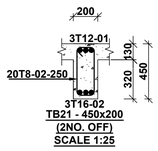

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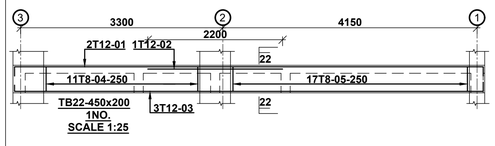

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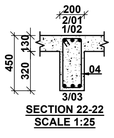

SECTION 22-22
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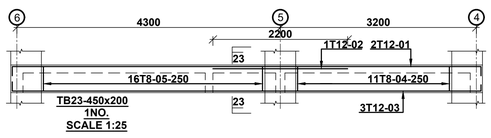

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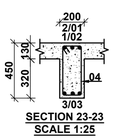

SECTION 23-23
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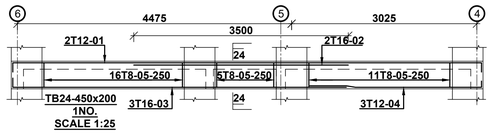

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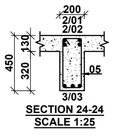

SECTION 24-24
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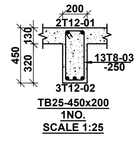

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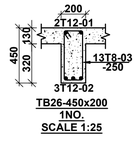

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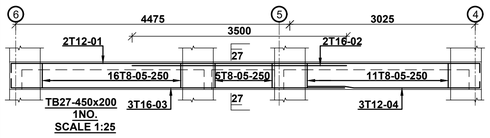

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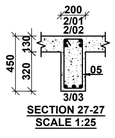


SECTION 27-27
SCALE 1:25

NOTES
1. All dimensions are in millimetres unless otherwise stated.
2. All reinforcements must be checked and approved by project structural engineer prior to concreting.
3. All reinforced concrete to be Class 25 mix and blinding concrete to be Class 15 mix.
4. Only figured dimensions to be taken from this drawing.
5. Any descripancy indimensions to be reported to the project consultants i.e architect or engineer.

6. Symbols; T-TMT Rebars to BS 4461: T - Top face B - Bottom face
7. Cover to reinforcement; Slabs - 20mm, Beams - 25mm,Columns - 40mm, Foundations -50mm
8. All structural steel be grade 43A.
9. All welds are 6mm thick.
10. All structural steel to be painted with anti-rust primmer paint.

Client
MINISTRY OF LANDS, PUBLIC WORKS, HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

STRUCTURAL ENGINEER:

Designed by: M.K.M | *Checked by: R.M.O*

Approved by: SECRETARY, HOUSING DEPARTMENT

Date: 29TH MARCH 2024 | *Scale: As shown*

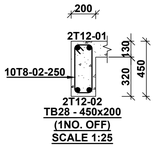
Drawing Number: AHP-G+9-BLKB 08

Project
PROPOSED AFFORDABLE HOUSING PROGRAM-G+9 BLOCK B CHUKA

Title
TYPICAL FLOOR BEAMS

Revisions

No.	Description	Date



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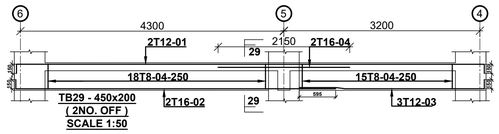

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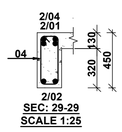
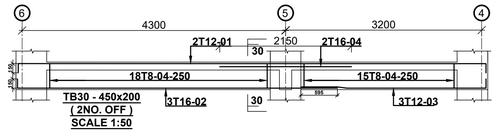


2/02
SEC: 29-29
SCALE 1:25



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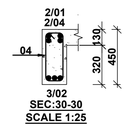
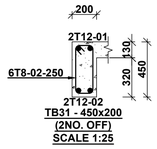


3/02
SEC:30-30
SCALE 1:25



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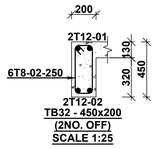

TB32 - 450x200
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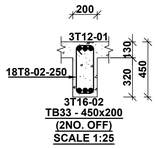

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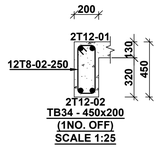

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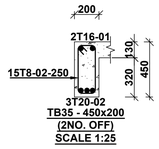

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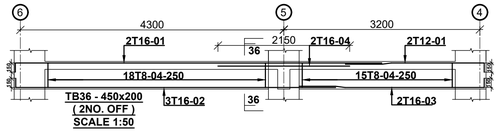
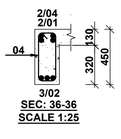
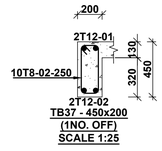


SCALE 1:50



3/02
SEC: 36-36
SCALE 1:25



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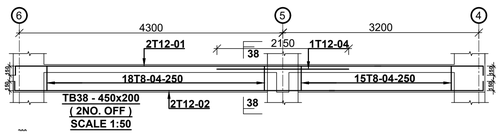
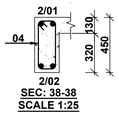
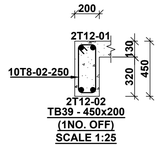


SCALE 1:50



2/02
SEC: 38-38
SCALE 1:25



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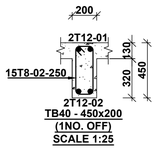

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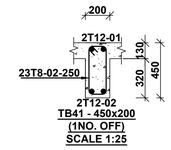

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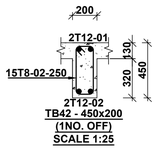

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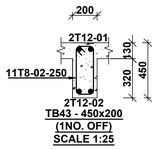

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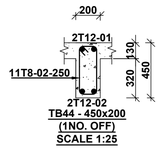

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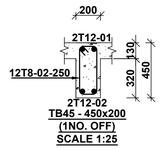

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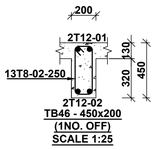

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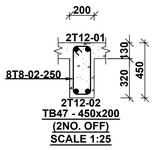

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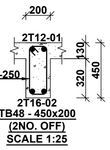

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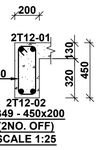

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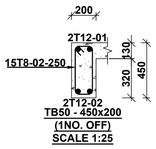

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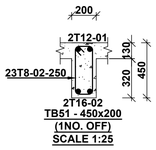

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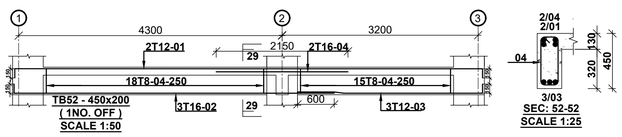

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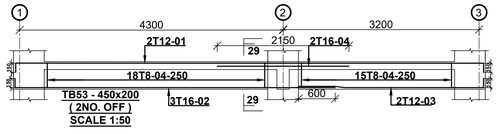
3/03
SEC: 52-52
SCALE 1:25



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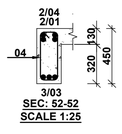

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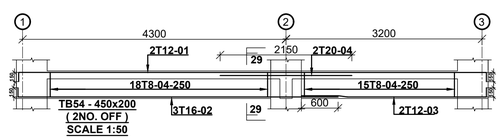

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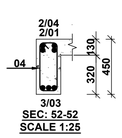

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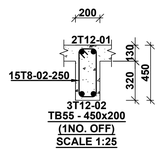

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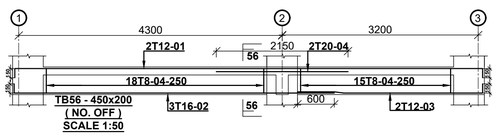

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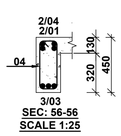

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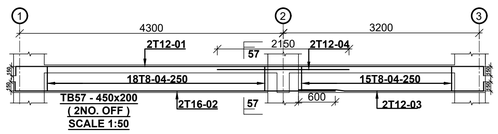

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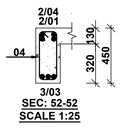


3/03
SEC: 52-52
SCALE 1:25

NOTES
1. All dimensions are in millimetres unless otherwise stated.
2. All reinforcements must be checked and approved by project structural engineer prior to concreting.
3. All reinforced concrete to be Class 25 mix and blinding concrete to be Class 15 mix.
4. Only figured dimensions to be taken from this drawing.
5. Any descripancy indimensions to be reported to the project consultants i.e architect or engineer.

6. Symbols; T-TMT Rebars to BS 4461: T - Top face B - Bottom face
7. Cover to reinforcement; Slabs - 20mm, Beams - 25mm,Columns - 40mm, Foundations -50mm
8. All structural steel be grade 43A.
9. All welds are 6mm thick.
10. All structural steel to be painted with anti-rust primmer paint.

Client
MINISTRY OF LANDS, PUBLIC WORKS, HOUSING AND URBAN DEVELOPMENT
STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

STRUCTURAL ENGINEER:

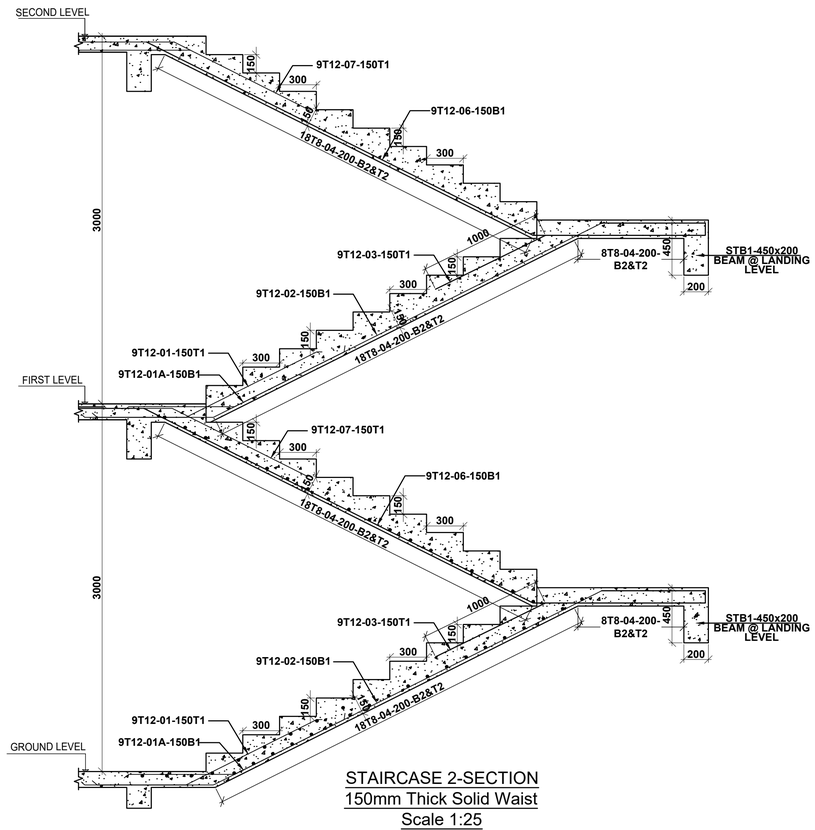
Designed by: M.K.M | *Checked by: R.M.O*
Approved by: SECRETARY, HOUSING DEPARTMENT
Date: 29TH MARCH 2024 | *Scale: As shown*
Drawing Number: AHP-G+9-BLKB 09

Project
PROPOSED AFFORDABLE HOUSING PROGRAM-G+9 BLOCK B CHUKA

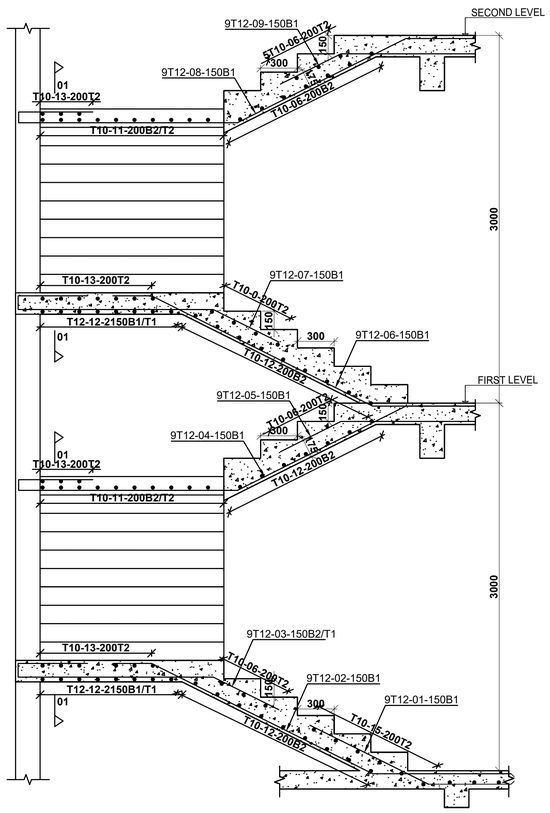
Title
TYPICAL FLOOR BEAMS

Revisions

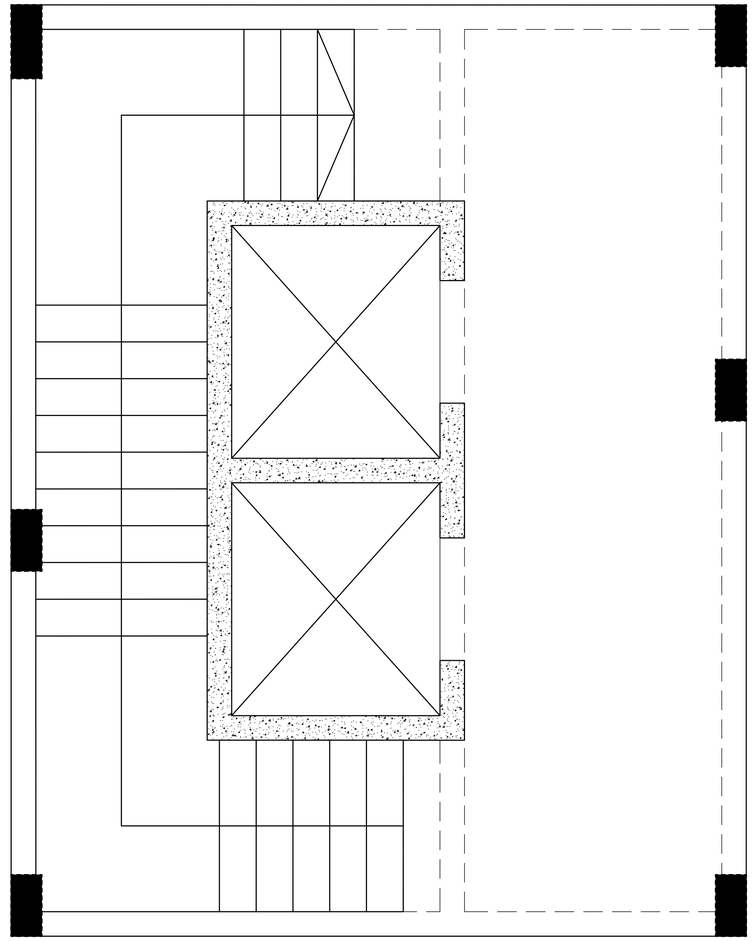
No.	Description	Date

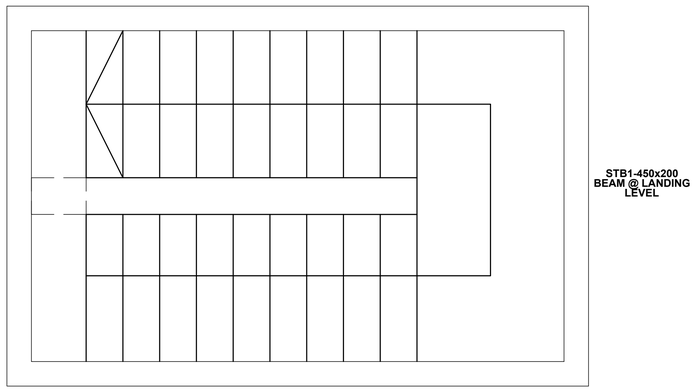


STAIRCASE 2-SECTION
150mm Thick Solid Waist
Scale 1:25

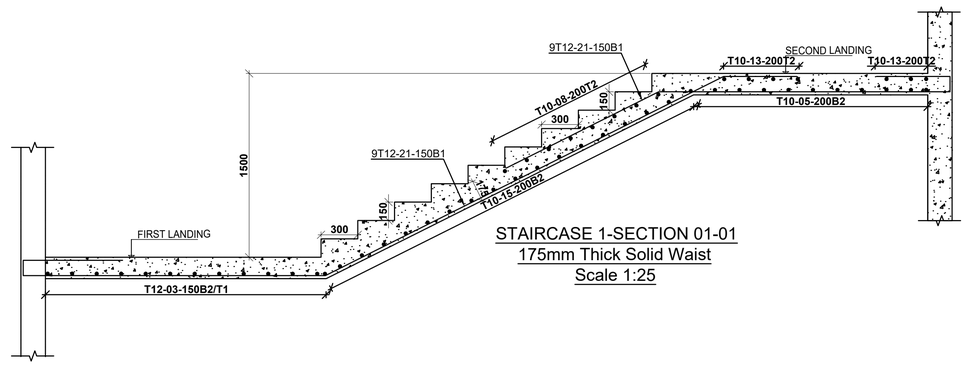


STAIRCASE 1-SECTION
175mm Thick Solid Waist
Scale 1:25





STAIRCASE 2-PLAN
150mm Thick Solid Waist
Scale 1:25



STAIRCASE 1-SECTION 01-01
175mm Thick Solid Waist
Scale 1:25

NOTE:

1. Foundations to be excavated to a minimum depth of 3.0m
2. Introduce a 300x200 ground beam over all the foundation wallings
3. All masonry units to be machine cut blocks

NOTES
1. All dimensions are in millimetres unless otherwise stated.
2. All reinforcements must be checked and approved by project structural engineer prior to concreting.
3. All reinforced concrete to be Class 25 mix and blinding concrete to be Class 15 mix.
4. Only figured dimensions to be taken from this drawing.
5. Any descripancy indimensions to be reported to the project consultants i.e architect or engineer.

6. Symbols; T-TMT Rebars to BS 4461: T - Top face, B - Bottom face
7. Cover to reinforcement; Slabs - 20mm, Beams - 25mm,Columns - 40mm, Foundations -50mm
8. All structural steel be grade 43A.
9. All welds are 6mm thick.
10. All structural steel to be painted with anti-rust primmer paint.

Client
MINISTRY OF LANDS, PUBLIC WORKS, HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

STRUCTURAL ENGINEER:

Designed by: M.K.M | *Checked by: R.M.O*

Approved by: SECRETARY, HOUSING DEPARTMENT

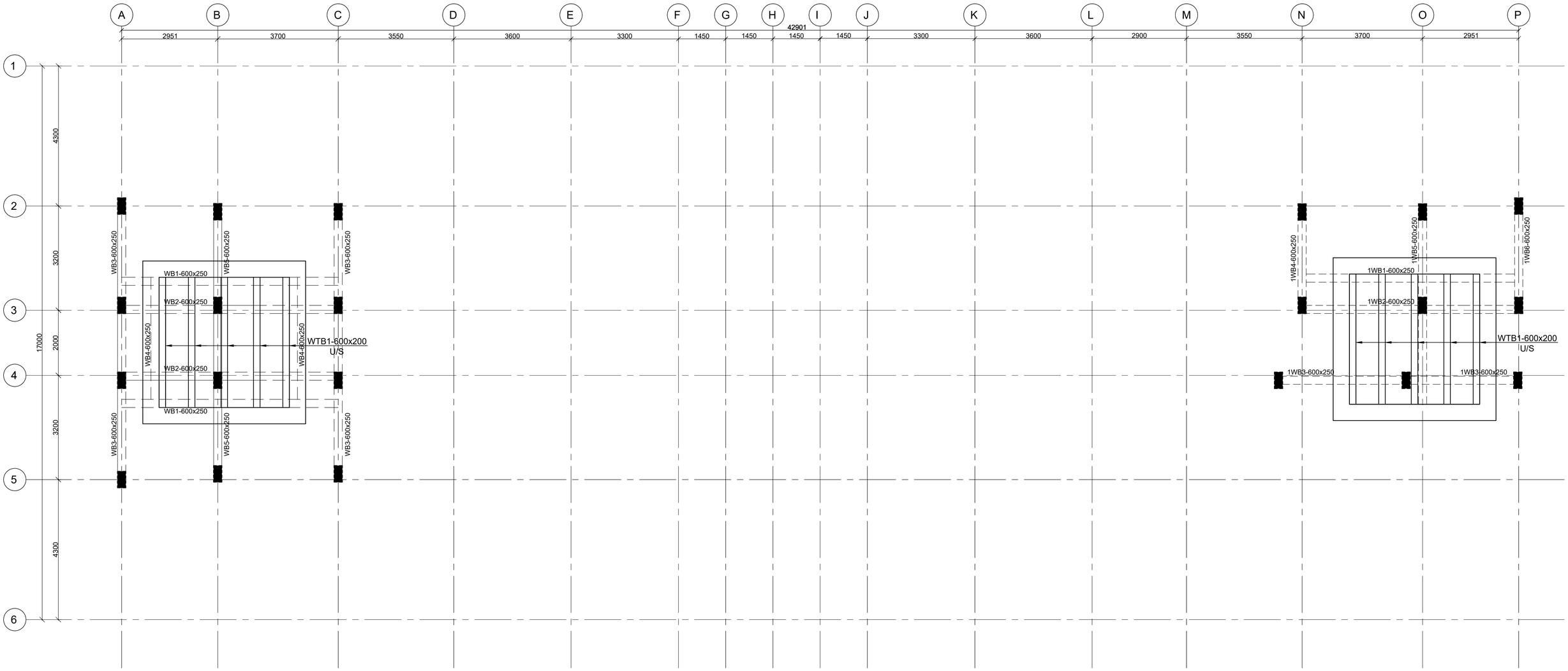
Date: 29TH MARCH 2024 | *Scale: As shown*

Drawing Number: AHP-G+9-BLKB 10

Project
PROPOSED AFFORDABLE HOUSING PROGRAM-G+9 BLOCK B CHUKA

Title
STAIRCASE LAYOUT AND DETAILS.

Revisions		
No.	Description	Date



WATER TANK SLAB LAYOUT
150mm THICK SOLID SLAB
SCALE 1:60

NOTE:

1. Foundations to be excavated to a minimum depth of 3.0m
2. Introduce a 300x200 ground beam over all the foundation wallings
3. All masonry units to be machine cut blocks

NOTES
1. All dimensions are in millimetres unless otherwise stated.
2. All reinforcements must be checked and approved by project structural engineer prior to concreting.
3. All reinforced concrete to be Class 25 mix and blinding concrete to be Class 15 mix.
4. Only figured dimensions to be taken from this drawing.
5. Any descripancy indimensions to be reported to the project consultants i.e architect or engineer.

6. Symbols; T-TMT Rebars to BS 4461: T - Top face B - Bottom face
7. Cover to reinforcement; Slabs - 20mm, Beams - 25mm,Columns - 40mm, Foundations -50mm
8. All structural steel be grade 43A.
9. All welds are 6mm thick.
10. All structural steel to be painted with anti-rust primmer paint.

Client
MINISTRY OF LANDS, PUBLIC WORKS, HOUSING AND URBAN DEVELOPMENT
STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

STRUCTURAL ENGINEER:

Designed by: M.K.M | *Checked by: R.M.O*
Approved by: SECRETARY, HOUSING DEPARTMENT
Date: 29TH MARCH 2024 | *Scale: As shown*
Drawing Number: AHP-G+9-BLKB 11

Project
PROPOSED AFFORDABLE HOUSING PROGRAM-G+9 BLOCK B CHUKA

Title
WATER TANK FLOOR LAYOUT.

Revisions

No.	Description	Date

PROPOSED CONSTRUCT + FINANCE OF PROPOSED CONSTRUCTION OF A MIXED USE AHP DEVELOPMENT (G+9)

MECHANICAL DRAWINGS

PLUMBING, DRAINAGE & FIRE FIGHTING

GENERAL NOTES

1. This drawing to be read in conjunction with architectural drawings.
2. All dimensions are in mm unless otherwise specified.
3. Drawings are not to be scaled . Only figured dimensions should be used .
4. The contractor must check and verify all dimensions before commencement of work and if necessary confirm with the architect .

REV.	DATE	DESCRIPTION

DRAWING ISSUED FOR:

☐ APPROVAL ☐ RECORD

☐ DETAILED ☑ TENDER

☐ SHOP DWG ☐ AS BUILT

PROJECT: Resedential Building

CLIENT: SATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

LOCATION:

DRAWING TITLE :

COVER PAGE

SCALE : NTS

DRAWN BY :

CHECKED BY :

Date : Signature:

DATE :

MINISTRY OF LANDS, PUBLIC WORKS HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

SGOK.png

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA

GENERAL NOTES FOR DOMESTIC WATER SERVICES

1. ALL DIMENSIONS ARE IN METRIC MILLIMETERS. ALL SANITARY FIXTURES AND SINKS SHALL BE PROVIDED WITH ANGLE VALVES.
2. HOT AND COLD WATER CONNECTIONS TO EACH SANITARY APPLIANCE SHALL INCLUDE CHROME PLATED ANGLE VALVE FOR ISOLATION AND THE ISOLATING VALVE FOR BATH TUB AND SHOWER SHALL BE LOCATED ABOVE THE FALSE CEILING.
3. THE PIPE DIAMETER INDICATED ON THE DRAWING ARE NOMINAL AND THE ACTUAL DIAMETER OF THE PIPES SHALL BE AS PER THE EQUIVALENT PIPE DIAMETERS DETAIL AND AS SPECIFIED.
4. THE DOMESTIC WATER INSTALLATION SHALL CARRIED OUT TO COMPLY WITH THE LATEST LOCAL AUTHORITY REQUIREMENT INCLUDING:

   a. WATER SUPPLY REGULATIONS
   b. ALL OTHER LOCAL REGULATIONS HAVING JURISDICTION ON THE WORK
5. THE TYPES, MATERIALS AND SIZES OF PIPES TO BE USED ARE STATED IN THE SCHEDULE OF MATERIALS.
6. PIPE FITTINGS AND ALL OTHER MATERIALS USED IN THE PLUMBING MUST BE OF TYPE APPROVED BY THE LOCAL WATER DEPARTMENT AND RELEVANT AUTHORITY.
7. ALL VALVES ARE TO BE LOCATED SUCH THAT IT CAN BE READILY BY THE MAINTENANCE PERSONNEL. ACCESS PANEL TO ENGINEERS APPROVAL SHALL BE PROVIDED WHERE NECESSARY.
8. ALL COLD WATER PIPES SHOWN ON THE PLAN SHALL BE ROUTED AT THE CEILING OF THE RESPECTIVE PLAN UNLESS OTHERWISE STATED. ALL PIPE WORK SHALL BE CONCEALED IN PIPE SHAFT/WALLS/PARTITION OR RUN WITHIN FALSE CEILING SPACE UNLESS OTHERWISE NOTED.
9. AUTOMATIC AIR VENTS TO BE PROVIDED AT THE HIGHEST POINTS OF PIPING NETWORK.
10. ALL PIPES PASSING THROUGH RETAINING WALLS OR WATERTIGHT STRUCTURES SHALL BE MADE WATER-TIGHT WITH PUDDLE FLANGE AT THE POINT OF PENETRATION THROUGH STRUCTURES. PIPES PENETRATION THROUGH FIRE WALLS & FLOORS SHALL BE SEALED WITH FIRE PROOFING MATERIALS. PIPE SLEEVES ARE TO BE PROVIDED WHEREVER THERE IS PENETRATION THROUGH STRUCTURAL BEAM OR SLAB.
11. ALL DETAILS SHOWN ARE TO BE READ IN CONJUNCTION WITH ALL ISOLATION VALVES SHALL BE PROVIDED FOR INCOMING WATER SUPPLY LINE AT EVERY UNIT/COMMON AREA.
12. LOCATIONS AND SIZE OF SLEEVES FOR PIPE WILL BE SHOWN IN SHOP DRAWINGS.

STANDARD NOTES FOR BUILDING DRAINAGE

PIPING

- ☑ 1- MATERIALS SHALL BE TO APPROVAL AND THE INSTALLATION SHALL BE ACCORDING TO BS 5572.
- ☑ 2- ALL INTERNAL PIPING SHALL BE UPVC TO BS 4514 EXCEPT WASTE PIPING WHICH SHALL BE TO BS 5255. ALL U/G PIPING SHALL BE TO BS 4660.
- ☑ 3- NO BENDS SHALL BE ALLOWED IN HORIZONTAL PIPES RUNNING UNDERGROUND.

RODDING EYES

- ☑ 1- ACCESS POINTS SHOULD BE CAREFULLY SITED TO ALLOW THE SERVICE ENTRY FOR CLEANING AND TESTING.
- ☑ 2- ALL VERTICAL STACKS SHALL BE PROVIDED WITH RODDING EYES AT JUNCTIONS ON EVERY FLOOR.
- ☑ 3- ALL HORIZONTAL DRAINAGE PIPES SHALL HAVE RODDING EYES AT POINTS OF CHANGE OF DIRECTION IN PIPES AS REQUIRED FOR EFFECTIVE MAINTENANCE.
- ☑ 4- RODDING EYES SHALL BE PROVIDED WHERE MORE THAN ONE WC IS CONNECTED TO A HORIZONTAL SOIL PIPE.
- ☑ 5- RODDING EYE IS TO BE PROVIDED WHERE THE DISTANCE BETWEEN ONE WC AND STACK OR MANHOLE IS MORE THAN 5 METERS.

STACKS

- ☑ 1- THE UPPER LIMIT OF STACK LOADING SHALL NOT BE MORE THAN A QUARTER FULL.
- ☑ 2- FOR BUILDINGS OF LESS THAN 20 STORIES HEIGHT, APPLIANCES LOCATED ON GROUND FLOOR SHALL NOT BE CONNECTED TO VERTICAL STACK DISCHARGING AT GROUND LEVEL.
- ☑ 3- FOR BUILDINGS GREATER THAN 20 STORIES APPLIANCES LOCATED AT GR. FLOOR AND FIRST FLOOR SHALL NOT BE CONNECTED TO VERTICAL STACK DISCHARGING AT GROUND LEVEL.
- ☑ 4- CONNECTION FROM THE APPLIANCES LINES ON ANY FLOOR AND THE MAIN PIPE SHALL BE IN VERTICAL STAKES ONLY.
- ☐ 5- FOR ALL BENDS THAT ARE AT BASE OF STACKS, PROVIDE A 45 OR 90 DEGREES LONG RADIUS TYPE ELBOW.

VENT PIPES

- ☑ 1- IN SINGLE STACK SYSTEM, PROVIDE A SEPARATE VENTILATION FOR INDIVIDUAL CONNECTIONS FROM THE WC, FLOOR TRAP, SINK, ETC. ANY HORIZONTAL PIPE LONGER THAN 1.5 METERS FROM SUCH FIXTURES SHALL BE VENTED ON THE HIGH SIDE.
- ☑ 2- VENT PIPES FROM MANHOLES AND VERTICAL STACKS SHALL BE EXTENDED 2 METERS ABOVE THE ROOF, THE END OF WHICH SHALL BE FITTED WITH VENT COWLS.

RESTRICTIONS

- ☑ 1- THE DRAINAGE PIPES SHALL BE MADE NOT TO RUN THROUGH ELECTRIC ROOMS OR ELECTRIC SUB-STATIONS.
- ☑ 2- DIRECT CONNECTION OF WASTE SYSTEM FROM A FLOOR TRAP TO A FLOOR TRAP SHALL NOT BE PERMITTED.
- ☑ 3- NO DRAIN PIPES SHALL BE CAST INTO AN RCC STRUCTURAL ELEMENT WITHOUT PRIOR APPROVAL FROM STRUCTURAL ENG'R.
- ☑ 4- TO ALLOW THE DRAIN PIPES TO PASS THROUGH ANY STRUCTURAL ELEMENT IN BUILDING A CAST IRON SLEEVE IS FIRST FITTED WITHIN THE STRUCTURAL ELEMENT SUCH A BY PASS, THE SLEEVE SHALL OFFER A TOLERANCE OF AT LEAST 50 MM FOR EASE OF INSTALLATION OF THE PIPE. THE GAP BETWEEN THE PIPE AND THE SLEEVE SHALL THEN BE FILLED WITH SUITABLE SEALANT.
- ☑ 5- NOT TO PLACE UNDERGROUND PIPE LINE WITH TOP OF PIPE LESS THAN 600 MM BELOW FFL UNLESS CONCRETE STYLE 150 MM THICK SHALL BE PROVIDED AROUND TO PROTECT THE PIPE.
- ☑ 6- TYPICAL OUTLET SIZE (MM)

WATER CLOSET	100
WASH BASIN	50
KITCHEN SINK	50
FLOOR DRAIN	75
BATH TUB/SHOWER	40
WASHING M/C	40
BALCONY DRAIN	50

- ☑ 7- STACK SIZES SHALL BE AS FOLLOWS: –

UP TO GROUND PLUS SEVEN STORY	
SOIL PIPE	100
WASTE PIPE	100
VENT PIPE	75
RAIN WATER PIPE	100
BALCONY DRAIN PIPE	50
A/C DRAIN PIPE	32

- ☑ 8- STACK SIZES SHALL BE AS FOLLOWS: –

ABOVE SEVEN STORY	
SOIL PIPE	150
WASTE PIPE	150
VENT PIPE	100
RAIN WATER PIPE	100
BALCONY DRAIN PIPE	50
A/C DRAIN PIPE	32

C) MANHOLES

- ☑ 1- THE MANHOLE SCHEDULE SHALL BE ARRANGED IN THE MANNER SHOWN BELOW ,THE MANHOLE INVERT LEVEL (I L) , COVER LEVEL (C L) DEPTH AND DISTANCE BETWEEN MANHOLES SHALL BE REFERENCED FROM KENYA C , F.I.C USING KENYA DATUM AND ALL UNITS SHALL BE IN SYSTEM.
- ☑ 2- A SKETCH SHOWING THE RELATIVE LEVEL BETWEEN F.I.C AND BUILDING MANHOLES SHALL BE PROVIDED.
- ☑ 3- THE INVERT LEVEL OF THE EXTERNAL DRAINAGE SYSTEM SHALL BE DETERMINED BY THE CONSULTANT TAKING INTO CONSIDERATION THE DRAINAGE CONNECTION LEVEL TO MATCH THAT OF F.I.C, IN CASE OF N.O.C THE DEEP OF LAST MANHOLE SHALL BE LESS THAN 1200 MM.
- ☑ 4- THE DEPTH OF FIRST MANHOLE SHALL BE AT LEAST 450 MM.
- ☑ 5- SLOPES FOR HORIZONTAL RUNS SHALL BE AS FF:FOR 100 MM-1:60 FOR 150 MM-1:90 FOR 200 MM-1:120.
- ☑ 6- MANHOLES AND ACCESS CHAMBERS SHALL BE LAY OUT ACCORDING TO CONSULTANT'S SCHEME., COVERS PROVIDED SHALL BE SUITABLE FOR THE LOADS THEY ARE SUBJECTED TO, AND IN ACCORDANCE WITH BS 497.
- ☑ 7- ACUTE ANGLE CONNECTIONS SHALL NOT BE ALLOWED WITHIN JUNCTION MANHOLES.
- ☑ 8- AT A MH THE TOPS OF ALL SEWERS SHOULD BE AT THE SAME LEVEL SO THAT THE PIPES OF SMALLER DIAMETER ARE NOT FLOODED WHEN THE BIGGER PIPES ARE RUNNING FULL.
- ☑ 9- BACKDROP SHALL BE PROVIDED WHEN THE LEVEL DIFFERENCE BETWEEN INCOMING AND MAIN SEWER IS CONSIDERABLE.
- ☑ 10- AN INSPECTION CHAMBER / MANHOLE / GULLY TRAP CONSTRUCTED IN COVERED AREA SHALL BE DRY TYPE AND PROVIDED WITH RECESSED DOUBLE SEAL TYPE COVER.
- ☑ 11- ANY MANHOLE LOCATED IN GARAGE, DRIVEWAY OR OTHER TRAFFIC AREAS SHALL BE PROVIDED WITH HEAVY DUTY COVERS.
- ☑ 12- IF INSPECTION CHAMBERS / MANHOLES ARE IN AGRICULTURAL LAND, MANHOLE COVERS SHOULD BE RAISED 75 MM ABOVE THE NATURAL GROUND LEVEL.
- ☑ 13- DISTANCE BETWEEN MH TO MH SHALL NOT EXCEED 15 METERS IN VILLAS AND BUILDINGS.
- ☑ 14- MINIMUM REQUIREMENT FOR MANHOLE VENTING SHALL BE THE PROVISION OF VENT PIPE TO FIRST AND LAST MANHOLES OF DRAINAGE LINE. THESE VENT PIPES SHALL BE 100 MM BELOW COVER LEVEL.
- ☑ 15- THE SITING OF ANY MANHOLE SHALL BE KEPT AWAY FROM UNDERGROUND WATER TANK BY A DISTANCE NOT LESS THAN THE DEPTH OF THE WATER TANK.

SUMP PUMP

- ☑ 1- IN BASEMENT, SAND TRAP WITH PVC BUCKET SHALL BE PROVIDED JUST BEFORE END CONNECTION OF CAR PARK DRAIN TO THE SUMP PUMP PIT AND THE RAMP DRAIN CHANNEL.
- ☑ 2- IF A BASEMENT SUMP PUMP IS FOR RAIN WATER COLLECTION ONLY FROM BASEMENT, CONNECT ONE WASTE PIPE FROM THE NEAREST TOILET TO THE BASEMENT DRAINAGE LINE TO MAKE IT ALWAYS WET.
- ☑ 3- SUMP PUMP SERVICE ONLY THE BASEMENT DRAIN AND SEWERAGE.

MANHOLES CONSTRUCTION

- ☑ 1- ALL INSPECTION CHAMBERS/MANHOLES SHOULD BE BUILT ON BED OF CEMENT CONCRETE 1:4:6 THE THICKNESS OF THE CONCRETE SHALL BE 150MM FOR MANHOLES UP TO 1000MM DEEP AND 200MM FOR DEPTHS ABOVE 1000MM.
- ☑ 2- WHERE MANHOLE / INSPECTION CHAMBERS ARE CONSTRUCTED BELOW GROUND WATER TABLE , COMPLETE CONSTRUCTION SHALL BE EITHER IN WATERPROOFED RCC. OR IN G.R.P.
- ☑ 3- ALL MAIN LINE CHANNELS SHALL BE LOCATED IN THE CENTER OF THE MANHOLES.
- ☑ 4- BENCHING OF INCOMING BRANCHES SHOULD BE INCLINED TOWARDS THE MAIN DIRECTION OF FLOW .
- ☑ 5- DIAMETER OF SEMI-CIRCULAR CHANNEL IN THE BOTTOM OF MANHOLE SHALL BE EQUAL TO THAT OF THE INCOMING SEWER DIAMETER.
- ☑ 6- THE SIDES OF CHANNELS IN MANHOLE SHALL BE EXTENDED VERTICALLY TO THE SAME LEVEL OF THE SOFFIT OF THE PIPE.
- ☑ 7- THE BENCHING IN INSPECTION CHAMBER/ MANHOLES SHOULD HAVE SMOOTH SURFACE CEMENT PLASTER.
- ☑ 8- MANHOLES SIZES SHALL BE AS FOLLOWS:-

MANHOLES DEEP MM	MANHOLES SIZE MM	MANHOLES COVER MM	
UP TO 1300	600X600 ☐	600X600 ☐ FOR SEW	◯ FOR SWD
FROM 1301 TO 1700	800X800 ☐	600X600 ☐ FOR SEW	◯ FOR SWD
FROM 1701 TO 2500	1000 ◯	600X600 ☐ FOR SEW	◯ FOR SWD
FROM 2501 TO 4000	1500 ◯	600X600 ☐ FOR SEW	◯ FOR SWD

ALL 1000 & 1500 MANHOLE SHALL HAVE G.R.P. LININGS

F I C (THE LAST MANHOLE)

☑

PLATE, THIS MANHOLE SHALL HAVE ONLY ONE INCOMING CONNECTION AND WORK BY GRAVITY ONLY.

- ☑ 2- IN CASE OF THERE ARE NO PROPOSAL OF FUTURE CONNECTION FROM DRAINAGE DEPARTMENT. THE FUTURE CONNECTION SHALL BE IN LESS WIDTH ROAD AND THE MAX DEPTH SHALL BE 1200 MM.

D) MISCELLANEOUS

RAIN WATER DRAINAGE

- ☑ 1- THE DRAINAGE OF ROOFS AND PAVED AREAS SHALL BE ACCORDING TO BS 6367.
- ☑ 2- RAINWATER PIPES ARE NOT TO BE CONNECTED TO SEWER LINES.
- ☑ 3- ALL O.T.S, S (4X4M & LESS) SHOULD HAVE FLOOR TRAPS FOR RAINWATER CONNECTED TO THE NEAREST GULLY TRAP OR WASTE STACK. OTHER O.T.S,S SHALL HAVE RW DRAIN FOR RAIN WATER WHICH IS FREE DISCHARGE TO OUTSIDE.
- ☑ 4- FOR ALL AIR WELLS, ACCESS DOORS SHOULD BE PROVIDED AT THE LOWER LEVEL OF THE WELL .
- ☑ 5- FOR PROJECT HAVING LARGE RAIN CATCHMENT AREAS, RAIN WATER SCHEME SHALL BE DESIGNED TO BS 6367 APPROVAL.

PROVISION FOR FUTURE CONNECTION

- ☑ 1- SHOP FACILITIES IN BUILDINGS SHALL HAVE WASTE PIPE & VENT PIPE CONNECTION PROVISIONS FOR FUTURE WITH APPROVED GRATING AS PER DETAILS.

SYSTEM TEST

- ☑ 1- WATER AND AIR TESTS SHALL BE CARRIED OUT AFTER THE PIPES ARE INSTALLED AND CONSULTANT CERTIFICATE SHALL BE SUBMITTED TO ENGINEERS.

ABBREVIATIONS

ABBREV.	DESCRIPTIONS	ABBREV.	DESCRIPTIONS
AS	AS SHOWN	IC	INSPECTION CHAMBER
CCO	CEILING CLEANOUT	IV	ISOLATION VALVE
CO	CLEANOUT	KS	KITCHEN SINK
CV	CHECK VALVE	LVL.	LEVEL
CWR	COLD WATER SUPPLY	L/L	LOW LEVEL
CV	CHECK VALVE	MAX	MAXIMUM
CWL	COLD WATER LINE	NC	NORMALLY CLOSED
DWG.	DRAWING	NO.	NUMBER
FC	FLEXIBLE CONNECTION	O.C.	ON CENTER
FCO	FLOOR CLEANOUT	PBC	PRESSURE BREAK CHANNEL
FD	FLOOR DRAIN	PD	PARKING DRAIN
FFL	FINISHED FLOOR LINE	PCV	PUMP CONTROL VALVE
FT	FLOOR TRAP	PRV	PRESSURE REDUCING VALVE
FV	FLOAT VALVE	RD	ROOF DRAIN
F/A	FROM ABOVE	RWP	RAIN WATER PIPE
F/B	FROM BELOW	RWS	RAIN WATER STACK
F/A, T/B	FROM ABOVE TO BELOW	SP	SOIL PIPE
F/B, T/A	FROM BELOW TO ABOVE	SS	SOIL STACK
GD	GUTTER DRAIN	TYP.	TYPICAL
GRND.	GROUND	T/A	TO ABOVE
GT	GULLY TRAP	T/B	TO BELOW
GV	GATE VALVE	U/G	UNDERGROUND
HP	HORSEPOWER	U/S	UNDER SLAB
HWS	HOT WATER SUPPLY	VP	VENT PIPE
H/L	HIGH LEVEL	WP	WASTE PIPE
WB	WASH BASIN	WS	WASTE STACK
WC	WATER CLOSET	WM	WASHING MACHINE
WM	WATER METER		
W/	WITH		
YS	WYE STRAINER		

LEGENDS & SYMBOLS

SYMBOLS	DESCRIPTIONS	SYMBOLS	DESCRIPTIONS
	COLD WATER LINE		RAINWATER/BALCONY WASTE PIPE
IV	ISOLATION VALVE		VENT PIPE
	CHECK VALVE/PUMP CONTROL VALVE		WASTE/SOIL PIPE
	SURGE ANTICIPATING CONTROL VALVE		BALCONY/PARKING DRAIN
	PRESSURE REDUCING VALVE		FLOOR TRAP/DRAIN
	FLEXIBLE CONNECTION/VICTAULIC COUPLING	GT	GULLY TRAP
TAP TAP	TAPS/HOSE BIBB		ROOF DRAIN
	WATER METER		VENT STACK THRU ROOF (COWL)
	FLOAT VALVE		BALCONY DRAIN STACK
	PUMP		RAINWATER STACK
	MOTORIZED BUTTERFLY VALVE		SOIL STACK
	PRESSURE REDUCING VALVE		VENT STACK
	Y-STRAINER		CEILING CLEANOUT
	PRESSURE GAUGE		ELECTRIC DRIVEN PUMP
	HYDROPNEUMATIC TANK/PRESSURE VESSELS		FLOOR CLEANOUT
	FLOW	IC	INSPECTION CHAMBER
			OIL INTERCEPTOR

GENERAL NOTES

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REV.	DATE	DESCRIPTION

DRAWING ISSUED FOR:

☐ APPROVAL ☐ RECORD
☐ DETAILED ☑ TENDER
☐ SHOP DWG ☐ AS BUILT

PROJECT: Resedential Building

CLIENT: SATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

LOCATION:

DRAWING TITLE :

Water Supply & Drainage System General Notes, Abbreviations, Legend and Symbols

SCALE : 1:100

DRAWN BY :

CHECKED BY :

Date : Signature:

DATE :

MINISTRY OF LANDS, PUBLIC WORKS HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

HARAMBEE

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA

GENERAL NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF ALL SERVICES.

2. ALL EQUIPMENT SHALL BE TO THE APPROVAL OF Local Occupational Safety & Health Services (OSHS)

3. THE SPRINKLER PIPE SIZE HAVE BEEN BASED ON HYDRAULIC CALCULATION. HOWEVER, CONTRACTOR SHALL SUBMIT THE HYDRAULIC CALCULATIONS FOR PIPE SIZES AT SHOP DRAWINGS STAGE.

4. FLOW SWITCHES LOCATED IN THE MAIN DISTRIBUTION PIPE SHALL BE LINKED TO THE MAIN FIRE DETECTION SYSTEM.

5. THE PUMP SET SHALL BE A PACKAGED SET SUPPLIED BY A SPECIALIST SUPPLIER, COMPLETE WITH ACCESSORIES & TESTED. SITE ASSEMBLED UNITS SHALL NOT BE ACCEPTABLE. THE ENTIRE SET SHALL BE UL/FM FACTORY ASSEMBLED.

6. ALL ZONE CONTROL VALVES SHALL HAVE TEST DRAIN PIPES CONNECTED TO NEAREST DRAIN POINT.

7. ALL SPRINKLER HEADS SHALL BE UL/FM APPROVED WITH THE FOLLOWING TYPES:

   a.IN ALL FALSE CEILING AREAS: ½" ORIFICE, ½" NOT, 154°F BRIGHT CHROME RECESSED TYPE.

   b.N CARPARKING AREAS: ½" ORIFICE, ½" NPT, 135°F BRONZE PENDENT TYPE.

   c.IN MECHANICAL FLOOR: ½" ORIFICE, ½" NPT, 154°F BRONZE UPRIGHT TYPE.

   d.IN GUEST BEDROOM: 17/32" ORIFICE, ½" NPT, 135°F BRIGHT CHROME, HORIZONTAL SIDE WALL.

   e.IN SAUNAS & STEAM ROOMS: ½" ORIFICE, ½" NPT, 286°F CORROSION RESISTANT, CHROME PENDENT TYPE/SIDE WALL.

TABLE (BASED ON LPC REGULATIONS)

SP.	TYPE OF OCCUPATION	HAZARD CLASSIFICATION	MAX-AREA COVERAGE (M^2)	MAX-AREA OF OPERATION (M^2)	MAX-DISTANCE BETWEEN SP HEAD (M^2)	DESIGN DENSITY OF DISCHARGE (MM/MIN)
1	OFFICES (AREA<126M²)	LIGHT	21	84	4.6	2.25
2	CAR PARKS	ORDINARY GROUP 1	12	72	4.0	5.0
3	KITCHEN/ LAUNDRY	ORDINARY GROUP 1	12	72	4.0	5.0
4	RESIDENTIAL/ HOTEL	LIGHT	21	84	4.6	2.25

9. CONTRACTOR SHALL COMPLY WITH ALL THE LOCAL OSHS AND ASHRAE STANDARDS

10. SPRINKLER AND STANDPIPE PIPEWORK SHALL BE GALVANIZED M.S. PIPE CONFORMING TO ASTM A53, HEAVY DUTY WITH G.I. MALEABLE SCREWED FITTINGS, UP TO SIZE 2" DIA.AND VICTAULIC G.I. FITTINGS SHALL BE FOR SIZES 2½" DIA AND ABOVE.

11. FIRE EQUIPMENTS SHALL BE HOUSED IN RECESSED ENCLOSURE WITH DOOR AS PER ARCHITECT'S DETAIL.

12. PROVIDE FIRE DAMPER IN THE AIR DUCT PENETRATING THE CONCRETE WALLS OR FIRE RATED WALLS. (BY A/C CONTRACTOR)

13. MAIN ENTRANCE DOORS FOR ALL OFFICES, FLATS, KITCHEN SHALL BE 1/2 HR. FIRE RESISTANT, METAL OR SOLID TEMPER OR APPROVED BY CIVIL DEFENCE.

14. DOORS FOR STAIRCASES AND ALL SERVICES ROOMS SHALL BE 2 HR. FIRE RESISTANT AND SELF CLOSING, METAL OR SOLID TEMPER .
. .

15. THE FAHU UNITS, AHU UNITS, ETC. SHALL BE INTERLOCKED WITH THE FIRE ALARM SYSTEM & SHALL AUTOMATICALLY SWITCH OFF, A SIGNAL IS INITIATED IN THE RETURN AIR SMOKE PANEL.

16. ALL EQUIPMENT SHALL BE SUBJECTED TO THE APPROVAL OF KENYA CIVIL DEFENSE.

17. COMPARTMENTALIZATION OF THE BUILDING'S EACH FLOOR, STAIRCASE, CORRIDORS, KITCHENS, ETC. SHALL BE CONSIDERED AS A SEPARATE FIRE COMPARTMENT FOR THE PURPOSE OF FIRE ALARM SYSTEM DESIGN.

18. ALL HOLES, OPENINGS FOR THE CABLES, CABLE TRAYS, ETC. SHALL BE FITTED WITH SMOKE/FLAME PROOF FIRE BARRIER.

19. SPRINKLER ZONE CONTROL VALVES AND TAMPER SWITCHES SHALL BE INTER-LINKED
WITH THE MAIN FIRE ALARM CONTROL PANEL.

20. BASEMENT FLOORS & CORRIDORS SHALL BE MECHANICALLY VENTILATED. BASEMENT AREAS SHALL BE EQUIPPED WITH MECHANICAL VENTILATION EQUIPMENTS AND SHALL BE OPERATED BY EMERGENCY POWER SUPPLY IN CASE OF FIRE. AS APPROVED BY LOCAL CIVIL DEFENSE AUTHORITY. (REFER TO A/C DRAWINGS FOR DETAILS)

21. FOR FIRE PUMPSET ARRANGEMENT, REFER TO THE RELEVANT DETAILS.

20. LOW LEVEL CUT-OFF SWITCH SHALL BE POSITIONED IN SUCH A WAY THAT A MINIMUM OF 227 CU. M. SHALL BE MAINTAINED FOR FIRE FIGHTING.

21. REPEATER PANEL SHALL BE PROVIDED AT THE SUITABLE LOCATION AS AGREED BY CIVIL DEFENSE AUTHORITY.

22. METAL GUARDS SHALL BE PROVIDED FOR EXPOSED PENDENT SPRINKLER HEADS ON RAMPS AND INSIDE EQUIPMENT ROOMS.

ABBREVIATIONS

ABBREV.	DESCRIPTIONS
AAV	AUTOMATIC AIR RELEASE VENT
APPROX.	APPROXIMATELY
AS	AS SHOWN
BSMT.	BASEMENT
CAP.	CAPACITY
CV	CHECK VALVE
C/W	COMPLETE WITH
DN	DOWN
ESR	ECCENTRIC REDUCTION REDUCER
FE	FIRE EXTINGUISHER
FFL	FINISHED FLOOR LINE
FH	FIRE HYDRANT
FHR	FIRE HOSE REEL
FJ	FLEXIBLE JOINT
FM	FLOW METER
FP	FIRE PUMP
HP	HYDRANT PIPE
FS	FLOW SWITCH
F/A	FROM ABOVE
F/B	FROM BELOW
G.I.	GALVANIZED IRON
W/	WITH
YS	WYE STRAINER
MM	MILLIMETER
GRND.	GROUND
RPM	REVOLUTION PER MINUTE
SM	SQUARE METER
THK.	THICKNESS
GV	GATE VALVE
HZ	HIGH ZONE
H/L	HIGH LEVEL
JP	JOCKEY PUMP
LV	LANDING VALVE
LVL.	LEVEL
MAX	MAXIMUM
MIN	MINIMUM
MZ	MID ZONE
NTS	NOT TO SCALE
O.C.	ON CENTER
PFE	PORTABLE FIRE EXTINGUISHER
PIV	POST INDICATOR VALVE
PRV	PRESSURE REDUCING VALVE
RN	RISER NIPPLE
SCHED	SCHEDULE
TYP	TYPICAL
T/A	TO ABOVE
T/B	TO BELOW
OS&Y	OPEN STEM AND YOKE

LEGENDS & SYMBOLS

SYMBOLS	DESCRIPTIONS
	23 KG CO2 WHEELED TYPE PORTABLE F.E.
	4.5 KG ABC DRY CHEMICAL F.E.
	4.5 KG CO2 PORTABLE F.E.
	AIR RELIEF VALVE
	BREECHING INLET 4 WAY (STAINLESS STEEL FACIA)
	CHECK VALVE
	FIRE HOSE REEL
	FIRE HYDRANT
	FLOOR CONTROL VALVE W/ SUPERVISORY SWITCH
	FLEXIBLE JOINT
M	FLOW METER
	OS & Y GATE VALVE WITH TAMPER SWITCH
	PRESSURE GAUGE
PRV	PRESSURE REDUCING VALVE
	ALARM CHECK VALVE
	ROOF MANIFOLD
	SPRINKLER HEAD UPRIGHT
	SPRINKLER HEAD PENDENT
	SPRINKLER HEAD SIDEWALL
	WYE STRAINER
	FIRE PUMP CONTROLLER UL LISTED & FM APPROVED WITH AUTO TRANSFER SWITCH
	FIRE PUMP (ELECTRIC) UL LISTED & FM APPROVED HORIZONTAL SPLIT CASE
	CLASS III SYSTEM-FIRE HOSE CABINET, FIRE HOSE REEL AND LANDING VALVE.

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REV.	DATE	DESCRIPTION

DRAWING ISSUED FOR:

☐ APPROVAL ☐ RECORD

☐ DETAILED ☑ TENDER

☐ SHOP DWG ☐ AS BUILT

PROJECT: Resedential Building

CLIENT: SATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

LOCATION:

DRAWING TITLE :

Firefighting System General Notes, Abbreviations, Legend and Symbols

SCALE : 1:100

DRAWN BY :

CHECKED BY :

Date : Signature:

DATE :

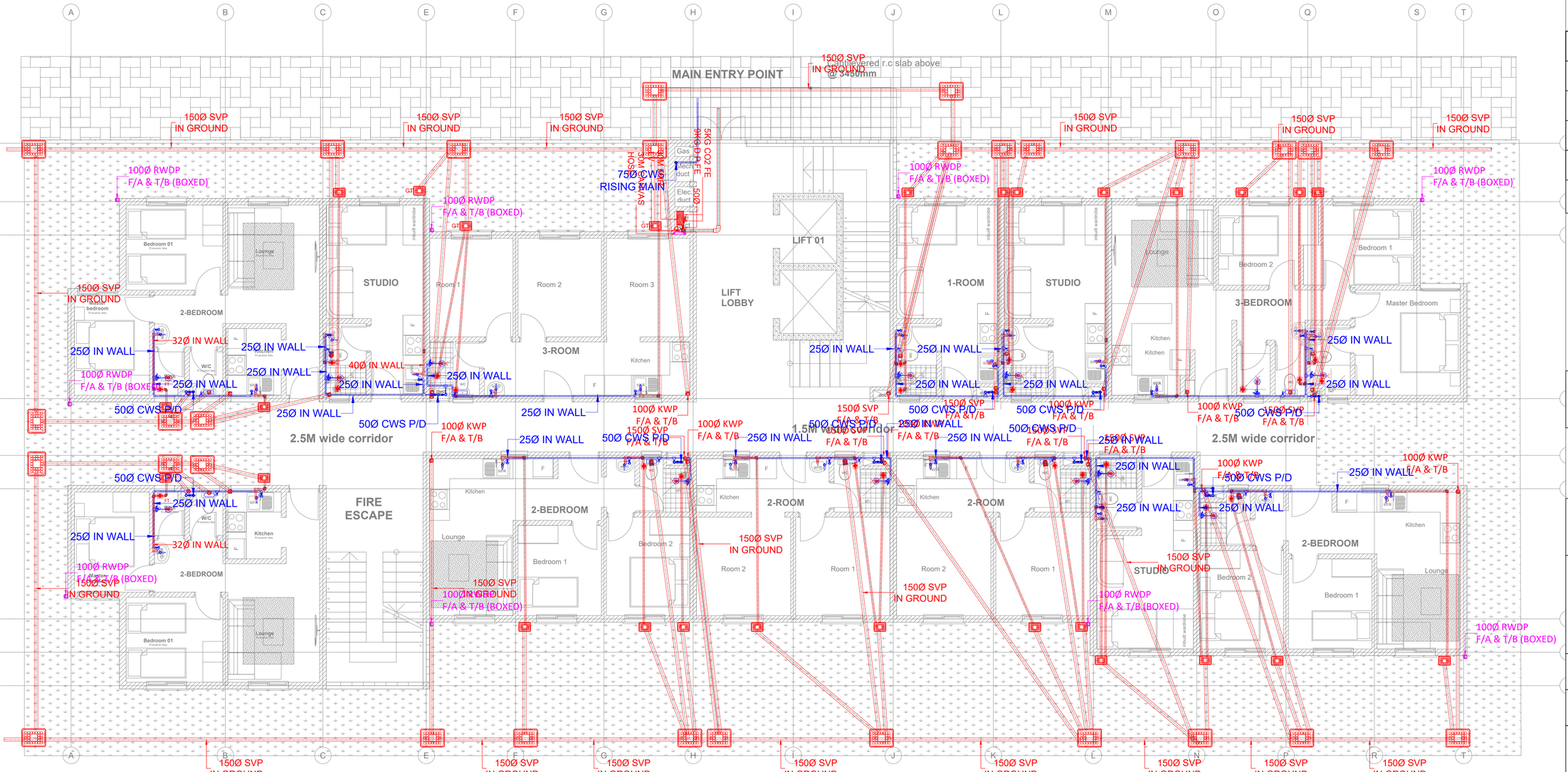
MINISTRY OF LANDS, PUBLIC WORKS HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

HARAMBEE

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA

BLOCK TYPOLOGY A [G+9]



PROPOSED REVISED TYPICAL SOCIAL+ AFFORDABLE UNITS BLOCK TYPE A_GROUND FLOOR PLAN

UNIT BREAK DOWN_ UNIT BREAK DOWN					
1_ROOM	2_ROOM	3_ROOM	STUDIO	2_BEDROOM	3_BEDROOM
1	2	1	3	4	1

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DRAWING ISSUED FOR:

☐ APPROVAL ☐ RECORD

☐ DETAILED ☑ TENDER

☐ SHOP DWG ☐ AS BUILT

PROJECT:
PROPOSED TYPICAL SOCIAL+ AFFORDABLE UNITS BLOCK TYPE A G+14

CLIENT: SATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

LOCATION:

DRAWING TITLE :

1ST, 10TH & 13TH FLOOR SOCIAL+ AFFORDABLE UNITS BLOCK TYPE A DRAINAGE LAYOUT

SCALE : 1:100

DRAWN BY :

CHECKED BY :

Date : Signature:

DATE :

MINISTRY OF LANDS, PUBLIC WORKS HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA

PROPOSED TYPICAL SOCIAL+ AFFORDABLE UNITS BLOCK TYPE A_TYPICAL 1ST FLOOR PLAN

UNIT BREAK DOWN_ UNIT BREAK DOWN					
1_ROOM	2_ROOM	3_ROOM	STUDIO	2_BEDROOM	3_BEDROOM
1	2	1	2	4	1

GENERAL NOTES

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REV.	DATE	DESCRIPTION

DRAWING ISSUED FOR:

☐ APPROVAL ☐ RECORD

☐ DETAILED ☑ TENDER

☐ SHOP DWG ☐ AS BUILT

PROJECT:
PROPOSED TYPICAL SOCIAL+ AFFORDABLE UNITS BLOCK TYPE A G+14

CLIENT: SATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

LOCATION:

DRAWING TITLE :

1ST, 10TH & 13TH FLOOR SOCIAL+ AFFORDABLE UNITS BLOCK TYPE A DRAINAGE LAYOUT

SCALE : 1:100

DRAWN BY :

CHECKED BY :

Date : Signature:

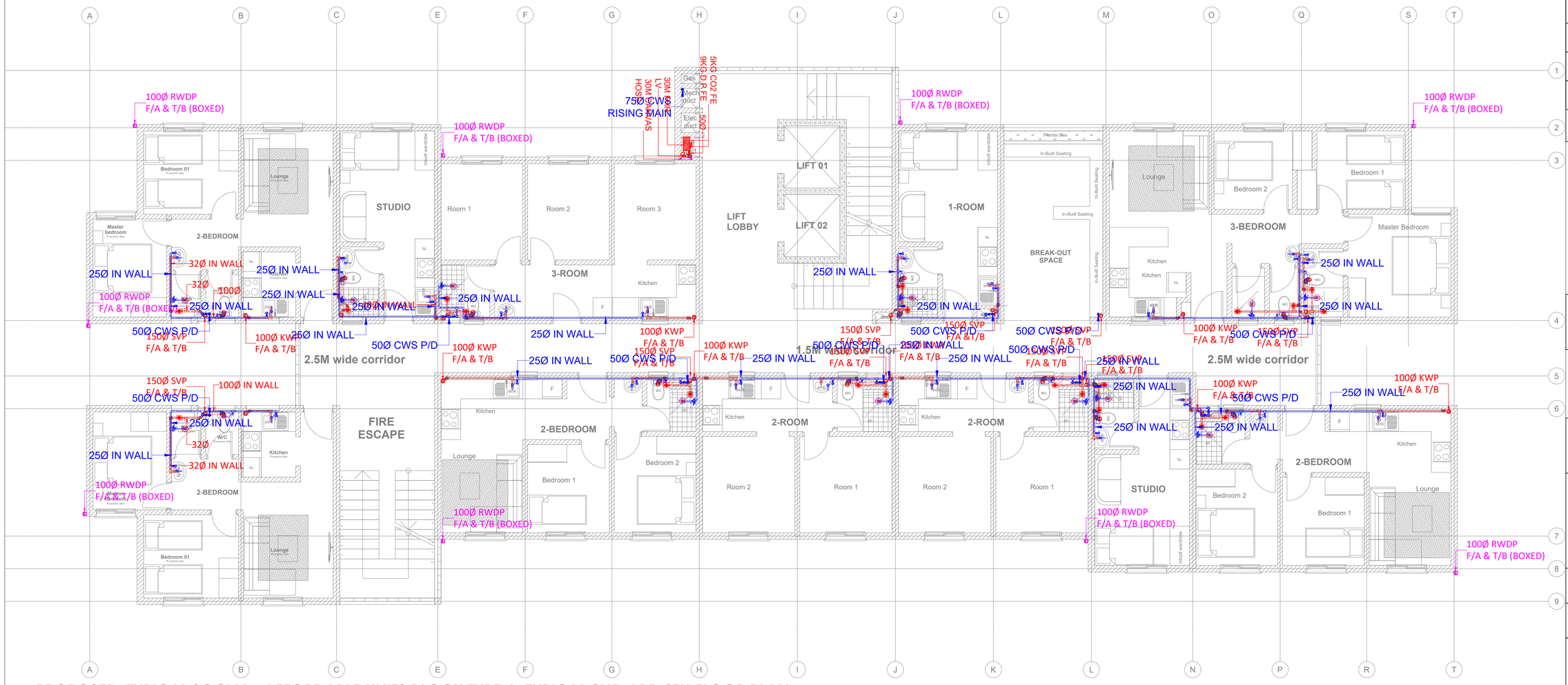
DATE :

MINISTRY OF LANDS, PUBLIC WORKS HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

HARAMBEE

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA



PROPOSED TYPICAL SOCIAL+ AFFORDABLE UNITS BLOCK TYPE A_TYPICAL 2ND ABD 9TH FLOOR PLAN

UNIT BREAK DOWN_ UNIT BREAK DOWN					
1_ROOM	2_ROOM	3_ROOM	STUDIO	2_BEDROOM	3_BEDROOM
1	2	1	2	4	1

GENERAL NOTES

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REV.	DATE	DESCRIPTION

DRAWING ISSUED FOR:

☐ APPROVAL ☐ RECORD

☐ DETAILED ☑ TENDER

☐ SHOP DWG ☐ AS BUILT

PROJECT:
PROPOSED TYPICAL SOCIAL+ AFFORDABLE UNITS BLOCK TYPE A G+14

CLIENT: SATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

LOCATION:

DRAWING TITLE :

1ST, 10TH & 13TH FLOOR SOCIAL+ AFFORDABLE UNITS BLOCK TYPE A DRAINAGE LAYOUT

SCALE : 1:100

DRAWN BY :

CHECKED BY :

Date : Signature:

DATE :

MINISTRY OF LANDS, PUBLIC WORKS HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

HARAMBEE

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA

PROPOSED TYPICAL SOCIAL+ AFFORDABLE UNITS BLOCK TYPE A_TYPICAL 3RD AND 7TH FLOOR PLAN

UNIT BREAK DOWN_ UNIT BREAK DOWN					
1_ROOM	2_ROOM	3_ROOM	STUDIO	2_BEDROOM	3_BEDROOM
1	2	1	2	4	1

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REV.	DATE	DESCRIPTION

DRAWING ISSUED FOR:

☐ APPROVAL ☐ RECORD

☐ DETAILED ☑ TENDER

☐ SHOP DWG ☐ AS BUILT

PROJECT:
PROPOSED TYPICAL SOCIAL+ AFFORDABLE UNITS BLOCK TYPE A G+14

CLIENT: SATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

LOCATION:

DRAWING TITLE :

1ST, 10TH & 13TH FLOOR SOCIAL+ AFFORDABLE UNITS BLOCK TYPE A DRAINAGE LAYOUT

SCALE : 1:100

DRAWN BY :

CHECKED BY :

Date : Signature:

DATE :

MINISTRY OF LANDS, PUBLIC WORKS HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

HARAMBEE

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA

PROPOSED TYPICAL SOCIAL+ AFFORDABLE UNITS BLOCK TYPE A_TYPICAL 4TH AND 8TH FLOOR PLAN

UNIT BREAK DOWN_ UNIT BREAK DOWN					
1_ROOM	2_ROOM	3_ROOM	STUDIO	2_BEDROOM	3_BEDROOM
1	2	1	2	4	1

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REV.	DATE	DESCRIPTION

DRAWING ISSUED FOR:

☐ APPROVAL ☐ RECORD

☐ DETAILED ☑ TENDER

☐ SHOP DWG ☐ AS BUILT

PROJECT:
PROPOSED TYPICAL SOCIAL+ AFFORDABLE UNITS BLOCK TYPE A G+14

CLIENT: SATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

LOCATION:

DRAWING TITLE :

1ST, 10TH & 13TH FLOOR SOCIAL+ AFFORDABLE UNITS BLOCK TYPE A DRAINAGE LAYOUT

SCALE : 1:100

DRAWN BY :

CHECKED BY :

Date : Signature:

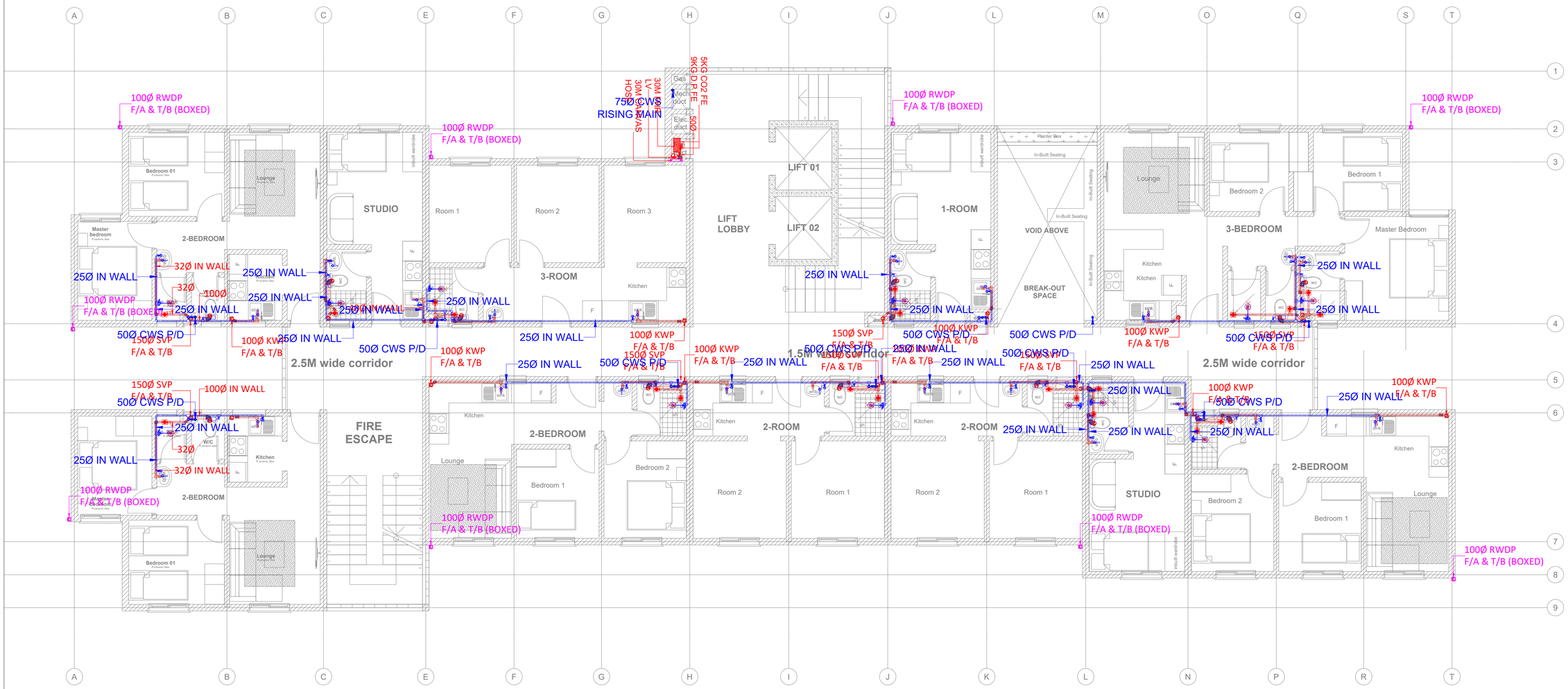
DATE :

MINISTRY OF LANDS, PUBLIC WORKS HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

HARAMBEE

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA



PROPOSED TYPICAL SOCIAL+ AFFORDABLE UNITS BLOCK TYPE A_TYPICAL 5TH FLOOR PLAN

UNIT BREAK DOWN_ UNIT BREAK DOWN					
1_ROOM	2_ROOM	3_ROOM	STUDIO	2_BEDROOM	3_BEDROOM
1	2	1	2	4	1

GENERAL NOTES

1. This drawing to be read in conjunction with architectural drawings.
2. All dimensions are in mm unless otherwise specified.
3. Drawings are not to be scaled . Only figured dimensions should be used .
4. The contractor must check and verify all dimensions before commencement of work and if necessary confirm with the architect .

REV.	DATE	DESCRIPTION

DRAWING ISSUED FOR:

☐ APPROVAL ☐ RECORD

☐ DETAILED ☑ TENDER

☐ SHOP DWG ☐ AS BUILT

PROJECT:
PROPOSED TYPICAL SOCIAL+ AFFORDABLE UNITS BLOCK TYPE A G+14

CLIENT: SATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

LOCATION:

DRAWING TITLE :

1ST, 10TH & 13TH FLOOR SOCIAL+ AFFORDABLE UNITS BLOCK TYPE A DRAINAGE LAYOUT

SCALE : 1:100

DRAWN BY :

CHECKED BY :

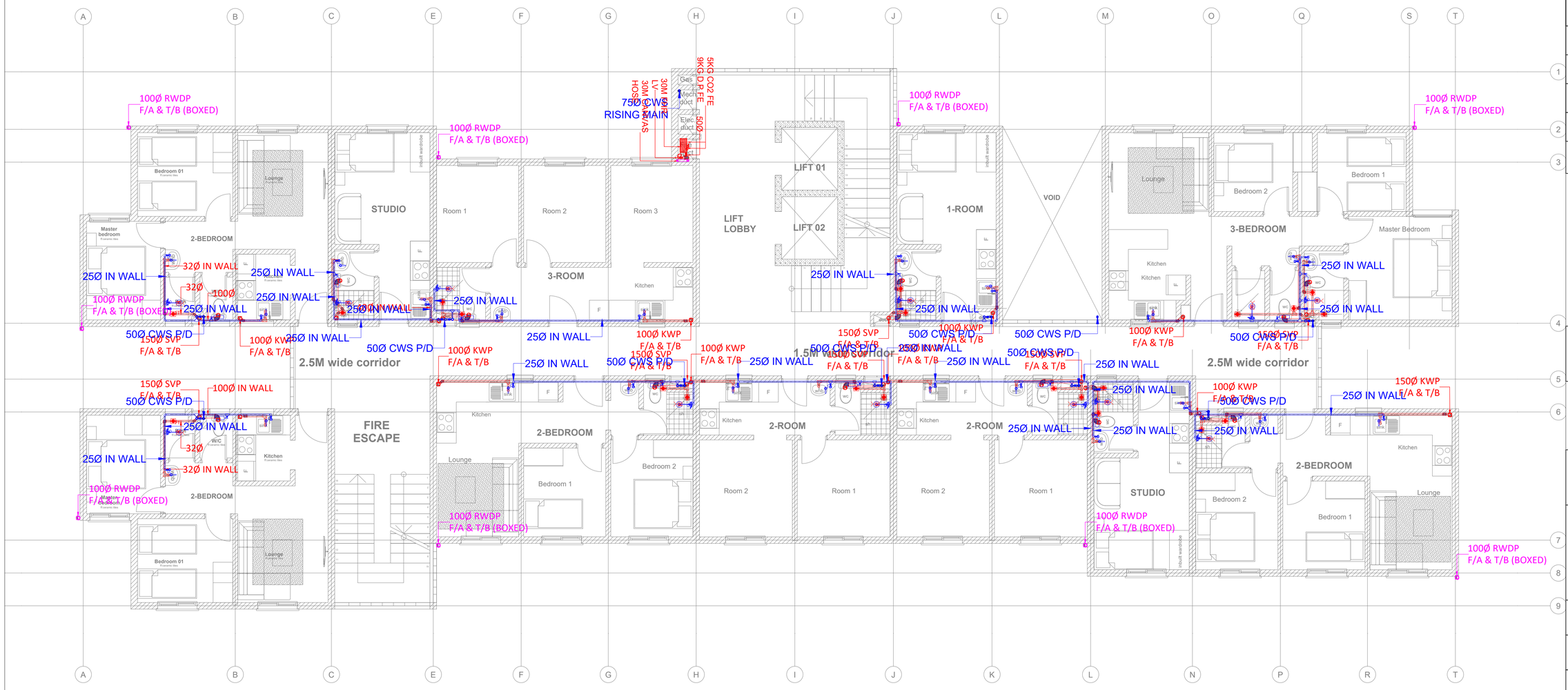
Date : Signature:

DATE :

MINISTRY OF LANDS, PUBLIC WORKS HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA



PROPOSED TYPICAL SOCIAL+ AFFORDABLE UNITS BLOCK TYPE A_TYPICAL 6TH FLOOR PLAN

UNIT BREAK DOWN_ UNIT BREAK DOWN					
1_ROOM	2_ROOM	3_ROOM	STUDIO	2_BEDROOM	3_BEDROOM
1	2	1	2	4	1

GENERAL NOTES

1. This drawing to be read in conjunction with architectural drawings.
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4. The contractor must check and verify all dimensions before commencement of work and if necessary confirm with the architect .

REV.	DATE	DESCRIPTION

DRAWING ISSUED FOR:

☐ APPROVAL ☐ RECORD

☐ DETAILED ☑ TENDER

☐ SHOP DWG ☐ AS BUILT

PROJECT:
PROPOSED TYPICAL SOCIAL+ AFFORDABLE UNITS BLOCK TYPE A G+14

CLIENT: SATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

LOCATION:

DRAWING TITLE :

1ST, 10TH & 13TH FLOOR SOCIAL+ AFFORDABLE UNITS BLOCK TYPE A DRAINAGE LAYOUT

SCALE : 1:100

DRAWN BY :

CHECKED BY :

Date : Signature:

DATE :

MINISTRY OF LANDS, PUBLIC WORKS HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

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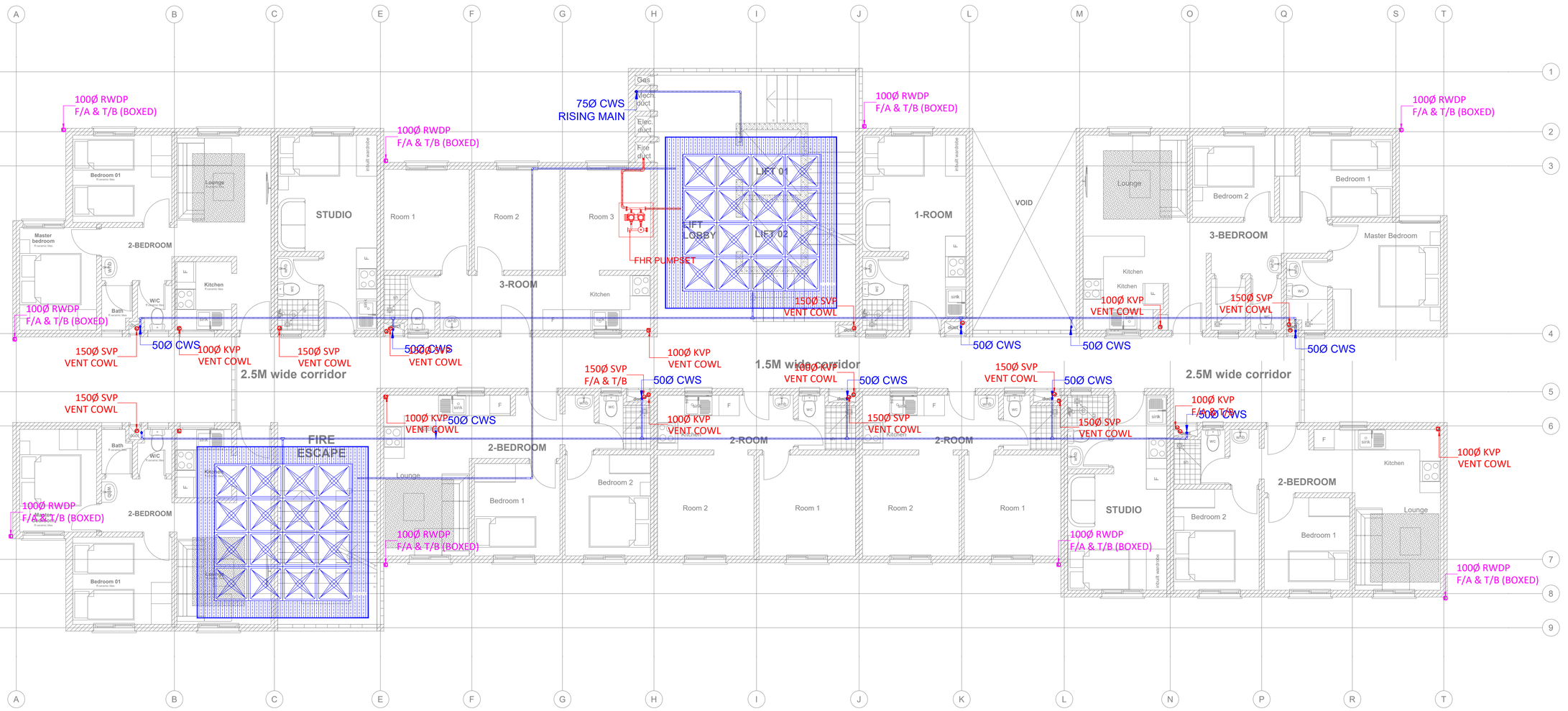
FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA



PROPOSED TYPICAL SOCIAL+ AFFORDABLE UNITS BLOCK TYPE A_TYPICAL 6TH FLOOR PLAN

UNIT BREAK DOWN_ UNIT BREAK DOWN					
1_ROOM	2_ROOM	3_ROOM	STUDIO	2_BEDROOM	3_BEDROOM
1	2	1	2	4	1

GENERAL NOTES

1. This drawing to be read in conjunction with architectural drawings.
2. All dimensions are in mm unless otherwise specified.
3. Drawings are not to be scaled . Only figured dimensions should be used .
4. The contractor must check and verify all dimensions before commencement of work and if necessary confirm with the architect .

REV.	DATE	DESCRIPTION

DRAWING ISSUED FOR:

☐ APPROVAL ☐ RECORD

☐ DETAILED ☑ TENDER

☐ SHOP DWG ☐ AS BUILT

PROJECT:
PROPOSED TYPICAL SOCIAL+ AFFORDABLE UNITS BLOCK TYPE A G+14

CLIENT: SATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

LOCATION:

DRAWING TITLE :

1ST, 10TH & 13TH FLOOR SOCIAL+ AFFORDABLE
UNITS BLOCK TYPE A DRAINAGE LAYOUT

SCALE : 1:100

DRAWN BY :

CHECKED BY :

Date : Signature:

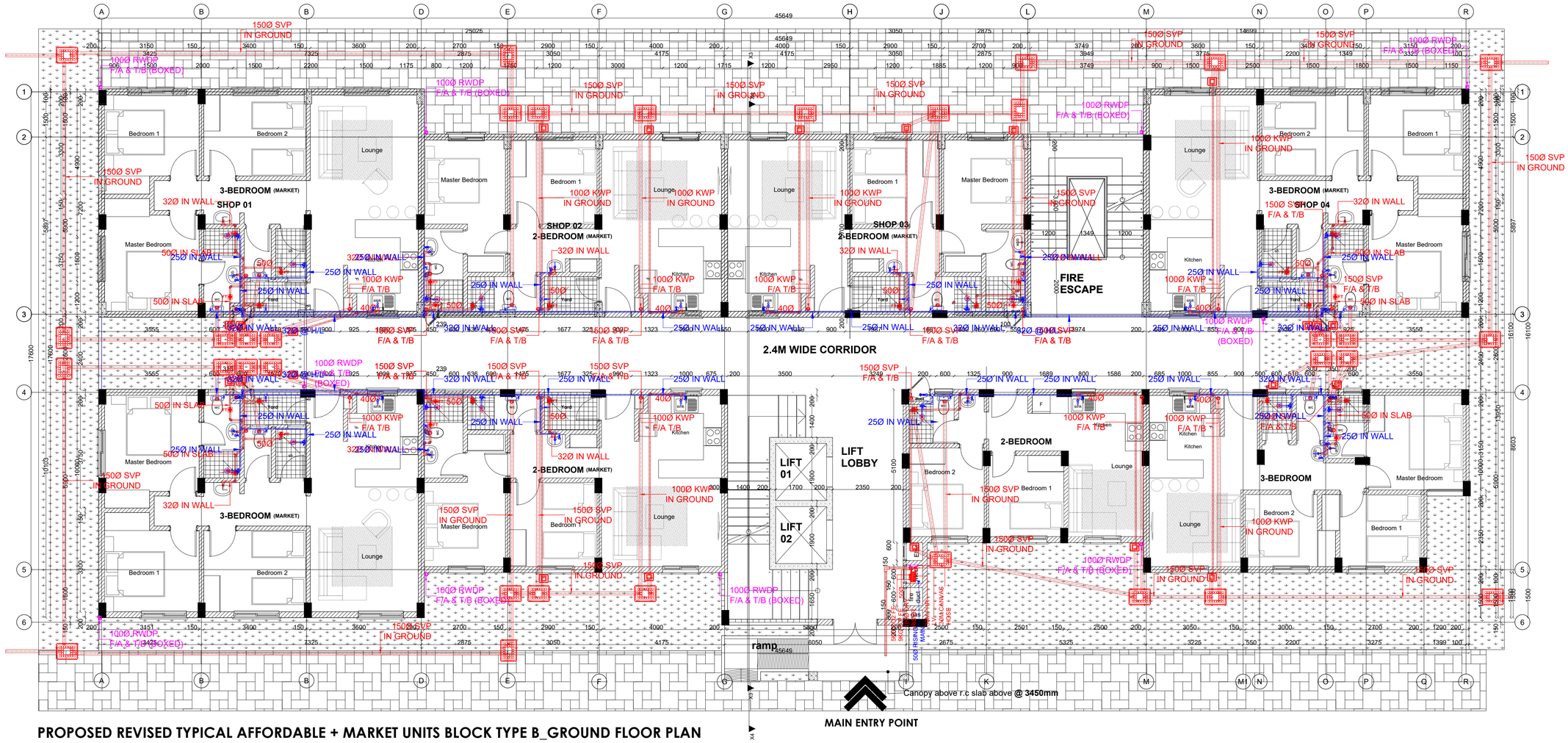
DATE :

MINISTRY OF LANDS, PUBLIC WORKS HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA

BLOCK TYPOLOGY B [G+9]



PROPOSED REVISED TYPICAL AFFORDABLE + MARKET UNITS BLOCK TYPE B_GROUND FLOOR PLAN

UNIT BREAK DOWN_ UNIT BREAK DOWN			
AFFORDABLE UNITS		MARKET UNITS	
2_BEDROOM	3_BEDROOM	2_BEDROOM	3_BEDROOM
1	1	3	3

GENERAL NOTES

1. This drawing to be read in conjunction with architectural drawings.
2. All dimensions are in mm unless otherwise specified.
3. Drawings are not to be scaled . Only figured dimensions should be used .
4. The contractor must check and verify all dimensions before commencement of work and if necessary confirm with the architect .

REV.	DATE	DESCRIPTION

DRAWING ISSUED FOR:

- ☐ APPROVAL
- ☐ RECORD
- ☐ DETAILED
- ☑ TENDER
- ☐ SHOP DWG
- ☐ AS BUILT

PROJECT:
PROPOSED TYPICAL SOCIAL+ AFFORDABLE UNITS BLOCK TYPE A G+14

CLIENT: SATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

LOCATION:

DRAWING TITLE :
1ST, 10TH & 13TH FLOOR SOCIAL+ AFFORDABLE UNITS BLOCK TYPE A DRAINAGE LAYOUT

SCALE : 1:100

DRAWN BY :

CHECKED BY :

Date : Signature:

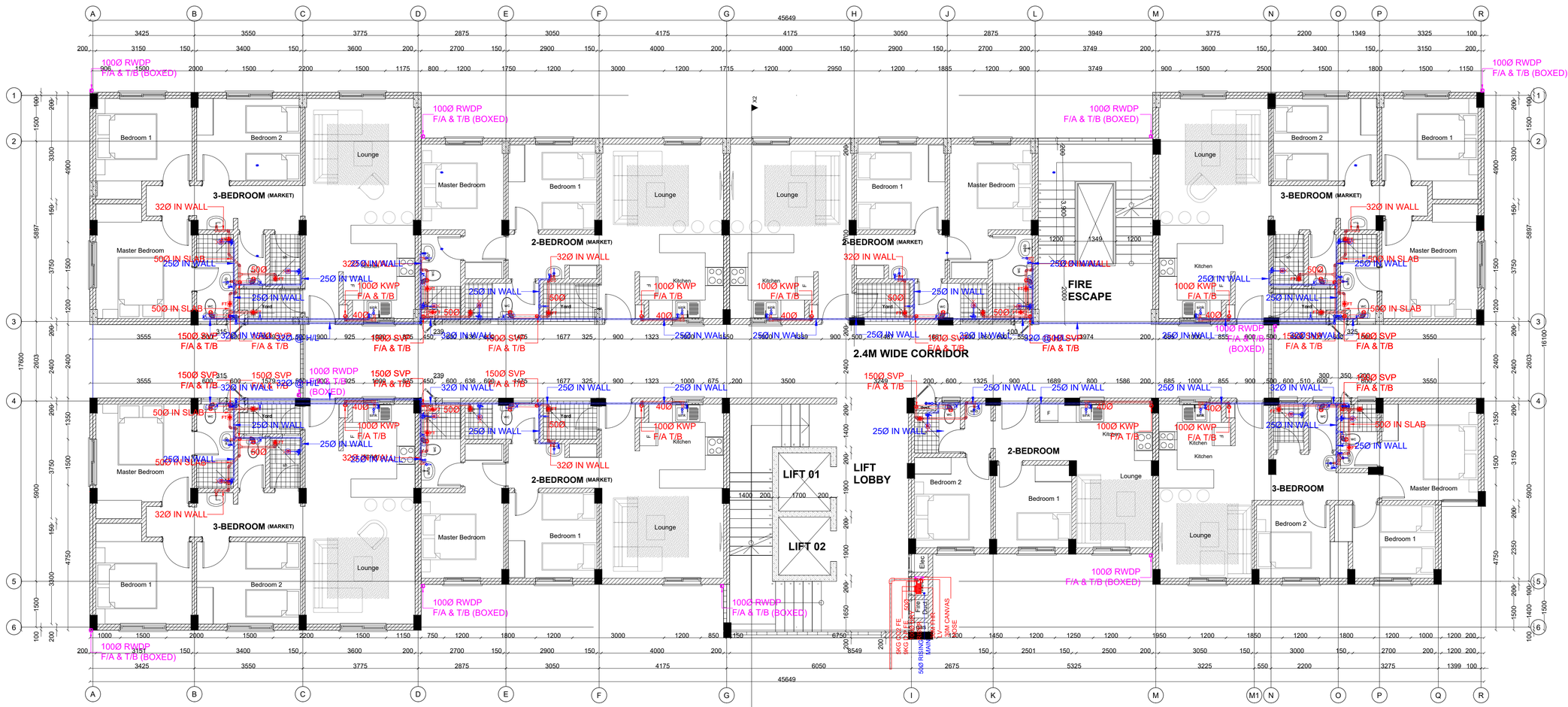
DATE :

MINISTRY OF LANDS, PUBLIC WORKS HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

HARAMBEE

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA



PROPOSED TYPICAL AFFORDABLE + MARKET UNITS BLOCK TYPE B_TYPICAL 1ST-9TH FLOOR LEVEL

UNIT BREAK DOWN_ UNIT BREAK DOWN			
AFFORDABLE UNITS		MARKET UNITS	
2_BEDROOM	3_BEDROOM	2_BEDROOM	3_BEDROOM
1	1	3	3

GENERAL NOTES

1. This drawing to be read in conjunction with architectural drawings.
2. All dimensions are in mm unless otherwise specified.
3. Drawings are not to be scaled . Only figured dimensions should be used .
4. The contractor must check and verify all dimensions before commencement of work and if necessary confirm with the architect .

REV.	DATE	DESCRIPTION

DRAWING ISSUED FOR:

- ☐ APPROVAL
- ☐ RECORD
- ☐ DETAILED
- ☑ TENDER
- ☐ SHOP DWG
- ☐ AS BUILT

PROJECT:
PROPOSED TYPICAL SOCIAL+ AFFORDABLE UNITS BLOCK TYPE A G+14

CLIENT: SATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

LOCATION:

DRAWING TITLE :
1ST, 10TH & 13TH FLOOR SOCIAL+ AFFORDABLE UNITS BLOCK TYPE A DRAINAGE LAYOUT

SCALE : 1:100

DRAWN BY :

CHECKED BY :

Date : Signature:

DATE :

MINISTRY OF LANDS, PUBLIC WORKS HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

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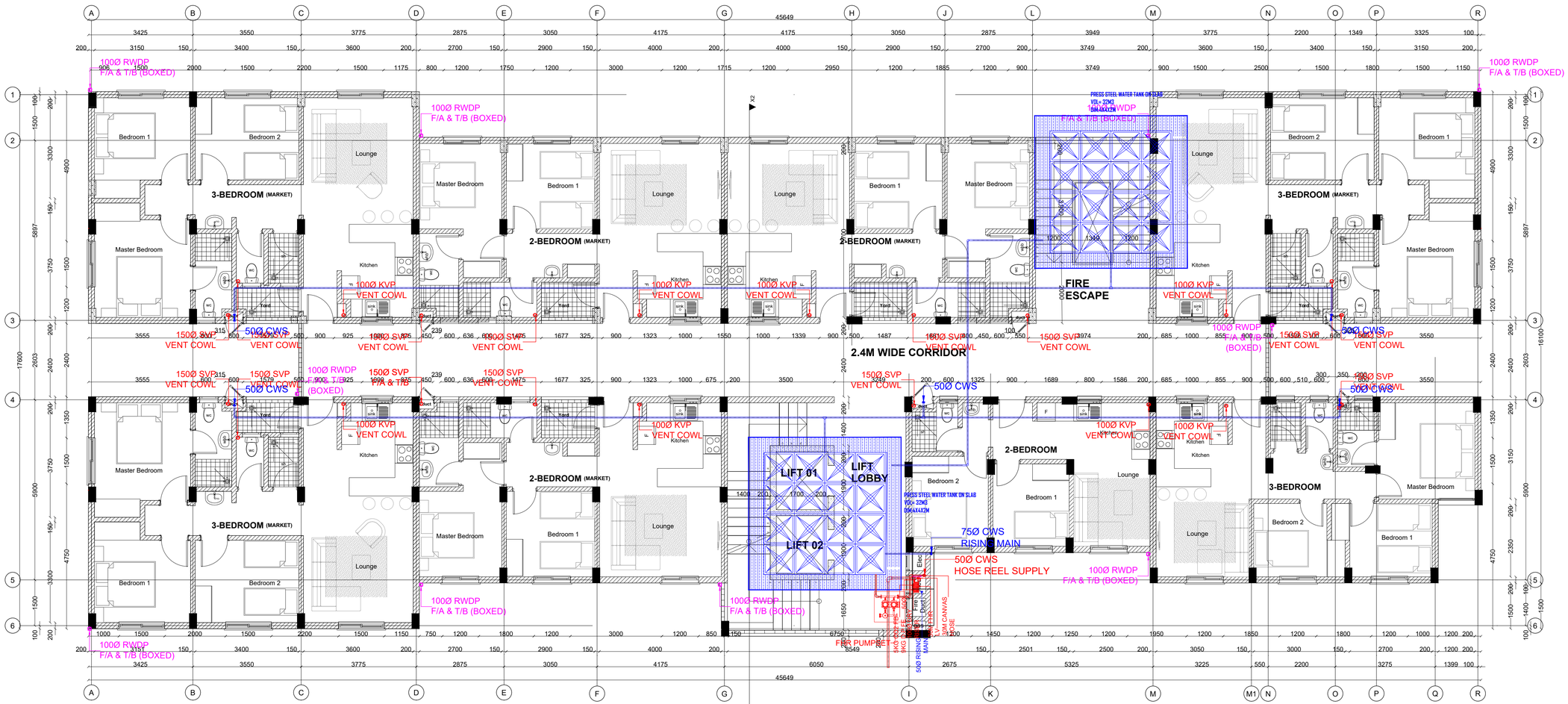
FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA



PROPOSED TYPICAL AFFORDABLE + MARKET UNITS BLOCK TYPE B_TYPICAL 1ST-9TH FLOOR LEVEL

UNIT BREAK DOWN_ UNIT BREAK DOWN			
AFFORDABLE UNITS		MARKET UNITS	
2_BEDROOM	3_BEDROOM	2_BEDROOM	3_BEDROOM
1	1	3	3

GENERAL NOTES

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4. The contractor must check and verify all dimensions before commencement of work and if necessary confirm with the architect .

REV.	DATE	DESCRIPTION

DRAWING ISSUED FOR:

- ☐ APPROVAL
- ☐ RECORD
- ☐ DETAILED
- ☑ TENDER
- ☐ SHOP DWG
- ☐ AS BUILT

PROJECT:
PROPOSED TYPICAL SOCIAL+ AFFORDABLE UNITS BLOCK TYPE A G+14

CLIENT: SATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

LOCATION:

DRAWING TITLE :

1ST, 10TH & 13TH FLOOR SOCIAL+ AFFORDABLE UNITS BLOCK TYPE A DRAINAGE LAYOUT

SCALE : 1:100

DRAWN BY :

CHECKED BY :

Date : Signature:

DATE :

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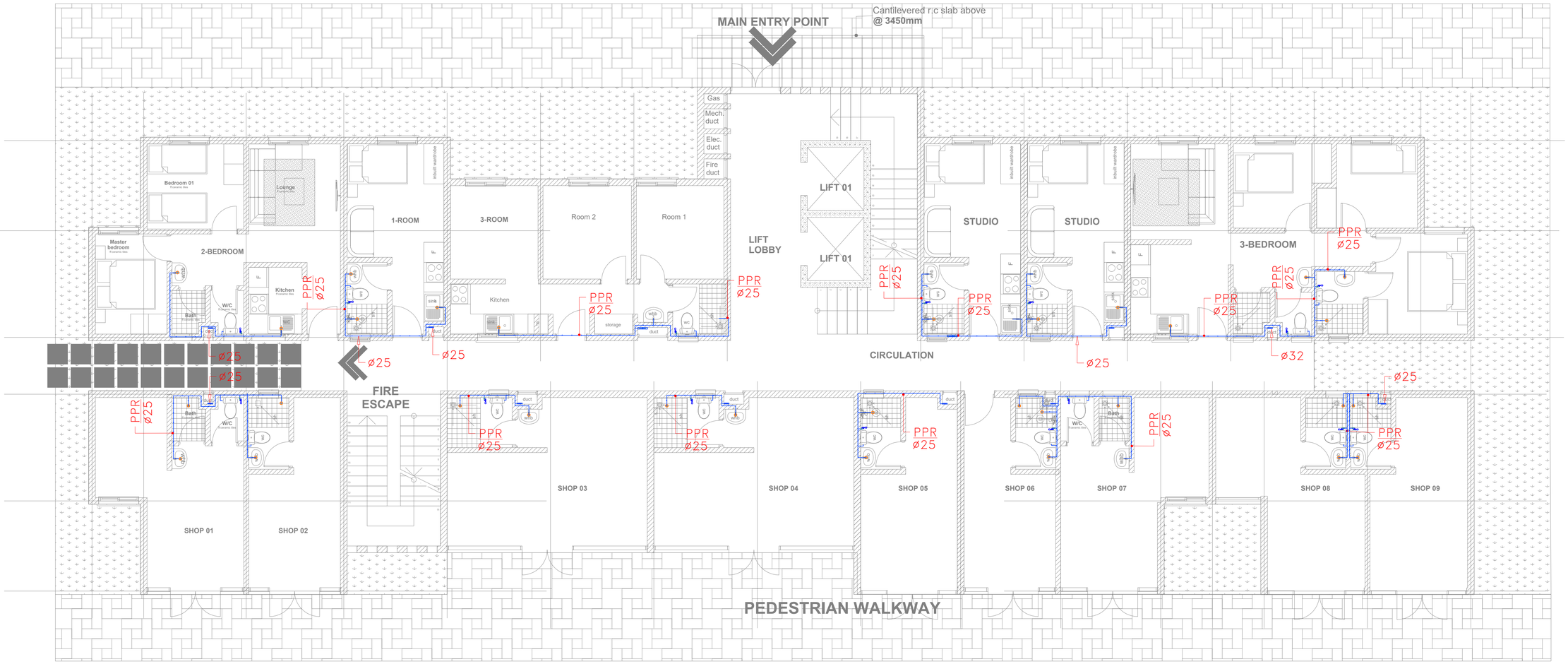

PROPOSED TYPICAL MIXED USE BLOCK TYPE C_GROUND FLOOR PLAN

UNIT BREAK DOWN_ UNIT BREAK DOWN						
1_ROOM	2_ROOM	3_ROOM	STUDIO	2_BEDROOM	3_BEDROOM	RETAIL
1	2	1	2	1	1	9

GROUND FLOOR SOCIAL+ AFFORDABLE UNITS BLOCK TYPE C

GENERAL NOTES

1. This drawing to be read in conjunction with architectural drawings.
2. All dimensions are in mm unless otherwise specified.
3. Drawings are not to be scaled . Only figured dimensions should be used .
4. The contractor must check and verify all dimensions before commencement of work and if necessary confirm with the architect .

REV.	DATE	DESCRIPTION

DRAWING ISSUED FOR:

☐ APPROVAL ☐ RECORD

☐ DETAILED ☑ TENDER

☐ SHOP DWG ☐ AS BUILT

PROJECT:
PROPOSED TYPICAL MIXED USE BLOCK TYPE C [G+14]

CLIENT: SATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

LOCATION:

DRAWING TITLE :

GROUND FLOOR SOCIAL+ AFFORDABLE UNITS BLOCK TYPE C

SCALE : 1:100

DRAWN BY :

CHECKED BY :

Date : Signature:

DATE :

MINISTRY OF LANDS, PUBLIC WORKS HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA

PROPOSED TYPICAL MIXED USE BLOCK TYPE C_TYPICAL 1ST-14TH FLOOR PLAN

UNIT BREAK DOWN_ UNIT BREAK DOWN					
1_ROOM	2_ROOM	3_ROOM	STUDIO	2_BEDROOM	3_BEDROOM
1	2	1	3	4	1

TYPICAL FLOOR SOCIAL+ AFFORDABLE UNITS BLOCK TYPE C

GENERAL NOTES

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REV.	DATE	DESCRIPTION

DRAWING ISSUED FOR:

- ☐ APPROVAL
- ☐ RECORD
- ☐ DETAILED
- ☒ TENDER
- ☐ SHOP DWG
- ☐ AS BUILT

PROJECT:
PROPOSED TYPICAL MIXED USE BLOCK TYPE C [G+14]

CLIENT: SATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

LOCATION:

DRAWING TITLE :

TYPICAL FLOOR WATER SUPPLY SOCIAL+ AFFORDABLE UNITS BLOCK TYPE C

SCALE : 1:100

DRAWN BY :

CHECKED BY :

Date : Signature:

DATE :

MINISTRY OF LANDS, PUBLIC WORKS HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

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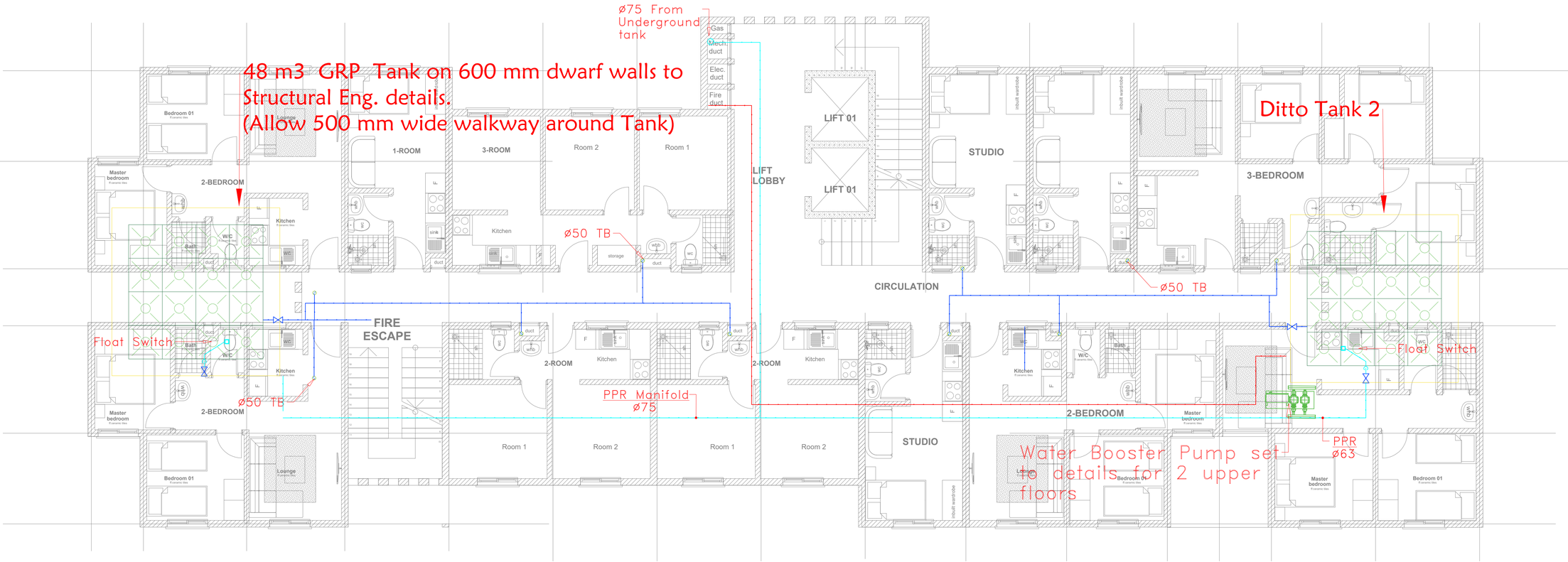
FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA



PROPOSED TYPICAL MIXED USE BLOCK TYPE C_TYPICAL 1ST-14TH FLOOR PLAN

UNIT BREAK DOWN_ UNIT BREAK DOWN					
1_ROOM	2_ROOM	3_ROOM	STUDIO	2_BEDROOM	3_BEDROOM
1	2	1	3	4	1

ROOF FLOOR SOCIAL+ AFFORDABLE UNITS BLOCK TYPE C

GENERAL NOTES

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REV.	DATE	DESCRIPTION

DRAWING ISSUED FOR:

- ☐ APPROVAL
- ☐ RECORD
- ☐ DETAILED
- ☑ TENDER
- ☐ SHOP DWG
- ☐ AS BUILT

PROJECT:
PROPOSED TYPICAL MIXED USE BLOCK TYPE C [G+14]

CLIENT: SATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

LOCATION:

DRAWING TITLE :

ROOF FLOOR WATER SUPPLY SOCIAL+ AFFORDABLE UNITS BLOCK TYPE C

SCALE : 1:100

DRAWN BY :

CHECKED BY :

Date : Signature:

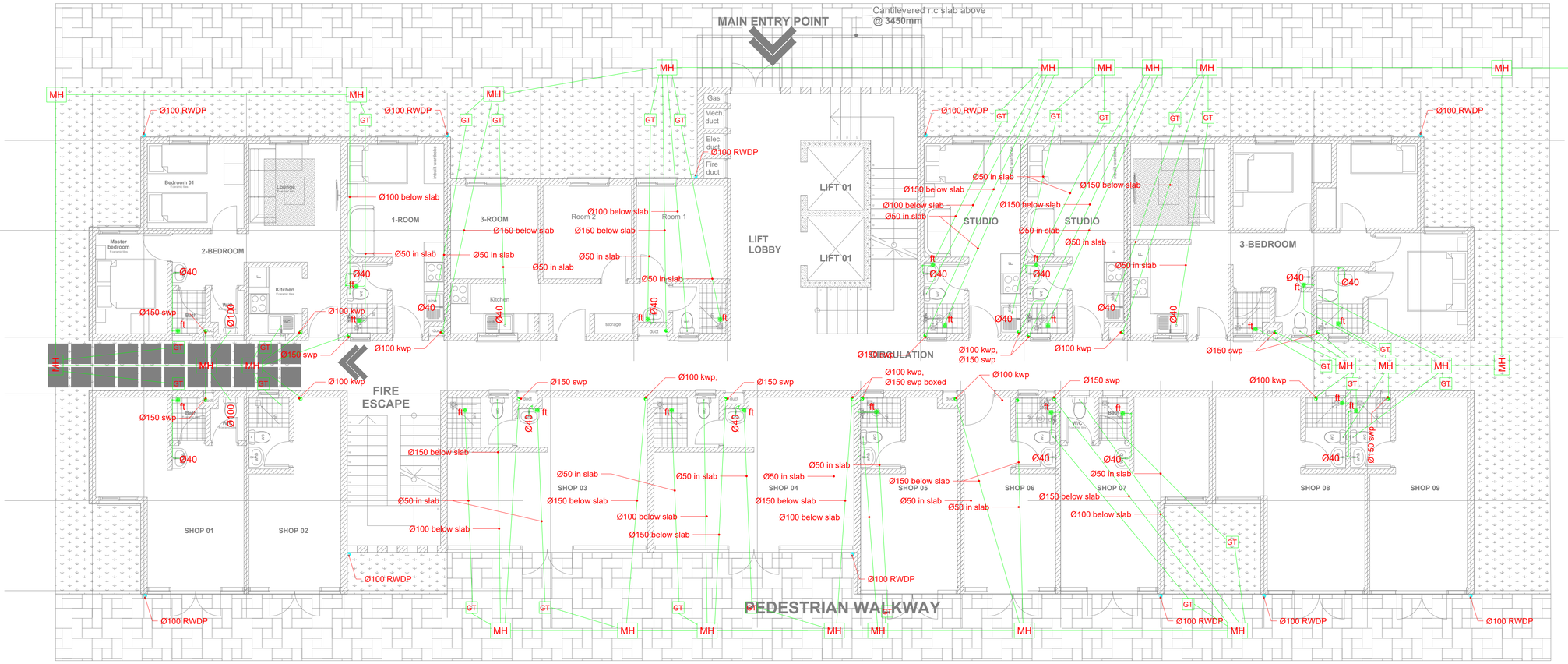
DATE :

MINISTRY OF LANDS, PUBLIC WORKS HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA

BLOCK TYPOLOGY C [G+14]



PROPOSED TYPICAL MIXED USE BLOCK TYPE C_GROUND FLOOR PLAN

UNIT BREAK DOWN_ UNIT BREAK DOWN						
1_ROOM	2_ROOM	3_ROOM	STUDIO	2_BEDROOM	3_BEDROOM	RETAIL
1	2	1	2	1	1	9

TYPE C GROUND FLOOR SOCIAL+ AFFORDABLE UNITS DRAINAGE LAYOUT

GENERAL NOTES

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REV.	DATE	DESCRIPTION

DRAWING ISSUED FOR:

- ☐ APPROVAL
- ☐ RECORD
- ☐ DETAILED
- ☒ TENDER
- ☐ SHOP DWG
- ☐ AS BUILT

PROJECT:
PROPOSED TYPICAL MIXED USE BLOCK TYPE C [G+14]

CLIENT: SATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

LOCATION:

DRAWING TITLE :

TYPE C GROUND FLOOR SOCIAL+ AFFORDABLE UNITS DRAINAGE LAYOUT

SCALE : 1:100

DRAWN BY :

CHECKED BY :

Date : Signature:

DATE :

MINISTRY OF LANDS, PUBLIC WORKS HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA

PROPOSED TYPICAL MIXED USE BLOCK TYPE C_TYPICAL 1ST-14TH FLOOR PLAN

UNIT BREAK DOWN_ UNIT BREAK DOWN					
1_ROOM	2_ROOM	3_ROOM	STUDIO	2_BEDROOM	3_BEDROOM
1	2	1	3	4	1

TYPE C TYPICAL FLOOR SOCIAL+ AFFORDABLE UNITS DRAINAGE LAYOUT

GENERAL NOTES

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REV.	DATE	DESCRIPTION

DRAWING ISSUED FOR:

- ☐ APPROVAL
- ☐ RECORD
- ☐ DETAILED
- ☒ TENDER
- ☐ SHOP DWG
- ☐ AS BUILT

PROJECT:
PROPOSED TYPICAL MIXED USE BLOCK TYPE C [G+14]

CLIENT: SATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

LOCATION:

DRAWING TITLE :

TYPE C TYPICAL FLOOR SOCIAL+ AFFORDABLE UNITS DRAINAGE LAYOUT

SCALE : 1:100

DRAWN BY :

CHECKED BY :

Date : Signature:

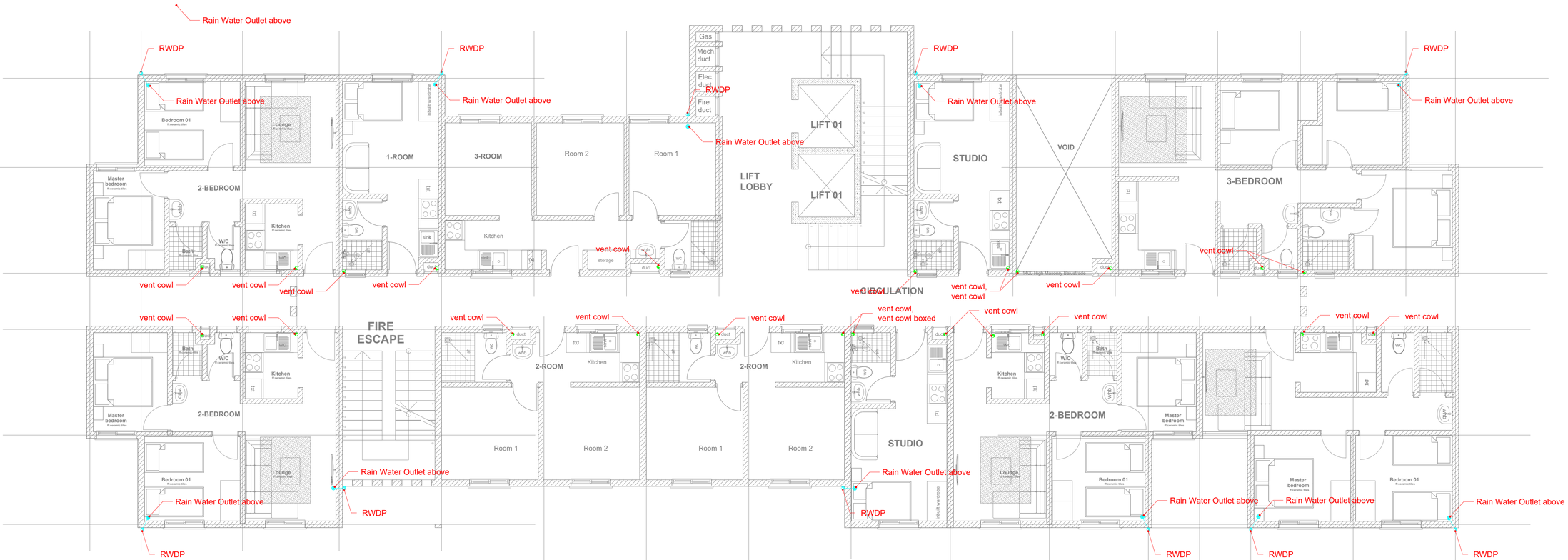
DATE :

MINISTRY OF LANDS, PUBLIC WORKS HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

HARAMBEE

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA



PROPOSED TYPICAL MIXED USE BLOCK TYPE C_TYPICAL 1ST-14TH FLOOR PLAN

UNIT BREAK DOWN_ UNIT BREAK DOWN					
1_ROOM	2_ROOM	3_ROOM	STUDIO	2_BEDROOM	3_BEDROOM
1	2	1	3	4	1

TYPE C ROOF FLOOR SOCIAL+ AFFORDABLE UNITS DRAINAGE LAYOUT

GENERAL NOTES

1. This drawing to be read in conjunction with architectural drawings.
2. All dimensions are in mm unless otherwise specified.
3. Drawings are not to be scaled . Only figured dimensions should be used .
4. The contractor must check and verify all dimensions before commencement of work and if necessary confirm with the architect .

REV.	DATE	DESCRIPTION

DRAWING ISSUED FOR:

- ☐ APPROVAL
- ☐ RECORD
- ☐ DETAILED
- ☑ TENDER
- ☐ SHOP DWG
- ☐ AS BUILT

PROJECT:
PROPOSED TYPICAL MIXED USE BLOCK TYPE C [G+14]

CLIENT: SATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

LOCATION:

DRAWING TITLE :

TYPE C ROOF FLOOR SOCIAL+ AFFORDABLE UNITS DRAINAGE LAYOUT

SCALE : 1:100

DRAWN BY :

CHECKED BY :

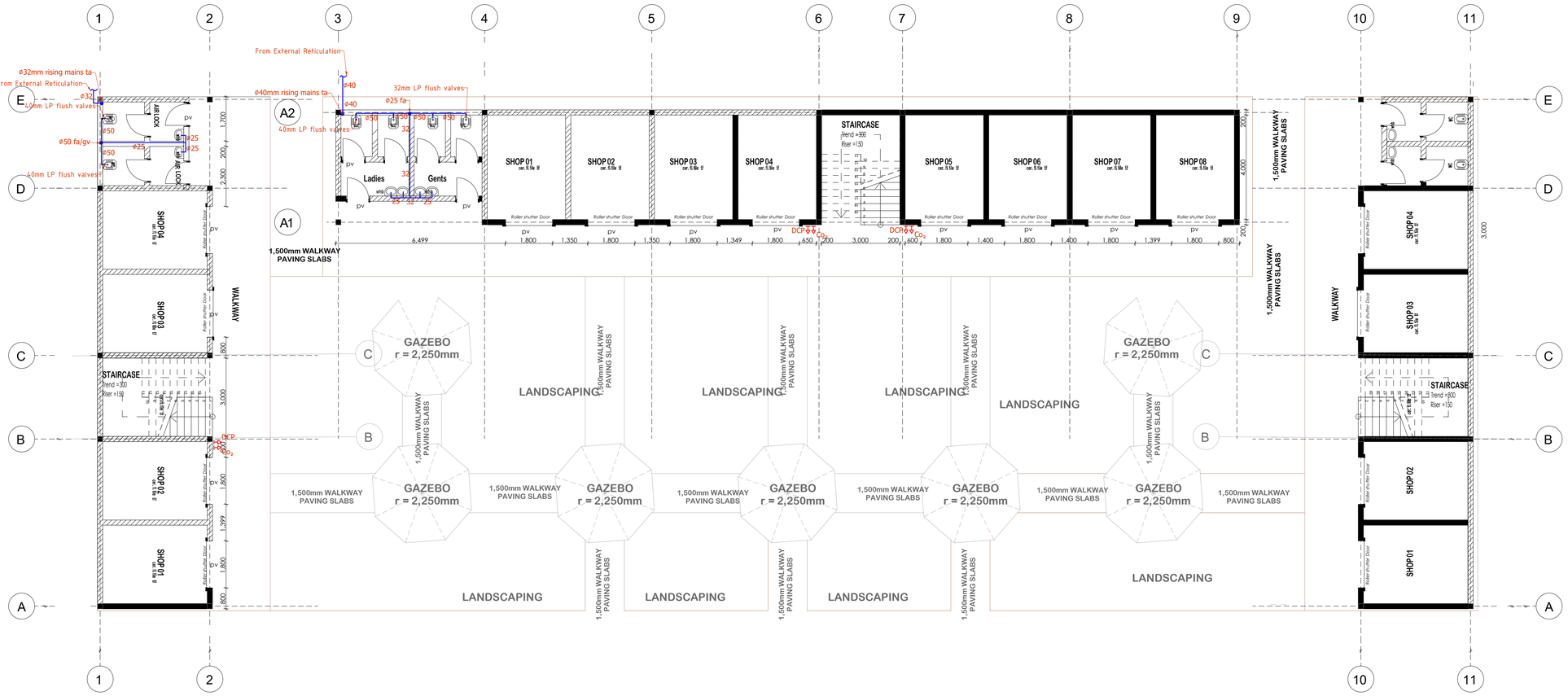
Date : Signature:

DATE :

MINISTRY OF LANDS, PUBLIC WORKS HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA



STALL GROUND FLOOR WATER SUPPLY

0. Ground Floor Plan 1:100

GENERAL NOTES

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REV.	DATE	DESCRIPTION

DRAWING ISSUED FOR:

- ☐ APPROVAL
- ☐ RECORD
- ☐ DETAILED
- ☑ TENDER
- ☐ SHOP DWG
- ☐ AS BUILT

PROJECT: **STALLS**

CLIENT: SATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

LOCATION: NYALI ESTATE

DRAWING TITLE :

STALL GROUND FLOOR WATER SUPPLY

SCALE : 1:100

DRAWN BY :

CHECKED BY :

Date : Signature:

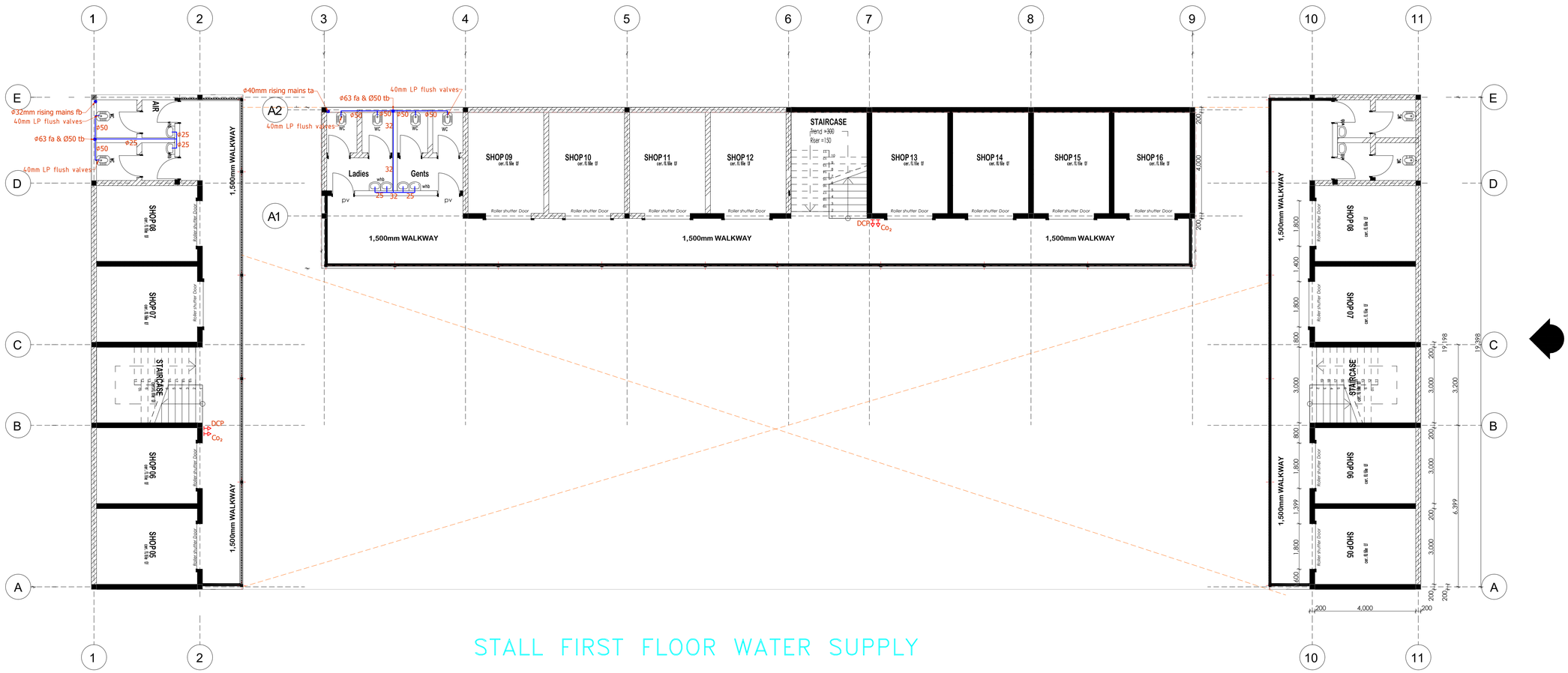
DATE :

MINISTRY OF LANDS, PUBLIC WORKS HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

HARAMBEE

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA



STALL FIRST FLOOR WATER SUPPLY

GENERAL NOTES

1. This drawing to be read in conjunction with architectural drawings.
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3. Drawings are not to be scaled . Only figured dimensions should be used .
4. The contractor must check and verify all dimensions before commencement of work and if necessary confirm with the architect .

REV.	DATE	DESCRIPTION

DRAWING ISSUED FOR:

- ☐ APPROVAL
- ☐ RECORD
- ☐ DETAILED
- ☒ TENDER
- ☐ SHOP DWG
- ☐ AS BUILT

PROJECT: **STALLS**

CLIENT: SATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

LOCATION: NYALI ESTATE

DRAWING TITLE :

STALL FIRST FLOOR WATER SUPPLY

SCALE : 1:100

DRAWN BY :

CHECKED BY :

Date : Signature:

DATE :

MINISTRY OF LANDS, PUBLIC WORKS HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

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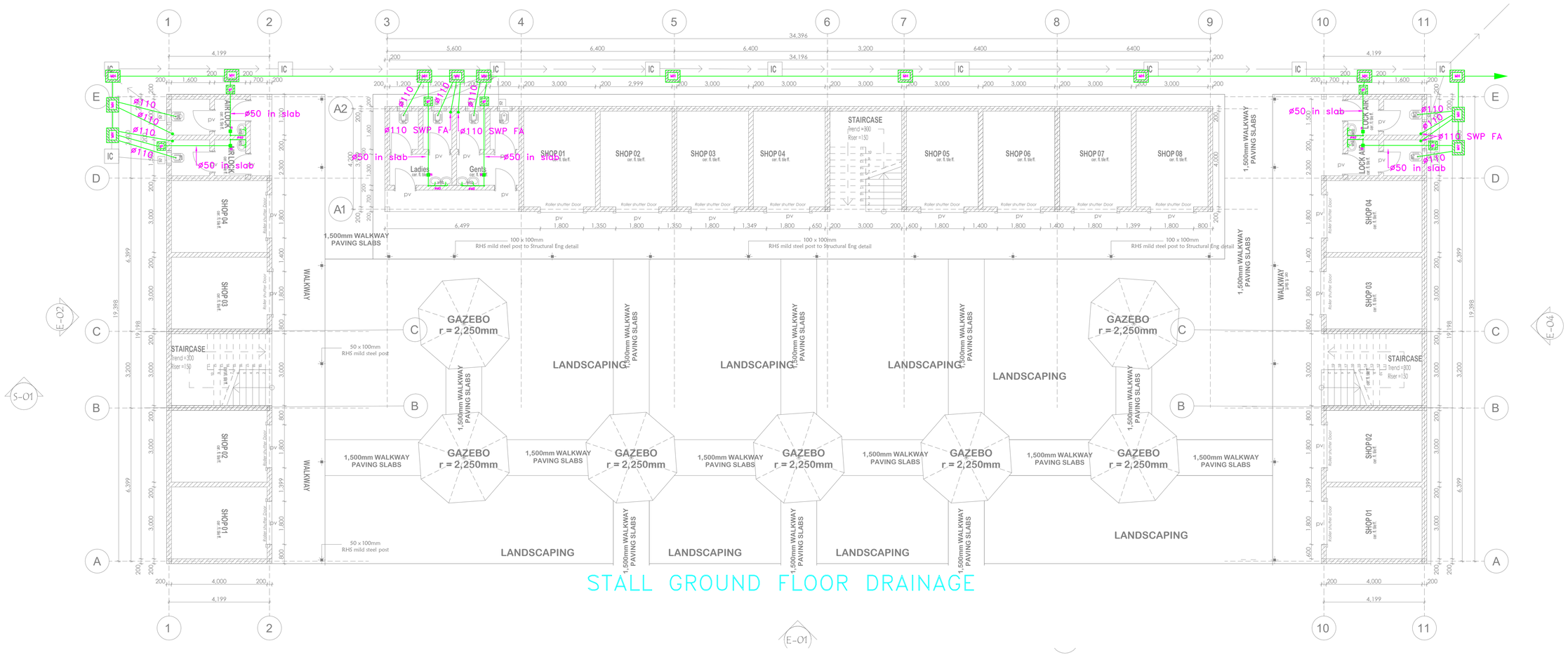
FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA



STALL GROUND FLOOR DRAINAGE

GENERAL NOTES

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REV.	DATE	DESCRIPTION

DRAWING ISSUED FOR:

- ☐ APPROVAL
- ☐ RECORD
- ☐ DETAILED
- ☑ TENDER
- ☐ SHOP DWG
- ☐ AS BUILT

PROJECT: **STALLS**

CLIENT: SATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

LOCATION: NYALI ESTATE

DRAWING TITLE :

STALL GROUND FLOOR DRAINAGE

SCALE : 1:100

DRAWN BY :

CHECKED BY :

Date : Signature:

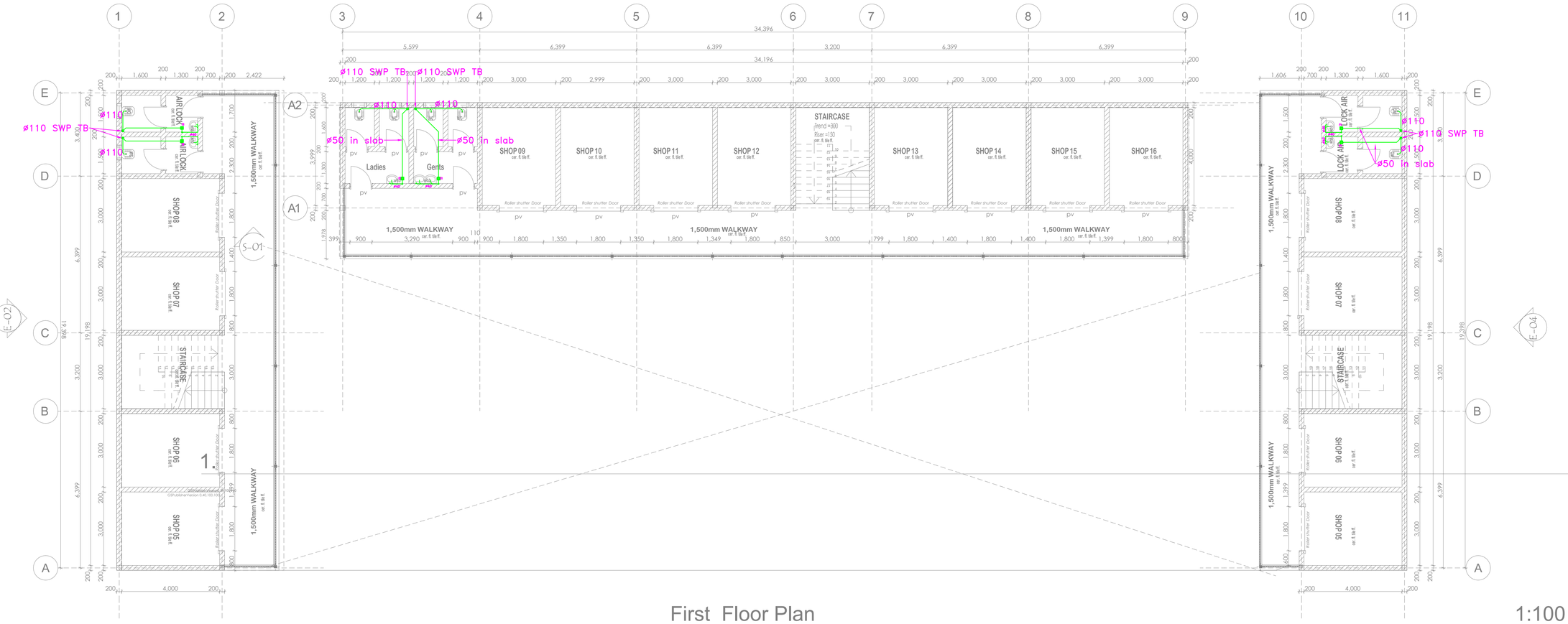
DATE :

MINISTRY OF LANDS, PUBLIC WORKS HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

HARAMBEE

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA



First Floor Plan

1:100

STALL FIRST FLOOR DRAINAGE

GENERAL NOTES

1. This drawing to be read in conjunction with architectural drawings.
2. All dimensions are in mm unless otherwise specified.
3. Drawings are not to be scaled . Only figured dimensions should be used .
4. The contractor must check and verify all dimensions before commencement of work and if necessary confirm with the architect .

REV.	DATE	DESCRIPTION

DRAWING ISSUED FOR:

- ☐ APPROVAL
- ☐ RECORD
- ☐ DETAILED
- ☒ TENDER
- ☐ SHOP DWG
- ☐ AS BUILT

PROJECT: **STALLS**

CLIENT: SATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

LOCATION: NYALI ESTATE

DRAWING TITLE :

STALL FIRST FLOOR DRAINAGE

SCALE : 1:100

DRAWN BY :

CHECKED BY :

Date : Signature:

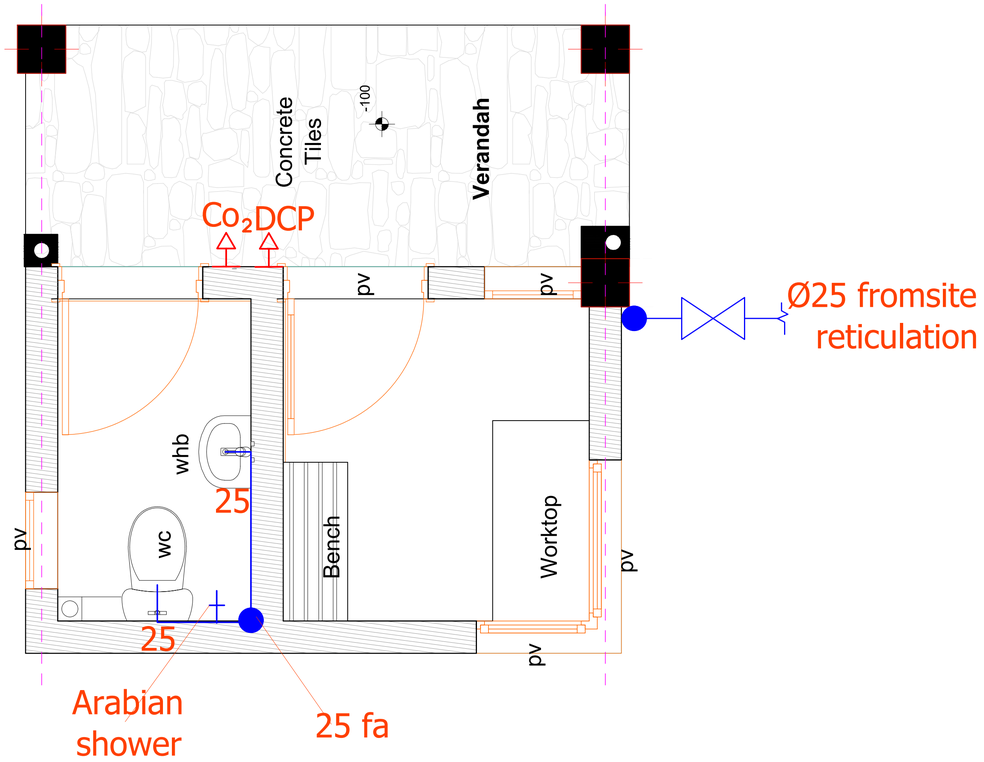
DATE :

MINISTRY OF LANDS, PUBLIC WORKS HOUSING AND URBAN DEVELOPMENT

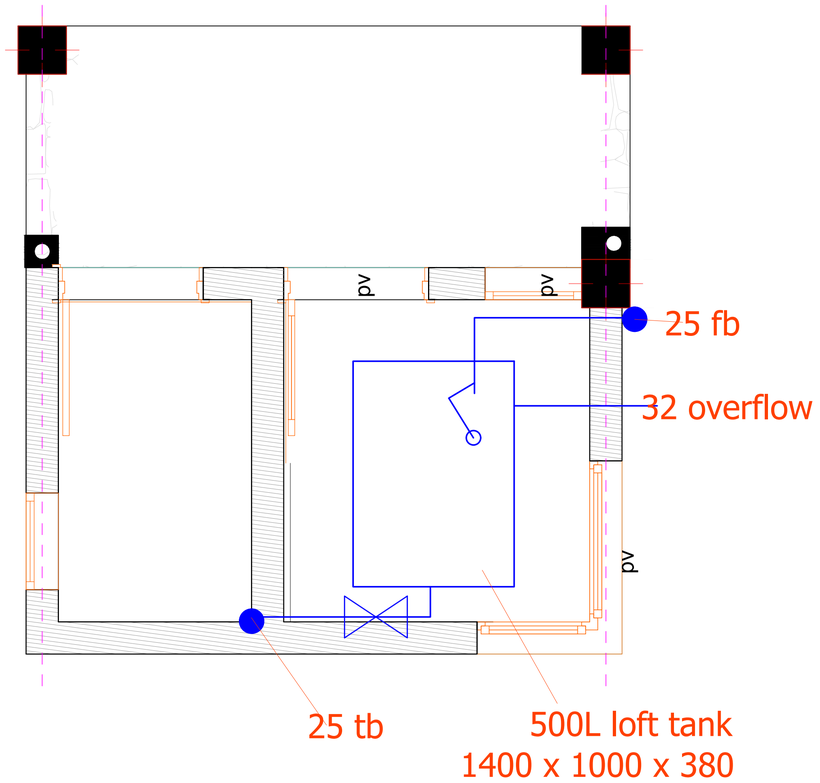
STATE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

HARAMBEE

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA



Ground floor water supply



roof tank

GENERAL NOTES

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REV.	DATE	DESCRIPTION

DRAWING ISSUED FOR:

- ☐ APPROVAL
- ☐ RECORD
- ☐ DETAILED
- ☑ TENDER
- ☐ SHOP DWG
- ☐ AS BUILT

PROJECT: **AHP**

CLIENT: SATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

LOCATION:

DRAWING TITLE :

GATE HOUSE WATER SUPPLY

SCALE : **1:100**

DRAWN BY :

CHECKED BY :

Date : **Signature:**

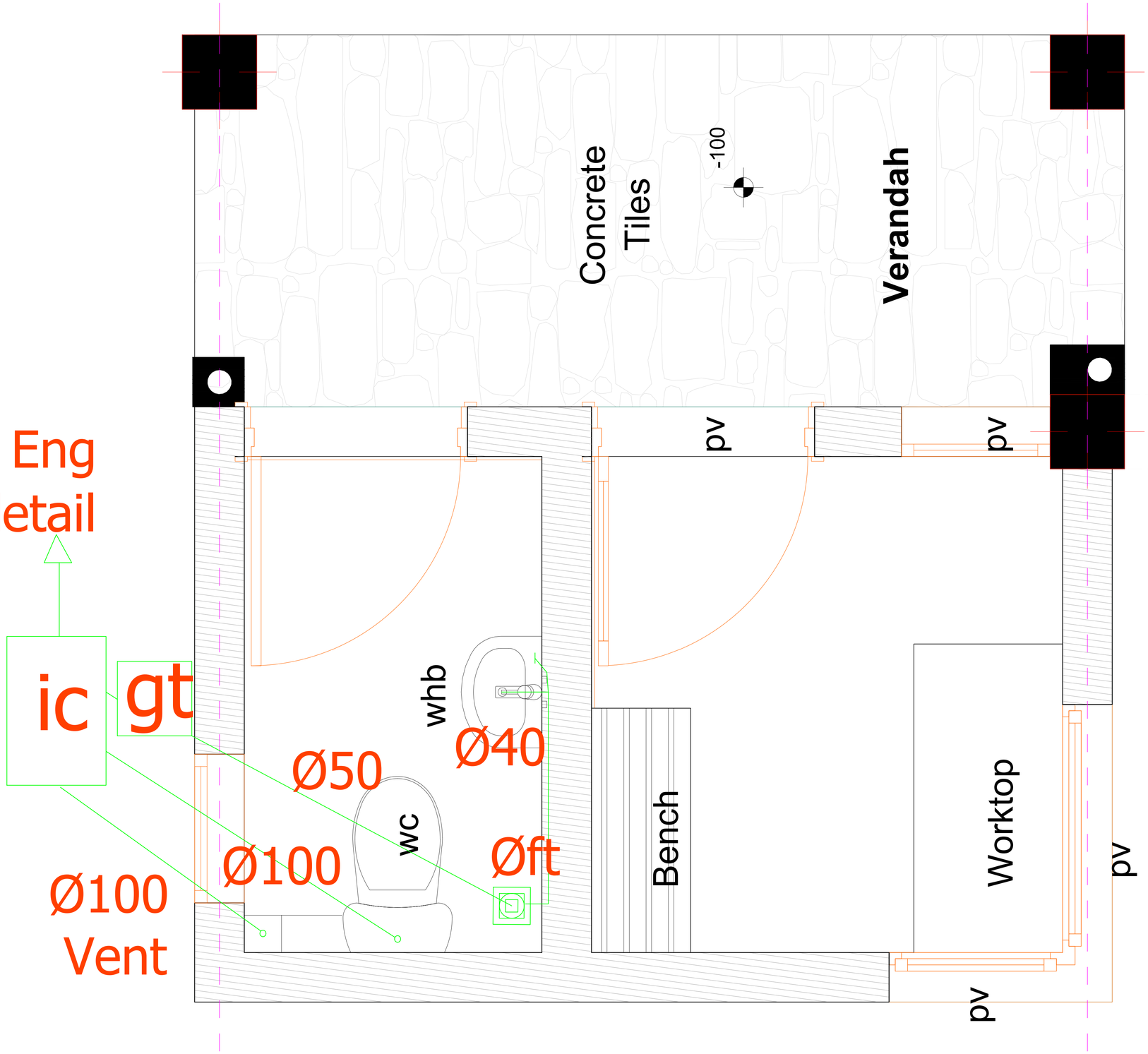
DATE :

MINISTRY OF LANDS, PUBLIC WORKS HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

HARAMBEE

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA



GATE HOUSE DRAINAGE

GENERAL NOTES

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REV.	DATE	DESCRIPTION

DRAWING ISSUED FOR:

- ☐ APPROVAL
- ☐ RECORD
- ☐ DETAILED
- ☑ TENDER
- ☐ SHOP DWG
- ☐ AS BUILT

PROJECT: **AHP**

CLIENT: SATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

LOCATION:

DRAWING TITLE :

GATE HOUSE DRAINAGE

SCALE : **1:100**

DRAWN BY :

CHECKED BY :

Date : **Signature:**

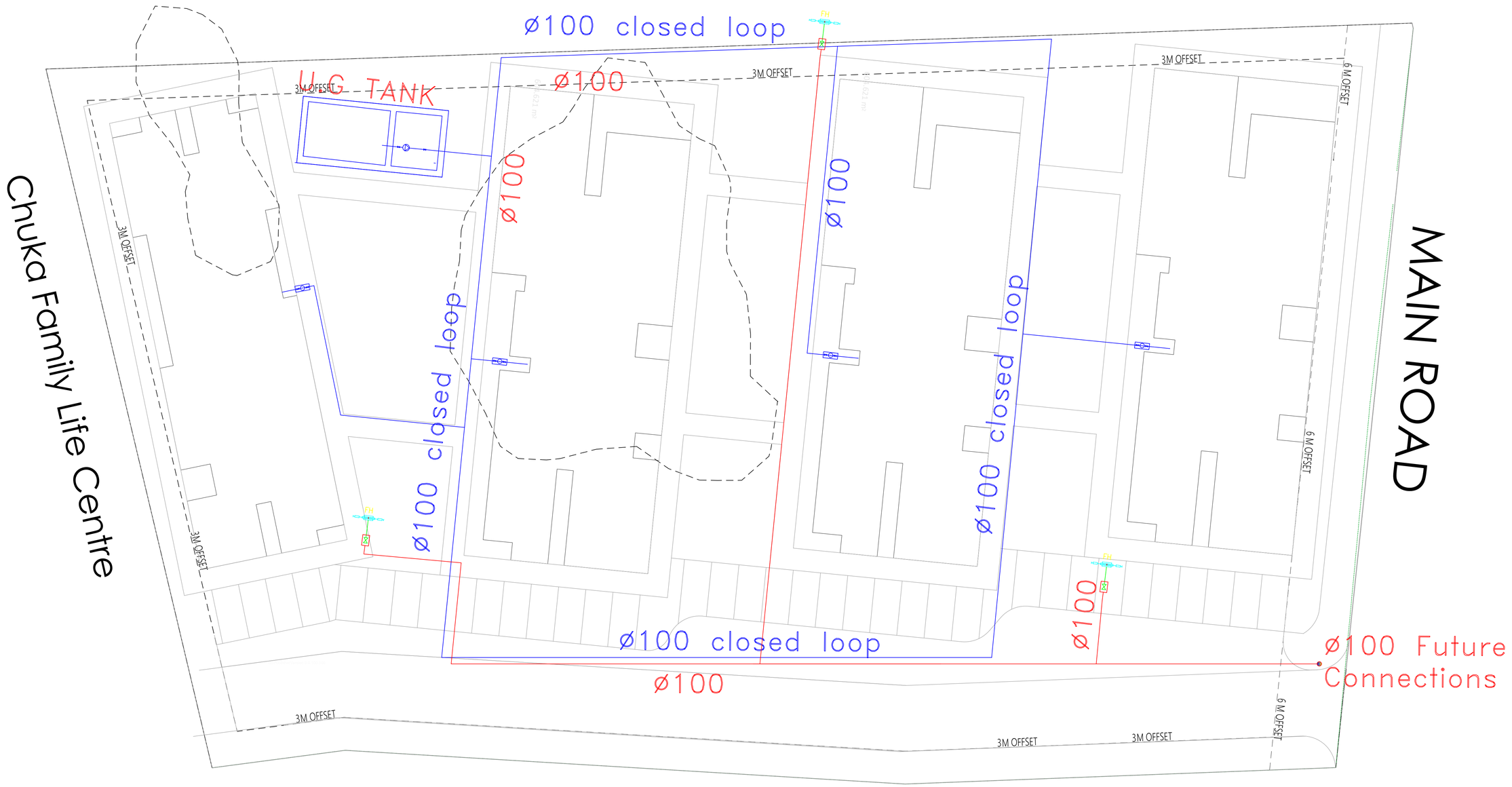
DATE :

MINISTRY OF LANDS, PUBLIC WORKS HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

HARAMBEE

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA



GENERAL NOTES

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4. The contractor must check and verify all dimensions before commencement of work and if necessary confirm with the architect .

REV.	DATE	DESCRIPTION

DRAWING ISSUED FOR:

- ☐ APPROVAL
- ☐ RECORD
- ☐ DETAILED
- ☑ TENDER
- ☐ SHOP DWG
- ☐ AS BUILT

PROJECT: **Resedential Building**

CLIENT: STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

LOCATION: CHUKA AHP

DRAWING TITLE :
WATER SUPPLY &FIREFIGHTING MASTERPLAN

DRAWING NO :

SCALE : 1:100

DRAWN BY : B.M

CHECKED BY : C.A

Date : **Signature:**

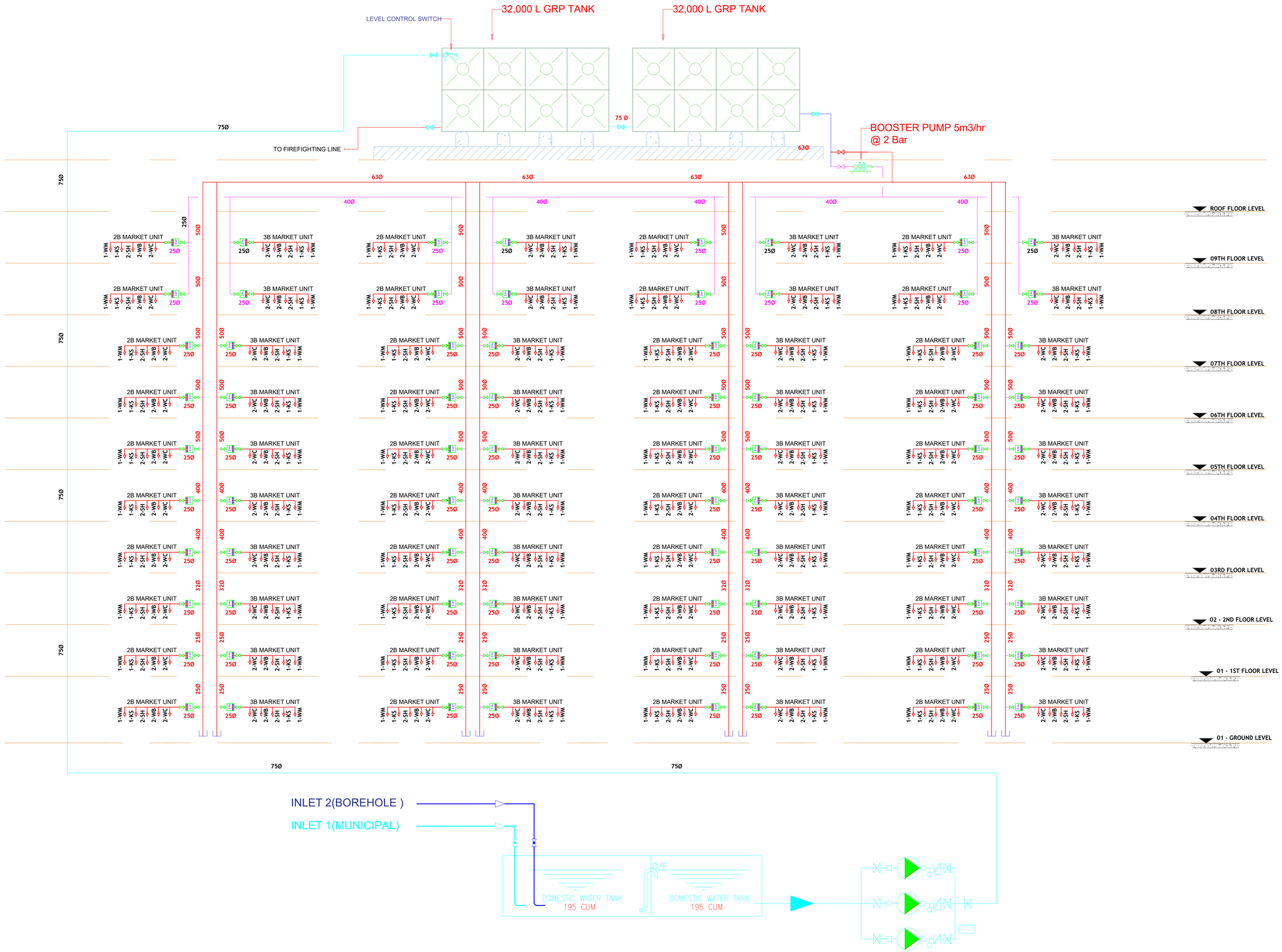
DATE : MARCH 2024

MINISTRY OF LANDS, PUBLIC WORKS HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

HARAMBEE

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA



PROPOSED TYPICAL AFFORDABLE +MARKET UNITS BLOCK TYPE B

GENERAL NOTES

1. This drawing to be read in conjunction with architectural drawings.
2. All dimensions are in mm unless otherwise specified.
3. Drawings are not to be scaled . Only figured dimensions should be used .
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REV.	DATE	DESCRIPTION

DRAWING ISSUED FOR:

- ☐ APPROVAL
- ☐ RECORD
- ☐ DETAILED
- ☑ TENDER
- ☐ SHOP DWG
- ☐ AS BUILT

PROJECT:

PRPROPOSED TYPICAL MARKET+ AFFORDABLE UNITS BLOCK TYPE B

CLIENT: SATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

LOCATION:

DRAWING TITLE :

WATER SUPPLY SCHEMATICS

DRAWING NO :

PMAHP-M-WS_300

SCALE : 1:100

DRAWN BY :

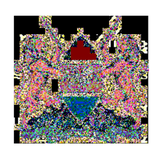
CHECKED BY :

Date : Signature:

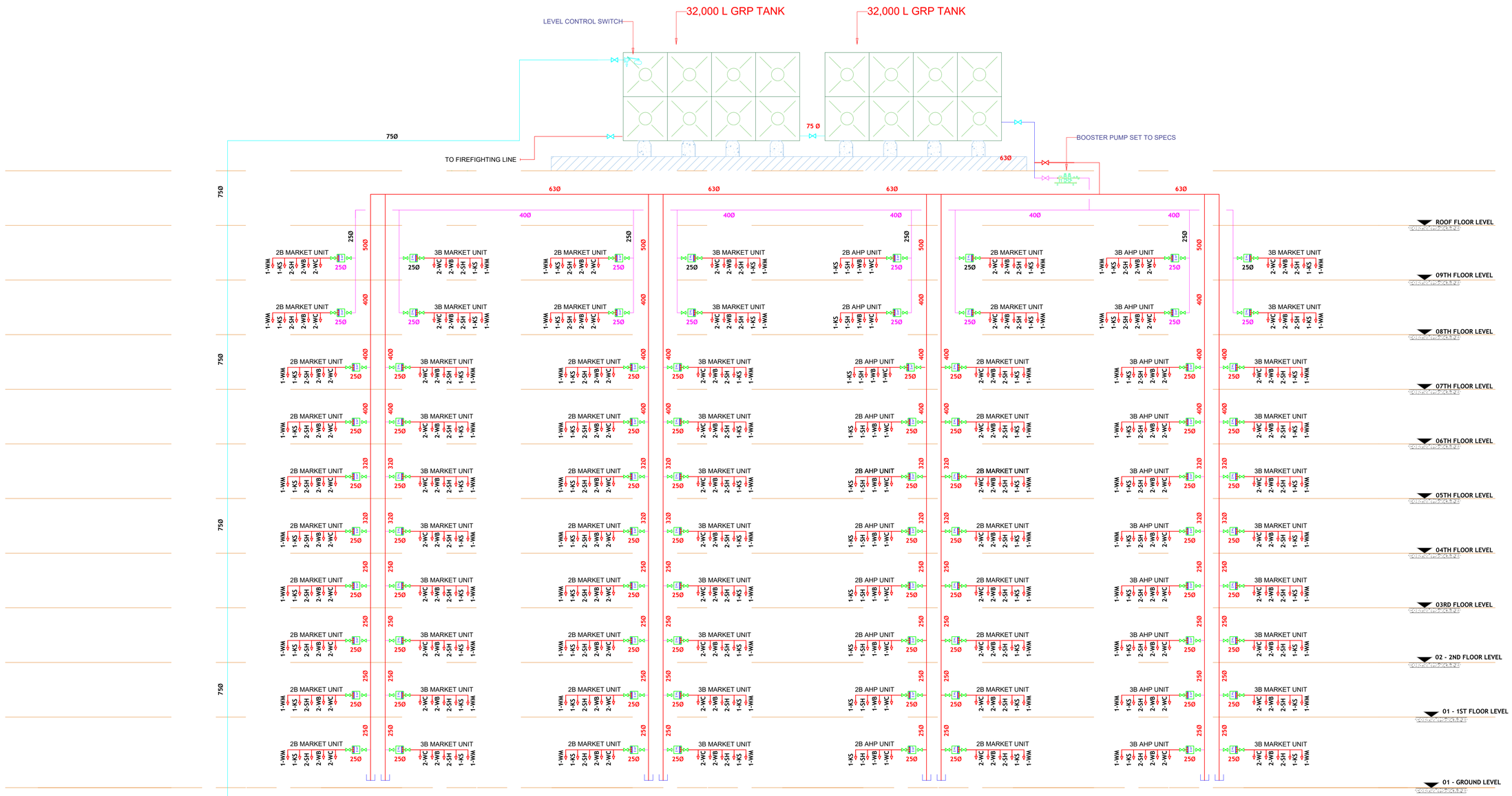
DATE :

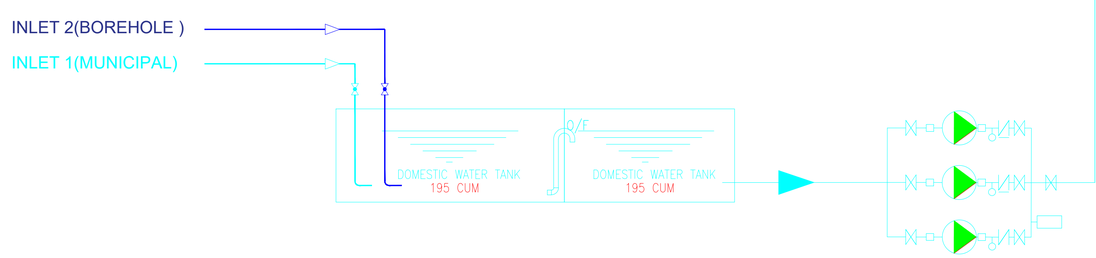
MINISTRY OF LANDS, PUBLIC WORKS HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT



FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA





PRPROPOSED TYPICAL SOCIAL+ AFFORDABLE UNITS BLOCK TYPE A

GENERAL NOTES

1. This drawing to be read in conjunction with architectural drawings.
2. All dimensions are in mm unless otherwise specified.
3. Drawings are not to be scaled . Only figured dimensions should be used .
4. The contractor must check and verify all dimensions before commencement of work and if necessary confirm with the architect .

REV.	DATE	DESCRIPTION

DRAWING ISSUED FOR:

- ☐ APPROVAL
- ☐ RECORD
- ☐ DETAILED
- ☑ TENDER
- ☐ SHOP DWG
- ☐ AS BUILT

PROJECT:

PRPROPOSED TYPICAL SOCIAL+ AFFORDABLE UNITS BLOCK TYPE A

CLIENT: SATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

LOCATION: CHUKA

DRAWING TITLE :

WATER SUPPLY SCHEMATICS

SCALE : 1:100

DRAWN BY :

CHECKED BY :

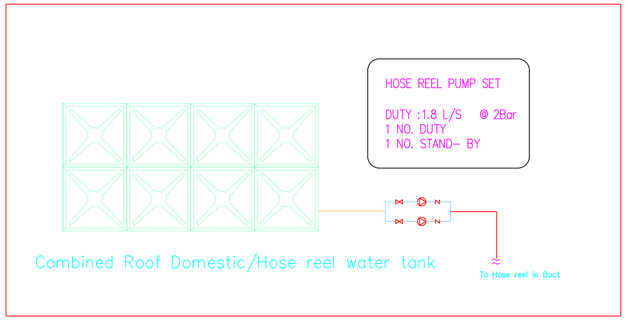
Date : Signature:

DATE :

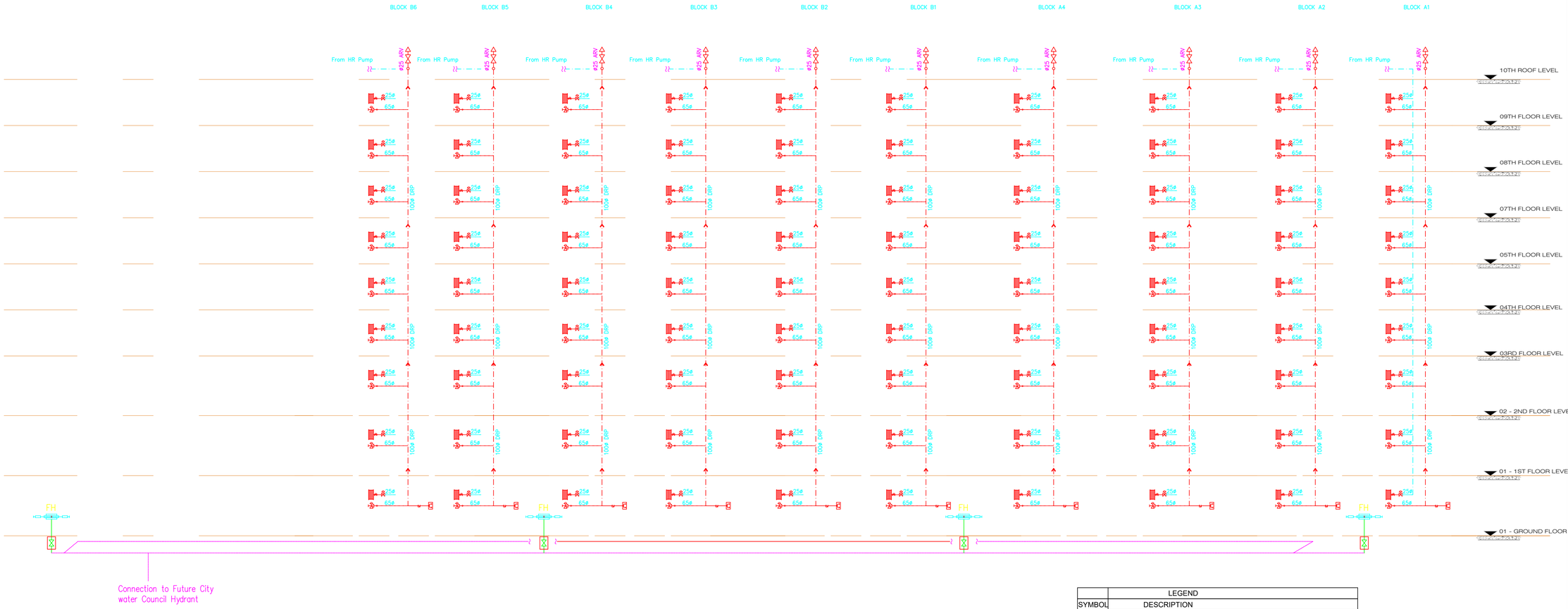
MINISTRY OF LANDS, PUBLIC WORKS HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA



Roof Hose Reel Typical Connection



	LEGEND
SYMBOL	DESCRIPTION
	OS & Y GATE VALVE
	LANDING VALVE
	EXTERNAL HYDRANT VALVE
	SINGLE HEADED HYDRANT VALVE
	HOSE REEL DRUM
	BUTTERFLY VALVE
	UNION WITH BALL VALVE FOR DRAIN
	Ø50 HOSE REEL PIPE
	Ø160 EXTERNAL HYDRANT PIPE
	Ø100 DRY RISER PIPE

FIREFIGHTING SCHEMATIC

GENERAL NOTES

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4. The contractor must check and verify all dimensions before commencement of work and if necessary confirm with the architect .

REV.	DATE	DESCRIPTION

DRAWING ISSUED FOR:

☐ APPROVAL ☐ RECORD

☐ DETAILED ☑ TENDER

☐ SHOP DWG ☐ AS BUILT

PROJECT:
PROPOSED TYPICAL AFFORDABLE +MARKET UNITS BLOCK TYPE B G+9

CLIENT: SATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

LOCATION:

DRAWING TITLE :

FIREFIGHTING SCHEMATICS

SCALE : 1:100

DRAWN BY :

CHECKED BY :

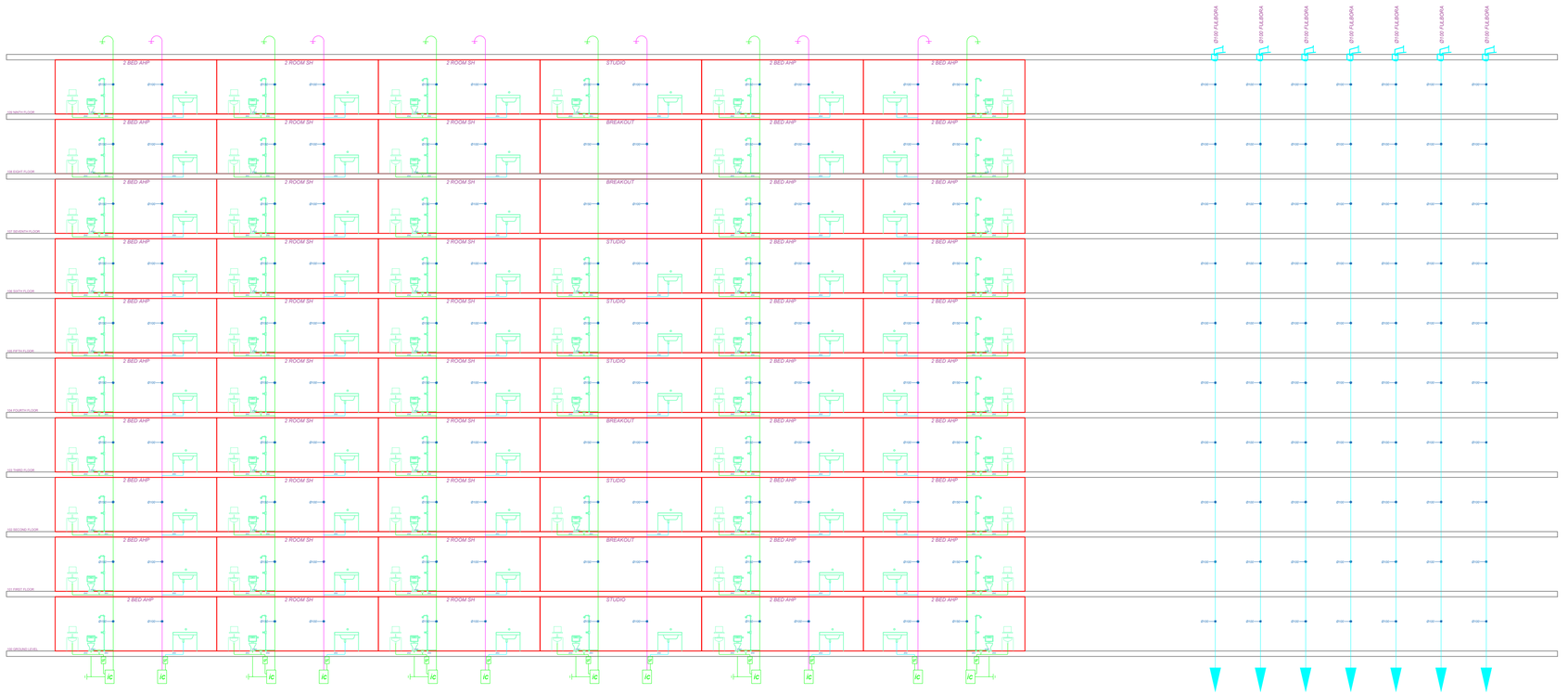
Date : Signature:

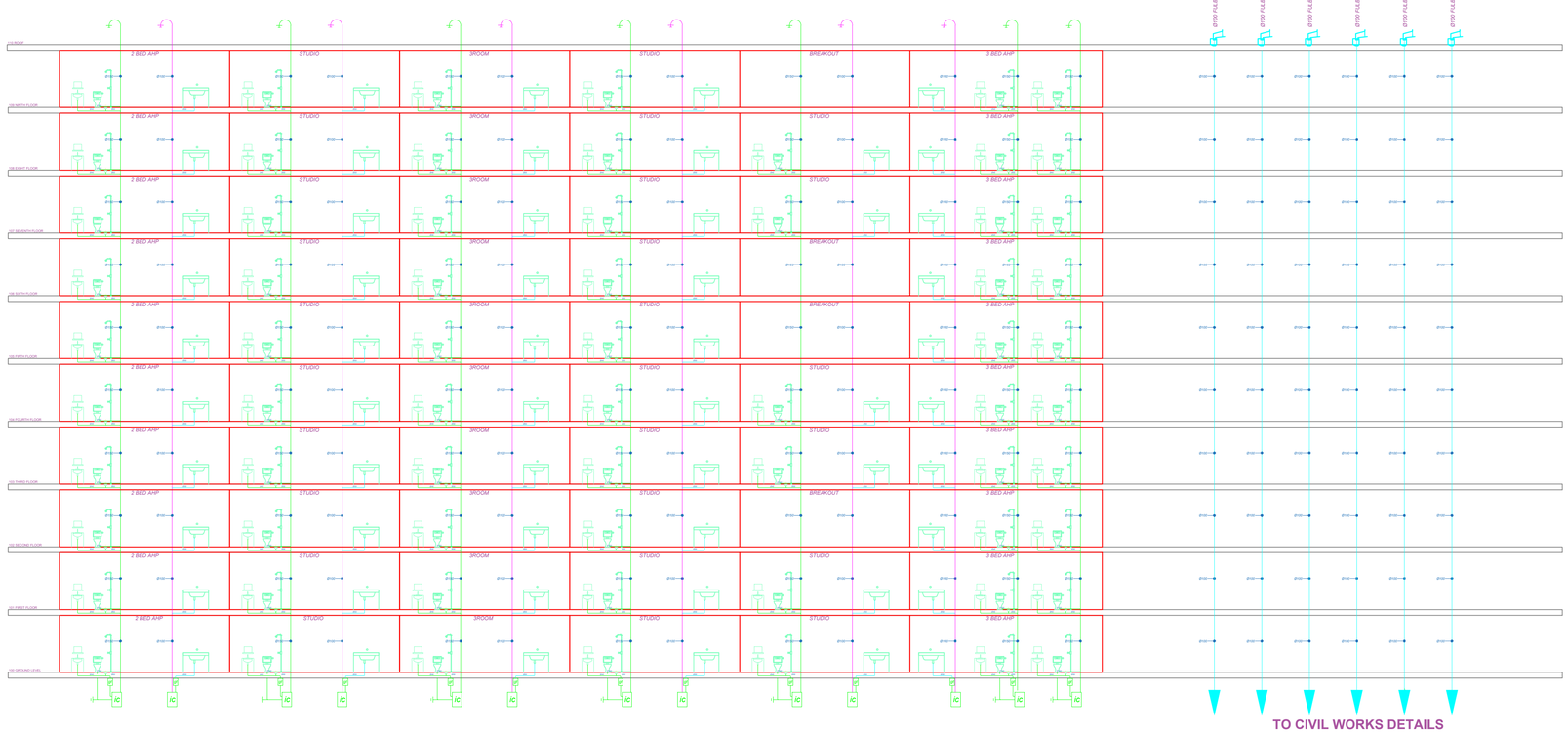
DATE :

MINISTRY OF LANDS, PUBLIC WORKS HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA





TYPE A (G + 9) DRAINAGE SCHEMATIC

GENERAL NOTES

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3. Drawings are not to be scaled . Only figured dimensions should be used .
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REV.	DATE	DESCRIPTION

DRAWING ISSUED FOR:

- ☐ APPROVAL
- ☐ RECORD
- ☐ DETAILED
- ☒ TENDER
- ☐ SHOP DWG
- ☐ AS BUILT

PROJECT:
PROPOSED TYPICAL AFFORDABLE +MARKET BLOCK TYPE A G+9

CLIENT: SATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

LOCATION:

DRAWING TITLE :

DRAINAGE SCHEMATICS

SCALE : 1:100

DRAWN BY :

CHECKED BY :

Date : Signature:

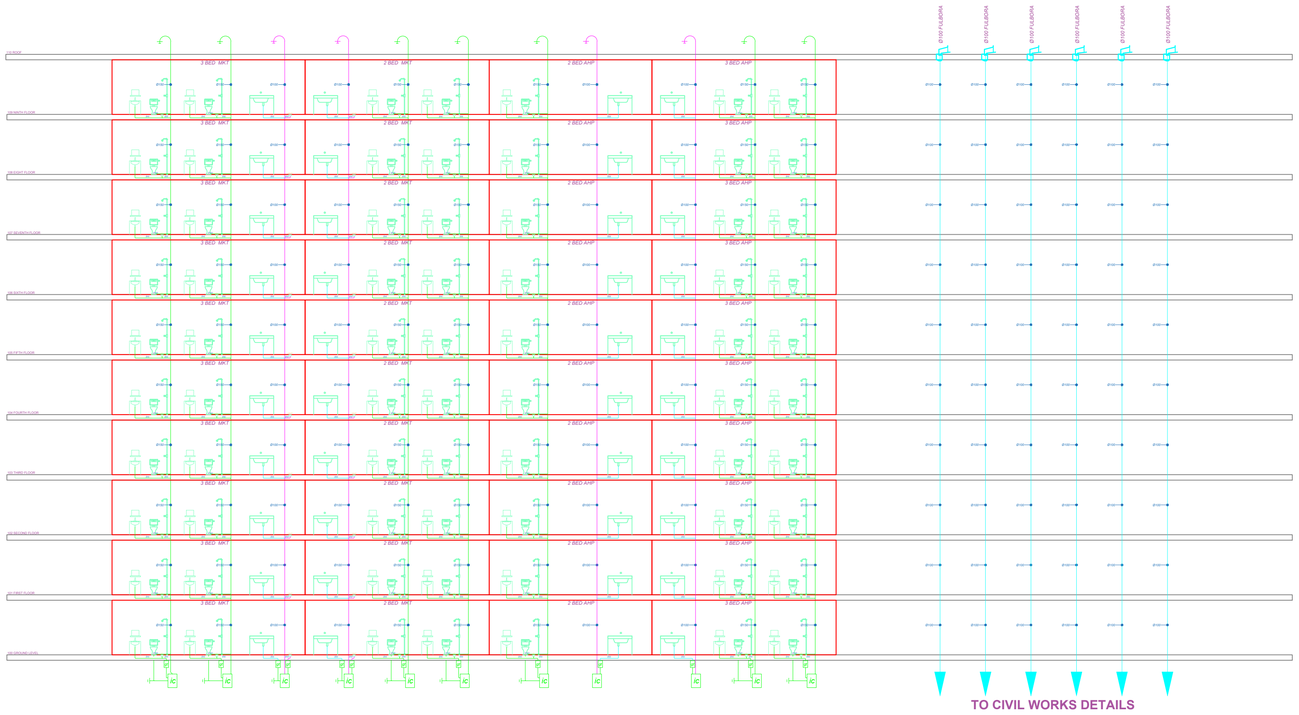
DATE :

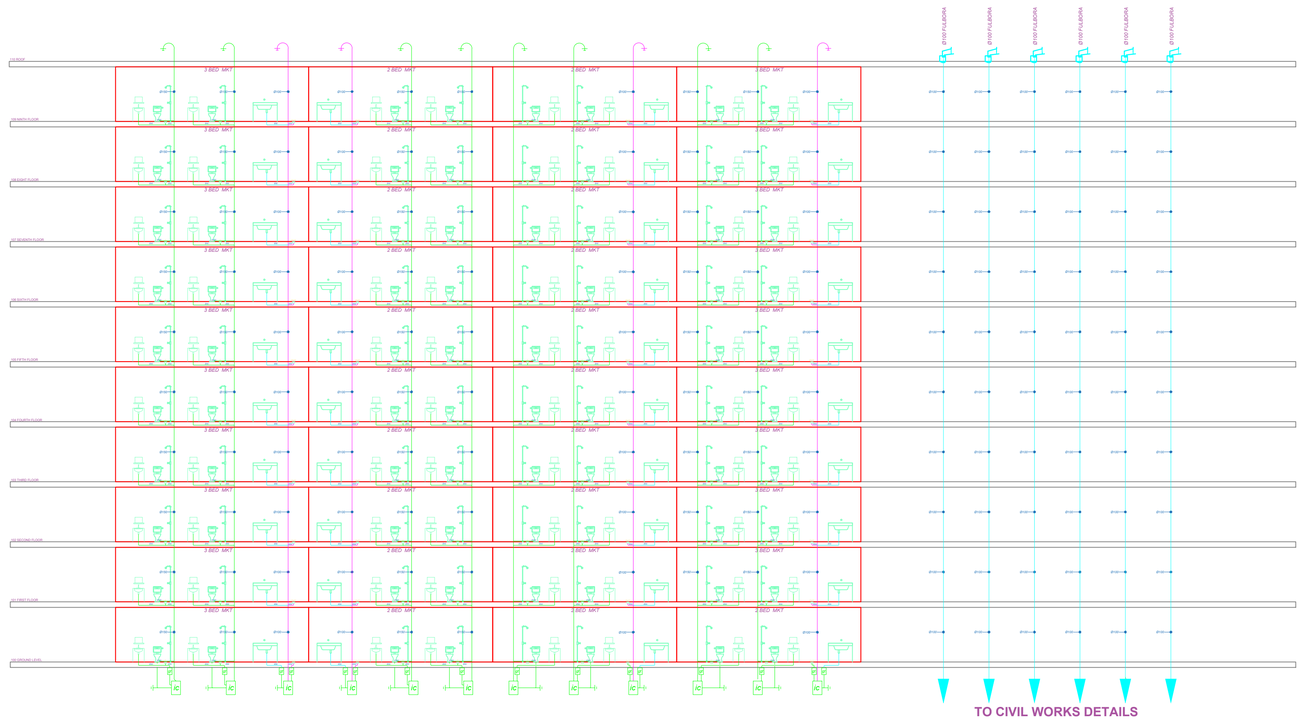
MINISTRY OF LANDS, PUBLIC WORKS HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

HARAMBEE

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA





TYPE B (G + 9) DRAINAGE SCHEMATIC

GENERAL NOTES

1. This drawing to be read in conjunction with architectural drawings.
2. All dimensions are in mm unless otherwise specified.
3. Drawings are not to be scaled . Only figured dimensions should be used .
4. The contractor must check and verify all dimensions before commencement of work and if necessary confirm with the architect .

REV.	DATE	DESCRIPTION

DRAWING ISSUED FOR:

- ☐ APPROVAL
- ☐ RECORD
- ☐ DETAILED
- ☑ TENDER
- ☐ SHOP DWG
- ☐ AS BUILT

PROJECT:
PROPOSED TYPICAL AFFORDABLE +MARKET BLOCK TYPE A G+9

CLIENT: SATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

LOCATION: BAHATI

DRAWING TITLE :

DRAINAGE SCHEMATICS

SCALE : 1:100

DRAWN BY :

CHECKED BY :

Date : Signature:

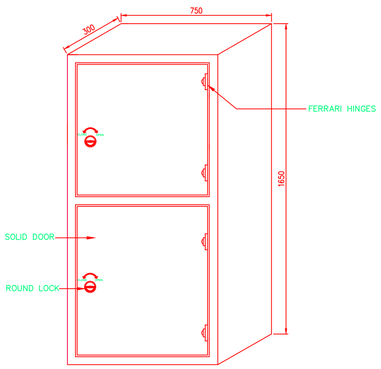
DATE :

MINISTRY OF LANDS, PUBLIC WORKS HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

HARAMBEE

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA



SPECIFICATIONS:

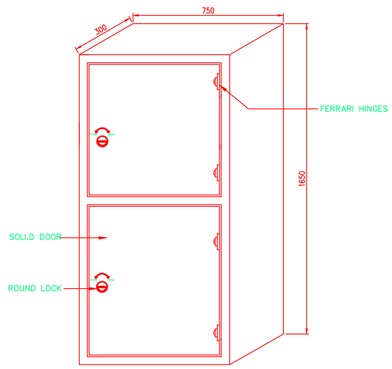
1. MATERIAL : 1.2mm THICK STAINLESS STEEL, MIRROR FINISH.
2. ALL DIMENSIONS ARE IN MM.

CABINET TO ACCOMMODATE

(1) UPPER COMPARTMENT
FIRE HOSE REEL, AUTOMATIC
TYPE C/W 1"x30 MTR HOSE – 1 No
C/W 1" PRESSURE REDUCING VALVE & LOCK SHIELD VALVE
1" NOZZLE – 1 No

(2) LOWER COMPARTMENT
- 2–1/2" PRESSURE REDUCING ANGLE VALVE – 1 NO.
- 2–1/2" X 30 MTR. HOSE
- 2–1/2" NOZZLE – 1 No.
- FIRE EXTINGUISHERS – 2 Nos.

1 FHCS
M–FF–401 SCALE NTS
FIRE HOSE REEL CABINET (SURFACE MOUNTED)



SPECIFICATIONS:

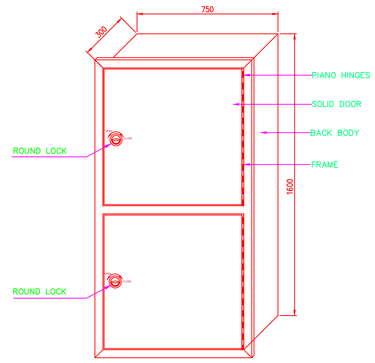
1. MATERIAL : 1.2mm THICK STAINLESS STEEL, MIRROR FINISH

CABINET TO ACCOMMO.DATE

(1) UPPER COMPARTMENT
FIRE HOSE REEL, AUTOMATIC
TYPE C/W 1"x30 MTR HOSE – 1 No
C/W 1" PRESSURE REDUCING VALVE & LOCK SHIELD VALVE
1" NOZZLE – 1 No

(2) LOWER COMPARTMENT
- FIRE EXTINGUISHERS – 2 Nos.

2 HRCS
M–FF–401 SCALE NTS
FIRE HOSE REEL CABINET (SURFACE MOUNTED)



SPECIFICATIONS:

1. MATERIAL : MILD STEEL BACK BOX, 1.2 mm THICK.
2. FRAME : 1.2MM THICK STAINLESS STEEL, MIRROR FINISH
3. ALL DIMENSIONS ARE IN mm

CABINET TO ACCOMMODATE

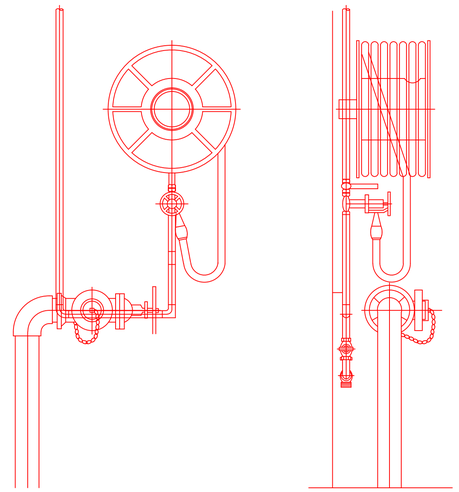
(1) UPPER COMPARTMENT
FIRE HOSE REEL, AUTOMATIC
TYPE C/W 1"x30 MTR HOSE – 1 No
C/W 1" PRESSURE REDUCING VALVE & LOCK SHIELD VALVE
1" NOZZLE – 1 No

(2) LOWER COMPARTMENT
- 2–1/2" PRESSURE REDUCING ANGLE VALVE – 1 NO.
- 2–1/2" X 30 MTR. HOSE
- 2–1/2" NOZZLE – 1 No.
- FIRE EXTINGUISHERS – 2 Nos.

3 FHCR
M–FF–401 SCALE
FIRE HOSE REEL CABINET (SURFACE MOUNTED)

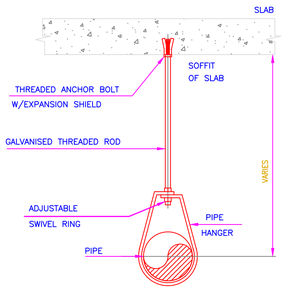
FONT ELEVATION

SIDE ELEVATION

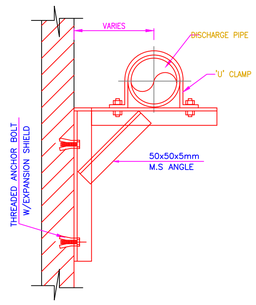


FIRE HOSE REEL WITH HOSE TAP

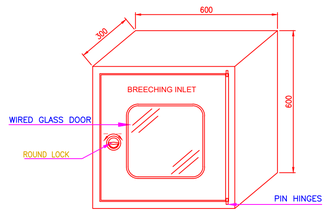
4 FHCR
M–FF–401 SCALE
FIRE HOSE REEL CABINET (SURFACE MOUNTED)



5 PIPE HANGER DETAIL
M–FF–402 SCALE NTS



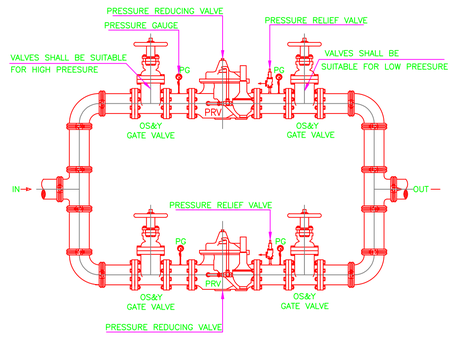
6 PIPE SUPPORT THR'U WALL
M–FF–402 SCALE NTS



SPECIFICATIONS:

1. SIZE: 600(H)X600(W)X300(D)mm
2. MATERIAL: COMPLETE STAINLESS STEEL 1.2 MM THICK MIRROR FINISH
3. ALL DIMENSIONS ARE IN mm

7 4–WAY BREECHING INLET DETAIL (SURFACE MOUNTED)
M–FF–402 SCALE NTS



8 PRESSURE REDUCING STATION
M–FF–402 SCALE NTS

GENERAL NOTES

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4. The contractor must check and verify all dimensions before commencement of work and if necessary confirm with the architect .

REV.	DATE	DESCRIPTION

DRAWING ISSUED FOR:

☐ APPROVAL ☐ RECORD
☐ DETAILED ☑ TENDER
☐ SHOP DWG ☐ AS BUILT

PROJECT: Resedential Building

CLIENT: SATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

LOCATION:

DRAWING TITLE :

Firefighting Details

SCALE : 1:100

DRAWN BY :

CHECKED BY :

Date : Signature:

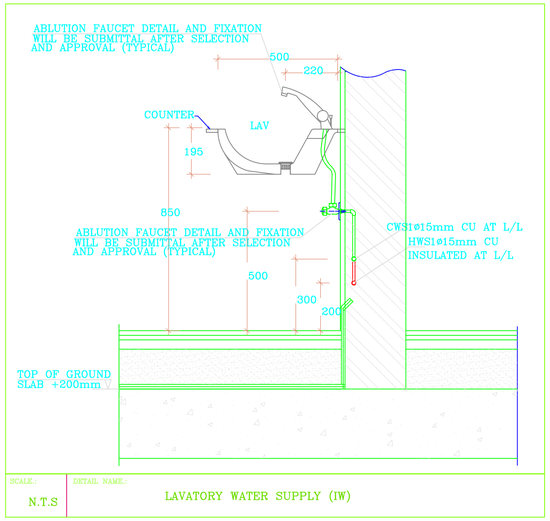
DATE :

MINISTRY OF LANDS, PUBLIC WORKS HOUSING AND URBAN DEVELOPMENT

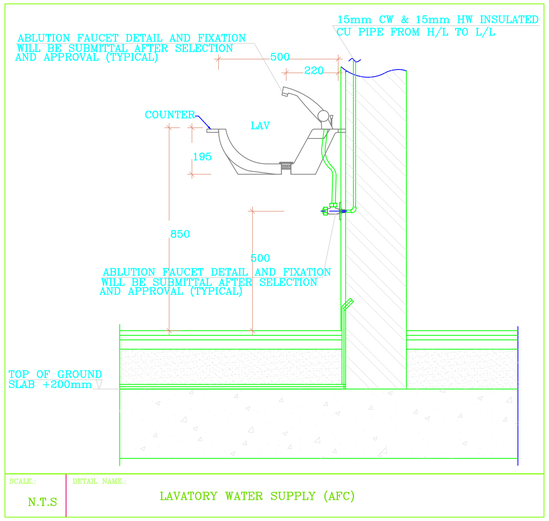
STATE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

HARAMBEE

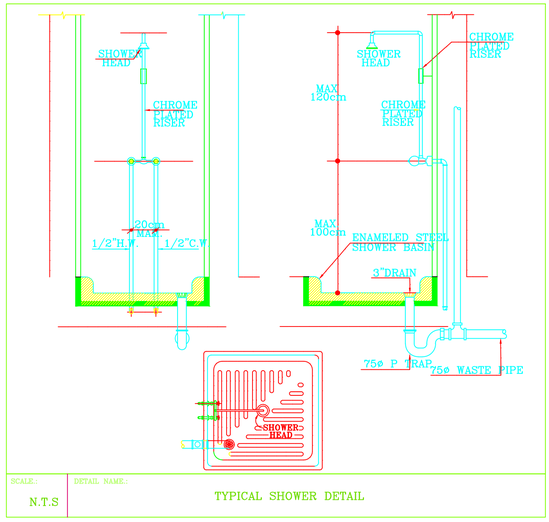
FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA



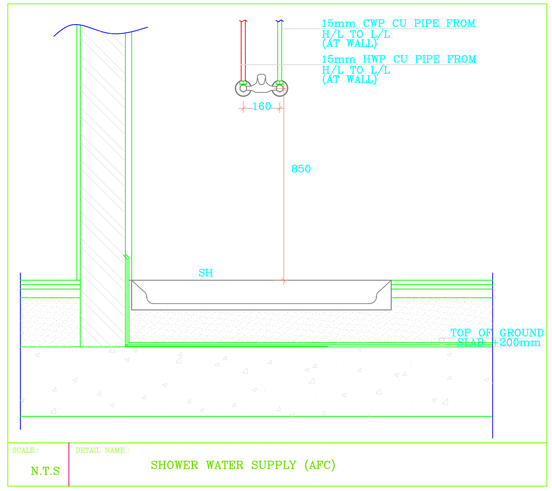
SCALE: N.T.S | DETAIL NAME: LAVATORY WATER SUPPLY (IW)



SCALE: N.T.S | DETAIL NAME: LAVATORY WATER SUPPLY (AFC)



SCALE: N.T.S | DETAIL NAME: TYPICAL SHOWER DETAIL



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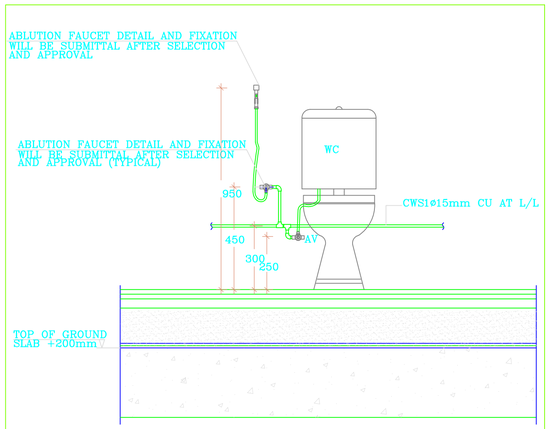

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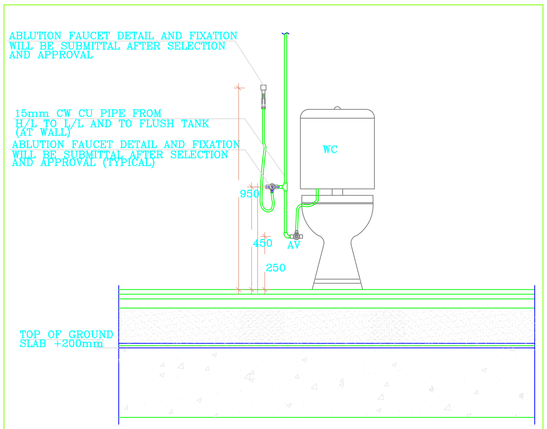

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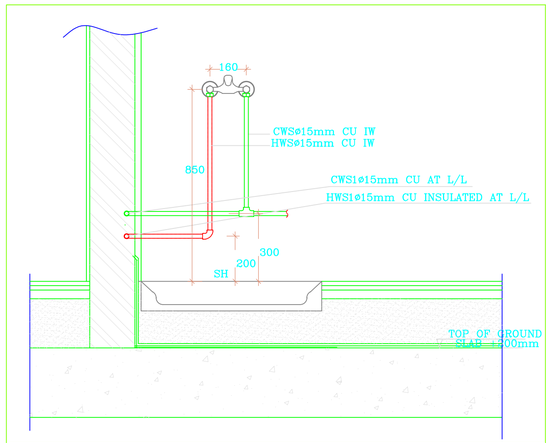

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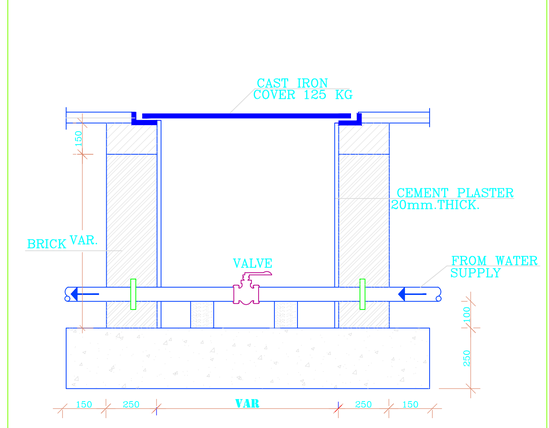

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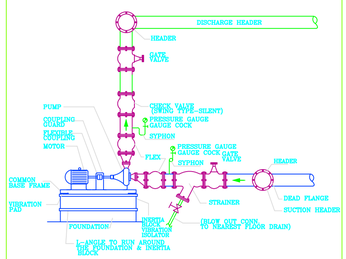
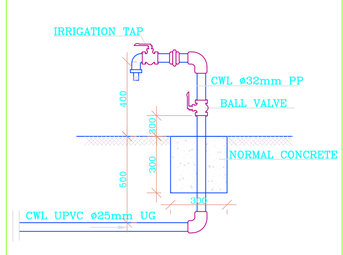
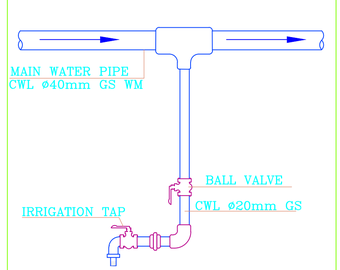


SCALE: N.T.S | DETAIL NAME: PUMP CONNECTION DETAILS



SCALE: N.T.S | DETAIL NAME: IRRIGATION TAP



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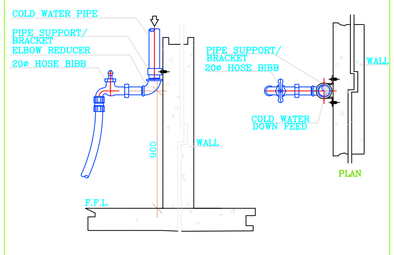

SCALE: N.T.S | DETAIL NAME: HOSE BIBB DETAIL

GENERAL NOTES

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REV.	DATE	DESCRIPTION

DRAWING ISSUED FOR:

- ☐ APPROVAL
- ☐ RECORD
- ☐ DETAILED
- ☑ TENDER
- ☐ SHOP DWG
- ☐ AS BUILT

PROJECT: Resedential Building

CLIENT: SATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

LOCATION:

DRAWING TITLE :

WATER SUPPLY DETAILS

SCALE : 1:100

DRAWN BY :

CHECKED BY :

Date : Signature:

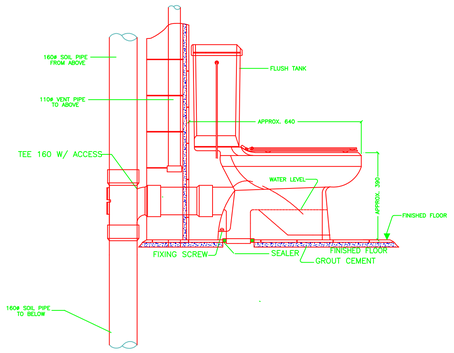
DATE :

MINISTRY OF LANDS, PUBLIC WORKS HOUSING AND URBAN DEVELOPMENT

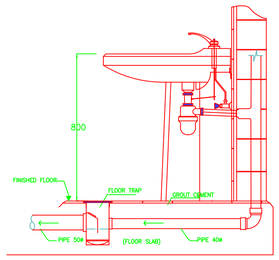
STATE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

HARAMBEE

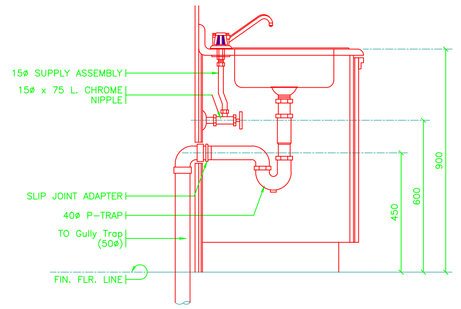
FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA



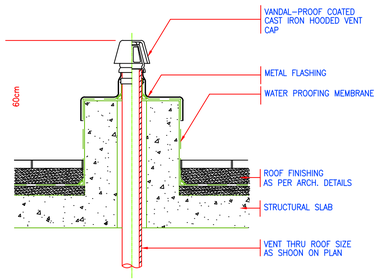
1 WATER CLOSET INSTALLATION DETAILS
NOT TO SCALE



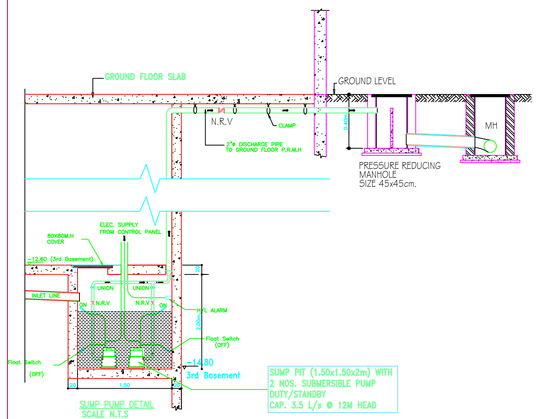
2 WASH HAND BASIN INSTALATION DETAILS
NOT TO SCALE



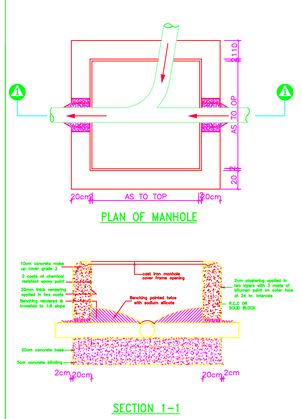
3 PANTRY SINK INSTALLATION DETAILS
NOT TO SCALE



3 W-DR-401 DETAIL OF ROOF VENT TERMINAL
NTS

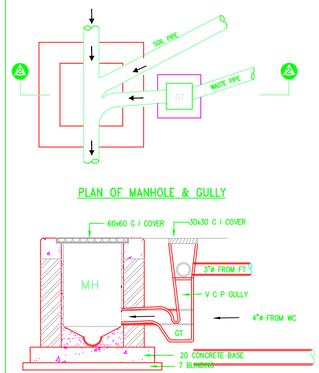


SUMP PUMP DETAIL
SCALE N.T.S



PLAN OF MANHOLE

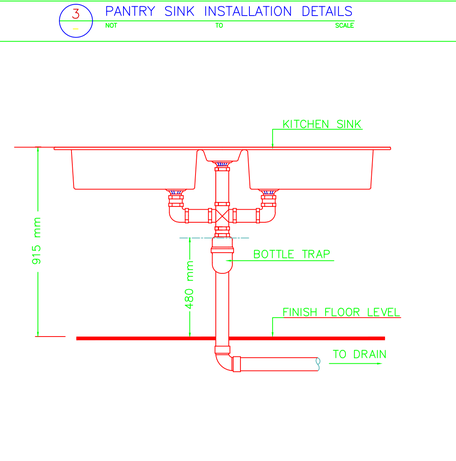
SECTION 1-1



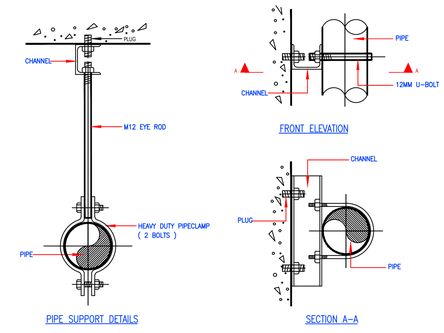
SECTION 2-2

7 SUMP PUMP DETAIL
NOT TO SCALE

8 MANHOLE & GULLY TRAP DETAILS
NOT TO SCALE

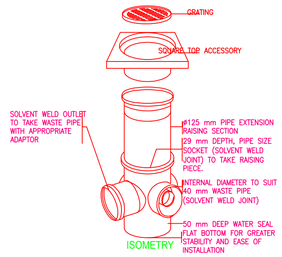


6 KITCHEN SINK INSTALLATION DETALS
NOT TO SCALE



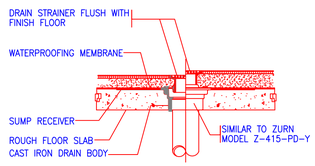
PIPE SUPPORT DETAILS

3 W-DR-401 TYPICAL PIPE SUPPORT DETAILS
NTS



ISOMETRY

9 W-DR-402 FLOOR TRAP DETAIL
NTS



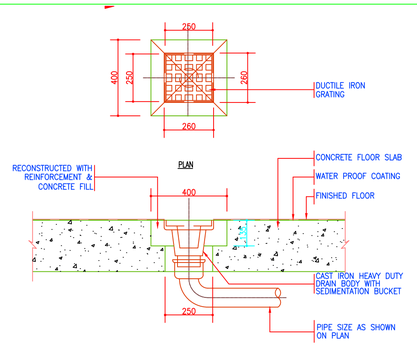
ELEVATION

10 W-DR-402 BALCONY DRAIN DETAIL
NTS

SCHEDULES FOR PLUMBING FIXTURE OUTLETS

DESCRIPTION	WASTE (ø in mm)
WATER CLOSET (FLUSH TANK)	110
LAVATORY	50
BATHUB	50
KITCHEN SINK	50
WASHING MACHINE	50
DISHWASHER	50
DRYER	50

9 FIXTURE CONNECTION SIZE SCHEDULE
NOT TO SCALE



SECTIONAL ELEVATION

7 W-DR-402 DETAIL FOR PARKING AREA DRAIN (CPD)
NTS

GENERAL NOTES

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REV.	DATE	DESCRIPTION

DRAWING ISSUED FOR:

- ☐ APPROVAL
- ☐ RECORD
- ☐ DETAILED
- ☑ TENDER
- ☐ SHOP DWG
- ☐ AS BUILT

PROJECT: Resedential Building

CLIENT: SATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

LOCATION:

DRAWING TITLE :

DRAINAGE DETAILS

SCALE : 1:100

DRAWN BY :

CHECKED BY :

Date : Signature:

DATE :

MINISTRY OF LANDS, PUBLIC WORKS HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA

CHUKA AHP

ELECTRICAL DRAWINGS

MUGUGA AGRICITY

ELECTRICAL DRAWINGS

GENERAL NOTES

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2. All dimensions are in mm unless otherwise specified.
3. Drawings are not to be scaled . Only figured dimensions should be used .
4. The contractor must check and verify all dimensions before commencement of work and if necessary confirm with the architect .

REV.	DATE	DESCRIPTION

DRAWING ISSUED FOR:

☐ APPROVAL ☐ RECORD

☐ DETAILED ☑ TENDER

☐ SHOP DWG ☐ AS BUILT

PROJECT: Residential Building

CLIENT: SATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

LOCATION: AHP

DRAWING TITLE :
ELECTRICAL DRAWINGS

DRAWING NO :

SCALE : 1:100

DRAWN BY : B.M

CHECKED BY : C.A

Date : Signature:

DATE : MARCH 2024

MINISTRY OF LANDS, PUBLIC WORKS HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

HARAMBEE

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA

GENERAL NOTES

1. ALL ELECTRICAL WORKS CARRIED OUT SHALL COMPLY WITH THE LATEST EDITION OF IEEE WIRING REGULATIONS AND RELEVANT LOCAL AUTHORITY REQUIREMENTS.
2. EARTHING INSTALLATION SYSTEM SHALL COMPLY WITH SECTION 5 OF WIRING REGULATION. SECTION 6 & 7 SHALL BE REFERENCED FOR ALL WIRING SYSTEMS. WIRINGS SHALL BE IN CONCEALED CONDUIT/TRUNKING UNLESS OTHERWISE SPECIFIED BY CONSULTANT.
3. THE MOUNTING HEIGHT OF ALL SWITCH SOCKET OUTLET SHALL BE AT 450mm FROM FINISHED FLOOR LEVEL EXCEPT IN WET AREAS WHERE IT SHALL BE 1500mm FROM FINISHED FLOOR LEVEL OR UNLESS OTHERWISE STATED.
4. THE POSITIONING OF ALL LIGHTING LUMINAIRES, SWITCH SOCKET OUTLETS, DISTRIBUTION BOARDS ETC. AS SHOWN IN THE DRAWINGS ARE APPROXIMATE ONLY. THE EXACT POSITIONS SHALL BE DETERMINED AT SITE.
5. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE ELECTRICAL LOAD BALANCING AND LABELLING OF ALL EQUIPMENT AND SWITCHBOARDS THROUGHOUT THE INSTALLATION.
6. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE TO LIAISE WITH KPLC AND THE LOCAL AUTHORITIES FOR ALL CLEARANCES, CABLE JOINTING, TESTING AND ELECTRICITY METERING FOR THE INSTALLATION.
7. THE OVERALL RESISTANCE FOR THE EARTHING SYSTEM (ELECTRICAL) SHALL BE LESS THAN 1 OHM AND IN ANY CASE SHALL COMPLY WITH KPLC REQUIREMENTS.
8. ALL DISCHARGE LIGHTING LUMINAIRES IF ANY, SHALL BE COMPLETE WITH BUILT–IN CONTROL GEAR, LAMP, LOW–LOSS BALLAST, AND AUXILIARY QUARTZ LAMP FOR DISCHARGE LAMP RE–STRIKING.
9. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR SEALING OF ALL CABLE PENETRATION OPENINGS BETWEEN FLOOR SLAB AND WALLS ETC. WITH APPROVED FIRE RATING MATERIAL/SEALANT TO CONSULTANT APPROVAL.
10. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR SEALING OF ALL CABLE PENETRATION OPENINGS THROUGH ROOF FLOOR SLABS, WALLS WITH APPROVED WATERPROOF MATERIALS AFTER THE INSTALLATION OF CABLES.
11. ALL FLUORESCENT LIGHTING LUMINAIRES SHALL BE COMPLETE WITH LOW LOSS BALLAST, TUBE LAMPS, ETC. COLOR OF LIGHT OUTPUT SHALL BE AS SPECIFIED BY THE CONSULTANT OR INTERIOR DECORATOR.
12. THE ELECTRICAL SUB–CONTRACTOR SHALL BACKFILL WITH SANDBAG THE MANHOLES AND DRAW PITS TO COMPLY TO TECHNICAL SPECIFICATIONS.
13. ALL CABLES TO BE LAID IN HD UPVC PIPES SHALL BE ENCASED IN CONCRETE WHEN LAID ACROSS THE DRIVEWAY.
14. ALL UNDERGROUND WIRING SHALL BE OF XLPE/SWA/PVC CABLE (IN HD UPVC PIPE FOR HARD GROUND / PAVEMENT).
15. IT IS THE ELECTRICAL SUB–CONTRACTOR'S RESPONSIBILITY TO PROVIDE EARTH FAULT AND OVERCURRENT TRIPPING DISCRIMINATION BETWEEN THE SWITCHBOARD AND THE INCOMING FEEDER TO COMPLY WITH THE LOCAL POWER UTILITY COMPANY AND THE CONSULTANT'S REQUIREMENTS.
16. THE ELECTRICAL SUB–CONTRACTOR SHALL BE RESPONSIBLE FOR THE EQUIPOTENTIAL EARTHING BONDING TO ALL METAL PARTS COMPLETED BY THE OTHER TRADES TO THE NEAREST ELECTRICAL PANEL / EARTH BAR.
17. ALL WIRING TO LIGHTING LUMINAIRES SHALL COMPRISE OF APPROVED CEILING ROSE FOR INDOOR INSTALLATION AND WEATHERPROOF JUNCTION BOX FOR OUTDOOR INSTALLATION. CONNECTION TO LIGHT FIXTURE SHALL BE BY MEANS OF PVC SHEATHED FLEXIBLE CABLE FOR NORMAL SUPPLY, FR CABLE FOR EMERGENCY SUPPLY AND ARMOURED CABLE FOR OUTDOOR INSTALLATION.
18. ALL LIGHTING POLE SPECIFIED SHALL COMPRISE OF RAIL MOUNTED 10A MCB IN THE COMPARTMENT. ALL POLE SHALL HAVE ITS OWN LIGHTNING ELECTRODES. OUTDOOR INSTALLATION SHALL BE IN HEAVY DUTY UPVC PIPES OF 100mm DIAMETER (MINIMUM).
19. MCB's RATED < 100A PROTECTING CABLES SUPPLYING LOADS WITH HIGH SWITCH–ON CURRENT (E.G. MOTORS, HID LAMPS, ETC.) SHALL HAVE TYPE 'C' MAGNETIC CURVE RATING UNLESS OTHERWISE INDICATED IN THE PLANS. UNLESS OTHERWISE STATED, ALL BUSBAR ARE OF HD COPPER AND SHALL BE RATED AT A CURRENT DENSITY OF NO MORE THAN 1.55A/sq. mm.
20. THE ELECTRICAL CONTRACTOR SHALL FURNISH ALL NECESSARY LABOUR, MATERIALS AND EQUIPMENT FOR SATISFACTORY COMPLETION OF THE ENTIRE ELECTRICAL INSTALLATION AS GENERALLY DESCRIBED IN THE SPECIFICATION AND/OR SHOWN ON DRAWINGS.
21. ALL LOCATIONS OF EQUIPMENT AND CABLE ROUTES SHOWN ON THE DRAWING ARE APPROXIMATE. THE EXACT LOCATIONS MUST BE CO–ORDINATED ON SITE BEFORE INSTALLATION. FULLY CO–ORDINATED SHOP DRAWINGS MUST BE SUBMITTED TO THE CONSULTANT FOR APPROVAL BEFORE COMMENCEMENT OF WORK.
22. ALL SWITCHBOARDS AND DISTRIBUTION BOARDS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST DEWA REGULATIONS AND THE APPROVAL OF POWER UTILITY COMPANY. THEY SHALL BE PAINTED WITH A COAT OF ANTI–RUST PAINT AND TWO COATS OF SEMI–GLOSS TEAK PAINT OF BEST QUALITY TO THE APPROVAL OF THE CONSULTANT.
23. ALL POWER CONDUITS AND TRUNKING WHICH ARE EXPOSED SHALL BE PAINTED WITH A COAT OF RUST–RESISTING PRIMER AND TWO COATS OF ELECTRIC ORANGE.
24. ALL CONDUITS SHALL BE G.I., G.I. CONDUITS SHALL COMPLY WITH THE LATEST DEWA REGULATIONS ON ELECTRICAL INSTALLATIONS. MINIMUM SIZE SHALL NOT BE LESS THAN 20mm (INSIDE DIAMETER). ALL THREADS IN CONDUITS SHALL BE TREATED WITH ALUMINUM PAINT OR SIMILAR ANTITRUST PAINT TO PREVENT CORROSION AT JOINTS AND TERMINATION, CONNECTIONS SHALL BE BY MEANS OF COUPLER, SHALL BE USED FOR DIFFERENT CIRCUITS.
25. PHASE SEGREGATION SHALL COMPLY WITH THE LATEST REQUIREMENTS OF THE IEE WIRING REGULATIONS. SEPARATE CONDUITS SHALL BE USED FOR CABLES OF DIFFERENT CIRCUIT CATEGORIES. FOR 3 PHASE FINAL CIRCUITS, SEPARATE CONDUITS SHALL BE USED FOR DIFFERENT CIRCUITS.
26. ALL LIGHTING POINTS SHALL BE PROVIDED WITH CIRCUIT PROTECTIVE CONDUCTORS AND ALL METAL PARTS SHALL BE CONTINUOUSLY EARTHED THROUGHOUT.
27. THE ELECTRICAL CONTRACTOR SHALL SUPPLY AND INSTALL ALL LIGHT LUMINAIRES AS SHOWN ON THE DRAWINGS. EACH FITTING SHALL HAVE ITS OWN INDEPENDENT SUPPORT REGARDLESS OF SURFACE, RECESSED OR SUSPENDED MOUNTING.
28. EACH CIRCUIT SHALL BE TESTED FOR GROUNDS AND SHORTS BY MEANS OF A MEGGER INSULATION RESISTANCE TESTING INSTRUMENT APPLYING A VOLTAGE OF NOT LESS THAN 500V D.C. UPON CIRCUIT UNDER TEST.
29. CABLES FOR ESSENTIAL CIRCUITS SUCH AS EMERGENCY LIGHTING CIRCUITS AND FIRE FIGHTING EQUIPMENT CIRCUITS ETC SHALL NOT BE DRAWN INTO THE SAME CONDUIT, DUCT OR TRUNKING INTENDED FOR NORMAL CIRCUITS AS PER IEE 364 WIRING REGULATION. ALL CABLES AND WIRES FOR LIFE SAFETY AND ESSENTIAL CIRCUIT SHALL BE OF 2HRS FIRE RATED.
30. FOR SINGLE PHASE SUPPLY, CIRCUITS OF DIFFERENT PHASES SHALL NOT SHARE THE SAME CONDUIT.
31. ALL SHUNT TRIP RELEASES OF ACB'S IN THE MAIN ELECTRICAL SWITCHBOARD SHALL BE RATED AT 30V DC. A BATTERY SUPPLY OF SUFFICIENT CAPACITY SHALL BE PROVIDED FOR THE TRIPPING OF ACBs, CAPACITY OF BATTERY SHALL BE SUBMITTED FOR THE CONSULTANT'S APPROVAL PRIOR TO INSTALLATION.
32. ALL EARTH TESTS SHALL BE CARRIED OUT WITH A 1000V MEGGER TEST INSTRUMENT AND IN ACCORDANCE WITH THE LATEST REQUIREMENTS OF DEWA WIRING REGULATIONS.
33. THE LIGHTNING PROTECTION SYSTEM SHALL COMPLY WITH THE REQUIREMENTS OF THE LATEST DEWA REGULATIONS PRACTICE AND BS–EN 62305 AND INSTALLED TO THE SATISFACTION OF THE CONSULTANT.
34. THE ELECTRICAL CONTRACTOR SHALL LIASE WITH ELV SYSTEMS CONTRACTOR VIA THE MAIN CONTRACTOR TO ENSURE THAT POWER SUPPLIES FOR ALL EQUIPMENT ARE ADEQUATELY PROVIDED TO SUIT THE SYSTEM REQUIREMENTS.
35. EQUIPOTENTIAL BONDING SHALL BE PROVIDED FOR ALL TOILETS.
36. ALL POWER OUTLET, LIGHTING, ETC., LOCATIONS SHOWN ARE APPROXIMATE ONLY AND THE ELECTRICAL SUB–CONTRACTOR MUST CO–ORDINATE WITH LINX AND OR THE INTERIOR DESIGNER, AS WELL AS EQUIPMENT SUPPLIERS.
37. THE DISTRIBUTION AND SIZE OF THE TRUNKING/CABLE TRAY SHOWN ON THE DRAWINGS ARE MEANT TO FACILIATE THE CONTRACTOR THE PROPOSED ROUTING OF THE MAIN AND SUB–MAIN. THE CONTRACTOR SHALL SIZE THE TRUNKING/CABLE TRAY BASED ON THE EXACT CABLE SPACE AND CODE REQUIREMENTS. THE CONTRACTOR SHALL ALLOW 20% SPARE SPACE FOR FUTURE CABLE LAYING.
38. ALL ISOLATORS INSIDE MECHANICAL PLANTROOMS AND OTHER POTENTIALLY WET LOCATIONS SHALL BE PROVIDED WITH WEATHERPROOF ENCLOSURE (IP65).
39. CONTRACTOR TO CROSS REFER TO FIRE ALARM CAUSE AND EFFECT MATRIX. ALL DEVICES, INTERFACE, TERMINAL BLOCKS, WIRING, ETC. NECESSARY FOR SATISFACTORY OPERATION OF FIRE ALARM AND FIRE STRATEGY SHALL BE DEEM INCLUDED IN THIS CONTRACT.

CO-ORDINATION AND INSTALLATION

1. THE ELECTRICAL CONTRACTOR SHALL OBTAIN APPROVAL FROM STRUCTURAL ENGINEERS FOR PENETRATION THROUGH R.C. BEAMS AND FLOOR SLABS PRIOR TO CONSTRUCTION.
2. ALL CONDUITS LAYOUT AND INSTALLATION METHODS SHALL BE IDENTICAL IN ALL ROOMS AS MUCH AS POSSIBLE.
3. ALL MATERIALS/ CABLES TO BE USED AND INSTALLATION METHOD SHALL COMPLY WITH THE TECHNICAL SPECIFICATION, STANDARDS, CODE OF PRACTICE AND AUTHORITY REQUIREMENT.
4. THE ELECTRICAL CONTRACTOR IS REQUIRED TO SUBMIT DETAILS OF FINAL ARRANGEMENT AND DIMENSIONAL LAYOUT OF ALL ITEMS OF EQUIPMENT IN RESPECTIVE ROOMS TO SUIT SITE CONDITIONS, ETC. FOR REVIEW BY THE SUPERVISING CONSULTANT BEFORE COMMENCEMENT OF INSTALLATION.
5. ALL ELECTRICAL AND ELV DRAWINGS SHALL BE READ IN CONJUCTION WITH THE LATEST ARCHITECTURAL DRAWINGS, INTERIOR DEISGN DRAWINGS, OTHER SERVICES DRAWINGS AND SPECIFICATIONS.

LIGHTNING PROTECTION SYSTEM

1. LIGHTNING PROTECTION SYSTEM SHALL COMPLY WITH IEC CODE OF BS EN 62305.
2. THE POSITIONS OF THE ELECTRODES FOR LIGHTNING PROTECTION SYSTEM ARE APPROXIMATE ONLY. THE EXACT LOCATIONS ON SITE SHALL BE DETERMINED SUCH THAT THE SPECIFIED REQUIREMENTS OF EARTHING SYSTEM ARE COMPLIED.
3. ELECTRICAL CONTRACTOR SHALL LIAISE WITH MAIN CONTRACTOR FOR INSTALLATION OF EARTH ELECTRODE PITS. WATER PROOFING FOR ELECTRODES THROUGH R.C SLAB SHALL BE PROVIDED UNDER THIS CONTRACT.
4. ALL PENETRATIONS THROUGH ROOF TO BE MADE WATER TIGHT AFTER INSTALLATION OF DOWN CONDUCTOR CABLES, ETC.

EARTHING SYSTEM

1. EARTH RESISTANCE WILL BE TESTED UPON COMPLETION OF EACH EARTHING POINT INSTALLATION BEFORE INTERCONNECTION OF THE EARTH POINT.
2. EARTH RESISTIVITY TEST SHALL BE CARRIED AT EACH EARTHING POINT.
3. ALL TAPE/CABLES/CLAMP CONTACT SURFACE SHALL BE HEAVILY TINNED PRIOR TO CONNECTION.
4. PRECAUTIONARY MEASURES SHALL BE TAKEN SO AS NOT TO OVER EXCAVATE THE EARTHING PIT.
5. PROPERTIATARY CAD WELD CONNECTION SHALL BE EMPLOYED FOR CONNECTING EARTH CABLE TO EARTHING POINT STRICTLY IN ACCORDANCE TO THE INSTRUCTION OF THE SUPPLIER.
6. IMMEDIATELY UPON COMPLETION OF EACH GROUP OF EARTH POINT INSTALLATION, TEST SHALL BE CARRIED OUT TO ESTABLISH THE EARTH RESISTANCE. THE TEST RESULTS SHALL BE SUBMITTED TO CONSULTANT FOR APPROVAL.
7. AFTER COMPLETION OF THE EARTHING INSTALLATION AND SATISFACTORY TESTING, EACH OF THE EARTHING PIT SHALL BE SUITABLY GROUTED TO SUPERVISING CONSULTANT REQUIREMENT TO PREVENT INGRESS OF GROUND WATER. GROUTING MATERIALS USED SHALL BE SUBJECT TO CONSULTANT'S APPROVAL.

ELECTRICAL BOARD AND COMPONENTS

1. ALL MCCB's INSTALLED SHALL COMPLETE WITH ADJUSTABLE THERMAL AND MAGNETIC SETTING OF APPROPRIATE RANGE.
2. ALL MCBs USED FOR PROTECTION OF LIGHTING AND SMALL POWER SHALL OF TYPE C CHARACTERISTIC. ALL MCCBs/MPCBs USED FOR PROTECTION OF MOTOR LOADS SHALL BE OF TYPE D CHARACTERISTIC. HOWEVER, MOTOR PROTECTION COORDINATION STUDY SHALL BE SUBMITTED BY THE CONTRACTOR FOR ENGINEER'S/CONSULTANT'S REVIEW AND APPROVAL.
3. MCCBs/MCBs IN THE MAIN SWITCHBOARDS, SUB–SWITCHBOARDS, DISTRIBUTION BOARDS SHOWN HEREIN AND OTHER DRAWINGS PROTECTING MOTOR CIRCUITS FOR PUMPS, FANS, AHU's, ETC. SHALL BE OF THE TYPE SUITABLE FOR MOTOR PROTECTION INCORPORATING OVERLOAD AND SHORT CIRCUIT PROTECTIVE DEVICES (ALSO EARTH FAULT PROTECTION WHERE SHOWN IN THE DRAWINGS) AND THEY SHALL BE SO SELECTED THAT THEY ARE ABLE TO COORDINATE WITH BOTH THE UPSTREAM AND DOWNSTREAM PROTECTION DEVICES.
4. ALL PROTECTION CTs SHALL BE OF CLASS COMPLYING TO DEWA REQUIRENT OR BETTER.
5. ALL METERING CTs SHALL BE OF CLASS COMPLYING TO DEWA REQUIREMENT OR BETTER.
6. BUSBAR MARKINGS, ARRANGEMENTS, CONNECTIONS AND GRADE OF COPPER SHALL COMPLY AS APPROPRIATE WITH BS.159, 1433 AND 1977.
7. ALL ELECTRICAL BOARDS BUSBARS SHALL BE OF HARD DRAWN TINNED COPPER AND SHALL HAVE A CURRENT DENSITY OF NOT LESS THAN 1.55A/SQ.MM. WHEN MORE THAN ONE SET OF BUSBARS ARE USED PER PHASE, APPROPRIATE DERATING FACTOR SHALL APPLY.
8. ALL NON–CURRENT CARRYING METALLIC PARTS OF THE DISTRIBUTION BOARDS SHALL BE BONDED TO SYSTEM EARTH.
9. THERE SHALL BE A COMMON EARTH BAR IN EACH ELECTRICAL BOARD.
10. THE NEUTRAL LINKS AND EARTH BARS IN THE ELECTRICAL BOARDS SHALL BE LOCATED AT AN EASILY ACCESSIBLE POSITION AND SHALL BE KEPT CLEAR OF ANY OBSTRUCTIONS.
11. NEUTRAL AND EARTH BARS SHALL HAVE SUFFICIENT NUMBER OF WAYS TO MATCH THE NUMBER OF SUB–CIRCUITS WITH SPARES.
12. THE MINIMUM CLEARANCE AROUND THE NEUTRAL LINKS SHALL BE 50mm.
13. THE ELECTRICAL SUB–CONTRACTOR IS REQUIRED TO CARRY OUT HIS OWN FAULT LEVEL CALCULATIONS BASING ON THE CHARACTERISTICS OF THE EQUIPMENT OFFERED AND THE ACTUAL/AGREED ROUTING (SUBJECT TO THE SUPERVISING CONSULTANT APPROVAL) OF THE ACTUAL/AGREED ROUTING (SUBJECT TO THE SUPERVISING CONSULTANT APPROVAL) OF THE CABLES AND THEREAFTER SELECT THE MOST APPROPRIATE RUPTURING CAPACITY OF SUB–SWITCHBOARDS, BUSBAR TRUNKING AND DISTRIBUTION BOARDS TO MEET THE PROSPECTIVE FAULT LEVELS. ALL COSTS IN CONNECTION THEREWITH SHALL BE DEEMED TO BE INCLUDED IN THE SUB–CONTRACT SUM. THE ELECTRICAL SUB–CONTRACTOR SHALL SUBMIT DETAILED CALCULATION & SELECTION FOR ELECTRICAL CONSULTANT'S APPROVAL.
14. ALL ELECTRICAL EQUIPMENT AND ACCESSORIES THAT ARE EXPOSED TO WEATHER SHALL BE OF WEATHERPROOF TYPE TO IP65, UNLESS OTHERWISE STATED.
15. IDMTL OVERCURRENT AND EARTH FAULT RELAYS SPECIFIED SHALL BE COMPLETE WITH HIGH SET ELEMENT.
16. ALL OVERCURRENT, EARTH FAULT RELAYS AND EARTH LEAKAGE RELAYS SHALL BE TESTED ON SITE BY ELECTRICAL LICENSED TESTER AND ALL COSTS CONNECTED THEREWITH SHALL BE DEEM TO BE INCLUDED IN THE SUB–CONTRACT SUM.
17. THE ELECTRICAL SUB–CONTRACTOR IS REQUIRED TO SUBMIT DETAILS OF FINAL ARRANGEMENT AND DIMENSIONAL LAYOUT OF ALL THE ITEMS OF EQUIPMENT IN RESPECTIVE ROOMS TO SUIT SITE CONDITIONS, ETC FOR REVIEW BY THE CONSULTANT BEFORE COMMENCEMENT OF INSTALLATION.
18. ALL MOTOR SHALL BE PROVIDED WITH EMERGENCY STOP BUTTON RIGHT NEXT TO THE EQUIPMENT.
19. UNLESS OTHERWISE INDICATED, THE MCCBs/MCBs INSTALLED FOR ANY MAIN SWITCHBOARDS, SUB–BOARDS AND DISTRIBUTION BOARDS SHALL HAVE THE FOLLOWING MINIMUM BREAKING CAPACITY :

MAIN SWITCHBOARD	:	50KA RMS. 1 SEC.
SUB BOARDS	:	35KA RMS. 1 SEC.
DISTRIBUTION BOARDS	:	10KA RMS. 1 SEC.

CABLES AND ANCILLARY PRODUCTS

1. ALL CABLES / WIRES FOR FINAL SUB–CIRCUIT WIRINGS SHALL BE PVC, MULTI–STRAND COPPER CONDUCTORS.
2. NO PVC CONDUIT/TRUNKING SHALL BE ALLOWED FOR THE WHOLE ELECTRICAL INSTALLATION UNLESS OTHERWISE STATED. IN GENERAL, ALL WIRING SHALL BE DONE WITHIN CONDUIT EMBEDDED IN SLAB FOR ALL SEVICES. EXPOSE CONDUIT/ WIRE SHALL NOT BE ACCEPTED.
3. SEPARATE CONDUIT/MULTI–GANG SWITCH BOX SHALL BE PROVIDED FOR FINAL SUB–CIRCUIT OF DIFFERENT PHASES. ALSO A SIGN SHALL BE PROVIDED TO INDICATE THE VOLTAGE BETWEEN THEM IN ACCORDANCE WITH DEWA REGULATION FOR THE INSTALLATIONS.
4. ALL EXTERNAL/LANDSCAPE LIGHTING POINTS SHALL BE PROVIDED WITH CABLES WITH ADDITIONAL LENGTH OF 5m.
5. SPACE FACTOR OF CONDUIT & TRUNKING SHALL COMPLY WITH DEWA REGULATION OF PRACTICE FOR WIRING OF ELECTRICAL EQUIPMENT OF BUILDINGS.
6. ALL SUB–MAINS CIRCUITS TO BE COMPLETE WITH CIRCUIT PROTECTIVE CONDUCTOR (CPC) COMPLYING TO DEWA REGULATION FOR THE INSTALLATIONS.
7. NEUTRAL & EARTH CABLES FOR EACH DIFFERENT CIRCUIT SHALL BE BROUGHT BACK TO THE SOURCE PANEL AND SHALL NOT BE LOOPED TOGETHER OUTSIDE THE PANEL.
8. ALL ELECTRICAL CONDUITS AND CONDUIT BOXES TO CAST WITHIN R.C. SLAB AT WET AREAS MUST HAVE TIGHTLY SEALED AND WATERPROOF JOINTS.
9. ALL UNDERGROUND JUNCTION BOXES SHALL BE OF G.I., TYPE. KNOCK OUT BOXES SHALL NOT BE USED AS UNDERFLOOR JUNCTION BOXES.
10. THE SIZES OF CABLE TRAY/TRUNKING/CONDUIT AS SHOWN IN DRAWINGS ARE APPROXIMATE ONLY. ELECTRICAL SUB–CONTRACTOR IS DEEMED TO HAVE ALLOWED IN HIS TENDER PRICE FOR ALL NECESSARY ADJUSTMENT TO ACCOMMODATE THE CABLES AND SHALL SUBMIT ALL DETAILED CO–ORDINATED CABLE CONDUIT/TRUNKING/TRAY/ LADDER ROUTE PLANS AND SECTION DRAWINGS TO THE SUPERVISON CONSULTANT FOR CLEARANCE PRIOR TO STARTING WORK ON SITE.
11. ALL UNDERGROUND CABLES CROSSING DRIVEWAYS OR HARDCORE AREAS ARE TO BE PROVIDED WITH HEAVY DUTY PVC PIPES, ENCASED IN CONCRETE WITH FULL HAUNCHING.
12. ALL STRAIGHT CONDUIT RUNS EXEEDING 8 METERS SHALL BE PROVIDED WITH JUNCTION BOX TO FACILITATE EASY WIRE / CABLE PULLING.
14. ALL FEEDER CABLES SHALL BE XLPE / SWA / LSOH FOR NORMAL CRCUIT AND XLPE / SWA / FR FOR EMERGENCY CIRCUITS.

LUMINAIRES

1. ALL LIGHTING SWITCHES SHALL COMPLY WITH CIBSE STANDARD, KENYA GREEN BUILDING REGULATION AND SHALL BE OF THE APPROVED TYPE.
2. FLUORESCENT LAMP TUBES USED AT PUBLIC AREAS SHALL BE OF COLOUR 83 WARM WHITE AND INSTANT START UNLESS OTHERWISE STATED AND OF LOW LOSS ENERGY SAVING TYPE.
3. ELECTRICAL CONTRACTOR SHALL REFER TO LIGHTING CONSULTANT – FOR FURTHER NOTES AND LEGENDS.
4. ALL EXIT LIGHTINGS SHALL BE POSITIONED NOT MORE THAN 2.4m ABOVE FFL. TO CENTRE OF FITTING.

POWER OUTLETS

1. SWITCH SOCKET OUTLETS AND SWITCHES MOUNTED SURFACE AT PLANTROOMS, STORES AND SIMILAR AREAS SHALL BE OF WEATHER PROOF TYPE UNLESS OTHERWISE STATED.
2. ALL ELECTRICAL EQUIPMENT & ACCESSORIES THAT ARE EXPOSED OR LESS THAN 2.0M AWAY FROM WET AREA SHALL BE OF WATERPROOF TYPE.
3. COLOUR FOR ALL SWITCHES, SWITCH SOCKET OUTLETS SHALL BE AS PER SUPERVISING CONSULTANT'S / ARCHITECT'S / INTERIOR DESIGNER'S SELECTION.
4. UNLESS OTHERWISE INDICATED, THE MOUNTING HEIGHTS FROM FINISHED FLOOR LEVELS FOR VARIOUS ITEMS OF ELECTRICAL WIRING ACCESSORIES/ EQUIPMENT SHALL BE AS FOLLOWS:

LIGHTING SWITCHES	–	1250mm TO CENTRELINE
SWITCH SOCKET OUTLETS	–	450mm TO CENTRELINE
DISTRIBUTION BOARDS	–	GENERALLY 1800mm TO TOP OF BOARD
WALL/COLUMN LIGHTS	–	2500mm TO CENTRELINE

5. THE ELECTRICAL CONTRACTOR SHALL NOTE THAT THE POSITIONS OF ELECTRICAL POINTS, LUMINAIRES, LIGHTING SWITCHES, SWITCH SOCKET OUTLETS ETC. ARE INDICATIVE AND APPROXIMATE AS SHOWN ON DRAWINGS. THE ACTUAL POSITIONS SHALL BE BASED ON THE CONSULTANT'S OR INTERIOR DESIGNER'S DRAWING. THE ELECTRICAL SUB–CONTRACTOR IS DEEMED TO HAVE ALLOWED IN HIS TENDER PRICE FOR ALL NECESSARY SITE ADJUSTMENT TO SUIT THE FINAL POSITIONS.
6. LOCATIONS FOR ELECTRICAL DISTRIBUTION BOARDS SHOWN IN THE PLANS ARE INDICATIVE ONLY. ELECTRICAL SUB–CONTRACTOR SHALL VERIFY ON SITE AND PROPOSE THEIR ACTUAL LOCATIONS ON THE SHOP DRAWING FOR CLEARANCE.
7. ELECTRICAL DISTRIBUTION BOARD SHALL NOT BE MOUNTED MORE THAN 1800mm ABOVE FFL. (MEASURED FROM FFL TO TOP OF DISTRIBUTION BOARD).
8. ALL ISOLATOR SHALL BE IP–65, IN METAL CABINET AND PAD–LOCKABLE.
9. FINAL LOCATION AND MOUNTING HEIGHT OF WIRING DEVICES SHALL BE COORDINATED WITH ARCHITECT AND ID CONSULTANT.
10. MOTORIZED DAMPER AND MOTORIZED VALVE WHERE REQUIRED BY MECHANICAL SHALL BE BE PROVIDED WITH RESPECTIVE FUSE CONNECTION UNIT TO BE CONNECTED TO RELATED EQUIPMENT LMCP OR AS OTHERWISE SHOWN ON PLAN.

ELECTRICAL SYMBOLS

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	12W Ceiling Rose		*2 WAY 1 GANG SWITCH*
	12W Surface LED Down lighter		*1 WAY SWITCH*
	12W Ball Fitting		*2 WAY 2 GANG SWITCH*
	15W Presence Sensor		
	10W Ball Fitting		*Two arm 150W solar Light for external electrics*
	13A Twin sockets		*3-ph ISOLATOR*
	13A Twin sockets with data		*45A KITCHEN UNIT*
	CONSUMER UNIT		*Surveillance Camera*
	DISTRIBUTION BOARD		*20A D.P Switch with Neon Light*
	TV Point		*Instant Shower Point*
	Door Bell		*KPLC Meterboard*
	1-ph ISOLATOR		

GENERAL NOTES

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3. Drawings are not to be scaled . Only figured dimensions should be used .
4. The contractor must check and verify all dimensions before commencement of work and if necessary confirm with the architect .

REV.	DATE	DESCRIPTION
R1	16/3/24	ELECTRICAL LAYOUT

DRAWING ISSUED FOR:

☐ *APPROVAL* ☐ *RECORD*

☐ *DETAILED* ☑ *TENDER*

☐ *SHOP DWG* ☐ *AS BUILT*

PROJECT: *Residential Building*

CLIENT: SATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

LOCATION: AHP

DRAWING TITLE :

LIGHTING AND POWER SYSTEM GENERAL NOTES AND SYMBOLS

SCALE : *1:100*

DRAWN BY : *B.M*

CHECKED BY : *C.A*

Date : *16/03/2024*

DATE : *16/03/2024*

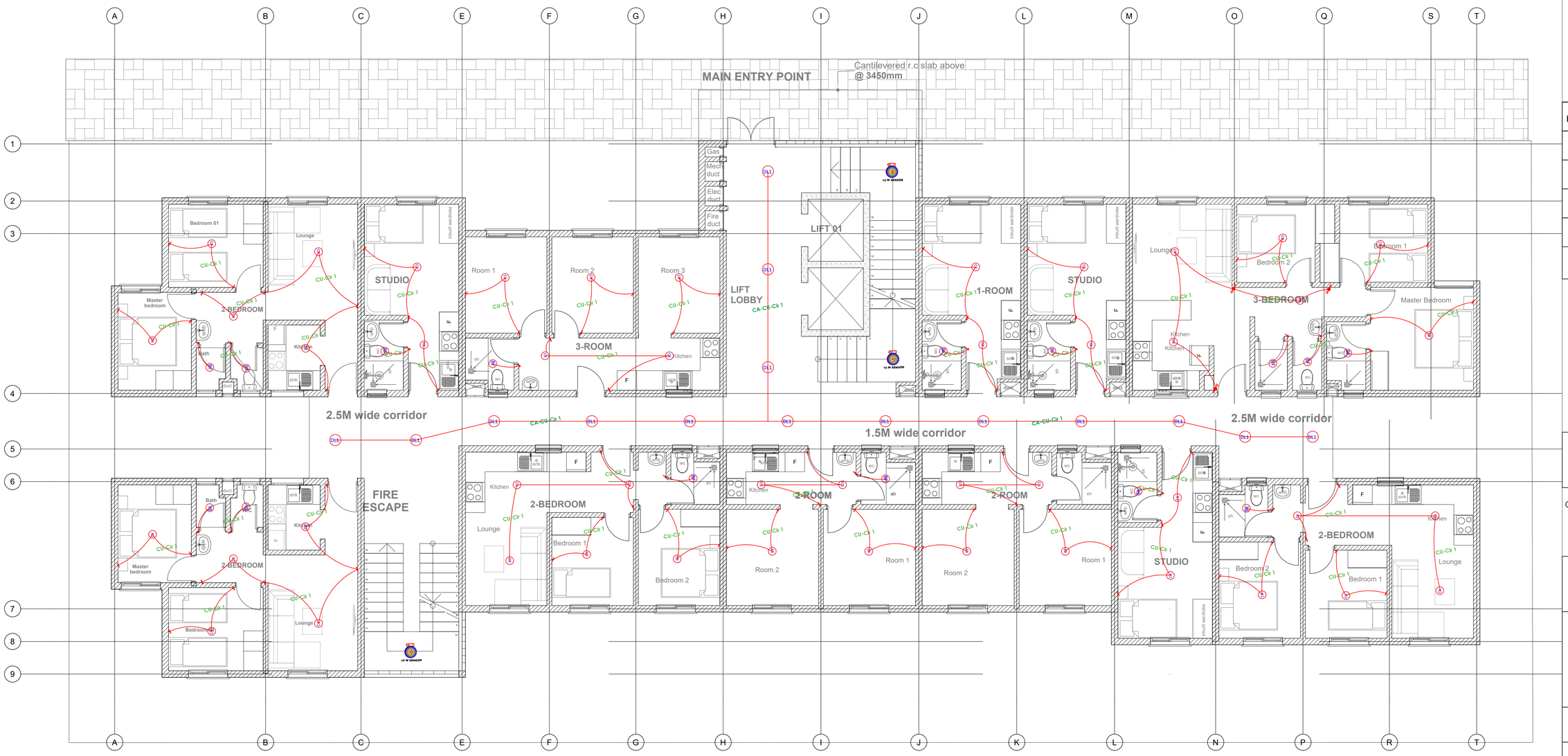
MINISTRY OF LANDS, PUBLIC WORKS HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

HARAMBEE

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA

BLOCK TYPOLOGY A [G+9]



PROPOSED REVISED TYPICAL SOCIAL+ AFFORDABLE UNITS BLOCK TYPE A_GROUND FLOOR PLAN

UNIT BREAK DOWN_ UNIT BREAK DOWN					
1_ROOM	2_ROOM	3_ROOM	STUDIO	2_BEDROOM	3_BEDROOM
1	2	1	3	4	1

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
CR	12W Ceiling Rose		2 WAY 1 GANG SWITCH
DL1	12W Surface LED Down lighter		1 WAY SWITCH
BF	12W Ball Fitting		2 WAY 2 GANG SWITCH
15 W SENSOR	15W Presence Sensor		
	10W Ball Fitting		

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REV.	DATE	DESCRIPTION
R1	16/3/24	ELECTRICAL LAYOUT

DRAWING ISSUED FOR:

- ☐ APPROVAL
- ☐ RECORD
- ☐ DETAILED
- ☑ TENDER
- ☐ SHOP DWG
- ☐ AS BUILT

PROJECT: **Residential Building**

CLIENT: SATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

LOCATION: AHP

DRAWING TITLE :

BLOCK TYPE A GROUND FLOOR LIGHTING LAYOUT

SCALE : 1:100

DRAWN BY : B.M

CHECKED BY : C.A

Date : 16/03/2024

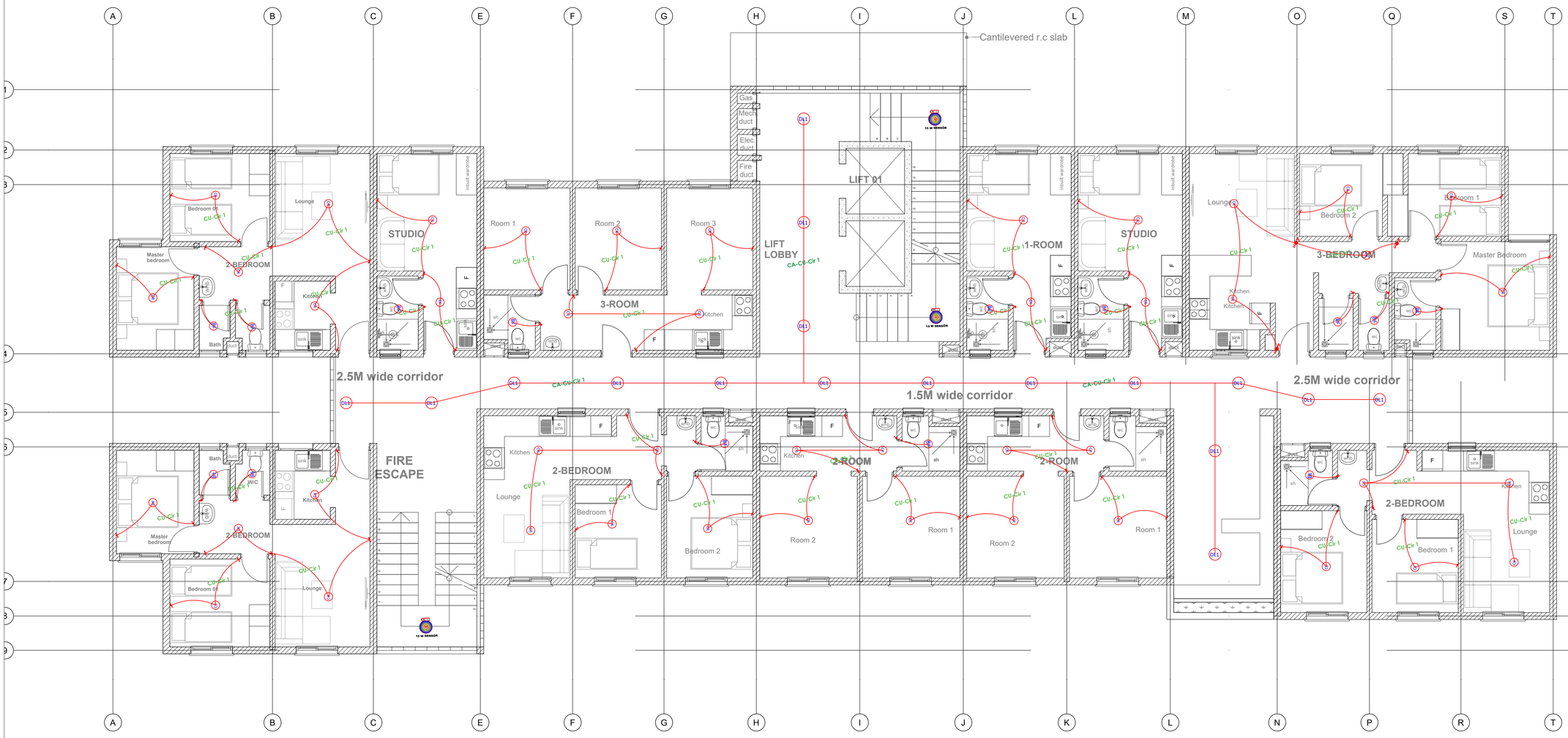
DATE : 16/03/2024

MINISTRY OF LANDS, PUBLIC WORKS HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

HARAMBEE

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA



PROPOSED TYPICAL SOCIAL+ AFFORDABLE UNITS BLOCK TYPE A_TYPICAL 1ST FLOOR PLAN

UNIT BREAK DOWN_ UNIT BREAK DOWN					
1_ROOM	2_ROOM	3_ROOM	STUDIO	2_BEDROOM	3_BEDROOM
1	2	1	2	4	1

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
CR	12W Ceiling Rose		2 WAY 1 GANG SWITCH
DL1	12W Surface LED Down lighter		1 WAY SWITCH
BF	12W Ball Fitting		2 WAY 2 GANG SWITCH
15 W SENSOR	15W Presence Sensor		
	10W Ball Fitting		

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REV.	DATE	DESCRIPTION
R1	16/3/24	ELECTRICAL LAYOUT

DRAWING ISSUED FOR:

- ☐ APPROVAL
- ☐ RECORD
- ☐ DETAILED
- ☑ TENDER
- ☐ SHOP DWG
- ☐ AS BUILT

PROJECT: **Residential Building**

CLIENT: SATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

LOCATION: AHP

DRAWING TITLE :

BLOCK TYPE A TYPICAL FLOOR LIGHTING LAYOUT

SCALE : 1:100

DRAWN BY : B.M

CHECKED BY : C.A

Date : 16/03/2024

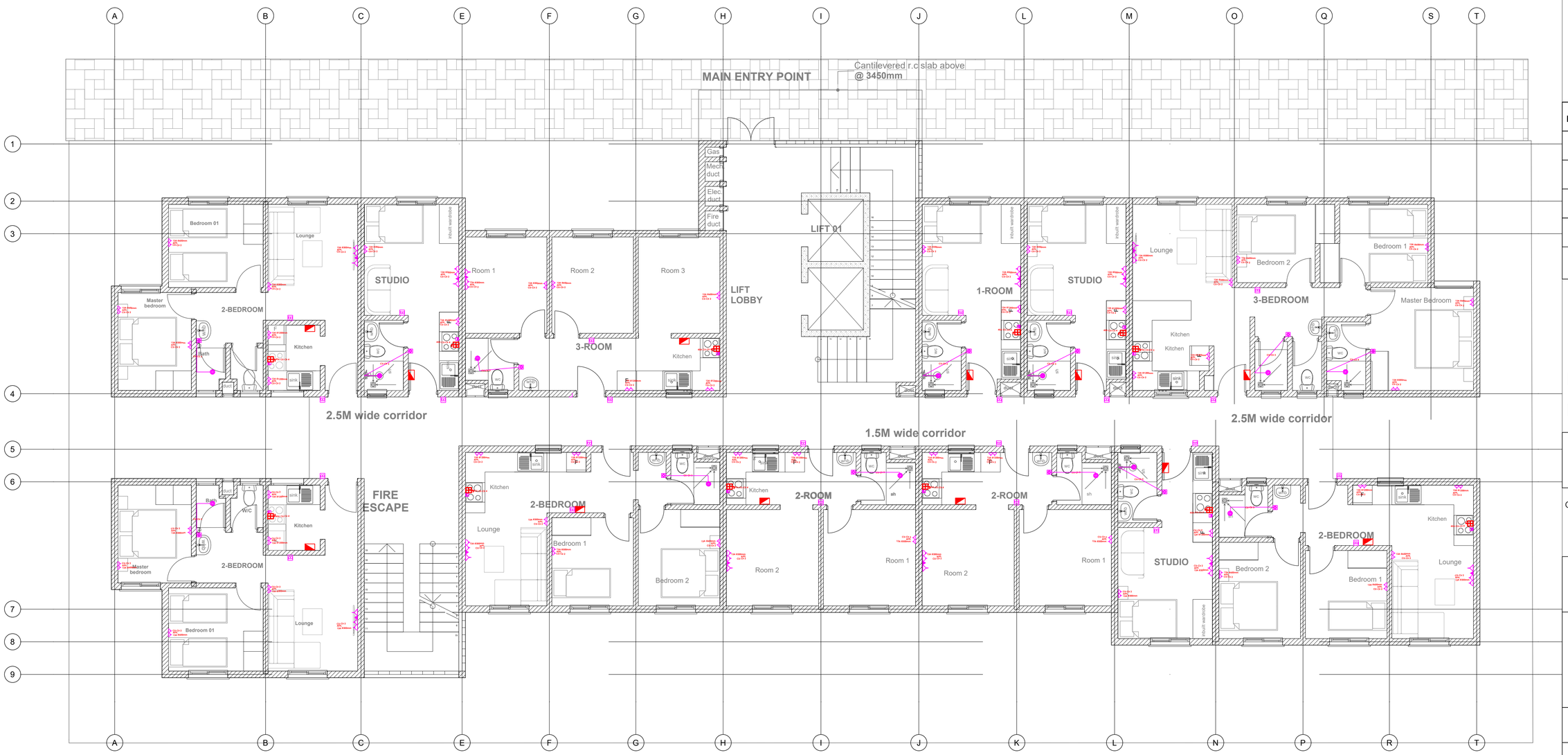
DATE : 16/03/2024

MINISTRY OF LANDS, PUBLIC WORKS HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA

BLOCK TYPOLOGY A [G+9]



PROPOSED REVISED TYPICAL SOCIAL+ AFFORDABLE UNITS BLOCK TYPE A_GROUND FLOOR PLAN

UNIT BREAK DOWN_ UNIT BREAK DOWN					
1_ROOM	2_ROOM	3_ROOM	STUDIO	2_BEDROOM	3_BEDROOM
1	2	1	3	4	1

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	13A Twin sockets		3-ph ISOLATOR
	13A Twin sockets with data		45A KITCHEN UNIT
	CONSUMER UNIT		Surveillance Camera
	DISTRIBUTION BOARD		20A D.P Switch with Neon Light
	TV Point		Instant Shower Point
	Door Bell		KPLC Meterboard

GENERAL NOTES

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REV.	DATE	DESCRIPTION
R1	16/3/24	ELECTRICAL LAYOUT

DRAWING ISSUED FOR:

- ☐ APPROVAL
- ☐ RECORD
- ☐ DETAILED
- ☑ TENDER
- ☐ SHOP DWG
- ☐ AS BUILT

PROJECT: **Residential Building**

CLIENT: SATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

LOCATION: AHP

DRAWING TITLE :

BLOCK TYPE A GROUND FLOOR POWER LAYOUT

SCALE : 1:100

DRAWN BY : B.M

CHECKED BY : C.A

Date : 16/03/2024

DATE : 16/03/2024

MINISTRY OF LANDS, PUBLIC WORKS HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

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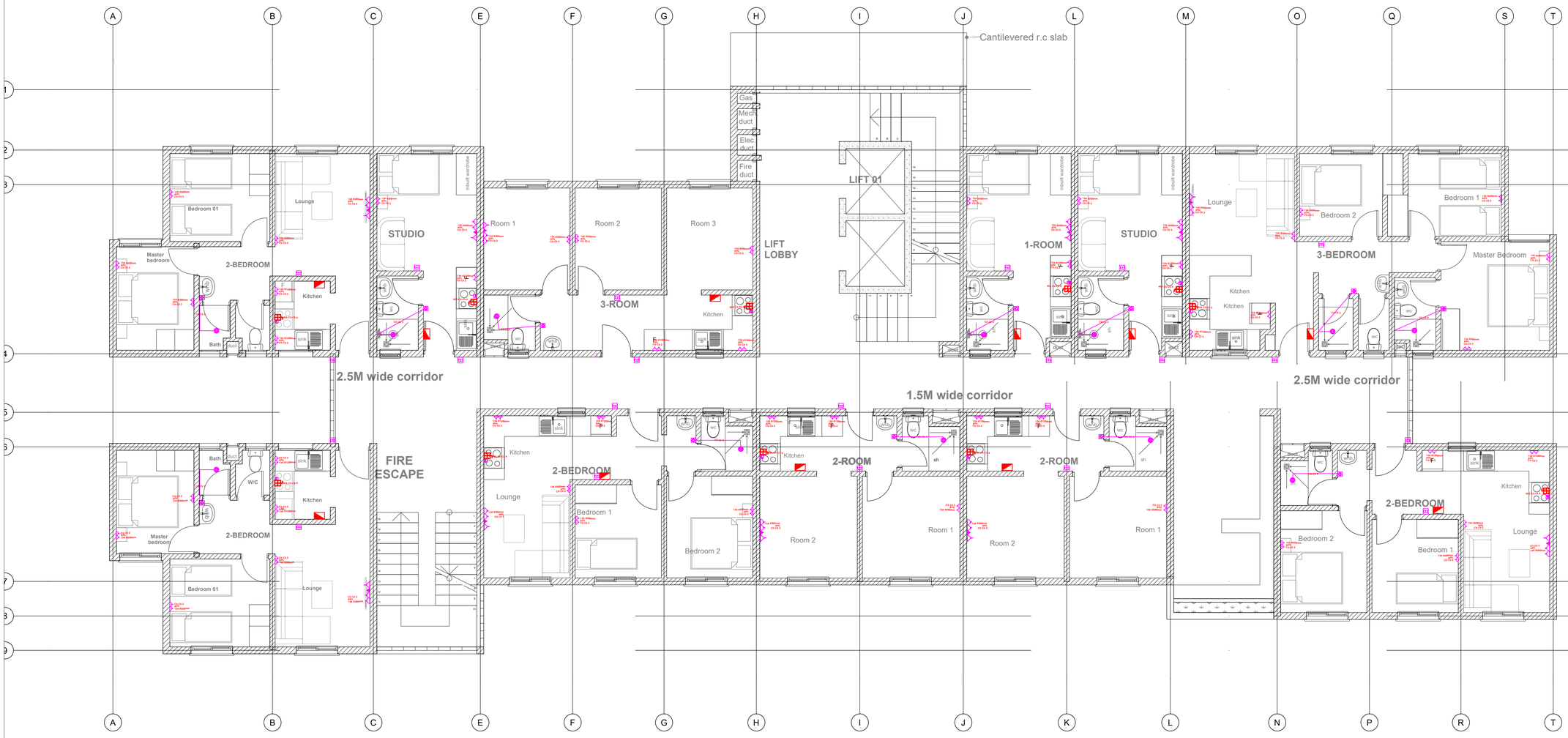

PROPOSED TYPICAL SOCIAL+ AFFORDABLE UNITS BLOCK TYPE A_TYPICAL 1ST FLOOR PLAN

UNIT BREAK DOWN_ UNIT BREAK DOWN					
1_ROOM	2_ROOM	3_ROOM	STUDIO	2_BEDROOM	3_BEDROOM
1	2	1	2	4	1

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	13A Twin sockets		3-ph ISOLATOR
	13A Twin sockets with data		45A KITCHEN UNIT
	CONSUMER UNIT		Surveillance Camera
	DISTRIBUTION BOARD		20A D.P Switch with Neon Light
	TV Point		Instant Shower Point
	Door Bell		KPLC Meterboard

GENERAL NOTES

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REV.	DATE	DESCRIPTION
R1	16/3/24	ELECTRICAL LAYOUT

DRAWING ISSUED FOR:

- ☐ APPROVAL
- ☐ RECORD
- ☐ DETAILED
- ☑ TENDER
- ☐ SHOP DWG
- ☐ AS BUILT

PROJECT: **Residential Building**

CLIENT: SATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

LOCATION: AHP

DRAWING TITLE :

BLOCK TYPE A TYPICAL FLOOR POWER LAYOUT

SCALE : 1:100

DRAWN BY : B.M

CHECKED BY : C.A

Date : 16/03/2024

DATE : 16/03/2024

MINISTRY OF LANDS, PUBLIC WORKS HOUSING AND URBAN DEVELOPMENT

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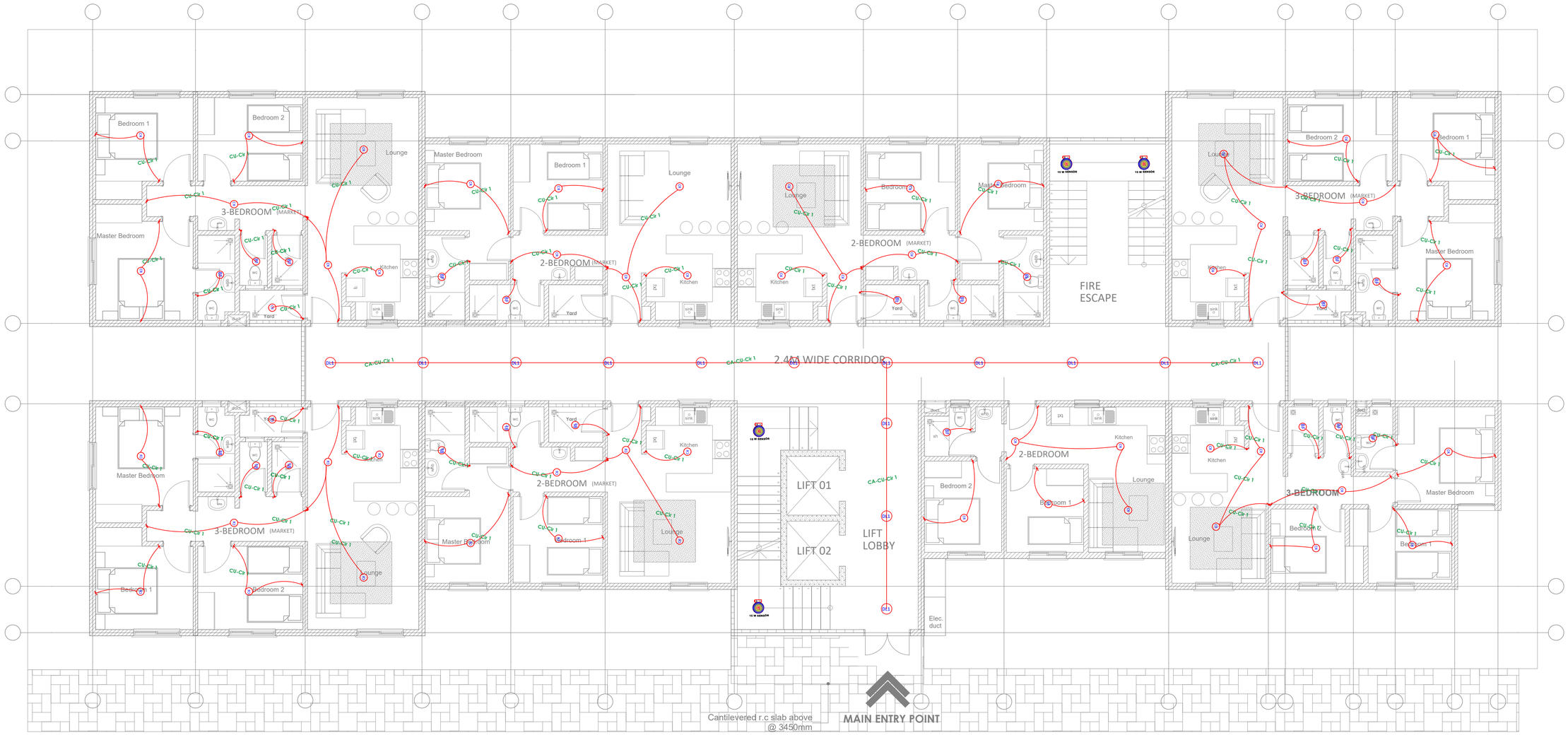
FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA



PROPOSED REVISED TYPICAL AFFORDABLE + MARKET UNITS BLOCK TYPE B_GROUND FLOOR PLAN

UNIT BREAK DOWN_ UNIT BREAK DOWN			
AFFORDABLE UNITS		MARKET UNITS	
2_BEDROOM	3_BEDROOM	2_BEDROOM	3_BEDROOM
1	1	3	3

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
CR	12W Ceiling Rose		2 WAY 1 GANG SWITCH
DL1	12W Surface LED Down lighter		1 WAY SWITCH
BF	12W Ball Fitting		2 WAY 2 GANG SWITCH
	15W Presence Sensor		
	10W Ball Fitting		

GENERAL NOTES

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4. The contractor must check and verify all dimensions before commencement of work and if necessary confirm with the architect .

REV.	DATE	DESCRIPTION
R1	16/3/24	ELECTRICAL LAYOUT

DRAWING ISSUED FOR:

- ☐ APPROVAL
- ☐ RECORD
- ☐ DETAILED
- ☑ TENDER
- ☐ SHOP DWG
- ☐ AS BUILT

PROJECT: **Residential Building**

CLIENT: SATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

LOCATION: AHP

DRAWING TITLE :

BLOCK TYPE B GROUND FLOOR LIGHTING LAYOUT

SCALE : 1:100

DRAWN BY : B.M

CHECKED BY : C.A

Date : 16/03/2024

DATE : 16/03/2024

MINISTRY OF LANDS, PUBLIC WORKS HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

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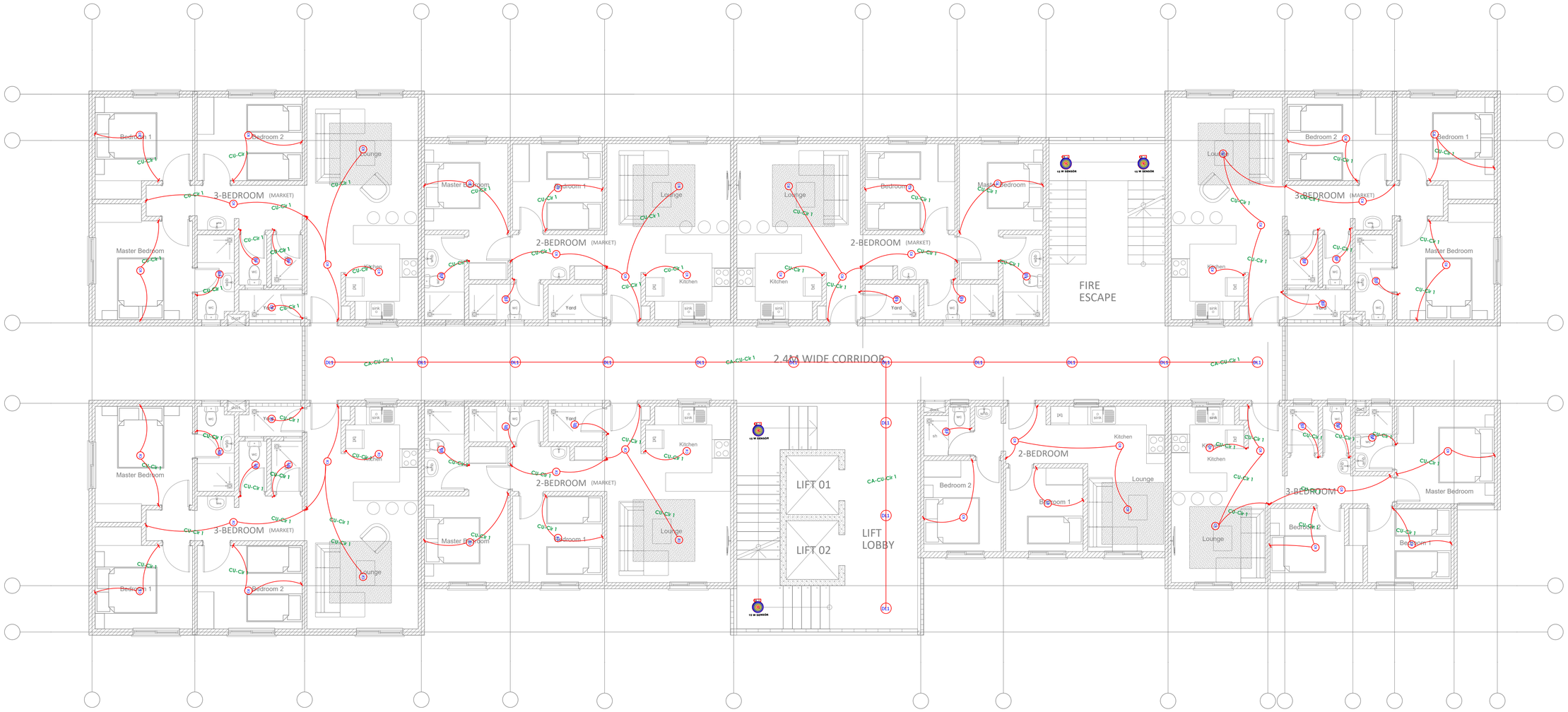
FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA



PROPOSED TYPICAL AFFORDABLE + MARKET UNITS BLOCK TYPE B_TYPICAL 1ST-9TH FLOOR LEVEL

UNIT BREAK DOWN_ UNIT BREAK DOWN			
AFFORDABLE UNITS		MARKET UNITS	
2_BEDROOM	3_BEDROOM	2_BEDROOM	3_BEDROOM
1	1	3	3

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
CR	12W Ceiling Rose		2 WAY 1 GANG SWITCH
DL1	12W Surface LED Down lighter		1 WAY SWITCH
BF	12W Ball Fitting		2 WAY 2 GANG SWITCH
15 W SENSOR	15W Presence Sensor		
	10W Ball Fitting		

GENERAL NOTES

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REV.	DATE	DESCRIPTION
R1	16/3/24	ELECTRICAL LAYOUT

DRAWING ISSUED FOR:

- ☐ APPROVAL
- ☐ RECORD
- ☐ DETAILED
- ☑ TENDER
- ☐ SHOP DWG
- ☐ AS BUILT

PROJECT: **Residential Building**

CLIENT: SATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

LOCATION: AHP

DRAWING TITLE :

BLOCK TYPE B TYPICAL FLOOR LIGHTING LAYOUT

SCALE : 1:100

DRAWN BY : B.M

CHECKED BY : C.A

Date : 16/03/2024

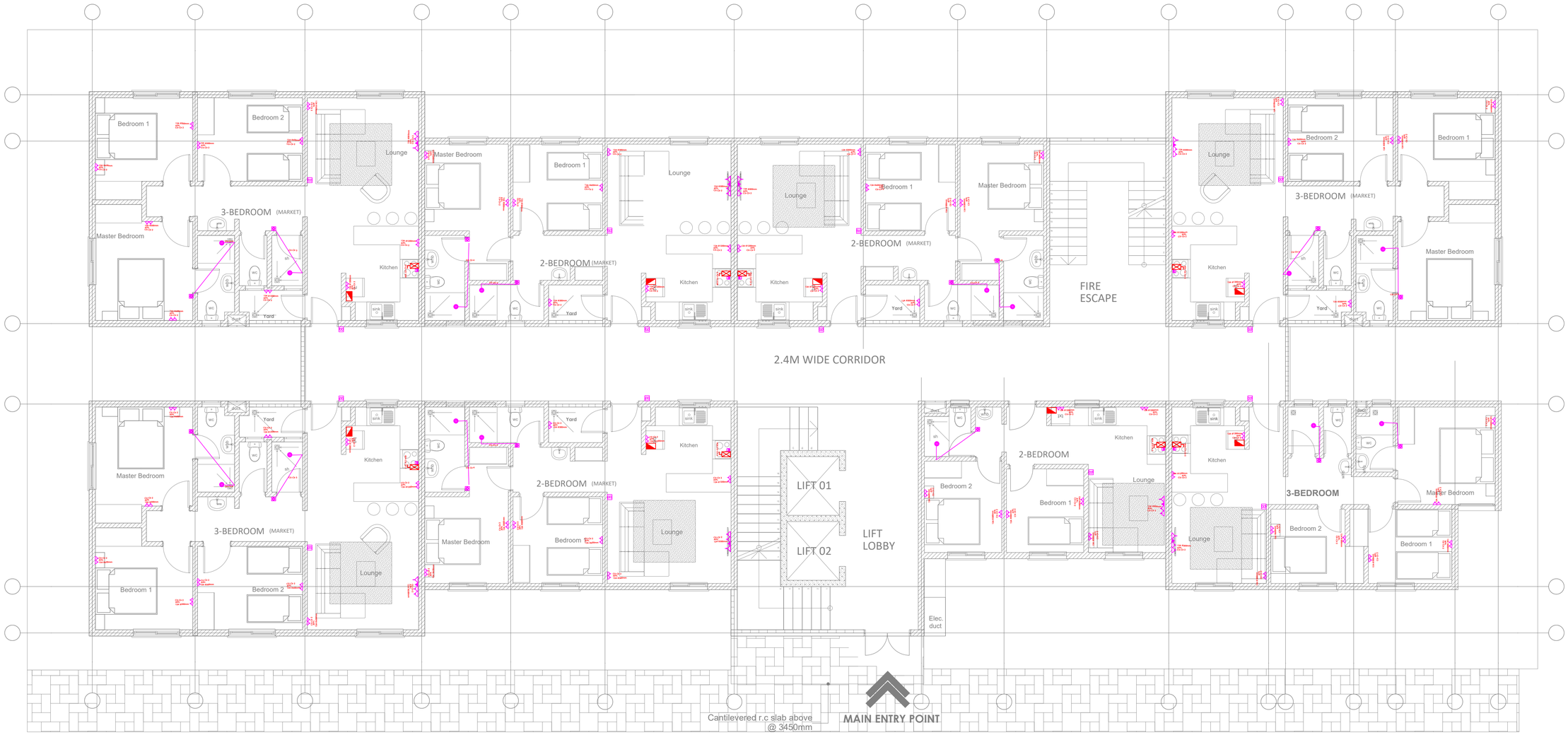
DATE : 16/03/2024

MINISTRY OF LANDS, PUBLIC WORKS HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

HARAMBEE

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA



PROPOSED REVISED TYPICAL AFFORDABLE + MARKET UNITS BLOCK TYPE B_GROUND FLOOR PLAN

UNIT BREAK DOWN_ UNIT BREAK DOWN			
AFFORDABLE UNITS		MARKET UNITS	
2_BEDROOM	3_BEDROOM	2_BEDROOM	3_BEDROOM
1	1	3	3

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	13A Twin sockets		*3-ph ISOLATOR*
	13A Twin sockets with data		*45A KITCHEN UNIT*
	CONSUMER UNIT		*Surveillance Camera*
	DISTRIBUTION BOARD		*20A D.P Switch with Neon Light*
	TV Point		*Instant Shower Point*
	Door Bell		*KPLC Meterboard*

GENERAL NOTES

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4. The contractor must check and verify all dimensions before commencement of work and if necessary confirm with the architect .

REV.	DATE	DESCRIPTION
R1	16/3/24	ELECTRICAL LAYOUT

DRAWING ISSUED FOR:

☐ APPROVAL ☐ RECORD

☐ DETAILED ☑ TENDER

☐ SHOP DWG ☐ AS BUILT

PROJECT: **Residential Building**

CLIENT: SATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

LOCATION: AHP

DRAWING TITLE :

BLOCK TYPE B GROUND FLOOR POWER LAYOUT

SCALE : 1:100

DRAWN BY : B.M

CHECKED BY : C.A

Date : 16/03/2024

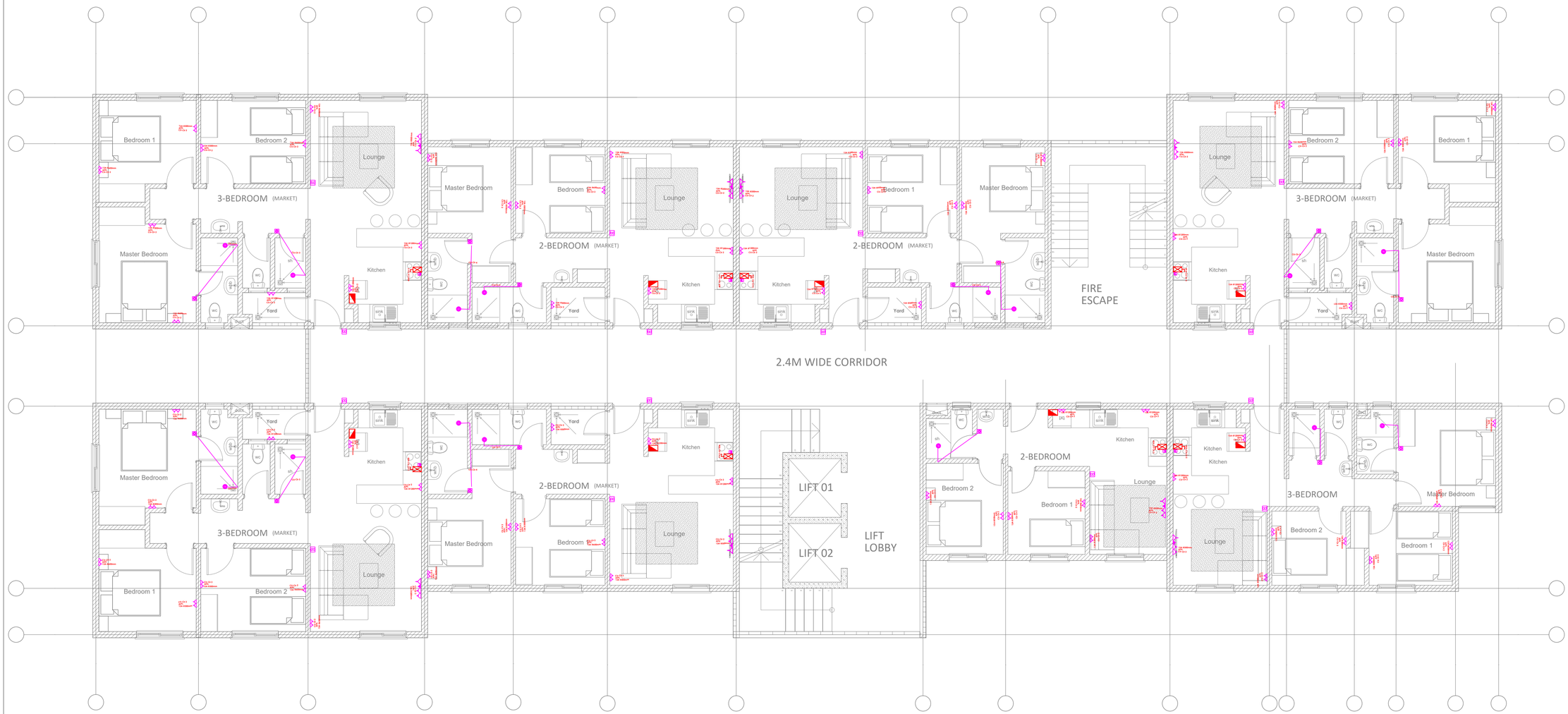
DATE : 16/03/2024

MINISTRY OF LANDS, PUBLIC WORKS HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

HARAMBEE

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA



PROPOSED TYPICAL AFFORDABLE + MARKET UNITS BLOCK TYPE B_TYPICAL 1ST-9TH FLOOR LEVEL

UNIT BREAK DOWN_ UNIT BREAK DOWN			
AFFORDABLE UNITS		MARKET UNITS	
2_BEDROOM	3_BEDROOM	2_BEDROOM	3_BEDROOM
1	1	3	3

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	13A Twin sockets		3-ph ISOLATOR
	13A Twin sockets with data		45A KITCHEN UNIT
	CONSUMER UNIT		Surveillance Camera
	DISTRIBUTION BOARD		20A D.P Switch with Neon Light
	TV Point		Instant Shower Point
	Door Bell		KPLC Meterboard

GENERAL NOTES

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REV.	DATE	DESCRIPTION
R1	16/3/24	ELECTRICAL LAYOUT

DRAWING ISSUED FOR:

- ☐ APPROVAL
- ☐ RECORD
- ☐ DETAILED
- ☒ TENDER
- ☐ SHOP DWG
- ☐ AS BUILT

PROJECT: **Residential Building**

CLIENT: SATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

LOCATION: AHP

DRAWING TITLE :

BLOCK TYPE B TYPICAL FLOOR POWER LAYOUT

SCALE : 1:100

DRAWN BY : B.M

CHECKED BY : C.A

Date : 16/03/2024

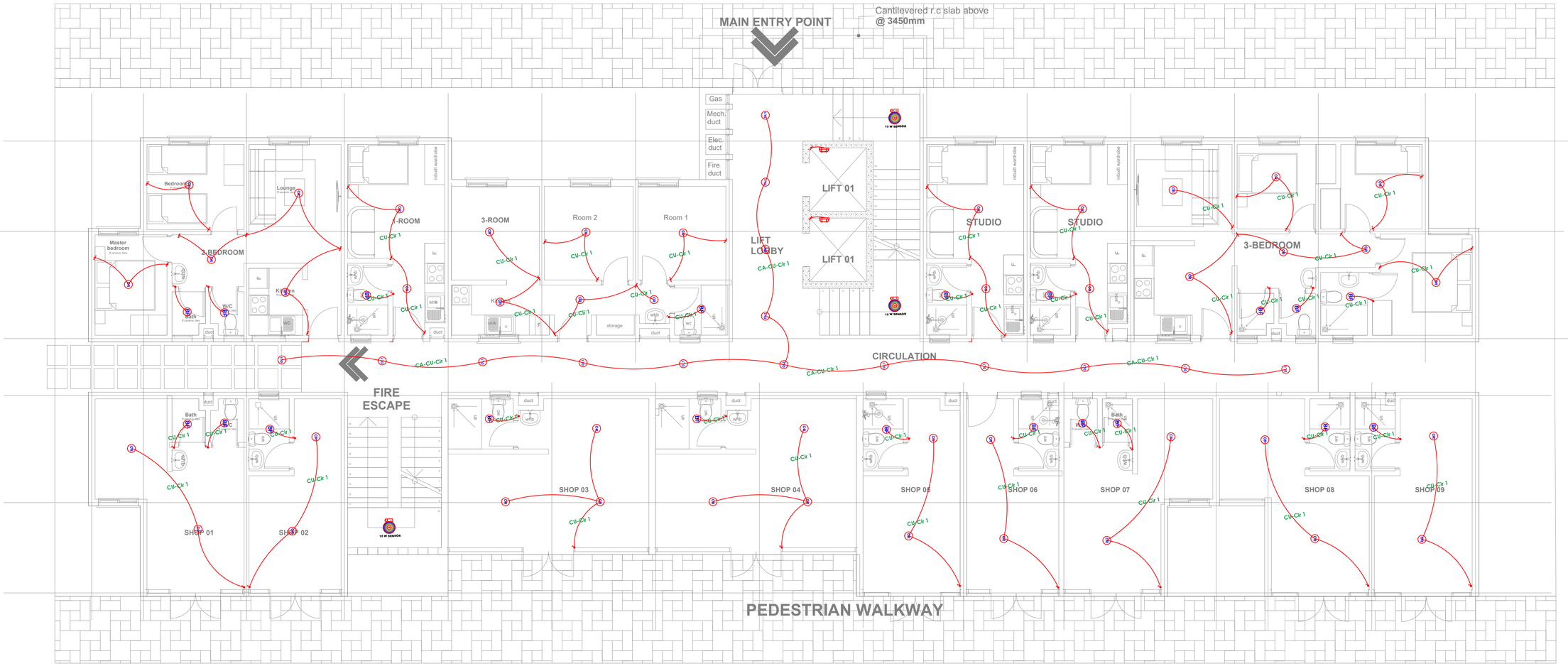
DATE : 16/03/2024

MINISTRY OF LANDS, PUBLIC WORKS HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

HARAMBEE

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA



PROPOSED TYPICAL MIXED USE BLOCK TYPE C_GROUND FLOOR PLAN

UNIT BREAK DOWN_ UNIT BREAK DOWN						
1_ROOM	2_ROOM	3_ROOM	STUDIO	2_BEDROOM	3_BEDROOM	RETAIL
1	2	1	2	1	1	9

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
CR	12W Ceiling Rose		2 WAY 1 GANG SWITCH
DL1	12W Surface LED Down lighter		1 WAY SWITCH
BF	12W Ball Fitting		2 WAY 2 GANG SWITCH
	15W Presence Sensor		
	10W Ball Fitting		

GENERAL NOTES

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REV.	DATE	DESCRIPTION
R1	16/3/24	ELECTRICAL LAYOUT

DRAWING ISSUED FOR:

☐ APPROVAL ☐ RECORD

☐ DETAILED ☑ TENDER

☐ SHOP DWG ☐ AS BUILT

PROJECT: **Residential Building**

CLIENT: SATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

LOCATION: AHP

DRAWING TITLE :

BLOCK TYPE C GROUND FLOOR LIGHTING LAYOUT

SCALE : 1:100

DRAWN BY : B.M

CHECKED BY : C.A

Date : 16/03/2024

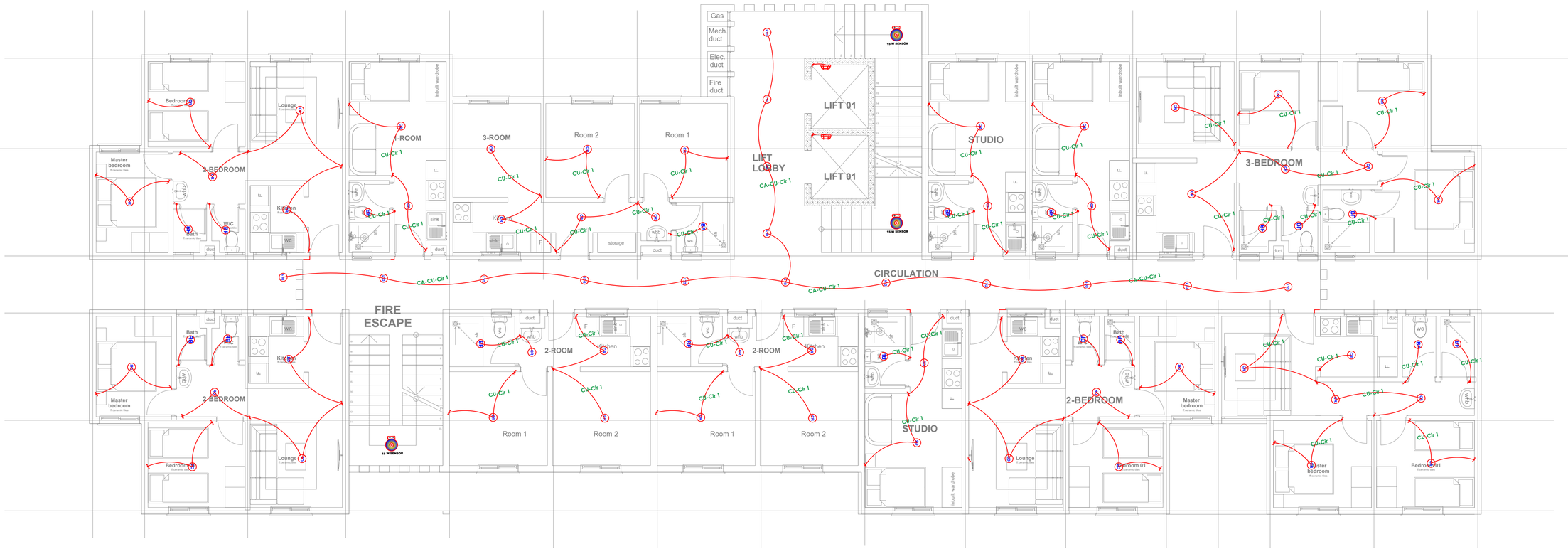
DATE : 16/03/2024

MINISTRY OF LANDS, PUBLIC WORKS HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

HARAMBEE

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA



PROPOSED TYPICAL MIXED USE BLOCK TYPE C_TYPICAL 1ST-9TH FLOOR PLAN

UNIT BREAK DOWN_ UNIT BREAK DOWN					
1_ROOM	2_ROOM	3_ROOM	STUDIO	2_BEDROOM	3_BEDROOM
1	2	1	3	4	1

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
CR	12W Ceiling Rose		2 WAY 1 GANG SWITCH
DL1	12W Surface LED Down lighter		1 WAY SWITCH
BF	12W Ball Fitting		2 WAY 2 GANG SWITCH
	15W Presence Sensor		
	10W Ball Fitting		

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REV.	DATE	DESCRIPTION
R1	16/3/24	ELECTRICAL LAYOUT

DRAWING ISSUED FOR:

- ☐ APPROVAL
- ☐ RECORD
- ☐ DETAILED
- ☒ TENDER
- ☐ SHOP DWG
- ☐ AS BUILT

PROJECT: **Residential Building**

CLIENT: SATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

LOCATION: AHP

DRAWING TITLE :

BLOCK TYPE C TYPICAL FLOOR LIGHTING LAYOUT

SCALE : 1:100

DRAWN BY : B.M

CHECKED BY : C.A

Date : 16/03/2024

DATE : 16/03/2024

MINISTRY OF LANDS, PUBLIC WORKS HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

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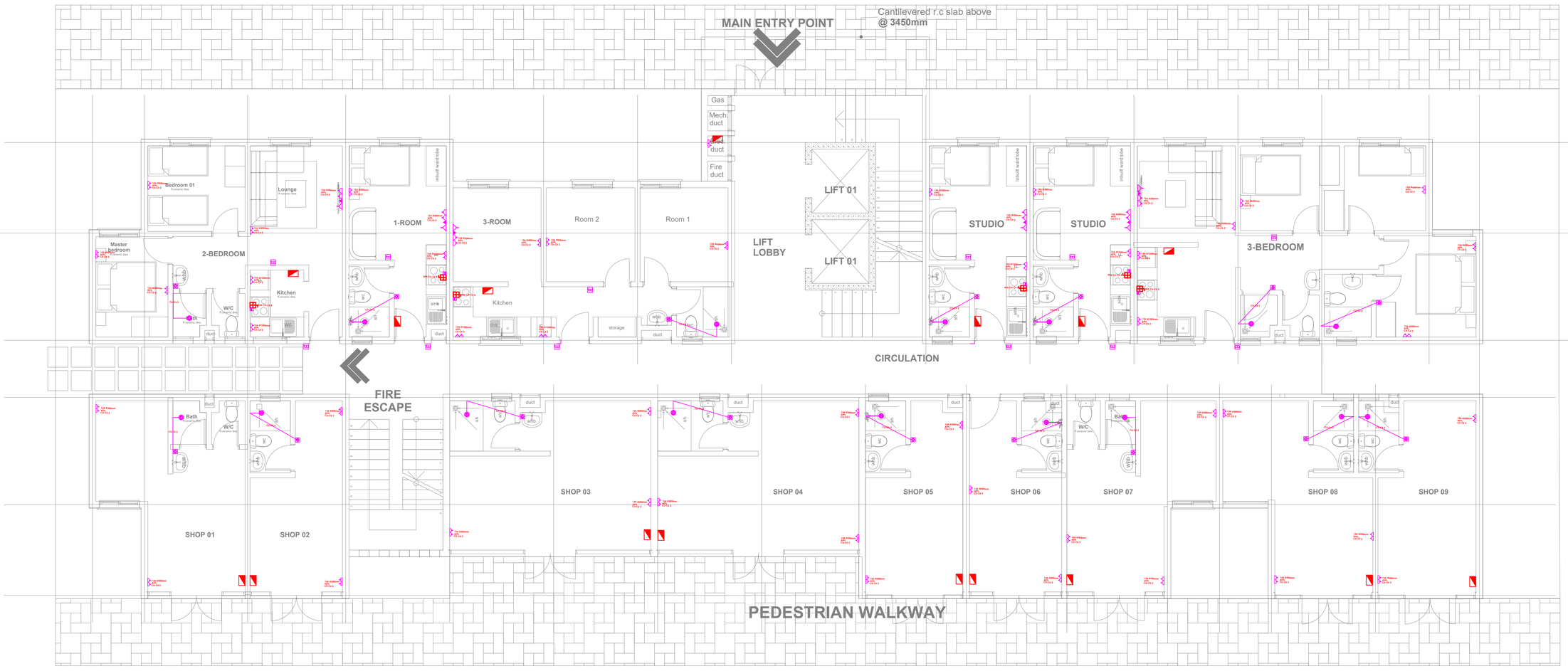
FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA

BLOCK TYPE C [G+4]



PROPOSED TYPICAL MIXED USE BLOCK TYPE C_GROUND FLOOR PLAN

UNIT BREAK DOWN_ UNIT BREAK DOWN						
1_ROOM	2_ROOM	3_ROOM	STUDIO	2_BEDROOM	3_BEDROOM	RETAIL
1	2	1	2	1	1	9

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	13A Twin sockets		*3-ph ISOLATOR*
	13A Twin sockets with data		*45A KITCHEN UNIT*
	CONSUMER UNIT		*Surveillance Camera*
	DISTRIBUTION BOARD		*20A D.P Switch with Neon Light*
	TV Point		*Instant Shower Point*
	Door Bell		*KPLC Meterboard*

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REV.	DATE	DESCRIPTION
R1	16/3/24	ELECTRICAL LAYOUT

DRAWING ISSUED FOR:

☐ APPROVAL ☐ RECORD

☐ DETAILED ☑ TENDER

☐ SHOP DWG ☐ AS BUILT

PROJECT: **Residential Building**

CLIENT: SATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

LOCATION: AHP

DRAWING TITLE :

BLOCK TYPE C GROUND FLOOR POWER LAYOUT

SCALE : 1:100

DRAWN BY : B.M

CHECKED BY : C.A

Date : 16/03/2024

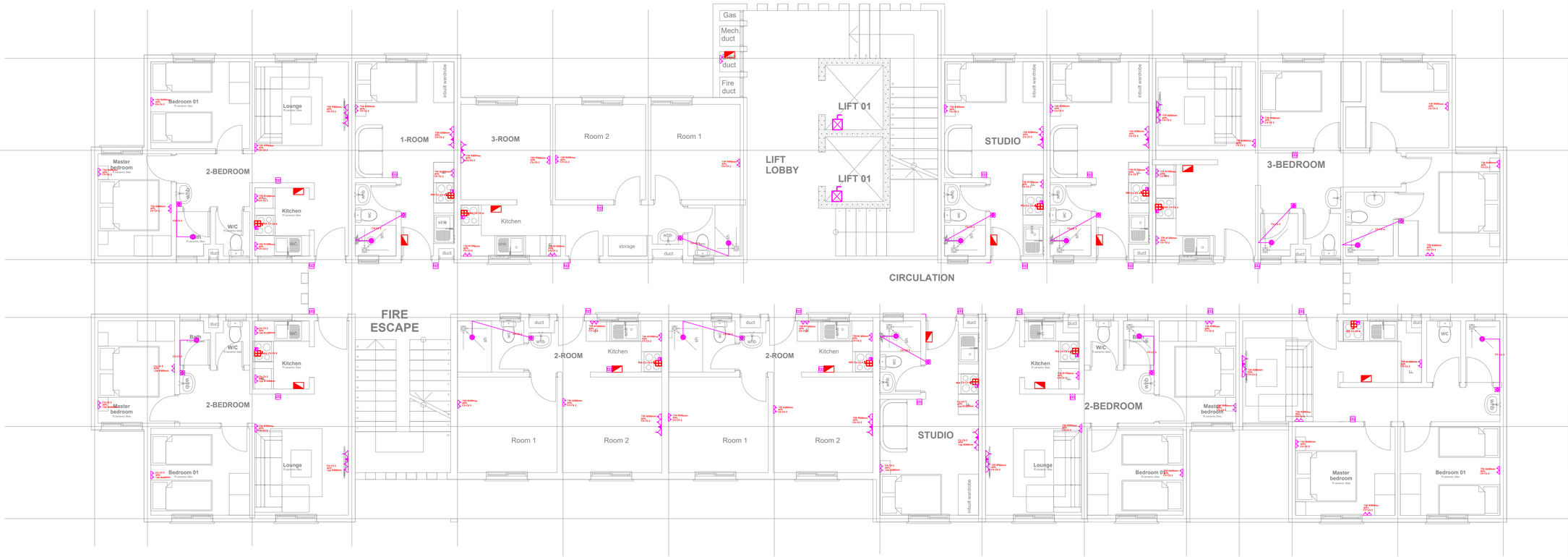
DATE : 16/03/2024

MINISTRY OF LANDS, PUBLIC WORKS HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

HARAMBEE

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA



PROPOSED TYPICAL MIXED USE BLOCK TYPE C_TYPICAL 1ST-9TH FLOOR PLAN

UNIT BREAK DOWN_ UNIT BREAK DOWN					
1_ROOM	2_ROOM	3_ROOM	STUDIO	2_BEDROOM	3_BEDROOM
1	2	1	3	4	1

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	13A Twin sockets		*3-ph ISOLATOR*
	13A Twin sockets with data		*45A KITCHEN UNIT*
	CONSUMER UNIT		*Surveillance Camera*
	DISTRIBUTION BOARD		*20A D.P Switch with Neon Light*
	TV Point		*Instant Shower Point*
	Door Bell		*KPLC Meterboard*

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REV.	DATE	DESCRIPTION
R1	16/3/24	ELECTRICAL LAYOUT

DRAWING ISSUED FOR:

☐ APPROVAL ☐ RECORD

☐ DETAILED ☑ TENDER

☐ SHOP DWG ☐ AS BUILT

PROJECT: **Residential Building**

CLIENT: SATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

LOCATION: AHP

DRAWING TITLE :

BLOCK TYPE C TYPICAL FLOOR POWER LAYOUT

SCALE : 1:100

DRAWN BY : B.M

CHECKED BY : C.A

Date : 16/03/2024

DATE : 16/03/2024

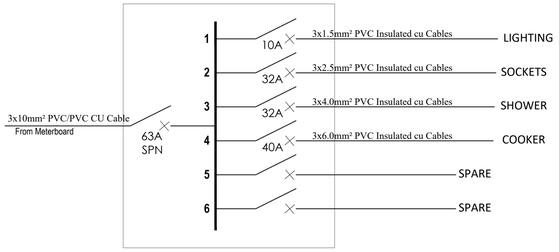
MINISTRY OF LANDS, PUBLIC WORKS HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA

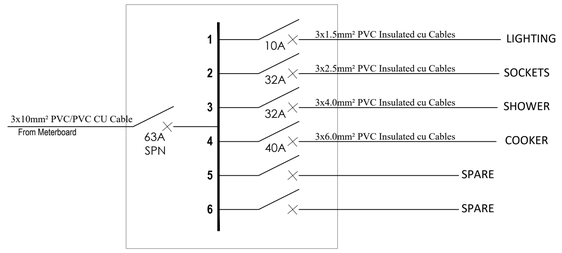
PROPOSED AFFORDABLE UNITS BLOCK TYPE A

TYPICAL STUDIO & 1 ROOM CU



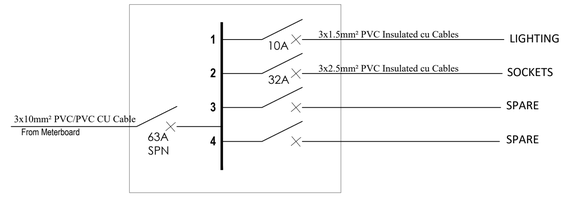
6-WAY CU SCHEMATIC

TYPICAL TWO BEDROOM CU



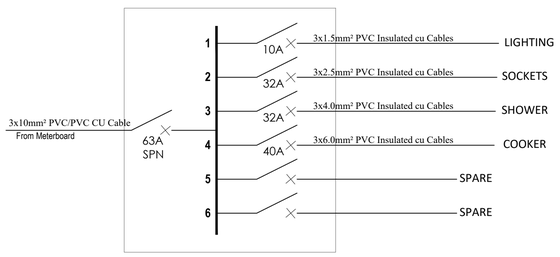
6-WAY CU SCHEMATIC

TYPICAL FLOOR COMMON AREA CU



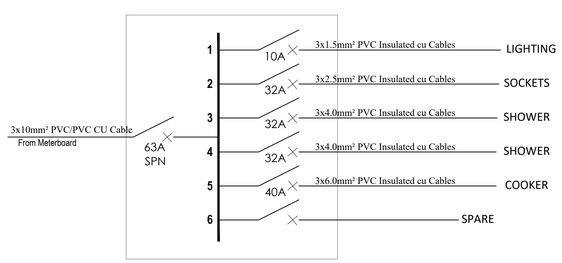
4-WAY CU SCHEMATIC

TYPICAL TWO ROOM & TWO BEDROOM CU

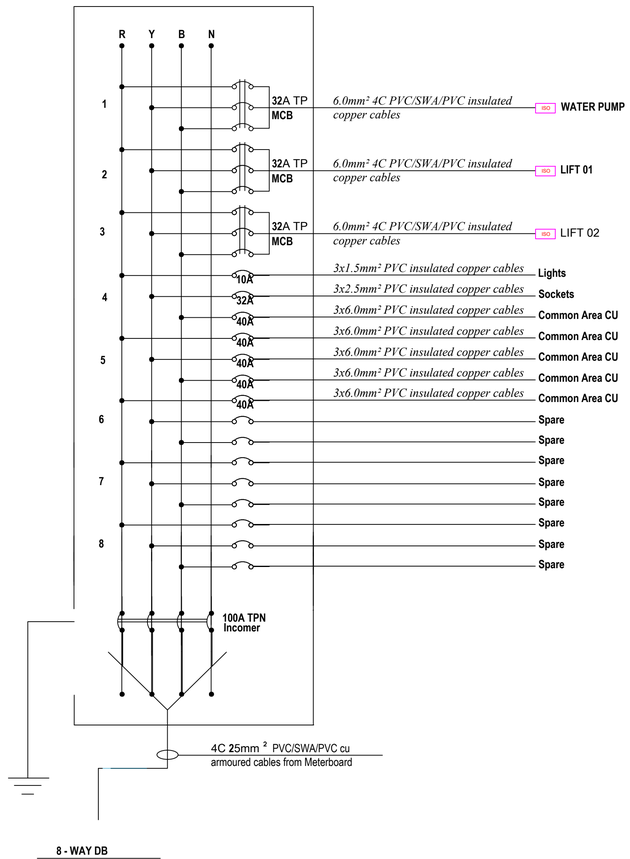


6-WAY CU SCHEMATIC

TYPICAL THREE BEDROOM CU



6-WAY CU SCHEMATIC



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REV.	DATE	DESCRIPTION

DRAWING ISSUED FOR:

☐ APPROVAL ☐ RECORD

☐ DETAILED ☑ TENDER

☐ SHOP DWG ☐ AS BUILT

PROJECT: **Residential Building**

CLIENT: SATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

LOCATION: AHP

DRAWING TITLE :

BLOCK TYPE A CU & DB SCHEMATICS

SCALE : NTS

DRAWN BY : B.M

CHECKED BY : C.A

Date : 16/03/2024

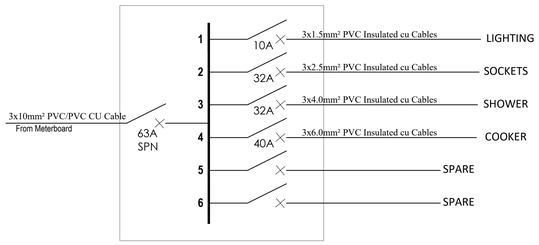
DATE : 16/03/2024

MINISTRY OF LANDS, PUBLIC WORKS HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

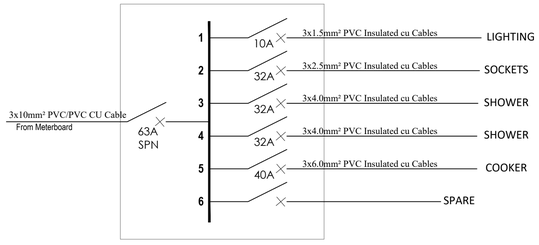
FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA

TYPICAL TWO BEDROOM AHP CU

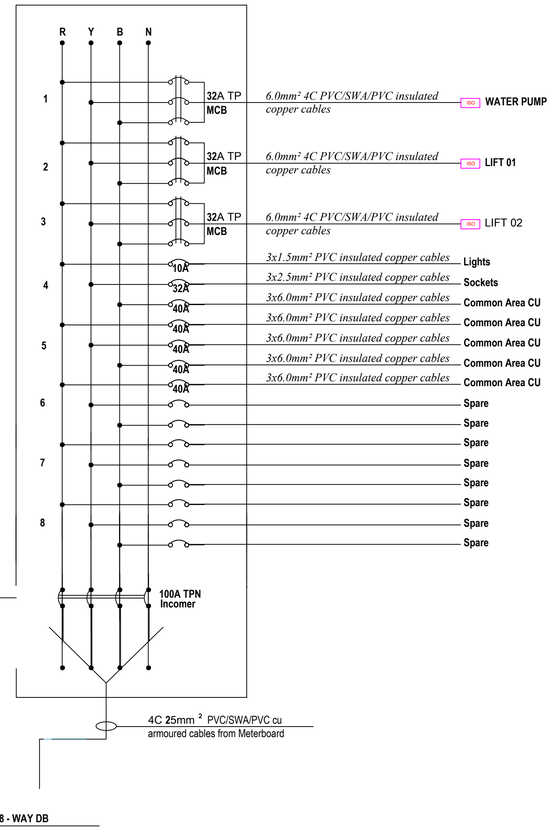


6-WAY CU SCHEMATIC

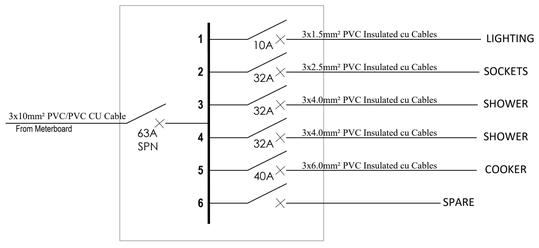
TYPICAL THREE BEDROOM AHP & MKT CU



6-WAY CU SCHEMATIC

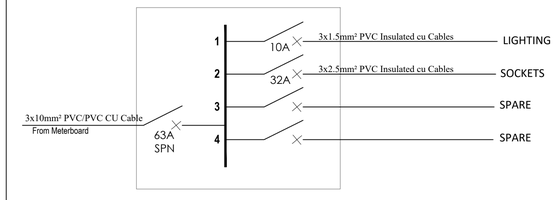


TYPICAL TWO BEDROOM MKT CU



6-WAY CU SCHEMATIC

TYPICAL FLOOR COMMON AREA CU



4-WAY CU SCHEMATIC

PROPOSED AFFORDABLE UNITS BLOCK TYPE B

GENERAL NOTES

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REV.	DATE	DESCRIPTION

DRAWING ISSUED FOR:

☐ APPROVAL ☐ RECORD

☐ DETAILED ☑ TENDER

☐ SHOP DWG ☐ AS BUILT

PROJECT: **Residential Building**

CLIENT: SATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

LOCATION: AHP

DRAWING TITLE :

BLOCK TYPE B CU & DB SCHEMATICS

SCALE : NTS

DRAWN BY : B.M

CHECKED BY : C.A

Date : 16/03/2024

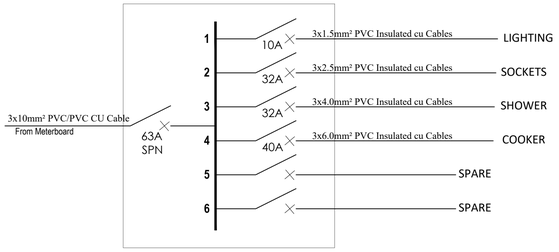
DATE : 16/03/2024

MINISTRY OF LANDS, PUBLIC WORKS HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

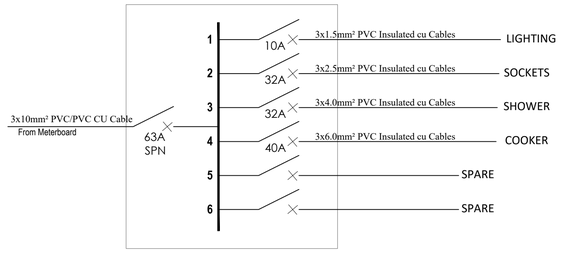
FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA

TYPICAL STUDIO & 1 ROOM CU



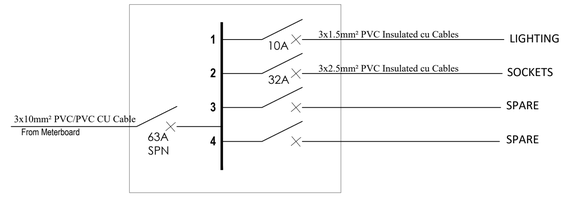
6-WAY CU SCHEMATIC

TYPICAL TWO BEDROOM CU



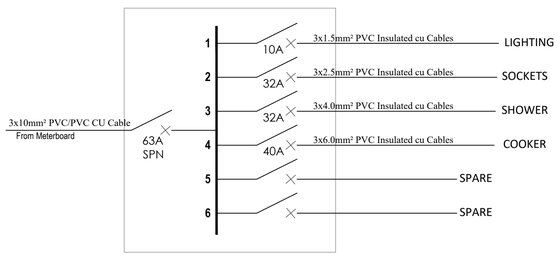
6-WAY CU SCHEMATIC

TYPICAL FLOOR COMMON AREA CU



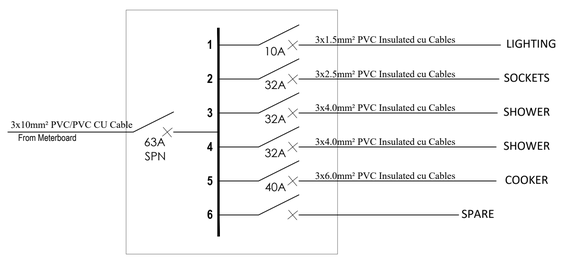
4-WAY CU SCHEMATIC

TYPICAL TWO ROOM & TWO BEDROOM CU

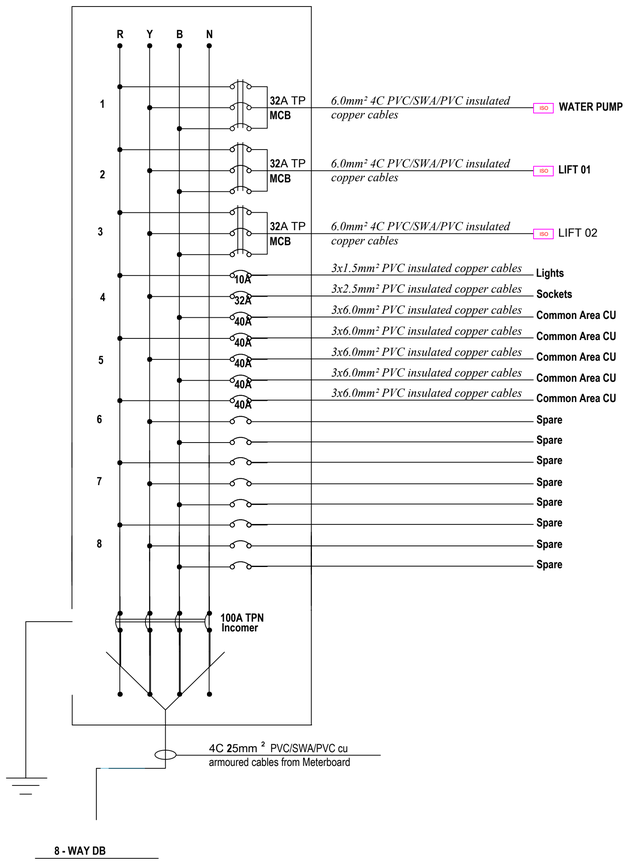


6-WAY CU SCHEMATIC

TYPICAL THREE BEDROOM CU



6-WAY CU SCHEMATIC



PROPOSED AFFORDABLE UNITS BLOCK TYPE C

GENERAL NOTES

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REV.	DATE	DESCRIPTION

DRAWING ISSUED FOR:

☐ APPROVAL ☐ RECORD

☐ DETAILED ☑ TENDER

☐ SHOP DWG ☐ AS BUILT

PROJECT: **Residential Building**

CLIENT: SATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

LOCATION: AHP

DRAWING TITLE :

BLOCK TYPE C CU & DB SCHEMATICS

SCALE : NTS

DRAWN BY : B.M

CHECKED BY : C.A

Date : 16/03/2024

DATE : 16/03/2024

MINISTRY OF LANDS, PUBLIC WORKS HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA

GENERAL NOTES

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REV.	DATE	DESCRIPTION
R1	16/3/24	ELECTRICAL LAYOUT

DRAWING ISSUED FOR:

- ☐ APPROVAL
- ☐ RECORD
- ☐ DETAILED
- ☒ TENDER
- ☐ SHOP DWG
- ☐ AS BUILT

PROJECT: **Residential Building**

CLIENT: SATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

LOCATION: AHP

DRAWING TITLE :

TYPICAL METERBOARD SCHEMATICS

SCALE : NTS

DRAWN BY : B.M

CHECKED BY : C.A

Date : 16/03/2024

DATE : 16/03/2024

MINISTRY OF LANDS, PUBLIC WORKS HOUSING AND URBAN DEVELOPMENT
STATE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

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REV.	DATE	DESCRIPTION
R1	16/3/24	ELECTRICAL LAYOUT

DRAWING ISSUED FOR:

- ☐ APPROVAL
- ☐ RECORD
- ☐ DETAILED
- ☒ TENDER
- ☐ SHOP DWG
- ☐ AS BUILT

PROJECT: **Residential Building**

CLIENT: SATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

LOCATION: AHP

DRAWING TITLE :

TYPICAL METERBOARD SCHEMATICS

SCALE : NTS

DRAWN BY : B.M

CHECKED BY : C.A

Date : 16/03/2024

DATE : 16/03/2024

MINISTRY OF LANDS, PUBLIC WORKS HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA

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REV.	DATE	DESCRIPTION
R1	16/3/24	ELECTRICAL LAYOUT

DRAWING ISSUED FOR:

- ☐ APPROVAL
- ☐ RECORD
- ☐ DETAILED
- ☑ TENDER
- ☐ SHOP DWG
- ☐ AS BUILT

PROJECT: **Residential Building**

CLIENT: SATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

LOCATION: AHP

DRAWING TITLE :
TYPICAL METERBOARD SCHEMATICS

SCALE : NTS

DRAWN BY : B.M

CHECKED BY : C.A

Date : 16/03/2024

DATE : 16/03/2024

MINISTRY OF LANDS, PUBLIC WORKS HOUSING AND URBAN DEVELOPMENT
STATE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA

PART III - THE CONDITIONS OF CONTRACT AND CONTRACT

SECTION VIII - GENERAL CONDITIONS OF CONTRACT (GCC)

General Conditions of Contract

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1. GENERALPROVISIONS

1.1 Definitions

In this Contract, except where context otherwise requires, the following terms shall be interpreted as indicated below. Words indicating persons or parties include corporations and other legal entities, except where the context requires otherwise.

"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.

"Base Date" means a date 30 day prior to the submission of tenders.

"Bill of Quantities" means the priced and completed Bill of Quantities forming part of the tender.

"Completion Date" means the date of completion of the Works as certified by the Engineer.

"Contract Price" means the price defined in the contract and thereafter as adjusted in accordance with the provisions of the Contract.

"Contract" means the agreement entered into between the Procuring Entity and the Contractor as recorded in the Agreement Form and signed by the parties including all attachments and appendices thereto and all documents incorporated by reference therein to execute, complete, and maintain the Works.

"Contractor's Documents" means the calculations, computer programs and other software, progress reports, drawings, manuals, models and other documents of a technical nature (if any) supplied by the Contractor under the Contract.

"Contractor's Equipment" means all apparatus, machinery, vehicles and other things required for the execution and completion of the Works and the remedying of any defects. However, Contractor's Equipment excludes Temporary Works, Procuring Entity's Equipment (if any), Plant, Materials and any other things intended to form or forming part of the Permanent Works.

"Contractor's Personnel" means the Contractor's Representative and all personnel whom the Contractor utilizes on Site, who may include the staff, labor and other employees of the Contractor and of each Subcontractor; and any other personnel assisting the Contractor in the execution of the Works.

"Contractor's Representative" means the person named by the Contractor in the Contractor appointed from time to time by the Contractor who acts on behalf of the Contractor.

"Contractor" means the person(s) named as contractor in the Form of Tender accepted by the Procuring Entity.

"Cost" means expenditure reasonably incurred (or to be incurred) by the Contractor, whether on or off the Site, including overhead and similar charges, but does not include profit.

"Day" means a calendar day and **"year"** means 365 days.

"Dayworks" means Work inputs subject to payment on a time basis for labour and the associated materials and plant.

"Defect" means any part of the Works not completed in accordance with the Contract.

"Defects Liability Certificate" means the certificate issued by Architect upon correction of defects by the Contractor.

"Defects Liability Period" means the period named in the Special Conditions of Contract and calculated from the Completion Date, within which the contractor is liable for any defects that may develop in the handed over works.

"Defects Notification Period" means the period for notifying defects in the Works or a Section (as the case may be) under Sub-Clause 11.1 [Completion of Outstanding Work and Remedying Defects], which extends over the days stated in the Special Conditions of Contract.

"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.

"Final Payment Certificate" means the payment certificate issued under Sub-Clause 14.13 [Issue of Final Payment Certificate].

"Final Statement" means the statement defined in Sub-Clause 14.11 [Application for final Payment Certificate].

"Force Majeure" is defined in Clause19 [Force Majeure].

"Foreign Currency" means a currency of another country (not Kenya) in which part (or all) of the Contract Price is payable, but not the Local Currency.

"Goods" means Contractor's Equipment, Materials, Plant and Temporary Works, or any of them as appropriate.

"Interim Payment Certificate" means a payment certificate issued under Clause 14 [Contract Price and Payment], other than the Final Payment Certificate.

"Laws" means all national legislation, statutes, ordinances, and regulations and by-laws of any legally constituted public authority.

"Letter of Acceptance" means the letter of formal acceptance of a tender, signed by Procuring Entity, including any annexed memoranda comprising agreements between and signed by both Parties.

"Local Currency" means the currency of Kenya.

"Materials" means things of all kinds (other than Plant) intended to form or forming part of the Permanent Works, including the supply-only materials (if any) to be supplied by the Contractor under the Contract.

"Notice of Dissatisfaction" means the notice given by either Party to the other under Sub-Clause 20.3 indicating its dissatisfaction and intention to commence arbitration.

"Special Conditions of Contract" means the pages completed by the Procuring Entity entitled Special Conditions of Contract which constitute Part A of the Special Conditions.

"Party" means the Procuring Entity or the Contractor, as the context requires.

"Payment Certificate" means a payment certificate issued under Clause 14 [Contract Price and Payment].

"Performance Certificate" means the certificate issued under Sub-Clause 11.9 [Performance Certificate].

"Performance Security" means the security (or securities, if any) under Sub-Clause 4.2 [Performance Security].

"Permanent Works" means the permanent works to be executed by the Contractor under the Contract.

"Plant" means the apparatus, machinery and other equipment intended to form or forming part of the Permanent Works, including vehicles purchased for the Procuring Entity and relating to the construction or operation of the Works.

"Procuring Entity's Equipment" means the apparatus, machinery and vehicles (if any) made available by the

Procuring Entity for the use of the Contract or in the execution of the Works, as stated in the Specification; but does not include Plant which has not been taken over by the Procuring Entity.

"Procuring Entity's Personnel" means the Engineer, the Engineer, the assistants and all other staff, labor and other employees of the Architect and of the Procuring Entity; and any other personnel notified to the Contractor, by the Procuring Entity or the Engineer, as Procuring Entity's Personnel.

"Procuring Entity" means the Entity named in the Special Conditions of Contract.

"Engineer" is the person named in the Appendix to Conditions of Contract (or any other competent person appointed by the Procuring Entity and notified to the Contractor, to act in replacement of the Engineer) who is responsible for supervising the execution of the Works and administering the Contract and shall be an "Architect" or a "Quantity Surveyor" registered under the Architects and Quantity Surveyors Act Cap 525 or an "Engineer" registered under Engineers Registration Act Cap 530.

"Engineer" means the person appointed by the Procuring Entity to act as the Architect for the purposes of the Contract and named in the Special Conditions of Contract, or other person appointed from time to time by the Procuring Entity and notified to the Contractor

"Provisional Sum" means a sum (if any) which is specified in the Contract as a provisional sum, for the execution of any part of the Works or for the supply of Plant, Materials or services under Sub-Clause 13.5 [Provisional Sums].

"Retention Money" means the accumulated retention moneys which the Procuring Entity retains under Sub-Clause 14.3 [Application for Interim Payment Certificates] and pays under Sub-Clause 14.9 [Payment of Retention Money].

"Schedules" means the document(s) entitled schedules, completed by the Contractor and submitted with the Form of Tender, as included in the Contract.

"Section" means a part of the Works specified in the Special Conditions of Contract as a Section (if any)

"Site Investigation Reports" are those reports that may be included in the tendering documents which a ref actual and interpretative about the surface and sub-surface condition sat the Site.

"Site" means the places where the Permanent Works are to be executed, including storage and working areas, and to which Plant and Materials are to be delivered, and any other places as may be specified in the Contract as forming part of the Site.

"Specification" means the document entitled specification, as included in the Contract, and any additions and modifications to the specification in accordance with the Contract. Such document specifies the Works.

"Start Date" or "Commencement Date" is the latest date when the Contractor shall commence execution of the Works. It does not necessarily coincide with the Site possession date(s).

"Statement" means a statement submitted by the Contractor as part of an application, under Clause 14 [Contract Price and Payment], for a payment certificate.

"Subcontractor" means any person named in the Contract as a subcontractor, or any person appointed as a subcontractor, for a part of the Works.

"Taking-Over Certificate" means a certificate issued under Clause 10 [Procuring Entity's Taking Over].

"Temporary Works" means all temporary works of every kind (other than Contractor's Equipment) required on Site for the execution and completion of the Permanent Works and the remedying of any defects.

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

"Tender" means the Form of Tender and all other documents which the Contractor submitted with the Form of Tender, as included in the Contract.

"Tests after Completion" means the tests (if any) which are specified in the Contract and which are carried out in

accordance with the Specification after the Works or a Section (as the case may be) are taken over by the Procuring Entity.

"Tests on Completion" means the tests which are specified in the Contractor agreed by both Parties or instructed as a Variation, and which are carried out under Clause 9 [Tests on Completion] before the Works or a Section (as the case may be) are taken over by the Procuring Entity.

"Time for Completion" means the time for completing the Works or a Section (as the case may be) as stated in the Special Conditions of Contract (with any extension calculated from the Commencement Date.

"Unforeseeable" means not reasonably foreseeable by an experienced contractor by the Base Date.

"Variation" means any change to the Works, which is instructed or approved as a variation under Clause 13 [Variations and Adjustments].

"Works" means the items the Procuring Entity requires the Contractor to undertake as defined in the Appendix to Conditions of Contract. **"Works" may** also mean the Permanent Works and the Temporary Works, or either of them as appropriate.

1.2 Interpretation

In the Contract, except where the context requires otherwise:

a) Words indicating one gender include all genders;
b) words indicating the singular also include the plural and words indicating the plural also include the singular;
c) provisions including the word "agree", "agreed" or "agreement" require the agreement to be recorded in writing;
d) "written" or "in writing" means hand-written, type-written, printed or electronically made, and resulting in a permanent record; and

The marginal words and other headings shall not be taken into consideration in the interpretation of these Conditions.

1.3 Communications

1.3.1 Wherever these Conditions provide for the giving or issuing of approvals, certificates, consents, determinations, notices, requests and discharges, these communications shall be:

a) In writing and delivered by hand (against receipt), sent by mail or courier, or transmitted using any of the agreed systems of electronic transmission as stated in the Special Conditions of Contract; and
b) delivered, sent or transmitted to the address for the recipient's communications as stated in the Special Conditions of Contract. However:

   i) if the recipient gives notice of another address, communications shall thereafter be delivered accordingly; and
   ii) if the recipient has not stated otherwise when requesting an approval or consent, it may be sent to the address from which the request was issued.

1.3.2 Approvals, certificates, consents and determinations shall not be unreasonably withheld or delayed. When a certificate is issued to a Party, the certifier shall send a copy to the other Party. When a notice is issued to a Party, by the other Party or the Engineer, a copy shall be sent to the Architect or the other Party, as the case may be.

1.4 Law and Language

1.4.1 The Contract shall be governed by the laws of **Kenya.**

1.4.2 The ruling language ofthe Contract shall be **English.**

1.5 Priority of Documents

The documents forming the Contract are to be taken as mutually explanatory of one another. For the purposes of interpretation, the priority of the documents shall be in accordance with the following sequence:

a) The Contract Agreement,
b) The Letter of Acceptance,
c) The Special Conditions – Part A,
d) the Special Conditions – Part B
e) the General Conditions of Contract
f) the Form of Tender,
g) the Specifications and Bills of Quantities
h) the Drawings, and
i) the Schedules and any other documents forming part of the Contract.

If an ambiguity or discrepancy is found in the documents, the Architect shall issue any necessary clarification or instruction.

1.6 Contract Agreement

The Parties shall enter into a Contract Agreement within 14 days after the Contractor receives the Contract Agreement unless the Special Conditions establish otherwise. The Contract Agreement shall be based upon the formannexed to the Special Conditions. The costs of stamp duties and similar charges (if any) imposed by law in connection with entry into the Contract Agreement shall be borne by the Procuring Entity.

1.7 Assignment

The Contractor shall not assign the whole or any part of the Contract or any benefit or interest in or under the Contract. However, the contractor:

a) May as sign the whole or any part with the prior consent of the Procuring Entity, and
b) may, as security in favor of a bank or financial institution, assign its right to moneys due, or to become due, under the Contract.

1.8 Care and Supply of Documents

1.8.1 The Specifications and Drawings shall be in the custody and care of the Procuring Entity.Unless otherwise stated in the Contract, two copies of the Contract and of each subsequent Drawings and Bills of Quantities shall be supplied to the Contractor, who may make or request further copies at the cost of the Contractor.

1.8.2 Each of the Contractor's Documents shall be in the custody and care of the Contractor, unless and until taken over bythe Procuring Entity. Unless otherwise stated in the Contract, the Contractor shall supply to the Architect two copies of each of the Contractor's Documents.

1.8.3 The Contractor shall keep on the Site, a copy of the Contract, publications named in the Specification, the Contractor's Documents (if any), the Drawings and Variations and other communications given under the Contract.The Procuring Entity's Personnel shall have the right of access to all these documents at all reasonable times.

1.8.4 If a Party becomes aware of an error or defect in a document which was prepared for use in executing the Works, theParty shall promptly give notice to the other Party of such error or defect.

1.9 Timely provision of Drawings or Instructions

1.9.1 The Contractor shall give notice to the Architect whenever the Works are likely to be delayed or disrupted if any necessary drawing or instruction is not issued to the Contractor within a particular time, which shall be reasonable. The notice shall include details of the necessary drawing or instruction, details of why and by when it should be issued, and the nature and amount of the delay or disruption likely to be suffered if it is late.

1.9.2 If the Contractor suffers delay and/or incurs Cost as a result of a failure of the Architect to issue the notified drawing or instruction within a time which is reasonable and is specified in the notice with supporting details, the Contractor shall give a further notice to the Architect and shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:

a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and

b) payment of any other associated costs accrued, which shall be included in the Contract Price.

1.9.3 After receiving this further notice, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these matters.

1.9.4 However, if and to the extent that the Architect failure was caused by any error or delay by the Contractor, including an error in, or delay in the submission of, any of the Contractor's Documents, the Contractor shall not be entitled to such extension of time, or costs accrued.

1.10 Procuring Entity's Use of Contractor's Documents

1.10.1 As agreed between the Parties, the Contractor shall retain the copyright and other intellectual property rights in the Contractor's Documents and other design documents made by (or on behalf of) the Contractor.

1.10.2 The Contractor shall be deemed (by signing the Contract) to give to the Procuring Entity a non-terminable transferable non-exclusive royalty-free license to copy, use and communicate the Contractor's Documents, including making and using modifications of them. This license shall:

a) apply throughout the actual or intended working life (whichever is longer) of the relevant parts of the Works,
b) entitle any person in proper possession of the relevant part of the Works to copy, use and communicate the Contractor's Documents for the purposes of completing, operating, maintaining, altering, adjusting, repairing and demolishing the Works, and
c) in the case of Contractor's Documents which are in the form of computer programs and other software, permit their use on any computer on the Site and other places as envisaged by the Contract, including replacements of any computers supplied by the Contractor.

1.10.3 The Contractor's Documents and other design documents made by (or on behalf of) the Contractor shall not, without the Contractor's consent, be used, copied or communicated to a third party by (or on behalf of) the Procuring Entity for purposes other than those permitted under Sub-Clause 1.10.2.

1.11 Contractor's Use of Procuring Entity's Documents

As agreed between the Parties, the Procuring Entity shall retain the copyright and other intellectual property rights in the Specification, the Drawings and other documents made by (or on behalf of) the Procuring Entity. The Contractor may, at his cost, copy, use, and obtain communication of these documents for the purposes of the Contract. They shall not, without the Procuring Entity's consent, be copied, used or communicated to a third party by the Contractor, except as necessary for the purposes of the Contract.

1.12 Confidential Details

1.12.1 The Contractor's and the Procuring Entity's Personnel shall ensure confidentiality at all times. The confidentiality shall survive termination or completion of the contract. They shall disclose all such confidential and other information as may be reasonably required in order to verify compliance with the Contract and allow its proper implementation.

1.12.2 The Contractor's and the Procuring Entity's Personnel shall also treat the details of the Contract as private and confidential, except to the extent necessary to carry out their respective obligations under the Contract or to comply with applicable Laws. Each of them shall not publish or disclose any particulars of the Works prepared by the other Party without the previous agreement of the other Party. However, the Contractor shall be permitted to disclose any publicly available information, or information otherwise required to establish his qualifications to compete for other projects.

1.13 Compliance with Laws

The Contractor shall, in performing the Contract, comply with applicable Laws. Unless otherwise stated in the Special Conditions of Contract:

a) The Procuring Entity shall have obtained (or shall obtain) the planning, zoning, building permit or similar permission for the Permanent Works, and any other permissions described in the Specifications as having been (or to be) obtained by the Procuring Entity; and the Procuring Entity shall indemnify and hold the Contractor harmless against and from the consequences of any failure to do so; and

b) the Contractor shall give all notices, pay all taxes, duties and fees, and obtain all permits, licenses and approvals, as required by the Laws in relation to the execution and completion of the Works and the remedying of any defects; and the Contractor shall indemnify and hold the Procuring Entity harmless against and from the consequences of any failure to do so, unless the Contractor is impeded to accomplish these actions and shows evidence of its diligence.

1.14 Joint and Several Liability

If the Contractor constitutes (under applicable Laws) a joint venture, consortium or other unincorporated grouping of two or more persons:

a) These persons shall be deemed to be jointly and severally liable to the Procuring Entity for the performance of the Contract;
b) these persons shall notify the Procuring Entity of their leader who shall have authority to bind the Contractor and each of these persons; and
c) the Contractor shall not alter its composition or legal status without the prior consent of the Procuring Entity.

1.15 Inspections and Audit by the Procuring Entity

Pursuant to paragraph 2.2(e). of Appendix B to the General Conditions, the Contractor shall permit and shall cause its subcontractors and sub-consultants to permit, the Public Procurement Regulatory Authority, Procuring Entity and/or persons appointed or designated by the Government of Kenya 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 Procuring Entity if requested by the Procuring Entity. The Contractor's and its Subcontractors' and sub-consultants' attention is drawn to Sub-Clause 15.6 (Fraud and Corruption) which provides, inter alia, that acts intended to materially impede the exercise of the Procuring Entity's inspection and audit rights constitute a prohibited practice subject to contract termination (as well as to a determination of in eligibility pursuant to the Procuring Entity's prevailing sanctions procedures).

2. THE PROCURING ENTITY

2.1 Right of Access to the Site

2.1.1 The Procuring Entity shall give the Contractor right of access to, and possession of, all parts of the Site within the time (or times) stated in the **Special Conditions of Contract.** The right and possession may not be exclusive to the Contractor. If, under the Contract, the Procuring Entity is required to give (to the Contractor) possession of any 1foundation, structure, plant or means of access, the Procuring Entity shall do so in the time and manner stated in the Specification. However, the Procuring Entity may withhold any such right or possession until the Performance Security has been received.

2.1.2 If no such time is stated in the Special Conditions of Contract, the Procuring Entity shall give the Contractor right of access to, and possession of, the Site within such times as required to enable the Contractor to proceed without disruption in accordance with the programme submitted under Sub-Clause 8.3 [Programme].

2.1.3 If the Contractor suffers delay and/or incurs Cost as a result of a failure by the Procuring Entity to give any such right or possession within such time, the Contractor shall give notice to the Architect and shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:
a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and
b) payment of any such Cost-plus profit, which shall be included in the Contract Price.

2.1.4 After receiving this notice, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these matters.

2.1.5 However, if and to the extent that the Procuring Entity's failure was caused by any error or delay by the Contractor, including an error in, or delay in the submission of, any of the Contractor's Documents, the Contractor shall not be entitled to such extension of time, Cost or profit.

2.2 Permits, Licenses or Approvals

2.2.1 The Procuring Entity shall provide, at the request of the Contractor, such reasonable assistance as to allow the Contractor to obtain properly:

a) Copies of the Laws of Kenya which are relevant to the Contract but are not readily available, and
b) any permits, licenses or approvals required by the Laws of Kenya:

i) which the Contractor is required to obtain under Sub-Clause 1.13 [Compliance with Laws],
ii) for the delivery of Goods, including clearance through customs, and
iii) for the export of Contractor's Equipment when it is removed from the Site.

2.3 Procuring Entity'sPersonnel

The Procuring Entity shall be responsible for ensuring that the Procuring Entity's Personnel and the Procuring Entity's other contractors on the Site:

a) co-operate with the Contractor's efforts under Sub-Clause 4.6 [Co-operation], and

b) take actions similar to those which the Contractor is required to take under sub-paragraphs (a), (b) and (c) of Sub-Clause 4.8 [Safety Procedures] and under Sub-Clause 4.18 [Protection of the Environment].

2.4 Procuring Entity's Financial Arrangements

The Procuring Entity shall make and maintain all necessary financial arrangements which will enable the Procuring Entity to pay the Contract Price punctually (as estimated at that time) in accordance with Clause14 [Contract Price and Payment].

3. THE ENGINEER

3.1 Architect Duties and Authority

3.1.1 The Procuring Entity shall appoint the Architect who shall carry out the duties as signed to him in the Contract. The Architect staff shall include suitably qualified Assistants and other professionals who are competent to carry out these duties. The Architect Name and Address shall be provided in the **Special Conditions of Contract.**

3.1.2 The Architect shall have no authority to amend the Contract.

3.1.3 The Architect May exercise the authority attributable to the Architect as specified in or necessarily to be implied from the Contract. If the Architect is required to obtain the approval of the Procuring Entity before exercising a specified authority, the requirements shall be as stated in the S**pecial Conditions of Contract**. The Procuring Entity shall promptly inform the Contractor of any change to the authority attributed to the Engineer.

3.1.4 However, whenever the Architect exercises a specified authority for which the Procuring Entity's approval is required, then (for the purposes of the Contract) the contractor shall require the Architect to provide evidence of such approval before complying with the instruction.

3.1.5 Except as otherwise stated in these Conditions:

a) Whenever carrying out duties or exercising authority, specified in or implied by the Contract, the Architect shall be deemed to act for the Procuring Entity;
b) the Architect has no authority to relieve either Party of any duties, obligations or responsibilities under the Contract;
c) any approval, check, certificate, consent, examination, inspection, instruction, notice, proposal, request, test, or similar act by the Architect (including absence of disapproval) shall not relieve the Contractor from any responsibility he has under the Contract, including responsibility for errors, omissions, discrepancies and non-compliances; and
d) any act by the Architect in response to a Contractor's request shall be notified in writing to the Contractor within 14 days of receipt.

3.1.6 The following provisions shall apply:

The Architect shall obtain the specific approval of the Procuring Entity before taking action under the-following Sub-Clauses of these Conditions:

a) Sub-Clause 4.12: agreeing or determining an extension of time and/or additional cost.

b) Sub-Clause 13.1: instructing a Variation, except;

i) In an emergency situation as determined by the Engineer, or

ii) If such a Variation would increase the Accepted Contract Amount by less than the percentage specified in the **Special Conditions of Contract.**

c) Sub-Clause 13.3: Approving a proposal for Variation submitted by the Contractor in accordance with Sub Clause 13.1 or 13.2.

d) Sub-Clause13.4: Specifying the amount payable in each of the applicable three currencies.

3.1.7 Notwithstanding the obligation, as set out above, to obtain approval, if, in the opinion of the Engineer, an emergency occurs affecting the safety of life or of the Works or of adjoining property, he may, without relieving the Contractor of any of his duties and responsibility under the Contract, instruct the Contractor to execute all such work or to do all such things as may, in the opinion of the Engineer, be necessary to abate or reduce the risk. The Contractor shall forth with comply, despite the absence of approval of the Procuring Entity, with any such instruction of the Engineer. The Architect shall determine an addition to the Contract Price, in respect of such instruction, in accordance with Clause 13 and shall notify the Contractor accordingly, with a copy to the Procuring Entity.

3.2 Delegation by the Engineer

3.2.1 The Architect may from time to time assign duties and delegate authority to assistants and may also revoke such assignment or delegation. These assistants may include a resident Engineer, and/or independent inspectors appointed to inspect and/ or test items of Plant and/or Materials. The assignment, delegation or revocation shall be in writing and shall not take effect until copies have been received by both Parties. However, unless otherwise agreed by both Parties, the Architect shall not delegate the authority to determine any matter in accordance with Sub-Clause 3.5 [Determinations].

3.2.2 Each assistant, to whom duties have been assigned or authority has been delegated, shall only be authorized to issue instructions to the Contractor to the extent defined by the delegation. Any approval, check, certificate, consent, examination, inspection, instruction, notice, proposal, request, test, or similar act by an assistant, in accordance with the delegation, shall have the same effect as though the act had been an act of the Engineer. However:

a) Any failure to disapprove any work, Plant or Materials shall not constitute approval, and shall therefore not prejudice the right of the Architect to reject the work, Plant or Materials;

b) If the Contractor questions any determination or instruction of an assistant, the Contractor may refer the matter to the Engineer, who shall promptly confirm, reverse or vary the determination or instruction.

3.3 Instructions of the Engineer

3.3.1 The Architect may issue to the Contractor (at any time) instructions and additional or modified Drawings which may be necessary for the execution of the Works and the remedying of any defects, all in accordance with the Contract. The Contractor shall only take instructions from the Engineer, or from an assistant to whom the appropriate authority has been delegated under Clause 3.2.1.

3.3.2 The Contractor shall comply with the instructions given by the Architect or delegated assistant, on any matter related to the Contract. Whenever practicable, their instructions shall be given in writing. If the Architect or a delegated assistant:

a) Gives an oral instruction,

b) receives a written confirmation of the instruction, from (or on behalf of) the Contractor, within two working days after giving the instruction, and

c) does not reply by issuing a written rejection and/or instruction within two working days after receiving the confirmation,

Then the confirmation shall constitute the written instruction of the Architect or delegated assistant (as the case may be).

3.4 Replacement of the Engineer

If the Procuring Entity intends to replace the Engineer, the Procuring Entity shall, in not less than 21 days before the intended date of replacement, give notice to the Contractor of the name, address and relevant experience of the intended person to replace the Engineer.

3.5 Determinations

3.5.1 Whenever these Conditions provide that the Architect shall proceed in accordance with this Sub-Clause3.5 to agree or determine any matter, the Architect shall consult with each Party in an endeavor to reach agreement. If agreement is not achieved, the Architect shall make a fair determination in accordance with the Contract, taking due regard of all relevant circumstances.

3.5.1 The Architect shall give notice to both Parties of each agree mentor determination, with supporting particulars, within 30 days from the receipt of the corresponding claim or request except when otherwise specified. Each Party shall give effect to each agreement or determination unless and until revised under Clause 20 [Claims, Disputes and Arbitration].

4. THE CONTRACTOR

4.1 Contractor's General Obligations

4.1.1 The Contractor shall design (to the extent specified in the Contract), execute and complete the Works in accordance with the Contract and with the Architect instructions, ands hall remedy any defects in the Works.

4.1.2 The Contractor shall provide the Plant and Contractor's Documents specified in the Contract, and all Contractor's Personnel, Goods, consumables and other things and services, whether of a temporary or permanent nature, required in and for this design, execution, completion and remedying of defects.

4.1.3 All equipment, material, and services to be incorporated in or required for the Works shall have their origin in any eligible source country.

4.1.4 The Contractor shall be responsible for the adequacy, stability and safety of all Site operations and of all methods of construction. Except to the extent specified in the Contract, the Contractor (i) shall be responsible for all Contractor's Documents, Temporary Works, and such design of each item of Plant and Materials as is required for the item to be in accordance with the Contract, and (ii) shall not otherwise be responsible for the design or specification of the Permanent Works.

4.1.5 The Contractor shall, whenever required by the Engineer, submit details of the arrangements and methods which the Contractor proposes to adopt for the execution of the Works. No significant alteration to these arrangements and methods shall be made without this having previously been notified to the Engineer.

4.1.6 If the Contract specifies that the Contractor shall design any part of the Permanent Works, then unless otherwise stated in the Special Conditions:

a) The Contractor shall submit to the Architect the Contractor's Documents for this part in accordance with the procedures specified in the Contract;

b) these Contractor's Documents shall be in accordance with the Specification and Drawings, shall be written in the language for communications defined in Sub-Clause 1.4 [Law and Language], and shall include additional information required by the Architect to add to the Drawings for co-ordination of each Party's designs;

c) the Contractor shall be responsible for this part and it shall, when the Works are completed, befit for such purposes for which the part is intended as are specified in the Contract; and

d) prior to the commencement of the Tests on Completion, the Contractor shall submit to the Architect the “as-built” documents and, if applicable, operation and maintenance manuals in accordance with the Specification and in sufficient detail for the Procuring Entity to operate, maintain, dismantle, reassemble, adjust and repair this part of the Works. Such part shall not be considered to be completed for the purposes of taking-over under Sub-Clause 10.1 [Taking Over of the Works and Sections] until

these documents and manuals have been submitted to the Engineer.

4.2 Performance Security

4.2.1 The Contractor shall obtain (at his cost) a Performance Security for proper performance, in the amount stated in the **Special Conditions of Contract** and denominated in the currency (ies) of the Contract or in a freely convertible currency acceptable to the Procuring Entity. If an amount is not stated in the Special Conditions of Contract, this Sub-Clause shall not apply.

4.2.2 The Contractor shall deliver the Performance Security to the Procuring Entity within 30 days after receiving the Notification of Award and shall send a copy to the Engineer. The Performance Security shall be issued by a reputable bank selected by the Contractor and shall be in the form annexed to the Special Conditions, as stipulated by the Procuring Entity in the Special Conditions of Contract, or in another form approved by the Procuring Entity.

4.2.3 The Contractor shall ensure that the Performance Security is valid and enforceable until the Contractor has executed and completed the Works and remedied any defects. If the terms of the Performance Security specify its expiry date, and the Contractor has not become entitled to receive the Performance Certificate by the date 30 days prior to the expiry date, the Contractor shall extend the validity of the Performance Security until the Works have been completed and any defects have been remedied.

4.2.4 The Procuring Entity shall not make a claim under the Performance Security, except for amounts to which the Procuring Entity is entitled under the Contract.

4.2.5 The Procuring Entity shall indemnify and hold the Contractor harmless against and from all damages, losses and expenses (including legal fees and expenses) resulting from a claim under the Performance Security to the extent to which the Procuring Entity was not entitled to make the claim.

4.2.6 The Procuring Entity shall return the Performance Security to the Contractor within 14 days after receiving a copy of the Taking-Over Certificate.

4.2.7 Without limitation to the provisions of the rest of this Sub-Clause, whenever the Architect determines an addition or a reduction to the Contract Price as a result of a change in cost and/ or legislation, or as a result of a Variation, amounting to more than 25 percent of the portion of the Contract Price payable in a specific currency, the Contractor shall at the Architect request promptly increase, or may decrease, as the case may be, the value of the Performance Security in that currency by an equal percentage.

4.3 Contractor's Representative

4.3.1 The Contractor shall appoint the Contractor's Representative and shall give him all authority necessary to act on the Contractor's behalf under the Contract. The Contractor's Representative's Name and Address shall be provided in the **Special Conditions of Contract.**

4.3.2 Unless the Contractor's Representative **is named in the Contract**, the Contractor shall, prior to the Commencement Date, submit to the Architect for consent the name and particulars of the person the Contractor proposes to appoint as Contractor's Representative. If consent is withheld or subsequently revoked in terms of Sub-Clause 6.9 [Contractor's Personnel], or if the appointed person fails to act as Contractor's Representative, the Contractor shall similarly submit the name and particulars of another suitable person for such appointment.

4.3.3 The Contractor shall not, without the prior consent of the Engineer, revoke the appointment of the Contractor's Representative or appoint are placement.

4.3.4 The whole time of the Contractor's Representative shall be given to directing the Contractor's performance of the Contract. If the Contractor's Representative is to be temporarily absent from the Site during the execution of the Works, a suitable replacement person shall be appointed, subject to the Architect prior consent, and the Architect shall be notified accordingly.

4.3.5 The Contractor's Representative shall, on behalf of the Contractor, receive instructions under Sub-Clause 3.3 [Instructions of the Engineer].

4.3.6 The Contractor's Representative may delegate any powers, functions and authority to any competent person, and may at any time revoke the delegation. Any delegation or revocation shall not take effect until the Architect has received prior notice signed by the Contractor's Representative, naming the person and specifying the powers, functions and authority being delegated or revoked.

4.3.7 The Contractor's Representative shall be fluent in the language for communications defined in Sub-Clause1.4 [Law and Language]. If the Contractor's Representative's delegates are not fluent in the said language, the Contractor shall make competent interpreters available during all working hours in a number deemed sufficient by the Engineer.

4.4 Sub-contractors

4.4.1 The Contractor shall not subcontract the whole of the Works. The contractor may however subcontract the works as provided in Clause 34.2.

4.4.2 The Contractor shall be responsible for the acts or defaults of any Subcontractor, his agents or employees, as if they were the acts or defaults of the Contractor. Unless otherwise stated in the Special Conditions:

a) The Contractor shall not be required to obtain consent to suppliers solely of Materials, or to a subcontract for which the Subcontractor is named in the Contract;
b) The prior consent of the Procuring Entity shall be obtained to other proposed Subcontractors;
c) the Contractor shall give the Procuring Entity not less than 14 days' notice of the intended date of the commencement of each Subcontractor's work, and of the commencement of such work on the Site; and
d) each subcontract shall include provisions which would entitle the Procuring Entity to require the subcontract to be assigned to the Procuring Entity under Sub-Clause 4.5 [Assignment of Benefit of Subcontract] (if or when applicable) or in the event of termination under Sub-Clause 15.2 [Termination by Procuring Entity].

4.4.3 The Contractor shall ensure that the requirements imposed on the Contractor by Sub-Clause 1.12 [Confidential Details] apply equally to each Subcontractor.

4.4.4 Where practicable, the Contractor shall give fair and reasonable opportunity for contractors from Kenya to be appointed as Subcontractors.

4.5 Assignment of Benefit of Subcontract

If a Subcontractor's obligations extend beyond the expiry date of the relevant Defects Notification Period and the Engineer, prior to this date, instructs the Contractor to assign the benefit of such obligations to the Procuring Entity, then the Contractor shall do so. Unless otherwise stated in the assignment, the Contractor shall have no liability to the Procuring Entity for the work carried out by the Subcontractor after the assignment takes effect.

4.6 Co-operation

4.6.1 The Contractor shall, as specified in the Contract or as instructed by the Engineer, allow appropriate opportunities for carrying out work to:

a) The Procuring Entity's Personnel,
b) Any other contractors employed by the Procuring Entity, and
c) The personnel of any legally constituted public authorities, who may be employed in the execution on or near the Site of any work not included in the Contract.

4.6.2 Any such instruction shall constitute a Variation if and to the extent that it causes the Contractor to suffer delays and/or to incur Unforeseeable Cost. Services for these personnel and other contractors may include the use of Contractor's Equipment, Temporary Works or access arrangements which are the responsibility of the Contractor.

4.6.3 If, under the Contract, the Procuring Entity is required to give to the Contractor possession of any foundation, structure, plant or means of access in accordance with Contractor's Documents, the Contractor shall submit such documents to the Architect in the time and manner stated in the Specification.

4.7 Setting Out of the Works

4.7.1 The Contractor shall set out the Works in relation to original points, lines and levels of reference specified in the Contractor notified by the Engineer. The Contractor shall be responsible for the correct positioning of all parts of the Works, and shall rectify any error in the positions, levels, dimensions or alignment of the Works.

4.7.2 The Procuring Entity shall be responsible for any errors in these specified or notified items of reference, but

the Contractor shall use reasonable efforts to verify their accuracy before they are used.

4.7.3 If the Contractor suffers delay and/or incurs Cost from executing work which was necessitated by an errorin these items of reference, and an experienced contractor could not reasonably have discovered such error and avoided this delay and/ or Cost, the Contractor shall give notice to the Architect and shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:

a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and
b) payment of any such costs accrued, which shall be included in the Contract Price.

4.7.4 After receiving this notice, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine (i) whether and (if so) to what extent the error could not reasonably have been discovered, and (ii) the matters described in sub-paragraphs (a) and (b) above related to thise.

4.8 Safety Procedures

The Contractor shall:
a) Comply with all applicable safety regulations,
b) Takec are for the safety of all persons entitled to be on the Site,
c) Use reasonable efforts to keep the Site and Works clear of unnecessary obstruction so as to avoid danger to these persons,
d) provide fencing, lighting, guarding and watching of the Works until completion and taking over under Clause 10 [Procuring Entity's Taking Over], and
e) provide any Temporary Works (including roadways, footways, guards and fences) which may be necessary, because of the execution of the Works, for the use and protection of the public and of owners and occupiers of adjacent land.

4.9 Quality Assurance

4.9.1 The Contractor shall institute a quality assurance system to demonstrate compliance with the requirements of the Contract.The system shall be in accordance with the details stated in the Contract. The Architect shall be entitledto audit any aspect of the system.

4.9.2 Details of all procedures and compliance documents shall be submitted to the Architectf or information before each design and execution stage is commenced. When any document of a technical nature is issued to the Engineer, evidence of the prior approval by the Contractor itself shall be apparent on the document itself.

Compliance with the quality assurance system shall not relieve the Contractor of any of his duties, obligations or responsibilities under the Contract.

4.10 Site Data

4.10.1 The Procuring Entity shall have made available to the Contractor for his information, prior to the Base Date, all relevant data in the Procuring Entity's possession on sub-surface and hydrological conditions at the Site, including environmental aspects. The Procuring Entity shall similarly make available to the Contractor all such data which come into the Procuring Entity's possession after the Base Date. The Contractor shall be responsible for interpreting all such data.

4.10.2 To the extent which was practicable (taking account of cost and time), the Contractor shall be deemed to have obtained all necessary information as to risks, contingencies and other circumstances which may influence or affect the Tender or Works. To the same extent, the Contractor shall be deemed to have inspected and examined the Site, its surroundings, the above data and other available information, and to have been satisfied before submitting the Tender as to all relevant matters, including (without limitation):

a) The form and nature of the Site, including sub-surface conditions,
b) the hydrological and climatic conditions,
c) the extent and nature of the work and Goods necessary for the execution and completion of the Works and the remedying of any defects,
d) the Laws, procedures and labour practices of Kenya, and
e) the Contractor's requirements for access, accommodation, facilities, personnel, power, transport, water and other services.

4.11 Sufficiency of the Accepted Contract Amount

4.11.1 TheContractor shall be deemed to:

a) Have satisfied itself as to the correctness and sufficiency of the Accepted Contract Amount, and

b) have based the Accepted Contract Amount on the data, interpretations, necessary information, inspections, examinations and satisfaction as to all relevant matters referred to in Sub-Clause 4.10 [Site Data].

4.11.2 Unless otherwise stated in the Contract, the Accepted Contract Amount covers all the Contractor's obligations under the Contract (including those under Provisional Sums, if any) and all things necessary for the proper execution and completion of the Works and the remedying of any defects.

4.12 Unforeseeable Physical Conditions

4.12.1 In this Sub-Clause, "physical conditions" means natural physical conditions and man-made and other physical obstructions and pollutants, which the Contractor encounters at the Site when executing the Works, including sub-surface and hydrological conditions but excluding climatic conditions.

4.12.2 If the Contractor encounters adverse physical conditions which he considers to have been Unforeseeable, the Contractor shall give notice to the Architect as soon as practicable.

4.12.3 This notice shal ldescribe the physical conditions, so that they can be inspected by the Architect and shall set out the reasons why the Contractor considers them to be Unforeseeable. The Contractor shall continue executing the Works, using such proper and reasonable measures as are appropriate for the physical conditions, and shall comply with any instructions which the Architect may give. If an instruction constitutes a Variation, Clause 13 [Variations and Adjustments] shall apply.

4.12.4 If and to the extent that the Contractor encounters physical conditions which are Unforeseeable, gives such a notice, and suffers delay and/or incurs Cost due to these conditions, the Contractor shall be entitled subject to notice under Sub-Clause 20.1 [Contractor's Claims] to:

a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and

b) payment of any such Cost, which shall be included in the Contract Price.

4.12.5 Upon receiving such notice and inspecting and/or investigating these physical conditions, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine (i) whether and (if so) to what extent these physical conditions were Unforeseeable, and (ii) the matters described in sub-paragraphs (a) and (b) above related to this extent.

4.12.6 However, before additional Cost is finally agreed or determined under sub-paragraph (ii), the Architect may also review whether other physical conditions in similar parts of the Works (if any) were more favorable than could reasonably have been foreseen when the Contractor submitted the Tender. If and to the extent that these more favorable conditions were encountered, the Architect may proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine the reductions in Cost which were due to these conditions, which may be included (as deductions) in the Contract Price and Payment Certificates. However, the net effect of all adjustments under sub-paragraph (b) and all these reductions, for all the physical conditions encountered in similar parts of the Works, shall not result in a net reduction in the Contract Price.

4.12.7 The Architect shall take account of any evidence of the physical conditions foreseen by the Contractorwhen submitting the Tender, which shall be made available by the Contractor, but shall not be bound by the Contractor'sinterpretationofanysuchevidence.

4.13 Rights of Way and Facilities

Unless otherwise specified in the Contract the Procuring Entity shall provide effective access to and possession of the Site including special and/or temporary rights-of-way which are necessary for the Works. The Contractor shall obtain, at his risk and cost, any additional rights of way or facilities out side the Site which he may require for the purposes of the Works.

4.14 Avoidance of Interference

4.14.1 The Contractor shall not interfere unnecessarily or improperly with:

a) The convenience of the public, or

b) The access to and use and occupation of all roads and foot paths, irrespective of whether they are public or in the possession of the Procuring Entity or of others.

4.14.2 The Contractor shall indemnify and hold the Procuring Entity harmless against and from all damages, losses and expenses (including legal fees and expenses) resulting from any such unnecessary or improper interference.

4.15 Access Route

4.15.1 The Contractor shall be deemed to have been satisfied as to the suitability and availability of access routes to the Site at Base Date. The Contractor shall use reasonable efforts to prevent any road or bridge from being damaged by the Contractor's traffic or by the Contractor's Personnel. These efforts shall include the proper use of appropriate vehicles and routes.

4.15.2 Except as otherwise stated in these Conditions:

a) The Contractor shall (as between the Parties) be responsible for any maintenance which may be required for his use of access routes;

b) the Contractor shall provide all necessary signs or directions along access routes, and shall obtain any permission which may be required from the relevant authorities for his use of routes, signs and directions;

c) the Procuring Entity shall not be responsible for any claims which may arise from the use or otherwise of any access route;

d) the Procuring Entity does not guarantee the suitability or availability of particular access routes; and

e) Costs due to non-suitability or non-availability, for the use required by the Contractor, of access routes shall be borne by the Contractor.

4.16 Transport of Goods

Unless otherwise stated in the Special Conditions:

a) the Contractor shall give the Architect not less than 21 days' notice of the date on which any Plant or a major item of other Goods will be delivered to the Site;

b) the Contractor shall be responsible for packing, loading, transporting, receiving, unloading, storing and protecting all Goods and other things required for the Works; and

c) the Contractor shall indemnify and hold the Procuring Entity harmless against and from all damages, losses and expenses (including legal fees and expenses) resulting from the transport of Goods and shall negotiate and pay all claims arising from their transport.

4.17 Contractor's Equipment

The Contractor shall be responsible for all Contractor's Equipment. When brought on to the Site, Contractor's Equipment shall be deemed to be exclusively intended for the execution of the Works. The Contractor shall not remove from the Site any major items of Contractor's Equipment without the consent of the Engineer. However, consent shall not be required for vehicles transporting Goods or Contractor's Personnel off Site.

4.18 Protection of the Environment

4.18.1 The contractor shall comply with the applicable environmental laws, regulations and policies.

4.18.2 The Contractor shall take all reasonable steps to protect the environment (both on and off the Site) and to limit damage and nuisance to people and property resulting from pollution, noise and other results of his

operations.

4.18.3 The Contractors hall ensure that emissions, surfaced is charges and effluent from the Contractor's activities shall not exceed the values stated in the Specification or prescribed by applicable Laws.

4.19 Electricity, Water and Gas

4.19.1 The Contractor shall, except as stated below, be responsible for the provision of all power, water and other services he may require for his construction activities and to the extent defined in the Specifications, for the tests.

4.19.2 The Contractor shall be entitled to use for the purposes of the Works such supplies of electricity, water, gas and other services as may be available on the Site and of which details and prices are given in the Specifications.The Contractor shall, at his risk and cost, provide any apparatus necessary for his use of these services and for measuring the quantities consumed.

4.19.3 The quantities consumed and the amounts due (at these prices) for such services shall be agreed or determined by the Architect in accordance with Sub-Clause 2.5 [Procuring Entity's Claims] and Sub-Clause 3.5 [Determinations]. The Contractor shall pay these amounts to the Procuring Entity.

4.20 Procuring Entity's Equipment and Free-Issue Materials

4.20.1 The Procuring Entity shall make the Procuring Entity's Equipment (if any) available for the use of the Contractor in the execution of the Works in accordance with the details, arrangements and prices stated in the Specification. Unless otherwise stated in the Specification:

a) The Procuring Entity shall be responsible for the Procuring Entity's Equipment, except that

b) the Contractor shall be responsible for each item of Procuring Entity's Equipment whilst any of the Contractor's Personnel is operating it, driving it, directing it or in possession or control of it.

4.20.1 The appropriate quantities and the amounts due (at such stated prices) for the use of Procuring Entity's Equipment shall be agreed or determined by the Architect in accordance with Sub-Clause 2.5 [Procuring Entity's Claims] and Sub-Clause3.5 [Determinations]. The Contractor shall pay these amounts to the Procuring Entity.

4.20.2 The Procuring Entity shall supply, free of charge, the “free-issue materials” (if any) in accordance with the details stated in the Specification. The Procuring Entity shall, at his risk and cost, provide these materials at the time and place specified in the Contract. The Contractor shall then visually inspect them and shall promptly give notice to the Architect of any shortage, defect or default in these materials. Unless otherwise agreed by both Parties, the Procuring Entity shall immediately rectify the notified shortage, defector default.

4.20.3 After this visual inspection, the free-issue materials shall come under the care, custody and control of the Contractor. The Contractor's obligations of inspection, care, custody and control shall not relieve the Procuring Entity of liability for any shortage, defect or default not apparent from a visual inspection.

4.21 Progress Reports

4.21.1 Unless otherwise stated in the Special Conditions, monthly progress reports shall be prepared by the Contractor and submitted to the Architect in six copies. The first report shall cover the period up to the end of the first calendar month following the Commencement Date. Reports shall be submitted monthly thereafter, each within 7 days after the last day of the period to which it relates.

4.21.2 Reporting shall continue until the Contractor has completed all work which is known to be outstanding at the completion date stated in the Taking-Over Certificate for the Works. Each report shall include:

a) charts and detailed descriptions of progress, including each stage of design (if any), Contractor's Documents, procurement, manufacture, delivery to Site, construction, erection and testing; and including these stages for work by each nominated Subcontractor (as defined in Clause 5 [Nominated Subcontractors]),

b) photographs showing the status of manufacture and of progress on the Site;

c) for the manufacture of each main item of Plant and Materials, the name of the manufacturer,

manufacture location, percentage progress, and the actual or expected dates of:

i) commencement of manufacture,
ii) Contractor's inspections,
iii) tests, and
iv) shipment and arrival at the Site;

d) the details described in Sub-Clause 6.10 [Records of Contractor's Personnel and Equipment];
e) copies of quality assurance documents, test results and certificates of Materials;
f) list of notices given under Sub-Clause 2.5 [Procuring Entity's Claims] and notices given under Sub- Clause 20.1 [Contractor's Claims];
g) safety statistics, including details of any hazardous incidents and activities relating to environmental aspects and public relations; and
h) comparison so factual and planned progress, with details of any events or circumstances which may jeopardize the completion in accordance with the Contract, and the measures being (or to be) adopted to overcome delays.

4.22 Security of the Site

Unless otherwise stated in the Special Conditions:

a) The Contractor shall be responsible for keeping unauthorized persons off the Site, and
b) authorized persons shall be limited to the Contractor's Personnel and the Procuring Entity's Personnel; and to any other personnel notified to the Contractor, by the Procuring Entity or the Engineer, as authorized personnel of the Procuring Entity's other contractors on the Site.

4.23 Contractor's Operations on Site

4.23.1 The Contractor shall confine his operations to the Site, and to any additional areas which may be obtained by the Contractor and agreed by the Architect as additional working areas. The Contractor shall take all necessary precautions to keep Contractor's Equipment and Contractor's Personnel within the Site and these additional areas, and to keep them off adjacent land.

4.23.2 During the execution of the Works, the Contractor shall keep the Site free from all unnecessary obstruction and shall store or dispose of any Contractor's Equipment or surplus materials. The Contractor shall clear away and remove from the Site any wreckage, rubbish and Temporary Works which are no longer required.

4.23.3 Upon the issue of a Taking-Over Certificate, the Contractor shall clear away and remove, from that part of the Site and Works to which the Taking-Over Certificate refers, all Contractor's Equipment, surplus material, wreckage, rubbish and Temporary Works. The Contractor shall leave that part of the Site and the Works in a clean and safe condition. However, the Contractor may retain on Site, during the Defects Notification Period, such Goods as are required for the Contractor to fulfil obligations under the Contract.

4.24 Fossils

4.24.1 All fossils, coins, articles of value or antiquity, and structures and other remains or items of geological or archaeological interest found on the Site shall be placed under the care and authority of the Procuring Entity. The Contractor shall take reasonable precautions to prevent Contractor's Personnel or other persons from removing or damaging any of these findings.

4.24.2 The Contractor shall, upon discovery of any such finding, promptly give notice to the Engineer, who shall issue instructions for dealing with it. If the Contractor suffers delay and/or incurs Cost from complying with the instructions, the Contractor shall give a further notice to the Architect and shall be entitled subject to Sub- Clause 20.1 [Contractor's Claims] to:

a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and
b) payment of any such Cost, which shall be included in the Contract Price.
After receiving this further notice, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these matters.

5. NOMINATED SUBCONTRACTORS

5.1 Definition of "nominated Subcontractor"

In this Contract, "nominated Subcontractor" means a Subcontractor:

a) Who is nominated by the Procuring Entity, or

b) Contractor has nominated as a Subcontractor subject to Sub-Clause 5.2 [Objection to Notification].

5.2 Objection to Nomination

The Contractor shall not be under any obligation to employ a nominated Subcontractor against whom the Contractor raises reasonable objection by notice to the Procuring Entity as soon as practicable, with supporting particulars. An objection shall be deemed reasonable if it arises from (among other things) any of the following matters, unless the Procuring Entity agrees in writing to indemnify the Contractor against and from the consequences of the matter:

a) there are reasons to believe that the Subcontractor does not have sufficient competence, resources or financial strength;

b) the nominated Subcontractor does not accept to indemnify the Contractor against and from any negligence or misuse of Goods by the nominated Subcontractor, his agents and employees; or

c) the nominated Subcontractor does not accept to enter into a subcontract which specifies that, for the subcontracted work (including design, if any), the nominated Subcontractor shall:

   i) undertake to the Contractor such obligations and liabilities as will enable the Contractor to discharge his obligations and liabilities under the Contract;

   ii) indemnify the Contractor against and from all obligations and liabilities arising under or in connection with the Contract and from the consequences of any failure by the Subcontractor to perform these obligations or to fulfil these liabilities, and

   iii) be paid only if and when the Contractor has received from the Procuring Entity payments for sums due under the Subcontract referred to under Sub-Clause 5.3 [Payment to nominated Subcontractors].

5.3 Payments to nominated Subcontractors

The Contractor shall pay to the nominated Subcontractor the amounts shown on the nominated Subcontractor's invoices approved by the Contractor which the Architect certifies to be due in accordance with the subcontract. These amounts plus other charges shall be included in the Contract Price in accordance with sub-paragraph (b) of Sub-Clause 13.5 [Provisional Sums], except as stated in Sub-Clause 5.4 [Evidence of Payments].

5.4 Evidence of Payments

5.4.1 Before issuing a Payment Certificate which includes an amount payable to a nominated Subcontractor, the Architect may request the Contractor to supply reasonable evidence that the nominated Subcontractor has received all amounts due in accordance with previous Payment Certificates, less applicable deductions for retention or otherwise. Unless the Contractor:

(a) Submits this reasonable evidence to the Engineer, or

(b) i) Satisfies the Architect in writing that the Contractor is reasonably entitled to withhold or refuse to pay these amounts, and

   ii) Submits to the Architect reasonable evidence that the nominated Subcontractor has been notified of the Contractor's entitlement, then the Procuring Entity may (at his sole discretion) pay, directto the nominated Subcontractor, part or all of such amounts previously certified (less applicable deductions) as are due to the nominated Subcontractor and for which the Contractor has failed to submit the evidence described in sub-paragraphs (a) or (b) above. The Contractor shall then repay, to the Procuring Entity, the amount which the nominated Subcontractor was directly paid by the Procuring Entity.

6. STAFF AND LABOR

6.1 Engagement of Staff and Labor

Except as otherwise stated in the Specification, the Contractor shall make arrangements for the engagement of all staff and labor, local or otherwise, and for their payment, feeding, transport, and, when appropriate, housing. The Contractor is encouraged, to the extent practicable and reasonable, to employ staff and labor with appropriate qualifications and experience from sources within Kenya.

6.2 Rates of Wages and Conditions of Labor

6.2.1 The Contractor shall pay rates of wages, and observe conditions of labor, which are not lower than those established for the trade or industry where the work is carried out. If no established rates or conditions are applicable, the Contractor shall pay rates of wages and observe conditions which are not lower than the general level of wages and conditions observed locally by Procuring Entity's whose trade or industry is similar to that of theContractor.

6.2.2 The Contractor shall inform the Contractor's Personnel about their liability to pay personal income taxes in Kenya in respect of such of their salaries, wages, allowances and any benefits as are subject to tax under the Laws of Kenya for the time being in force, and the Contractor shall perform such duties in regard to such deductions there of as may be imposed on him by such Laws.

6.3 Persons in the Service of Procuring Entity

The Contractor shall not recruit, or attempt to recruit, staff and labour from amongst the Procuring Entity's Personnel.

6.4 Lab or Laws

The Contractor shall comply with all the relevant labour Laws applicable to the Contractor's Personnel, including Laws relating to their employment, employment of children, health, safety, welfare, immigration and emigration, and shall allow them all their legal rights. The Contractor shall require his employees to obey all applicable Laws, including those concerning safety at work.

6.5 Working Hours

Nowork shall be carried out on the Site on locally recognized days of rest, or outside the normal working hours stated in the **Special Conditions of Contract**, unless:

a) Otherwise stated in the Contract,
b) The Architect gives consent, or
c) The work is unavoidable, or necessary for the protection of life or property or for the safety of the Works, in which case the Contractor shall immediately advise the Engineer, provided that work done outside the normal working hours shall be considered and paid for as overtime.

6.6 Facilities for Staff and Labor

Except as otherwise stated in the Specification, the Contractor shall provide and maintain all necessary accommodation and welfare facilities on site for the Contractor's Personnel. The Contractor shall also provide facilities for the Procuring Entity's Personnel as stated in the Specifications. The Contractor shall not permit any of the Contractor's Personnel to maintain any temporary or permanent living quarters within the structures forming part of the Permanent Works.

6.7 Health and Safety

6.7.1 The Contractor shall at all times take all reasonable precautions to maintain the health and safety of the Contractor's Personnel. In collaboration with loca lhealth authorities, the Contractor shall ensure that medical staff, first aid facilities, sick bay and ambulance service are available at all times at the Site and at any accommodation for Contractor's and Procuring Entity's Personnel, and that suitable arrangements are made for all necessary welfare and hygiene requirements and for the prevention of epidemics.

6.7.2 The Contractor shall appoint an accident prevention officer at the Site, responsible for maintaining safety and protection against accidents. This person shall be qualified for this responsibility and shall have the authority to issue instructions and take protective measures to prevent accidents. Throughout the execution of the Works, the Contractor shall provide what ever is required by this person to exercise this responsibility and authority.

6.7.3 The Contractor shall send, to the Engineer, details of any accident as soon as practicable after itsoccurrence. The Contractor shall maintain records and make reports concerning health, safety and welfare of persons, and damage to property, as the Architect may reasonably require.

6.7.4 The Contractor shall conduct an awareness programme on HIV and other sexually transmitted diseases via an approved service provider and shall undertake such other measures taken to reduce the risk of the transfer of these diseases between and among the Contractor's Personnel and the local community, to

promote early diagnosis and to assist affected individuals.

6.8 Contractor's Superintendence

6.8.1 Throughout the execution of the Works, and as long thereafter as is necessary to fulfil the Contractor's obligations, the Contractor shall provide all necessary super intendence to plan, arrange, direct, manage, inspect and test the work.

6.8.2 Superintendence shall be given by a sufficient number of persons having adequate knowledge of the language for communications (defined in Sub-Clause 1.4 [Law and Language]) and of the operations to be carried out (including the methods and techniques required, the hazards likely to be encountered and methods of preventing accidents), for the satisfactory and safe execution of the Works.

6.9 Contractor's Personnel

6.9.1 The Contractor's Personnel shall be appropriately qualified, skilled and experienced in their respective trades or occupations. The Contractors Key personnel shall be named in the Special Conditions of Contract. The Architect may require the Contractor to remove (or cause to be removed) any person employed on the Site or Works, including the Contractor's Representative if applicable, who:

a) Persists in any misconduct or lack of care,
b) Carries out duties in competently or negligently,
c) fails to conform with any provisions of the Contract,
d) persists in any conduct which is prejudicial to safety, health, or the protection of the environment, or
e) based on reasonable evidence, is determined to have engaged in Fraud and Corruption during the execution ofthe Works.

6.9.2 If appropriate, the Contractor shall then appoint (or cause to be appointed) a suitable replacement person.

6.10 Records of Contractor's Personnel and Equipment

The Contractor shall submit, to the Engineer, details showing the number of each class of Contractor's Personnel and of each type of Contractor's Equipment on the Site. Details shall be submitted each calendar month, in a form approved by the Engineer, until the Contractor has completed all work which is known to be outstanding at the completion date stated in the Taking-Over Certificate for the Works.

6.11 Disorderly Conduct

The Contractor shall at all times take all reasonable precautions to prevent any unlawful, riotous or disorderly conduct by or amongst the Contractor's Personnel, and to preserve peace and protection of persons and property on and near the Site.

6.12 Foreign Personnel

6.12.1 The Contractor shall not employ foreign personnel unless the contractor demonstrates that there are no Kenyans with the required skills.

6.12.2 The Contractor shall be responsible for the return of any foreign personnel to the place where they were recruited or to their domicile. In the event of the death in Kenya of any of these personnel or members of their families, the Contractor shall similarly be responsible for making the appropriate arrangements for their return or burial.

6.13 Supply of Water

The Contractor shall, having regard to local conditions, provide on the Sitea n adequate supply of drinking and other water for the use of the Contractor's Personnel.

6.14 Measures against Insect and Pest Nuisance

The Contractor shall a tall times take the necessary precautions to protect the Contractor's Personnel employed on the Site from insect and pest nuisance, and to reduce the danger to their health. The Contractor shall comply with all the regulations of the local health authorities, including use of appropriate insecticide.

6.15 Alcoholic Liquor or Drugs

The Contractor shall not, otherwise than in accordance with the Laws of Kenya, onsite, import, sell, give, barter or otherwise dispose of any alcoholic liquor or drugs, or permit or allow importation, sale, gift, barter or disposal there of by Contractor's Personnel.

6.16 Prohibition of Forced or Compulsory Labour

The Contractor shall not employ forced labor, which consists of any work or service, not voluntarily performed, that is exacted from an individual under threat of force or penalty, and includes any kind of involuntary or compulsory labor, such as indentured labor, bonded labor or similar labor-contracting arrangements.

6.17 Prohibition of Harmful Child Labor

The Contractor shall not employ children in a manner that is economically exploitative, or is likely to be hazardous, or to interfere with, the child's education, or to be harmful to the child's health or physical, mental, spiritual, moral, or social development. Where the relevant labour laws of Kenya have provisions for employment of minors, the Contractor shall follow those laws applicable to the Contractor. Children below the age of 18 years shall not be employed in dangerous work.

6.18 Employment Records of Workers

The Contractor shall keep complete and accurate records of the employment of labour at the Site. The records shall include the names, ages, genders, hours worked and wages paid to all workers. These records shall be summarized on a monthly basis and submitted to the Engineer. These records shall be included in the details to be submitted by the Contractor under Sub-Clause 6.10 [Records of Contractor's Personnel and Equipment].

6.19 Workers' Organizations

The Contractor shall comply with the relevant labor laws that recognize workers' rights to form and to join workers' organizations of their choosing without interference.

6.20 Non-Discrimination and Equal Opportunity

The Contractor shall base the labour employment on the principle of equal opportunity and fair treatment and shall not discriminate with respect to aspects of the employment relationship, including recruitment and hiring, compensation (including wages and benefits), working conditions and terms of employment, access to training, promotion, termination of employ mentor retirement, and discipline.

7. PLANT, MATERIALS AND WORKMANSHIP

7.1 Manner of Execution

The Contractor shall carry out the manufacture/assemble of plant, the production and manufacture of Materials, and all other execution of the Works:

a) In the manner (if any) specified in the Contract,
b) in a proper workman like and careful manner, in accordance with recognized good practice, and
c) with properly equipped facilities and non-hazardous Materials, except as otherwise specified in the Contract.

7.2 Samples

The Contractor shall submit the following samples of Materials, and relevant information, to the Architect for consent prior to using the Material sin or for the Works:

a) manufacturer's standard samples of Materials and samples specified in the Contract, all at the Contractor's cost, and
b) additional samples instructed by the Architect as a Variation.

Each sample shall be labeled as to origin and intended use in the Works.

7.3 Inspection

7.3.1 The Procuring Entity's Personnel shall at all reasonable times:

a) Have full access to all parts of the Site and to all places from which natural Materials are being obtained, and

b) during production, manufacture and construction (at the Site and elsewhere), be entitled to examine, inspect, measure and test the materials and workmanship, and to check the progress of manufacture of Plant and production and manufacture of Materials.

7.3.2 The Contractor shall give the Procuring Entity's Personnel full opportunity to carry out these activities, including providing access, facilities, permissions and safety equipment. No such activity shall relieve the Contractor from any obligation or responsibility.

7.3.3 The Contractor shall give notice to the Architect whenever any work is ready and before it is covered up, put out of sight, or packaged for storage or transport. The Architect shall then either carry out the examination, inspection, measurement or testing without unreasonable delay, or promptly give notice to the Contractor that the Architect does not require to do so. If the Contractor fails to give the notice, he shall, if and when required by the Engineer, uncover the work and there after reinstate and make good, all at the Contractor's cost.

7.4 Testing

7.4.1 This Sub-Clause shall apply to all tests specified in the Contract.

7.4.2 Except as otherwise specified in the Contract, the Contractor shall provide all apparatus, assistance, documents and other information, electricity, equipment, fuel, consumables, instruments, labor, materials, and suitably qualified and experienced staff, as are necessary to carry out the specified tests efficiently. The Contractor shall agree, with the Engineer, the time and placef ort he specified testing of any Plant, Materials and other parts of the Works.

7.4.3 The Architect may, under Clause 13 [Variations and Adjustments], vary the location or details of specified tests, or instruct the Contractor to carry out additional tests. If these varied or additional tests show that the tested Plant, Materials or workmanship is not in accordance with the Contract, the cost of carrying out this Variation shall be borne by the Contractor, not withstanding other provisions of the Contract.

7.4.4 The Architect shall give the Contractor not less than 24 hours' notice of the Architect intention to attend the tests. If the Architect does not attend at the time and place agreed, the Contractor may proceed with the tests, unless otherwise instructed by the Engineer, and the tests shall then be deemed to have been made in the Architect presence.

7.4.5 If the Contractor suffers delay and/ or incurs Cost from complying with these instructions or as a result of a delay for which the Procuring Entity is responsible, the Contractor shall give notice to the Architect and shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:

a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and

b) payment of any such Cost-plus profit, which shall be included in the Contract Price.

7.4.6 After receiving this notice, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these matters.

7.4.7 The Contractor shall promptly forward to the Architect duly certified reports of the tests. When thespecified tests have be enpassed, the Architect shall endorse the Contractor's test certificate, or issue a certificate to him, to that effect. If the Architect has not attended the tests, he shall be deemed to have accepted the readings as accurate.

7.5 Rejection

7.5.1 If, as a result of an examination, inspection, measurement or testing, any Plant, Materials or workmanship is found to be defective or otherwise not in accordance with the Contract, the Architect may reject the Plant, Materials or workmanship by giving notice to the Contractor, with reasons. The Contractor shall then promptly make good the defect and ensure that the rejected item complies with the Contract.

7.5.2 If the Architect requires this Plant, Materials or workmanship to be retested, the tests shall be repeated under the same terms and conditions. If the rejection and retesting cause the Procuring Entity to incur additional costs, the Contractor shall subject to Sub-Clause 2.5 [Procuring Entity's Claims] pay these costs to the Procuring Entity.

7.6 Remedial Work

7.6.1 Not withstanding any previous test or certification, the Architect may instruct the Contractorto:
a) Remove from the Site and replace any Plant or Materials which is not in accordance with the Contract,
b) remove and re-execute any other work which is not in accordance with the Contract, and
c) execute any work which is urgently required for the safety of the Works, whether because of an accident, unforeseen able event or otherwise.

7.6.2 The Contractor shall comply with the instruction within a reasonable time, which shall be the time (if any) specified in the instruction, or immediately if urgency is specified under sub-paragraph (c).

7.6.3 If the Contractor fails to comply with the instruction, the Procuring Entity shall be entitled to employ and pay other persons to carry out the work. Except to the extent that the Contractor would have been entitled to payment for the work, the Contractor shall subject to Sub-Clause 2.5 [Procuring Entity's Claims] pay to the Procuring Entity all costs arising from this failure.

7.6.4 If the contractor repeatedly delivers defective work, the Procuring Entity may consider termination in accordance with Clause 15.

7.7 Ownership of Plant and Materials

Except as otherwise provided in the Contract, each item of Plant and Materials shall become the property of the Procuring Entity at whichever is the earlier of the following times, free from liens and other encumbrances:
a) When it is in corporated in the Works;
b) when the Contractor is paid the corresponding value of the Plant and Materials under Sub-Clause 8.10 [Payment for Plant and Materials in Event of Suspension].

7.8 Royalties

Unless otherwise stated in the Specification, the Contractor shall pay all royalties, rents and other payments for:
a) Natural materials obtained from outside the Site, and
b) thedisposal of material from demolitions and excavations and of other surplus material (whether natural orman-made), except to the extent that disposal are as within the Site are specified in the Contract.

8. COMMENCEMENT, DELAYS AND SUSPENSION

8.1 Commencement of Works

8.1.1 Except as otherwise specified in the Special Conditions of Contract, the Commencement Date shall be the date at which the following precedent condition shave all been fulfilled and the Architect notification recording the agreement of both Parties on such fulfilment and instructing to commence the Work is received by the Contractor:
a) Signature of the Contract Agreement by both Parties, and if required, approval of the Contract by relevant authorities of Kenya;
b) except if otherwise specified in the Special Conditions of Contract, effective access to and possession of the Site given to the Contractor together with such permission(s) under (a) of Sub-Clause 1.13 [Compliance with Laws] as required for the commencement of the Works.
c) Receipt by the Contractor of the Advance Payment under Sub-Clause 14.2 [Advance Payment] provided that the corresponding bank guarantee has been delivered by the Contractor.

8.1.2 If the said Architect instruction is not received by the Contractor within 180 days from his receipt of the Letter of Acceptance, the Contractor shall be entitled to terminate the Contract under Sub-Clause1 6.2 [Terminationby Contractor].

8.1.3 The Contractor shall commence the execution of the Works as soon as is reasonably practicable after the Commencement Date and shal lthen proceed with the Works with due expedition and without delay.

8.2 Time for Completion

The Contractor shall complete the whole of the Works, and each Section (if any), within the Time for Completion for the Works or Section (as the case may be), including:

a) Achieving the passing of the Testson Completion, and

b) completing all work which is stated in the Contract as being required for the Works or Section to be considered to be completed for the purposes of taking-over under Sub-Clause 10.1 [Taking Over of the Works and Sections].

83 Programme

83.1 The Contractor shall submit a detailed time programme to the Architect within1 4 days after receiving the notice under Sub-Clause 8.1 [Commencement of Works]. The Contractor shall also submit a revised programme whenever the previous programme is inconsistent with actual progress or with the Contractor's obligations. Each programme shall include:

a) The order in which the Contractor intends to carry out the Works, including the anticipated timing of each stage of design (if any), Contractor's Documents, procurement, manufacture of Plant, delivery to Site, construction, erection and testing,

b) each of these stages for work by each nominated Subcontractor (as defined in Clause 5 [Nominated Subcontractors]),

c) the sequence and timing of inspections and tests specified in the Contract, and

d) a supporting report which includes:

   i) a general description of the methods which the Contractor intends to adopt, and of the major stages, in the execution of the Works, and

   ii) details showing the Contractor's reasonable estimate of the number of each class of Contractor's Personnel and of each type of Contractor's Equipment, required on the Site for each major stage.

8.3.2 Unless the Engineer, within 14 days after receiving a programme, gives notice to the Contractor stating the extent to which it does not comply with the Contract, the Contractor shall proceed in accordance with the programme, subject to his other obligations under the Contract. The Procuring Entity's Personnel shall be entitled to rely upon the programme when planning their activities.

8.3.3 The Contractor shall promptly give notice to the Architect of specific probable future events or circumstances which may adversely affect the work, increase the Contract Price or delay the execution of the Works.

8.3.4 If, at anytime, the Architect gives notice to the Contractor that a programme fails (to the extent stated) to comply with the Contractor to be consistent with actual progress and the Contractor's stated intentions, the Contractor shall submit a revised programme to the Architect in accordance with this Sub-Clause.

8.4 Extension of Time for Completion

8.4.1 The Contractor shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to an extension of the Time for Completion if and to the extent that completion for the purposes of Sub-Clause 10.1 [Taking Over of the Works and Sections] is or will be delayed by any of the following causes:

a) a Variation (unless an adjustment to the Time for Completion has been agreed under Sub-Clause 13.3 [Variation Procedure]) or other substantial change in the quantity of an item of work included in the Contract,

b) a cause of delay giving an entitlement to extension of time under a Sub-Clause of these Conditions,

c) exceptionally adverse climatic conditions,

d) Unforeseeable shortages in the availability of personnel or Goods caused by epidemic or governmental actions, or

e) any delay, impediment or prevention caused by or attributable to the Procuring Entity, the Procuring Entity's Personnel, or the Procuring Entity's other contractors.

8.4.2 If the Contractor considers itself to be entitled to an extension of the Time for Completion, the Contractor shall give notice to the Architect in accordance with Sub-Clause 20.1 [Contractor's Claims]. When determining each extension of time under Sub-Clause 20.1, the Architec tshall review previous determinations and may increase, but shall not decrease, the total extension of time.

8.5 Delays Caused by Authorities

If the following conditions apply, namely:

a) The Contractor has diligently followed the procedures laid down by the relevant legally constituted public authorities in Kenya,

b) These authorities delay or disrupt the Contractor's work, and

c) the delay or disruption was Unforeseeable, then this delay or disruption will be considered as a cause of delay under sub-paragraph (b) of Sub-Clause 8.4 [Extension of Time for Completion].

8.6 Rate of Progress

8.6.1 If, at anytime:

a) Actual progress is too slow to complete within the Time for Completion, and/or

b) Progress has fallen (or will fall) behind the current programme under Sub-Clause 8.3 [Programme], other than as a result of a cause listed in Sub-Clause 8.4 [Extension of Time for Completion], then the Architect may instruct the Contractor to submit, under Sub-Clause 8.3 [Programme], a revised programme and supporting report describing the revised methods which the Contractor proposes to adopt in order to expedite progress and complete within the Time for Completion.

8.6.2 Unless the Architect notifies otherwise, the Contractor shall adopt these revised methods, which mayrequire increases in the working hours and/or in the numbers of Contractor's Personnel and/or Goods, at the risk and cost of the Contractor. If these revised methods cause the Procuring Entity to incur additional costs, the Contractor shall subject to notice under Sub-Clause 2.5 [Procuring Entity's Claims] pay these costs to the Procuring Entity, in addition to delay damages (if any) under Sub-Clause 8.7 below.

8.6.3 Additional costs of revised methods including acceleration measures, instructed by the Architect to reduce

delays resulting from causes listed under Sub-Clause 8.4 [Extension of Time for Completion] shall be paid by the Procuring Entity, without generating, however, any other additional payment benefit to the Contractor.

8.7 Delay Damages

8.7.1 If the Contractor fails to comply with Sub-Clause 8.2 [Time for Completion], the Contractor shall subject to notice under Sub-Clause 2.5 [Procuring Entity's Claims] pay delay damages to the Procuring Entity for this default. These delay damages shall be the sum stated in the **Special Conditions of Contract**, which shall be paid for everyday which shall elapse between the relevant Time for Completion and the date stated in the taking-Over Certificate. However, the total amount due under this Sub-Clause shall not exceed the maximum amount of delay damages (if any) stated in the Special Conditions of Contract.

8.7.2 These delay damages shall be the only damages due from the Contractor for such default, other than in the event of termination under Sub-Clause 15.2 [Termination by Procuring Entity] prior to completion of the Works. These damages shall not relieve the Contractor from his obligation to complete the Works, or from any other duties, obligations or responsibilities which he may have under the Contract.

8.8 Suspension of Work

8.8.1 The Architect may at anytime instruct the Contractor to suspend progress of part or all of the Works. During such suspension, the Contractor shall protect, store and secure such part or the Works a gainst any deterioration, loss or damage.

8.8.2 The Architect may also notify the cause for the suspension. If and to the extent that the cause is notified and is the responsibility of the Contractor, the following Sub-Clauses 8.9, 8.10 and 8.11 shall not apply.

8.9 Consequences of Suspension

8.9.1 If the Contractor suffers delay and/or incurs Cost from complying with the Architect instructions under Sub- Clause 8.8 [Suspension of Work] and/or from resuming the work, the Contractor shall give notice to the Architect and shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:

a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and

b) Payment of any such Cost, which shall be included in the Contract Price.

8.9.2 After receiving this notice, the Architect shall proceed in accordance with Sub-Clause3.5 [Determinations] to agree or determine these matters.

8.9.3 The Contractor shall not be entitled to an extension of time for, or to payment of the Cost incurred in, making good the consequences of the Contractor's faulty design, workmanship or materials, or of the Contractor's failure to protect, store or secure in accordance with Sub-Clause 8.8 [Suspension of Work].

8.10 Payment for Plant and Materials in Event of Suspension

The Contractor shall be entitled to payment of the value (as at the date of suspension) of Plant and/ or Materials which have not been delivered to Site, if:

a) The work on Plant or delivery of Plant and/ or Materials has been suspended for more than 30 days, and

b) the Contractor has marked the Plant and/or Materials as the Procuring Entity's property in accordance with the Architect instructions.

8.11 ProlongedSuspension

If the suspension under Sub-Clause 8.8 [Suspension of Work] has continued for more than 84 days, the Contractor may request the Architect permission to proceed. If the Architect does not give permission within 30 days after being requested to do so, the Contractor may, by giving notice to the Engineer, treat the suspension as an omission under Clause 13 [Variations and Adjustments] of the affected part of the Works. If the suspension affects the whole of the Works, the Contractor may give notice of termination under Sub-Clause 16.2 [Termination by Contractor].

8.12 Resumption of Work

After the permission or instruction to proceed is given, the Contractor and the Architect shall jointly examine the Works and the Plant and Materials affected by the suspension. The Contractor shall make good

any deterioration or defect in or loss of the Works or Plant or Materials, which has occurred during the suspension after receivingf rom the Architec tan instruction to this effect under Clause 13 [Variations and Adjustments].

9. TESTS ON COMPLETION

9.1 Contractor's Obligations

9.1.1 The Contractor shall carry out the Tests on Completion in accordance with this Clause and Sub-Clause 7.4 [Testing], after providing the documents in accordance with sub-paragraph (d) of Sub-Clause 4.1 [Contractor's General Obligations].

9.1.2 The Contractor shall give to the Architect not less than 21 days' notice of the date after which the Contractor will be ready to carry out each of the Tests on Completion. Unless otherwise agreed, Tests on Completion shall be carried out within 14 days after this date, on such day or days as the Architect shall instruct.

9.1.3 In considering the results of the Tests on Completion, the Architect shall make allowances for the effect of any use of the Works by the Procuring Entity on the performance or other characteristics of the Works. As soon as the Works, or a Section, have passed any Tests on Completion, the Contractor shall submit a certified report of the resultsof these Tests to the Engineer.

9.2 Delayed Tests

9.2.1 If the Tests on Completion are being unduly delayed by the Procuring Entity, Sub-Clause 7.4 [Testing] (fifth paragraph) and/ or Sub-Clause 10.3 [Interference with Tests on Completion] shall be applicable.

9.2.2 If the Tests on Completion are being unduly delayed by the Contractor, the Architect may by notice require the Contractor to carry out the Tests within 21 days after receiving the notice. The Contractor shall carry out the Testson such day or days within that period as the Contractor may fix and of which he shall give notice to the Engineer.

9.2.3 If the Contractor fails to carryout the Tests on Completion within the period of 21 days, the Procuring Entity's Personnel may proceed with the Test sat the risk and cost of the Contractor. The Tests on Completion shall then be deemed to have been carried out in the presence of the Contractor and the results of the Tests shall be accepted asaccurate.

9.3 Retesting of related works

If the Works, or a Section, fail to pass the Tests on Completion, Sub-Clause 7.5 [Rejection] shall apply, and the Architect or the Contractor may require the failed Tests, and Tests on Completion on any related work, to be repeated under the same terms and conditions.

9.4 Failure to Pass Tests on Completion

9.4.1 If the Works, or a Section, fail to pass the Tests on Completion repeated under Sub-Clause 9.3 [Retesting], the Architect shall be entitled to:

a) Order further repetition of Tests on Completion under Sub-Clause 9.3; or

b) if the failure deprives the Procuring Entity of substantially the whole benefit of the Works or Section, reject the Works or Section (as the case may be), in which event the Procuring Entity shall have the same remedies as are provided in sub-paragraph (c) of Sub-Clause1 1.4 [Failure to Remedy Defects].

10. PROCURING ENTITY'S TAKING OVER

10.1 Taking Over of the Works and Sections

10.1.1 Except as stated in Sub-Clause 9.4 [Failure to Pass Tests on Completion], the Works shall be taken over by the Procuring Entity when (i) the Works have been completed in accordance with the Contract, including the matters described in Sub-Clause 8.2 [Time for Completion] and except as allowed in sub-paragraph (a) below, and (ii) a Taking-Over Certificate for the Works has been issued, or is deemed to have been issued in accordance with this Sub-Clause.

10.1.2 The Contractor may apply by notice to the Architect for a Taking-Over Certificate not earlier than 14 days before the Works will, in the Contractor's opinion, be complete and ready for taking over. If the Works are

divided into Sections, the Contract or may similarly apply for a Taking-Over Certificate for each Section.

10.1.3 The Architect shall, within 30 days after receiving the Contractor's application:

a) Issue the Taking-Over Certificate to the Contract or, stating the date on which the Works or Section were completed in accordance with the Contract, except for any minor out standing work and defects which will not substantially affect the use of the Works or Section for their intended purpose (either until or whilst this work is completed and these defects are remedied); or

b) reject the application, giving reasons and specifying the work required to be done by the Contractor to enable the Taking-Over Certificate to be issued. The Contractor shall then complete this work before issuing a further notice undert his Sub-Clause.

10.1.4 If the Architect fails either to issue the Taking-Over Certificate or to reject the Contractor's application within the period of 30 days, and if the Works or Section (as the case may be) are substantially in accordance with the Contract, the Taking-Over Certificate shall be deemed to have been issued on thel ast day of that period.

10.2 Taking Over of Parts of the Works

10.2.1 The Architect may, at the sole discretion of the Procuring Entity, issue a Taking-Over Certificate for any part of the Permanent Works.

10.2.2 The Procuring Entity shall not use any part of the Works (other than as a temporary measure which is either specified in the Contract or agreed by both Parties) unless and until the Architect has issued a Taking-Over Certificate for this part. However, if the Procuring Entity does use any part of the Works before the Taking-Over Certificate is issued:

a) The part which is used shall be deemed to have been taken over as from the date on which it is used,

b) the Contractor shall cease to be liable for the care of such part as from this date, when responsibility shall pass to the Procuring Entity, and

c) if requested by the Contractor, the Architect shall issue a Taking-Over Certificate for this part.

10.2.3 After the Architect has issued a Taking-Over Certificate for a part of the Works, the Contractor shall be given the earliest opportunity to take such steps as may be necessary to carry out any outstanding Tests on Completion. The Contractor shall carry out these Tests on Completion as soon as practicable before the expiry date of the relevant Defects Notification Period.

10.2.4 If the Contractor incurs Cost as a result of the Procuring Entity taking over and/or using a part of the Works, other than such use as is specified in the Contractor agreed by the Contractor, the Contractor shall (i) give notice to the Architect and (ii) be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to payment of any such accrued costs, which shall be included in the Contract Price. After receiving this notice, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine this accrued cost.

10.2.5 If a Taking-Over Certificate has been issued for a part of the Works (other than a Section), the delay damages there after for completion of the remainder of the Works shall be reduced. Similarly, the delay damages for the remainder of the Section (if any) in which this part is included shall also be reduced. For any period of delay after the date stated in this Taking-Over Certificate, the proportional reduction in these delay damages shall be calculated as the proportion which the value of the part so certified bears to the value of the Works or Section (as the case may be) as a whole. The Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these proportions. The provisions of this paragraph shall only apply to the daily rate of delay damages under Sub-Clause 8.7 [Delay Damages] and shall not affect the maximum amount of these damages.

10.3 Interference with Tests on Completion

10.3.1 If the Contractor is prevented, for more than 14 days, from carrying out the Tests on Completion by a cause for which the Procuring Entity is responsible, the Procuring Entity shall be deemed to have taken over the Works or Section (as the case may be) on the date when the Tests on Completion would otherwise have been completed.

10.3.2 The Architect shall then issue a Taking-Over Certificate accordingly, and the Contractor shall carry out the Tests on Completion as soon as practicable, before the expiry date of the Defects Notification Period. The Architect shall require the Tests on Completion to be carried out by giving 14 days' notice and in accordance with the relevant provisions of the Contract.

10.3.3 If the Contractor suffers delay and/or incurs Cost as a result of this delay in carrying out the Tests on Completion, the Contractor shall give notice to the Architect and shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:

a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and

b) payment of any such accrued costs, which shall be included in the Contract Price.

10.3.4 After receiving this notice, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these matters.

10.4 Surfaces Requiring Reinstatement

Except as otherwise stated in a Taking-Over Certificate, a certificate for a Section or part of the Works shall not be deemed to certify completion of any ground or other surfaces requiring reinstatement.

11. DEFECTS LIABILITY

11.1 Completion of Outstanding Work and Remedying Defects

11.1.1 In order that the Works and Contractor's Documents, and each Section, shall be in the condition required by the Contract (fairwear and tear excepted) by the expiry date of the relevant Defects Notification Period or as soon as practicable there after, the Contractor shall:

a) complete any work which is outstanding on the date stated in a Taking-Over Certificate, within such reasonable time as is instructed by the Engineer, and

b) execute all work required to remedy defects or damage, as may be notified by (or on behalf of) the Procuring Entity on or before the expiry date of the Defects Notification Period for the Works or Section (as the case may be).

11.1.2 If a defect appears or damage occurs, the Contractor shall be notified accordingly by the Engineer.

11.2 Cost of Remedying Defects

11.2.1 All work referred to in sub-paragraph (b) of Sub-Clause 11.1 [Completion of Outstanding Work and Remedying Defects] shall be executed at the risk and cost of the Contractor, if and to the extent that the work is attributable to:

a) Any design for which the Contractor is responsible,

b) Plant, Materials or workmanship not being in accordance with the Contract, or

c) Failure by the Contractor to comply with any other obligation.

11.2.2 If and to the extent that such work is attributable to any other cause, the Contractor shall be notified promptly by (or on behalf of) the Procuring Entity, and Sub-Clause 13.3 [Variation Procedure] shall apply.

11.3 Extension of Defects Notification Period

11.3.1 The Procuring Entity shall be entitled subject to Sub-Clause 2.5 [Procuring Entity's Claims] to an extension of the Defects Notification Period for the Works or a Section if and to the extent that the Works, Section or a major item of Plant (as the case may be, and after taking over) cannot be used for the purposes for which they are intended by reason of a defect or by reason of damage attributable to the Contractor. However, a Defects Notification Period shall not be extended by more than two years.

11.3.2 If delivery and/ or erection of Plant and/ or Materials was suspended under Sub-Clause 8.8 [Suspension of Work] or Sub-Clause 16.1 [Contractor's Entitlement to Suspend Work], the Contractor's obligations under this Clause shall not appl yto any defectsor damage occurring more than two years after the Defects Notification Period for the Plant and/ or Materials would otherwise have expired.

11.4 Failure to Remedy Defects

11.4.1 If the Contractor fails to remedy any defect or damage within a reasonable time, a date may be fixed by the Engineer, on or by which the defect or damage is to be remedied. The Contractor shall be given reasonable notice of this date.

11.4.2 If the Contractor fails to remedy the defect or damage by this notified date and this remedial work was to be executed at the cost of the Contractor under Sub-Clause 11.2[Costo f Remedying Defects], the Procuring

Entity may (at his option):

(a) Carry out the work itself or by others, in a reasonable manner and at the Contractor's cost, but the Contractor shall have no responsibility for this work; and the Contractor shall subject to Sub-Clause 2.5 [Procuring Entity's Claims] pay to the Procuring Entity the costs reasonably incurred by the Procuring Entity in remedying the defect or damage;

(b) Requirethe Architect to agree or determine a reasonable reduction in the Contract Price in accordance with Sub-Clause 3.5 [Determinations]; or

(c) if the defect or damage deprives the Procuring Entity of substantially the whole benefit of the Works or any major part of the Works, terminate the Contractas a whole, or in respect of such major part which cannot be put to the intended use. Without prejudice to any other rights, under the Contractor otherwise, the Procuring Entity shall then be entitled to recover all sums paid for the Works or for such part (as the case may be), plus financing costs and the cost of dismantling the same, clearing the Site and returning Plant and Materials to the Contractor.

11.5 Removal of Defective Work

If the defector damage cannot be remedied expeditiously on the Site and the Procuring Entity gives consent, the Contractor may remove from the Site for the purposes of repair such items of Plant as are defective or damaged. This consent may require the Contractor to increase the amount of the Performance Security by the full replacement cost of these items, or to provide other appropriate security.

11.6 Further Tests

11.6.1 If the work of remedying of any defector damage may affect the performance of the Works, the Architect may require the repetition of any of the tests described in the Contract. The requirement shall be made by notice within 14 days after the defect or damage is remedied.

11.6.2 These tests shall be carried out in accordance with the terms applicable to the previous tests, except that they shall be carried out at the risk and cost of the Party liable, under Sub-Clause 11.2 [Cost of Remedying Defects], for the cost of the remedial work.

11.7 Right of Access

Unti lthe Completion Certificate has been issued, the Contractor shall have such right of access to the Works as is reasonably required in order to comply with this Clause, except as may be inconsistent with the Procuring Entity's reasonable security restrictions.

11.8 Contractor to Search

The Contractor shall, if required by the Engineer, search for the cause of any defecton parts of the works that have already accepted, under the direction of the Engineer. Unless the defect is to be remedied at the cost of the Contractor under Sub-Clause 11.2 [Cost of Remedying Defects], the Cost of the search plus profit shall be agreed or determined by the Architect in accordance with Sub-Clause 3.5 [Determinations] and shall be included in the Contract Price.

11.9 Completion Certificate

11.9.1 Performance of the Contractor's obligations shall not be considered to have been completed until the Architect has issued the Completion Certificate to the Contractor, stating the date on which the Contractor completed his obligations under the Contract.

11.9.2 The Architect shall issue the Completion Certificate within 30days after the latest of the expiry dates of the Defects Liability Period, or as soon there after as the Contractor has supplied all the Contractor's Documents and completed and tested all the Works, including remedying any defects. A copy of the Completionn Certificate shall be issued to the Procuring Entity.

11.9.3 Only the Completion Certificate shall be deemed to constitute acceptance of the Works.

11.10 Unfulfilled Obligations

After the Completion Certificate has been issued, each Party shall remain liable for the fulfilment of any obligation which remains unperformed at that time. For the purposes of determining the nature and extent of unperformed obligations, the Contract shall be deemed to remain in force.

11.11 Clearance of Site

11.11.1 Upon receiving the Completion Certificate, the Contractor shall remove any remaining Contractor's Equipment, surplus material, wreckage, rubbish and Temporary Works from the Site.

11.11.2 If all these items have not been removed within 30 days after receipt by the Contractor of the Completion Certificate, the Procuring Entity may sell or otherwise dispose of any remaining items. The Procuring Entity shall be entitled to be paid the costs incurred in connection with, or attributable to, such sale or disposal and restoring the Site.

11.11.3 Any balance of the moneys from the sale shall be paid to the Contractor. If these moneys are less than the Procuring Entity's costs, the Contractor shall pay the outstanding balance to the Procuring Entity.

12. MEASUREMENT AN DEVALUATION

12.1 Works to be Measured

12.1.1 The Works shall be measured, and valued for payment, in accordance with this Clause. The Contractorshall show in each application under Sub-Clauses 14.3 [Application for Interim Payment Certificates], 14.10 [Statement on Completion] and 14.11 [Application for Final Payment Certificate] the quantities and other particulars detailing the amounts which he considers to be entitled under the Contract.

12.1.2 Whenever the Architect requires any part of the Works to be measured, reasonable notice shall be given to the Contractor's Representative, who shall:

a) promptly either attend or send another qualified representative to assist the Architect in making the measurement, and
b) supply any particulars requested by the Engineer.

12.1.3 If the Contractor fails to attend or send a representative, the measurement made by the Architect shall be accepted as accurate.

12.1.4 Except as otherwise stated in the Contract, wherever any Permanent Works are to be measured from records, these shall be prepared by the Engineer. The Contractor shall, as and when requested, attend to examine and agreet her ecords with the Engineer, and shall sign the same when agreed. If the Contractor does not attend, the records shall be accepted as accurate.

12.1.5 If the Contractor examines and disagrees the records, and/ or does not sign them as agreed, then the Contractor shall give notice to the Architect of the respects in which the records are asserted to be inaccurate. After receiving this notice, the Architect shall review the records and either confirm or vary them and certify the paymentofthe undisputed part. If the Contractor does not so give notice to the Architect within 14 days after being requested to examine the records, they shall be accepted as accurate.

12.2 Method of Measurement

Except as otherwise stated in the Contract:

a) Measurement shall be made of the net actual quantity of each item of the Permanent Works, and
b) the method of measurement shall be in accordance with the Bill of Quantities or other applicable Schedules.

12.3 Evaluation

12.3.1 Except as otherwise stated in the Contract, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine the value of workd one by evaluating each item of work, applying the measurement agreed or determined in accordance with the above Sub-Clauses 12.1 and 12.2 and the appropriate rate or price for the item.

12.3.2 For each item of work, the appropriate rate or price for the item shall be the rate or price specified for such item in the Contractor, if there is no such item, specified for similar work.

12.3.3 Any item of work included in the Bill of Quantities for which no rate or price was specified shall be considered as included in other rates and prices in the Bill of Quantities and will not be paid for separately.

12.3.4 However, for a new item of work, a new rate or price shall be appropriate for such item of work if:

a) The work is instructed under Clause13 [Variations and Adjustments],

b) no rate or price is specified in the Contract for this item, and

c) no specified rate or price is appropriate because the item of work is not of similar character, or is not executed under similar conditions, as any item in the Contract.

12.3.5 Each new rate or price shall be derived from any relevant rates or prices in the Contract. If no rates or prices are relevant for the new item of work, it shall be derived from the reasonable Cost of executing such work, prevailing market rates, together with profit, taking account of any other relevant matters.

12.3.6 Until such time as an appropriate rate or price is agreed or determined, the Architect shall determine a provisional rate or price for the purposes of Interim Payment Certificates as soon as the concerned work commences.

12.3.7 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*.

12.4 Omissions

Whenever the omission of any work forms part (or all) of a Variation, the value of which has not been agreed, if:

a) The Contractor will incur (or has incurred) cost which, if the work had not been omitted, wouldhavebeen deemed to be covered by a sum forming part of the Accepted Contract Amount;

b) The omission of the work will result (or has resulted) in this sum not forming part of the Contract Price; and

c) this cost is not deemed to be included in the evaluation of any substituted work; then the Contractor shall give notice to the Architect accordingly, with supporting particulars. Upon receiving this notice, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine this cost, which shall be included in the Contract Price.

13. VARIATIONS AND ADJUSTMENTS

13.1 Right to Vary

13.1.1 Variations may be initiated by the Architect at any time prior to issuing the Taking-Over Certificate for the Works, either by an instruction or by a request for the Contractor to submit a proposal. No Variation instructed by the Architect under this Clause shall in any way vitiate or in validate the Contract.

13.1.2 The Contractor shall execute and be bound by each Variation, unless the Contractor promptly gives notice to the Architect stating (with supporting particulars) that (i) the Contractor cannot readily obtain the Goods required for the Variation, or (ii) such Variation triggers a substantial change in the sequence or progress of the Works. Upon receiving this notice, the Architect shall cancel, confirm or vary the instruction.

13.1.3 Each Variation may include:

a) changes to the quantities of any item of work included in the Contract (however, such changes do not necessarily constitute a Variation),

b) changes to the quality and otherc haracteristics of any item of work,

c) changes to the levels, positions and/ or dimensions of any part of the Works,

d) omission of any work unless it is to be carried out by others,

e) any additional work, Plant, Materials or services necessary for the Permanent Works, including any associated Tests on Completion, boreholes and other testing and exploratory work, or

f) changes to the sequence or timing of the execution of the Works.

13.1.4 The Contractor shall not make any alteration and/or modification of the Permanent Works, unless and until the Architect instructs after obtaining approval of the Procuring Entity.

13.2. Variation Order Procedure

13.2.1 Priortoany Variation Order under Sub-Clause 13.1.4 the Architect shall notify the Contractor of the nature and form of such variation. As soon as possible after having received such notice, the Contractor shall submit to the Engineer:

a) A description of work, if any, to be performed and a programme for its execution, and

b) the Contractor's proposals for any necessary modifications to the Programme according to Sub-Clause 8.3 or to any of the Contractor's obligations under the Contract, and

c) the Contractor's proposals for adjustment to the Contract Price.

Following the receipt of the Contractor's submission the Architect shall, after due consultation with the Employer and the Contractor, decide as soon as possible whether or not the variation shall be carried out. If the Architect decides that the variation shall be carried out, he shall issue a Variation Order clearly identified as such in accordance with the Contractor's submission or as modified by agreement.

If the Architect and the Contractor are unable to agree the adjustment of the Contract Price, the provisions of Sub-Clause 13.2.2 shall apply.

13.2.2 Disagreement on Adjustment of the Contract Price

If the Contractor and the Architecture unable to agree on the adjustment of the Contract Price, the adjustment shall be determined in accordance with the rates specified in the Bills of Quantities or Schedule of Daywork Prices. If the rates contained in the Bills of Quantities or Dayworks Prices are not directly applicable to the specific work in question, suitable rates shall be established by the Architect reflecting the level of pricing in the Dayworks Prices. Where rates are not contained in the said Prices, the amount shall be such as is in all the circumstances reasonable, reflecting a market price. Due account shall be taken of any over-or under-recovery of overheads by the Contractor in consequence of the variation. The Contractor shall also be entitled to be paid:

a) The cost of any partial execution of the Work srendered useless by any such variation,
b) Thecostof making necessary alterations to Plant already manufactured or in the course of manufacture or of any work done that has to be altered in consequence of such a variation,
c) any additional costs incurred by the Contractor by the disruption of the progress of the Works as detailed in the Programme, and
d) the net effect of the Contractor's financec osts, including interest, caused by the variation.

The Architect shall on this basis determine the rates or prices to enable on-account payment to be included in certificates of payment.

13.2.3 Contractor to Proceed

On receipt of a Variation Order, the Contractor shall forth with proceed to carry out the variation and be bound to these Conditions in so doing as if such variation was stated in the Contract. The work shall not be delayed pending the granting of an extension of the Time for Completion or an adjustment to the Contract Price under Sub-Clause31.3.

13.3 Value Engineering

13.3.1 TheContractor may, at anytime, submit to the Architect written proposal which (in the Contractor's opinion) will, if adopted, (i) accelerate completion, (ii) reduce the cost to the Procuring Entity of executing, maintaining or operating the Works, (iii) improve the efficiency or value to the Procuring Entity of the completed Works, or
(iv) otherwise be of benefit to the Procuring Entity.

13.3.2 The proposal shall be prepared at the cost of the Contractor and shall include the items listed in Sub-Clause 13.3 [Variation Procedure].

13.2.3 If a proposal, which is approved by the Engineer, includes a change in the design of part of the Permanent Works, then unless otherwise agreed by both Parties:

a) The Contractor shall design this part,

b) sub-paragraphs (a) to (d) of Sub-Clause 4.1 [Contractor's General Obligations] shall apply, and
c) if this change results in a reduction in the contract value of this part, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine a fee, which shall be included in the Contract Price. This fee shall behalf (50%) of the difference between the following amounts:
   i) such reduction in contract value, resulting from the change, excluding adjustments under Sub-Clause 13.8 [Adjustments for Changes in Legislation] and Sub-Clause 13.8 [Adjustments for Changes in Cost], and
   ii) the reduction (if any) in the value to the Procuring Entity of the varied works, taking account of any improvement in quality, anticipated life or operational efficiencies.

13.3.4 However, if the amount established in item 13.2.3 (c) (i) is less than amount established in item 13.2.3 (c (ii),

there shall not be a fee. However, if the if the amount established in item 13.2.3 (c) (i) is more than amount established in item 13.2.3 (c (ii), it shall result in a price variation to the Procuring Entity.

13.4 Variation Procedure for Value Engineering proposal

13.4.1 If the Architect requests a proposal, prior to instructing a Variation, the Contractor shall respond in writinga s soon as practicable, either by giving reasons why he cannot comply (if this is the case) or by submitting:

a) A description of the proposed work to be performed and a programme for its execution,
b) the Contractor's proposal for any necessary modifications to the programme according to Sub-Clause 8.3 [Programme] and to the Time for Completion, and
c) the Contractor's proposal for evaluation of the Variation.

13.4.2 The Architect shall, as soon as practicable after receiving such proposal (under Sub-Clause 13.2 [Value Project Engineering] or otherwise), respond with approval, disapproval or comments. The Contractor shall not delay any work whilst a waiting a response.

13.4.3 Each instruction to execute a Variation, with any requirements for the recording of Costs, shall be issued by the Architect to the Contractor, who shall acknowledge receipt.

13.4.4 Each Variation shall be evaluated in accordance with Clause 12 [Measurement and Evaluation], unless the Architect instructs or approves otherwise in accordance with this Clause.

13.5 Paymentin Applicable Currencies

If the Contract provides for payment of the Contract Price in more than one currency, then whenever an adjustment is agreed, approved or determined as stated above, the amount payable in each of the applicable currencies shall be specified. For this purpose, reference shall be made to the actual or expected currency proportions of the Cost of the varied work, and to the proportions of various currencies specified for payment of the Contract Price.

13.6 Provisional Sums

13.6.1 Each Provisional Sum shall only be used, in whole or inpart, in accordance with the Architect instructions, and the Contract Price shall be adjusted accordingly. The total sum paid to the Contractor shall include onlysuch amounts, for the work, supplies or services to which the Provisional Sum relates, as the Architect shall have instructed. For each Provisional Sum, the Architect May instruct:

a) Work to be executed (including Plant, Materialso r services to be supplied) by the Contractor and valued under Sub-Clause 13.3 [Variation Procedure]; and/or

b) Plant, Materials or services to be purchased by the Contractor, from a nominated Subcontractor (as defined in Clause 5 [Nominated Subcontractors]) or otherwise; and for which there shall be included in the Contract Price:

   i) The actual amounts paid (or due to be paid) by the Contractor, and

   ii) a sum for overhead charges and profit, calculated as a percentage of these actual amounts by applying the relevant percentage rate (if any) stated in the appropriate Schedule. If there is no such rate, the percentage rate stated in **the Special Conditions of Contract** shall be applied.

13.6.2 The Contractor shall, when required by the Engineer, produce quotations, invoices, vouchers and accounts or receipts in substantiation.

13.7 Dayworks

13.7.1 For work of a minor or incidental nature, the Architect may instruct that a Variation shall be executed on a daywork basis. The work shall then be valued in accordance with the Daywork Schedule included in the Contract, and the following procedure shall apply. If a Daywork Schedule is not included in the Contract, this Sub-Clause shall not apply.

13.7.2 Before ordering Goods for the work, the Contractor shall submit quotations to the Engineer. When applying for payment, the Contractor shall submit invoices, vouchers and accounts or receipts for any Goods.

13.7.3 Except for any items for which the Daywork Schedule specifies that payment is not due, the Contractor shall delive reach day to the Architect accurate statements induplicate which shall include the following details of the resources used in executing the previous day's work:

a) The names, occupations and time of Contractor's Personnel,
b) the identification, type and time of Contractor's Equipment and Temporary Works, and
c) the quantities and types of Plant and Materials used.

13.7.4 One copy of each statement will, if correct, or when agreed, be signed by the Architect and returned to the Contractor. The Contractor shall then submit priced statements of these resources to the Engineer, prior to their inclusion in the next Statement under Sub-Clause 14.3 [Application for Interim Payment Certificates].

13.8 Adjustments for Changes in Legislation

13.8.1 The Contract Price shall be adjusted to take account of any increase or decrease in Cost resulting from a change in the Laws of Kenya (including the introduction of new Laws and the repeal or modification of existing Laws) or in the judicial or official governmental interpretation of such Laws, made after the Base Date, which affect the Contractor in the performance of obligations under the Contract.

13.8.2 If the Contractor suffers (or will suffer) delay and/or incurs (or will incur) additional Cost as a result of these changes in the Laws or in such interpretations, made after the Base Date, the Contractor shall give notice to the Architect and shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:
a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and
b) payment of any such Cost, which shall be included in the Contract Price.

13.8.3 After receiving this notice, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these matters.

13.8.4 Not withstanding the foregoing, the Contractor shall not be entitled to an extension of time if the relevant delay has already been taken into account in the determination of a previous extension of time and such Cost shall not be separately paid if the same shall already have been taken into account in the indexing of any inputs to the table of adjustment data in accordance with the provisions of Sub-Clause 13.8 [Adjustments for Changes in Cost].

13.9 Adjustments for Changes in Cost

13.9.1 In this Sub-Clause, "table of adjustment data" means the completed table of adjustment data for local and foreign currencies included in the Schedules. If there is no such table of adjustment data, this Sub-Clause shall not apply.

13.9.2 If this Sub-Clause applies, the amounts payable to the Contractor shall be adjusted for rises or falls in the cost of labor, Goods and other inputs to the Works, by the addition or deduction of the amounts determined by the formulae prescribed in this Sub-Clause. To the extent that full compensation for any rise or fall in Costs is not covered by the provisions of this or other Clauses, the Accepted Contract Amount shall be deemed to have included a mounts to cover the contingency of other rises and falls in costs.

13.9.3 The adjustment to be applied to the amount otherwise payable to the Contractor, as valued in accordance with the appropriate Schedule and certified in Payment Certificates, shall be determined from formulae for each of the currencies in which the Contract Price is payable. No adjustment is to be applied to work valued on the basis of Cost or current prices. The formulae shall be of the following general type:

Price Adjustment Formula

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 Im/Io
where:

P is the adjustment factor for the portion of the Contract Price payable.
A and **B** a recoefficients **specified in the SCC,** representing then on 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 **Io**c is the index prevailing 30 days before Bid opening for inputs payable.

NOTE: The sum of the two coefficients A and B should be 1 (one) in the formula for each currency. Normally, both coefficients shall be the same in the formulae for all currencies, since coefficient A, for the non adjustable portion of the payments, is a very approximate figure (usually 0.15) to take account of fixed cost elements or other nonadjustable components. The sum of the adjustments for each currency are added to the Contract Price.

13.9.4 The cost indices or reference prices stated in the table of adjustment data shall be used. If their source is in doubt, itshall be determined by the Engineer. Forth is purpose, reference shall be made to the values of the indices at stated dates (quoted in the fourth and fifth columns respectively of the table) for the purposes of clarification of the source; although these dates (and thus these values) may not correspond to the base cost indices.

13.9.5 Incases where the "currency of index" is not the relevant currency of payment, each index shall be converted into the relevant currency of payment at the selling rate, established by the Central Bank of Kenya, of this relevant currency on the above date for which the index is required to be applicable.

13.9.6 Until such time as each current cost index is available, the Architect shall determine a provisional index for the issue of Interim Payment Certificates. When a current cost index is available, the adjustment shall be recalculated accordingly.

13.9.7 If the Contractor fails to complete the Works within the Time for Completion, adjustment of prices there after shall be made using either (i) each index or price applicableo n the date 49 days prior to the expiry of the Time for Completion of the Works, or (ii) the current index or price, whichever is more favorable to the Procuring Entity.

13.9.8 The weightings (coefficients) for each of the factors of cost stated in the table(s) of adjustment data shall only be adjusted if they have been rendered unreasonable, unbalanced or in applicable, as a result of Variations.

14. CONTRACT PRICE AND PAYMENT

14.1 The Contract Price

14.1.1 Unless otherwise stated in the Special Conditions:

a) The value of the payment certificate shall be agreed or determined under Sub-Clause 12.3 [Evaluation] and be subject to adjustments in accordance with the Contract;
b) the Contractor shall pay all taxes, duties and fees required to be paid by him under the Contract, and the Contract Price shall not be adjusted for any of these costs except as stated in Sub-Clause 13.7 [Adjustments for Changes in Legislation];
c) any quantities which may be set out in the Bill of Quantities or other Schedule are estimated quantities and are not to be taken as the actual and correct quantities:

i) of the Works which the Contractor is required to execute, or

ii) for the purposes of Clause12 [Measurement and Evaluation]; and

d) the Contractor shall submit to the Engineer, within 30 days after the Commencement Date, a proposed breakdown of each lump sum price in the Schedules. The Architect may take account of the break down when preparing Payment Certificates but shall not be bound by it.

14.1.2 Notwithstanding the provisions of subparagraph (b), Contractor's Equipment, including essential spare parts there for, imported by the Contractor for the sole purpose of executing the Contract shall not be exempt from the payment of import duties and taxes upon importation.

14.2 Advance Payment

14.2.1 The Procuring Entity shall make an advance payment, as an interest-free loan for mobilization and cashflow support, when the Contractor submits a guarantee in accordance with this Clause. The total advance payment, the number and timing of instalments (if more than one), and the applicable currencies and proportions, shall be as stated in the **Special Conditions of Contract.**

14.2.2 Unless and until the Procuring Entity receives this guarantee, or if the total advance payment is not stated in the Special Conditions of Contract, this Sub-Clause shall not apply.

14.2.3 The Architect shall deliver to the Procuring Entity and to the Contractor an Interim Payment Certificate for the advance payment or its first instalment after receiving a Statement (under Sub-Clause 14.3 [Application for Interim Payment Certificates]) and after the Procuring Entity receives (i) the Performance Security in accordance with Sub-Clause 4.2 [Performance Security] and (ii) a guarantee in amounts and currencies equal to the a dvance payment. This guarantee shall be issued by a reputable bank or financial institutions elected by the Contractor and shall be in the form annexed to the Special Conditions or in another form approved by the Procuring Entity.

14.2.4 The Contractor shall ensure that the guarantee is valid and enforceable until the advance payment has been repaid, but its amount shall be progressively reduced by the amount repaid by the Contractor as indicated in the Payment Certificates. If the terms of the guarantee specify its expiry date, and the advance payment has not been repaid by the date 30 days prior to the expiry date, the Contractor shall extend the validity of the guarantee until the advance payment has been repaid.

14.2.5 Unless stated otherwise in **the Special Conditions of Contract**, the advance payment shall be repaid through percentage deductions from the interim payments determined by the Architect in accordance with Sub-Clause 14.6 [Issue of Interim Payment Certificates], as follows:

a) Deductions shall commence in the next interim Payment Certificate following that in which the total of all certified interim payments (excluding the advance payment and deductions and repayments of retention) exceeds 30 percent (30%) of the Accepted Contract Amount less Provisional Sums; and

b) deductions shall be made at the amortization rate stated in the **Special Conditions of Contract** of the amount of each Interim Payment Certificate (excluding the advance payment and deductions for its repayments as well as deductions for retention money) in the currencies and proportions of the advance payment until such time as the advance payment has been repaid; provided that the advance payment shall be completely repaid prior to the time when 90 percent (90%) of the Accepted Contract Amount less Provisional Sums has been certified for payment.

14.2.6 If the advance payment has not been repaid prior to the issue of the Taking-Over Certificate for the Works or prior to termination under Clause 15 [Termination by Procuring Entity], Clause 16 [Suspension and Termination by Contractor] or Clause 19 [Force Majeure] (as thec ase may be), the whole of the balance then outstanding shall immediately become due and in case of termination under Clause 15 [Termination by Procuring Entity], except for Sub-Clause 14.2.7 [Procuring Entity's Entitlement to Termination for Convenience], payable by the Contractor to the Procuring Entity.

14.3 Application for Interim Payment Certificates

14.3.1 The Contractor shall submit a Statement (in number of copies indicated in the **Special Conditions of Contract**) to the Architect after the end of each month, in aform approved by the Engineer, showing in

detail the amounts to which the Contractor considers itself to be entitled, together with supporting documents which shall include there porton the progress during this month in accordance with Sub-Clause4.21 [Progress Reports].

14.3.2 The Statement shall include the following items, as applicable, which shall be expressed in the various currencies in which the Contract Price is payable, in the sequence listed:

a) the estimated contract value of the Works executed and the Contractor's Documents produced up to the end of the month (including Variations but excluding items described in sub-paragraphs (b) to (g) below);

b) any amounts to be added and deducted for changes in legislation and changes in cost, in accordance with Sub-Clause 13.7 [Adjustments for Changes in Legislation] and Sub-Clause 13.8 [Adjustments for Changes in Cost];

c) any amount to be deducted for retention, calculated by applying the percentage of retention stated in **the Special Conditions of Contract** to the total of the above amounts, until the amount so retained by the Procuring Entity reaches the limit of Retention Money (if any) stated **in the Special Conditions of Contract**;

d) any amounts to be added for the advance payment and (if more than one instalment) and to be deducted for its repayments in accordance with Sub-Clause 14.2 [Advance Payment];

e) any amounts to be added and deducted for Plant and Materials in accordance with Sub-Clause 14.5 [Plant and Materials intended for the Works];

f) any other additions or deductions which may have become due under the Contractor otherwise, including those under Clause 20 [Claims, Disputes and Arbitration]; and

g) the deduction of amounts certified in all previous Payment Certificates.

14.4 Schedule of Payments

14.4.1 If the Contract includes a schedule of payments specifying the instalments in which the Contract Price will be paid, then unless otherwise stated in this schedule:

a) The instalments quoted in this schedule of payments shall be the estimated contract values for the purposes of sub-paragraph (a) of Sub-Clause 14.3 [Application for Interim Payment Certificates];

b) Sub-Clause 14.5 [Plant and Materials intended for the Works] shall not apply; and

c) If these instalments are not defined by reference to the actual progress achieved in executing the Works, and if actual progress is found to be less or more than that on which this schedule of payments was based, then the Architect may proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine revised instalments, which shall take account of the extent to which progress is less or more than that on which the instalments were previously based.

14.4.2 If the Contract does not include a schedule of payments, the Contractor shall submit non-binding estimates of the payments which he expects to become due during each quarterly period. The first estimate shall be submitted within 42 days after the Commencement Date. Revised estimates shall be submitted at quarterly intervals, until the Taking-Over Certificate has been issued for the Works.

14.5 Plant and Materials intended for the Works

14.5.1 If this Sub-Clause applies, Interim Payment Certificates shall include, under sub-paragraph (e) of Sub-Clause 14.3, (i) an amount for Plant and Materials which have been sent to the Site for incorporation in the Permanent Works, and (ii) a reduction when the contract value of such Plant and Materials is included as part of the Permanent Works under sub-paragraph (a) of Sub-Clause 14.3 [Application for Interim Payment Certificates].

14.5.2 If the lists referred to in sub-paragraphs (b)(i) or (c)(i) below are not included in the Schedules, this Sub-Clause shall not apply.

14.5.3 The Architect shall determine and certify each addition if the following conditions a resatisfied:

a) The Contractor has:

i) kept satisfactory records (including the orders, receipts, Costs and use of Plant and Materials) which are available for inspection, and

(ii) submitted statement of the Cost of acquiring and delivering the Plant and Materials to the Site, supported by satisfactory evidence;

and either:

b) the relevant Plant and Materials:
   i) are those listed in the Schedules for payment when shipped,
   ii) have been shipped to Kenya, enroute to the Site, in accordance with the Contract; and
   iii) are described in a clean shipped bill of lading or other evidence of shipment, which has been submitted to the Architect together with evidence of payment of freight and insurance, any other documents reasonably required, and a bank guarantee in a form and issued by an entity approved by the Procuring Entity in amounts and currencies equal to the amount due under this Sub-Clause: this guarantee may be in a similar form to the form referred to in Sub-Clause14.2 [Advance Payment] and shall be valid until the Plant and Materials are properly stored on Site and protected against loss, damage or deterioration; or

c) the relevant Plant and Materials:
   i) are those listed in the Schedules for payment when delivered to the Site, and
   ii) have been delivered to and are properly stored on the Site, are protected against loss, damage or deterioration and appear to be in accordance with the Contract.

14.5.4 The additional amount to be certified shall be the equivalent of eighty percent (80%) of the Architect determination of the cost of the Plant and Materials (including delivery to Site), taking account of the documents mentioned in this Sub-Clause and of the contract value of the Plant and Materials.

14.5.5 The currencies for this additional amount shall be the same as those in which payment will become due when the contract value is included under sub-paragraph (a) of Sub-Clause 14.3 [Application for Interim Payment Certificates]. At that time, the Payment Certificate shall include the applicable reduction which shall be equivalent to, and in the same currencies and proportions as, this additional amount for the relevant Plant and Materials.

14.6 Issue of Interim Payment Certificates

14.6.1 No amount will be certified or paid until the Procuring Entity has received and approved the Performance Security. Thereafter, the Architect shall, within 30 days after receiving a Statement and supporting documents, deliver to the Procuring Entity and to the Contractor an Interim Payment Certificate which shall state the amount which the Architect fairly determines to be due, with all supporting particulars for any reduction or withholding made by the Architect on the Statemen tif any.

14.6.2 However, prior to issuing the Taking-Over Certificate for the Works, the Architect shall not be bound to issue an Interim Payment Certificate in an amount which would (after retention and other deductions) be less than the minimum amount of Interim Payment Certificates (if any) stated **in the Special Conditions of Contract**. In this event, the Architect shall give notice to the Contractor accordingly.

14.6.3 An Interim Payment Certificate shall not be withheld for any other reason, although:
a) if anything supplied or work done by the Contractor is not in accordance with the Contract, the cost of rectification or replacement may be withheld until rectification or replacement has been completed; and/or
b) if the Contractor was or is failing to perform any work or obligation in accordance with the Contract, and had been so notified by the Engineer, the value of this work or obligation may be withheld until the work or obligation has been performed.

4.6.4 The Architect may in any Payment Certificate make any correction or modification that should properly be made to any previous Payment Certificate. A Payment Certificate shall not be deemed to indicate the Architect acceptance, approval, consent or satisfaction.

14.7 Payment

14.7.1 The Procuring Entity shall pay to the Contractor:
a) The advance payment shall be paid within 60 days after signing of the contract by both parties or within 60 days after receiving the documents in accordance with Sub-Clause 4.2 [Performance Security] and Sub- Clause 14.2 [Advance Payment], which ever is later;
b) The amount certified in each Interim Payment Certificate within 60 days after the Architect Issues Interim Payment Certificate; and

c) the amount certified in the Final Payment Certificate within 60 days after the Procuring Entity Issues Interim Payment Certificate; or after determination of any disputed amount shown in the Final Statement in accordance with Sub-Clause 16.2 [Terminationby Contractor].

14.7.2 Payment of the amount due in each currency shall be made into the bank account, nominated by the Contractor, in the payment country (forth is currency) specified in the Contract.

14.8 Delayed Payment

14.8.1 If the Contractor does not receive payment in accordance with Sub-Clause 14.7 [Payment], the Contractor shall be entitled to receive financing charges (simple interest) monthly on the amount unpaid during the period of delay. This period shall be deemed to commence on the date for payment specified in Sub-Clause 14.7 [Payment], irrespective (in the case of its sub-paragraph (b) of the date on which any Interim Payment Certificate isissued.

14.8.2 These financing charges shall be calculated at the annual rate of three percentage points above the mean rate of the Central Bank in Kenya of the currency of payment, or if not available, the inter bank offered rate, and shall be paid in such currency.

14.8.3 The Contractor shall be entitled to this payment without formal notice and certification, and without prejudice to any other right or remedy.

14.9 Payment of Retention Money

14.9.1 When the Taking-Over Certificate has been issued for the Works, the first half of the Retention Money shall be certified by the Architect for payment to the Contractor. If a Taking-Over Certificate is issued for a Section or part of the Works, a proportion of the Retention Money shall be certified and paid. This proportion shall behalf (50%) of the proportion calculated by dividing the estimated contract value of the Section or part, by the estimated final Contract Price.

14.9.2 Promptly after the latest of the expiry dates of the Defects Liability Periods, the outstanding balance of the Retention Money shall be certified by the Architect for payment to the Contractor. If a Taking-Over Certificate was issued for a Section, a proportion of the second half of the Retention Money shall be certified and paid promptly after the expiry date of the Defects Notification Period for the Section. This proportion shall behalf (50%) of the proportion calculated by dividing the estimated contract value of the Section by the estimated final Contract Price.

14.9.3 However, if any work remains to be executed under Clause 11 [Defects Liability], the Architects hall be entitled to withhold certification of the estimated cost of this work until it has been executed.

14.9.4 When calculating these proportions, no account shall be taken of any adjustments under Sub-Clause 13.7 [Adjustments for Changes in Legislation] and Sub-Clause13.8 [Adjustments for Changes in Cost].

14.9.5 Unless otherwise stated in the Special Conditions, when the Taking-Over Certificate has been issued for the Works and the first half of the Retention Money has been certified for payment by the Engineer, the Contractor shall be entitled to substitute a Retention Money Security guarantee, in the form annexed to the Special Conditions or in another form approved by the Procuring Entity and issued by a reputable bank or financial institution selected by the Contractor, for the second half of the Retention Money.

14.9.6 The Procuring Entity shall return the Retention Money Security guarantee to the Contractor within 14 days after receiving a copy of the Completion Certificate.

14.10 Statement at Completion

14.10.1 Within 84 days after receiving the Taking-Over Certificate for the Works, the Contractor shall submit to the Architect three copies of a Statement at completion with supporting documents, in accordance with Sub- Clause 14.3 [Application for Interim Payment Certificates], showing:

a) the value of all work done in accordance with the Contract up to the date stated in the Taking-Over Certificate for the Works,
b) any further sums which the Contractor considers to be due, and

c) an estimate of any other amounts which the Contractor considers will become due to him under the Contract. Estimated amounts shall be shown separately in this Statement at completion.

14.10.2 The Architect shall then certify in accordance with Sub-Clause 14.6 [Issue of Interim Payment Certificates].

14.11 Application for Final Payment Certificate

14.11.1 Within 60 days after receiving the Completion Certificate, the Contractor shall submit, to the Engineer, six copies of a draft final statement with supporting documents showing in detail in a form approved by the Engineer:

a) The value of all work done in accordance with the Contract, and
b) Any further sums which the Contractor considers to be due to him under the Contractor otherwise.

14.11.2 If the Architect disagrees with or cannot verify any part of the draft final statement, the Contractor shall submit such further information as the Architect may reasonably require within 30 days from receipt of said draft and shall make such changes in the draft as may be agreed between them. The Contractor shall then prepare and submit to the Architect the final statement as agreed. This agreed statement is referred to in these Conditions as the "Final Statement".

14.11.3 However, if, following discussions between the Architect and the Contractor and any changes to the draft final statement which are agreed, it be comes evident that a dispute exists, the Architect shall deliver to the Procuring Entity (with a copy to the Contractor) an Interim Payment Certificate for the agreed parts of the draft final statement. Thereafter, if the dispute is finally resolved under Sub-Clause 20.4 [Obtaining Dispute Board's Decision] or Sub-Clause 20.5 [Amicable Settlement], the Contractor shall then prepare and submit to the Procuring Entity (with a copy to the Engineer) a Final Statement.

14.12 Discharge

When submitting the Final Statement, the Contractor shall submit a discharge which confirms that the total of the Final Statement represents full and final settlement of all moneys due to the Contractor under or in connection with the Contract. This discharge may state that it becomes effective when the Contractor has received the Performance Security and the out standing balance of this total, in which event the discharge shall be effective on such date.

14.13 Issue of Final Payment Certificate

14.13.1 Within 30days after receiving the Final Statement and discharge in accordance with Sub-Clause 14.11 [Application for Final Payment Certificate] and Sub-Clause 14.12 [Discharge], the Architect shall deliver, to the Procuring Entity and to the Contractor, the Final Payment Certificate which shall state:

a) The amount which he fairly determines is finally due, and
b) After giving credit to the Procuring Entity for all amounts previously paid by the Procuring Entity and for all sums to which the Procuring Entity is entitled, the balance (if any) due from the Procuring Entity to the Contractor or from the Contractor to the Procuring Entity, as the case may be.

14.13.2 If the Contractor has not applied for a Final Payment Certificate in accordance with Sub-Clause 14.11 [Application for Final Payment Certificate] and Sub-Clause 14.12 [Discharge], the Architect shall request theContractor to do so. If the Contractor fails to submit an application within a period of 30 days, the Architect shall issue the Final Payment Certificate for such amount as he fairly determines to be due.

14.14 Cessation of Procuring Entity's Liability

14.14.1 The Procuring Entity shall not be liable to the Contractor for any matter or thing under or in connection with the Contract or execution of the Works, except to the extent that the Contractor shall have included an amount expressly for it:

a) in the Final Statement and also,
b) (except for matters or things arising after the issue of the Taking-Over Certificate for the Works) in the Statement at completion described in Sub-Clause 14.10 [Statement at Completion].

14.14.2 However, this Sub-Clause shall not limit the Procuring Entity's liability under his in demnification

obligations, or the Procuring Entity's liability in any case of fraud, deliberate default or reckless misconduct by the Procuring Entity.

14.15 Currencies of Payment

The Contract Price shall be paid in the currency or currencies named in the Schedule of Payment Currencies. If more than one currency is so named, payments shall be made as follows:

a) If the Accepted Contract Amount was expressed in Local Currency only:
   i) the proportions or amounts of the Local and Foreign Currencies, and the fixed rates of exchange to be used for calculating the payments, shall be as stated in the Schedule of Payment Currencies, except as otherwise agreed by both Parties;
   ii) payments and deductions under Sub-Clause 13.5 [Provisional Sums] and Sub-Clause 13.7 [Adjustments for Changes in Legislation] shall be made in the applicable currencies and proportions; and
   iii) otherpaymentsanddeductions under sub-paragraphs (a) to (d) of Sub-Clause 14.3 [Application for Interim Payment Certificates] shall be made in the currencies and proportions specified in sub-paragraph (a) (i) above;
b) payment of the damages specified in the Special Conditions of Contract, shall be made in the currencies and proportions specified in the Schedule of Payment Currencies;
c) other payments to the Procuring Entity by the Contractor shall be made in the currency in which the sum was expended by the Procuring Entity, or in such currency as may be agreed by both Parties;
d) if any amount payable by the Contractor to the Procuring Entity in a particular currency exceeds the sum payable by the Procuring Entity to the Contractor in that currency, the Procuring Entity may recover the balance of this amount from the sums otherwise payable to the Contractor in other currencies; and
e) if no rates of exchange are stated in the Schedule of Payment Currencies, they shall be those prevailing on the Base Date and determined by the Central Bank of Kenya.

15. TERMINATION BY PROCURING ENTITY

15.1 Notice to correct any defects or failures

If the Contractor fails to carry out any obligation under the Contract, the Architect may by notice require the Contractor to make good the failure and to remedy it within 30 days.

15.2 Termination by Procuring Entity

15.2.1 The Procuring Entity shall be entitled to terminate the Contract if the Contractor breaches the contract based on following circumstances which shall include but not limited to:

a) fails to comply with Sub-Clause 4.2 [Performance Security] or with a notice under Sub-Clause 15.1 [Notice to Correct],
b) abandons the Works or otherwise plainly demonstrates the intention not to continue performance of his obligations under the Contract,
c) without reasonable excuse fails:
   i) to proceed with the Works in accordance with Clause 8 [Commencement, Delays and Suspension], or
   ii) to comply with a notice issued under Sub-Clause 7.5 [Rejection] or Sub-Clause 7.6 [Remedial Work], within 30 days after receiving it,
d) subcontracts the major part or whole of the Works or assigns the Contract without the consent of the Procuring Entity,
e) becomes bankrupt or insolvent, goes into liquidation, has a receiving or administration order made against him, compounds with his creditors, or carries on business under a receiver, trustee or manager for the benefit of his creditors, or if any act is done or event occurs which (under applicable Laws) has a similar effect to any of theseacts or events, or
f) gives or offers to give (directly or indirectly) to any person any bribe, gift, gratuity, commission or other thing of value, as an induce mentor reward:
i) for doing or for bearing to do any action in relation to the Contract, or
ii) for showing or for bearing to show favor or disfavor to any person in relation to the Contract, or
iii) if any of the Contractor's Personnel, agents or Subcontractors gives or offers to give (directly or

indirectly) to any person any such induce mentor reward as is described in this sub-paragraph (f). However, lawful inducements and rewards to Contractor's Personnel shall not entitle termination, or

g) If the contract or repeatedly fails to remedy delivers defective work,

h) based on reasonable evidence, has engaged in Fraud and Corruption as defined in paragraph 2.2 of the Appendix B to these General Conditions, incompeting for or in executing the Contract.

15.2.2 In any of these events or circumstances, the Procuring Entity may, upon giving 14 days' notice to the Contractor, terminate the Contract and expel the Contractor from the Site. However, in the case of sub-paragraph (e) or (f) or (g) or (h), the Procuring Entity may by notice terminate the Contract immediately.

15.2.3 The Procuring Entity's election to terminate the Contract shall not prejudice any other rights of the Procuring Entity, under the Contractor otherwise.

15.2.4 The Contractor shall then leave the Site and deliver any required Goods, all Contractor's Documents, and other design documents made by or for him, to the Engineer. However, the Contractor shall use his best efforts to comply immediately with any reasonable instructions included in the notice (i) for the assignment of any subcontract, and (ii) for the protection of life or property or for the safety of the Works.

15.2.5 After termination, the Procuring Entity may complete the Works and/ or arrange for any other entities to do so. The Procuring Entity and these entities may then use any Goods, Contractor's Documents and other design documents made by or on behalf of the Contractor.

15.2.6 The Procuring Entity shall then give notice that the Contractor's Equipment and Temporary Works will be released to the Contractor at or near the Site. The Contractor shall promptly arrange their removal, at the risk and cost of the Contractor. However, if by this time the Contractor has failed to make a payment due to the Procuring Entity, these items may be sold by the Procuring Entity in order to recover this payment. Any balance of the proceeds shall then be paid to the Contractor.

15.3 Valuation at Date of Termination

Assoon as practicable after a notice of termination under Sub-Clause 15.2 [Termination by Procuring Entity] has taken effect, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine the value of the Works, Goods and Contractor's Documents, and any other sums due to the Contractor for work executed in accordance with the Contract.

15.4 Payment after Termination

After a notice of termination under Sub-Clause 15.2 [Termination by Procuring Entity] has taken effect, the Procuring Entity may:

a) Proceed in accordance with Sub-Clause 2.5 [Procurin Entity's Claims],

b) withhold further payments to the Contractor until the costs of execution, completion and remedying of any defects, damages for delay in completion (if any), and all other costs incurred by the Procuring Entity, have been established, and/ or

c) recover from the Contractor any losses and damages incurred by the Procuring Entity and any extra costs of completing the Works, after allowing for any sum due to the Contractor under Sub-Clause 15.3 [Valuation at Date of Termination]. After recovering any such losses, damages and extra costs, the Procuring Entity shall pay any balance to the Contractor.

15.5 Procuring Entity's Entitlement to Termination for Convenience

The Procuring Entity shall be entitled to terminate the Contract, at any time at the Procuring Entity's convenience, by giving notice of such termination to the Contractor. The termination shall take effect 30 days after the later of the dates on which the Contractor receives this notice or the Procuring Entity returns the Performance Security. The Procuring Entity shall not terminate the Contract under this Sub-Clausein order to execute the Works itself or to arrange for the Works to be executed by another contractor or to avoid a termination of the Contract by the Contractor under Clause 16.2 [Termination by Contractor]. After this termination, the Contractor shall proceed in accordance with Sub-Clause 16.3 [Cessation of Work and Removal of Contractor's Equipment] and shall be paid in accordance with Sub-Clause 16.4 [Payment on Termination].

15.6 Fraud and Corruption

The Contractor shall ensure compliance with the Kenya Government's Anti-Corruption Laws and its

prevailing sanctions.

15.7 Corrupt gifts and payments of commission

15.7.1 The Contractor shall not;

a) Offer or give or agree to give to any person in the service of the Procuring Entity any gift or consideration of any kind as an inducement or reward for doing or for bearing to door for having done or for borne to do any act in relation to the obtaining or execution of this or any other Contract for the Procuring Entity or for showing or for bearing to show favor or disfavor to any person in relation to this or any other contract for the Procuring Entity.

b) Enter into this or any other contract with the Procuring Entity in connection with which commission has been paid or agreed to be paid by him or on his behalf or to his knowledge, unless before the Contract is made particulars of any such commission and of the terms and conditions of any agreement for the payment there of have been disclosed in writing to the Procuring Entity.

15.7.2 Any breach of this Condition by the Contractor or by anyone employed by him or acting on his behalf (whether with or without the knowledge of the Contractor) shall be an offence under the provisions of the Public Procurement and Asset Disposal Act (2015) and the Anti-Corruption and Economic Crimes Act (2003) of the Laws of Kenya.

16. SUSPENSION AND TERMINATION BY CONTRACTOR

16.1 Contractor's Entitlement to Suspend Work

16.1.1 If the Architect fails to certify in accordance with Sub-Clause 14.6 [Issue of Interim Payment Certificates] or Sub-Clause 14.7 [Payment],or not receiving instructions that would enable the contractor to proceed with the works in accordance with the program, the Contractor may, after giving not less than 30 days' notice to the Procuring Entity, suspend work (or reduce the rate of work) unless and until the Contractor has received the Payment Certificate, reasonable evidence or payment, as the case may bea nd as described in the notice.

16.1.2 The Contractor's action shall not prejudice his entitlements to financing charges under Sub-Clause 14.8 [Delayed Payment] and to termination under Sub-Clause 16.2 [Terminationby Contractor].

16.1.3 If the Contractor subsequently receives such Payment Certificate, evidence or payment (as described in the relevant Sub-Clause and in the above notice) before giving a notice of termination, the Contractor shall resume normal working as soon as is reasonably practicable.

16.1.4 If the Contractor suffers delay and/ori ncurs Cost as a result of suspending work (or reducing the rate of work) in accordance with this Sub-Clause, the Contractor shall give notice to the Architect and shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:

a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and
b) payment of any such Cost-plus profit, which shall be included in the Contract Price.

16.2 After receiving this notice, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these matters.

16.3 Termination by Contractor

16.3.1 The Contractor shall be entitled to terminate the Contract if:

a) the Architect fails, within 60 days after receiving a Statement and supporting documents, to issue the relevant Payment Certificate,
b) the Contractor does not receive the amount due under an Interim Payment Certificate within 90 days after the expiry of the time stated in Sub-Clause1 4.7 [Payment] within which payment is to be made (except for deductions in accordance with Sub-Clause 2.5 [Procuring Entity's Claims]),
c) the Procuring Entity substantially fails to perform his obligations under the Contract in such manner as to materially and adversely affect the economic balance of the Contract and/or the ability of the Contractor to perform the Contract,
d) a prolonged suspension affects the whole of the Works as described in Sub-Clause 8.11 [Prolonged

Suspension], or

e) the Procuring Entity becomes bankrupt or insolvent, goes into liquidation, has a receiving or administration order made against him, compounds with his creditors, or carries on business under a receiver, trustee or manager for the benefit of his creditors, or if any act is done or event occurs which (under applicable Laws) has a similar effect to any of these acts or events.

f) the Contractor does not receive the Architect instruction recording the agreement of both Parties on the fulfilment of the conditions for the Commencement of Works under Sub-Clause 8.1 [Commencement of Works].

16.3.2 In any of these events or circumstances, the Contractor may, upon giving 14 days' notice to the Procuring Entity, terminate the Contract. However, in the case of sub-paragraph (f) or (g), the Contractor may by notice terminate the Contract immediately.

16.3.3 The Contractor's election to terminate the Contract shall not prejudice any other rights of the Contractor, under the Contractor otherwise.

16.4 Cessation of Work and Removal of Contractor's Equipment

After a notice of termination under Sub-Clause 15.5 [Procuring Entity's Entitlement to Termination for Convenience], Sub-Clause 16.2 [Termination by Contractor] or Sub-Clause 19.6 [Optional Termination, Payment and Release] has taken effect, the Contractor shall promptly:

a) cease all further work, except for such work as may have been instructed by the Architect for the protection of life or property or for the safety of the Works,

b) hand over Contractor's Documents, Plant, Materials and other work, for which the Contractor has received payment, and

c) remove all other Goods from the Site, except as necessary for safety, and leave the Site.

16.5 PaymentonTermination

After a notice of termination under Sub-Clause 16.2 [Termination by Contractor] has taken effect, the Procuring Entity shall promptly:

a) Return the Performance Security to the Contractor,

b) pay the Contractor in accordance with Sub-Clause 19.6 [Optional Termination, Payment and Release], and

c) pay to the Contractor the amount of any loss or damage sustained by the Contractor as a result of this termination.

17. RISK AND RESPONSIBILITY

17.1 Indemnities

17.1.1 The Contractor shall indemnify and hold harmless the Procuring Entity, the Procuring Entity's Personnel, and their respective agents, against and from all claims, damages, losses and expenses (including legal fees and expenses) in respect of:

a) Bodily injury, sickness, disease or death, of any person what so ever arising outo for in the course of or by reason of the Contractor's design (if any), the execution and completion of the Works and the remedying of any defects, unless attributable to any negligence, willful actor breach of the Contract by the Procuring Entity, the Procuring Entity's Personnel, or any of their respective agents, and

b) damage to or loss of any property, real or personal (other than the Works), to the extent that such damage or loss arises out of or in the course of or by reason of the Contractor's design (if any), the execution and completion of the Works and the remedying of any defects, unless and to the extent that any such damage or loss is attributable to any negligence, willful act or breach of the Contract by the Procuring Entity, the Procuring Entity's Personnel, their respective agents, or anyone directly or indirectly employed by any of them.

17.1.2 The Procuring Entity shall indemnify and hold harmless the Contractor, the Contractor's Personnel, and their respective agents, against and from all claims, damages, losses and expenses (including legal fees and expenses) in respect of (1) bodily injury, sickness, disease or death, which is attributable to any negligence, willful act or breach of the Contract by the Procuring Entity, the Procuring Entity's Personnel, or any of their respective agents, and (2) the matters for which liability may be excluded from insurance cover, as described in sub-paragraphs (d)(i), (ii) and (iii) of Sub-Clause 18.3 [Insurance Against Injury to Persons and Damage to Property], unless and to the extent that any such damage or loss is attributable to any

negligence, willful actor breach of the Contract by the contractor, the contractor's Personnel, their respective agents, or anyone directly or indirectly employed by any of them.

17.2 Contractor's Care of the Works

17.2.1 The Contractor shall take full responsibility for the care of the Works and Goods from the Commencement Date until the Taking-Over Certificate is issued (or is deemed to be issued under Sub-Clause 10.1 [Taking Over of the Works and Sections]) for the Works, when responsibility for the care of the Works shall pass to the Procuring Entity. If a Taking-Over Certificate is issued (or is so deemed to be issued) for any Section or part of the Works, responsibility for the care of the Section or part shall then pass to the Procuring Entity.

17.2.2 After responsibility has accordingly passed to the Procuring Entity, the Contractor shall take responsibility for the care of any work which is outstanding on the date stated in a Taking-Over Certificate, until this outstanding work has been completed.

17.2.3 If any loss or damage happens to the Works, Goods or Contractor's Documents during the period when the Contractorisresponsiblefor their care, from any cause not listed in Sub-Clause 17.3 [Procuring Entity's Risks], the Contractor shall rectify the loss or damage at the Contractor's risk and cost, so that the Works, Goods and Contractor's Documents conform with the Contract.

17.2.4 The Contractor shall be liable for any loss or damage caused by any actions performed by the Contractor after a Taking-Over Certificate has been issued. The Contractor shall also be liable for any loss or damage which occurs after a Taking-Over Certificate has been issued and which arose from a previous event for which the Contractor was liable.

17.3 Procuring Entity's Risks

The risks referred to in Sub-Clause 17.4 [Consequences of Procuring Entity's Risks] below, in so far as they directly affect the execution of the Works in Kenya, are:

a) War hostilities (whether war be declared or not),
b) rebellion, riot, commotion or disorder, terrorism, sabotage by persons other than the Contractor's Personnel,
c) explosive materials, ionizing gradiation or contamination by radio-activity, except as may be attributable to the Contractor's use of such explosives, radiation or radio-activity,
d) pressure waves caused by aircraft or other aerial devices traveling at sonic or supersonic speeds,
e) use or occupation by the Procuring Entity of any part of the Permanent Works, except as may be specified in the Contract,
f) design of any part of the Works by the Procuring Entity's Personnel or by others for whom the Procuring Entity is responsible, and
g) any operation of the forces of nature which is Unforeseeable or against which an experienced contractor could not reasonably have been expected to have taken adequate preventive precautions.

17.4 Consequences of Procuring Entity's Risks

17.4.1 If and to the extent that any of the risks listed in Sub-Clause 17.3 above results in loss or damage to the Works, Goods or Contractor's Documents, the Contractor shall promptly give notice to the Architect and shall rectify this loss or damage to the extent required by the Engineer.

17.4.2 If the Contractor suffers delay and/ or incurs Cost from rectifying this loss or damage, the Contractor shall give a further notice to the Architect and shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:

(a) An extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of TimeforCompletion], and
(b) paymentofany such Cost, which shall be included in the Contract Price. In the case of sub-paragraphs (e)and (g) of Sub-Clause 17.3 [Procuring Entity's Risks], Accrued Costs shall be payable.

17.4.3 After receiving this further notice, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these matters.

17.5 Intellectual and Industrial Property Rights

17.5.1 In this Sub-Clause, "infringement" shall refer to an infringement (or alleged infringement) of any patent, registered design, copyright, trade mark, trade name, trade secret or other intellectual or industrial property right relating to the Works; and "claim" shall refer to a claim (or proceedings pursuing a claim) alleging an infringement.

17.5.2 Whenever a Party does not give notice to the other Party of any claim within 30 days of receiving the claim, the first Party shall be deemed to have waived any right to indemnity under this Sub-Clause.

17.5.3 The Procuring Entity shall indemnify and hold the Contractor harmless against and from any claim alleging an infringement which is or was:

a) An un avoidable result of the Contractor's compliance with the Contract, or
b) A result of any Works be ingused by the Procuring Entity:
   i) for a purpose other than that indicated by, or reasonably to be inferred from, the Contract, or
   ii) in conjunction with anything not supplied by the Contractor, unless such use was disclosed to the Contractor prior to the Base Date or is stated in the Contract.

17.5.4 The Contractor shall indemnify and hold the Procuring Entity harmless again stand from any other claim which arises out of or in relation to (i) the manufacture, use, sale or import of any Goods, or (ii) any design for which the Contractor is responsible.

17.5.5 IfaPartyisentitledtobeindemnified under this Sub-Clause, the indemnifying Party may (at its cost) conduct negotiations for the settlement of the claim, and any litigation or arbitration which may arise from it. The other Party shall, at the request and cost of the indemnifying Party, assist in contesting the claim. This other Party (and its Personnel) shall not make any admission which might be prejudicial to the indemnifying Party, unless the indemnifying Party failed to take over the conduct of any negotiations, litigation or arbitration upon being requested to do so by such other Party.

17.5.6 For operation and maintenance of any plan to requipment installed, the contractor shall grant a non-exclusive and non-transferable license to the Procuring Entity under the patent, utility models ,or other intellectual rights owned by the contractor or a third party from whom the contract or has received the rights to grant sub-licenses and shall also grant to the Procuring Entity a non-exclusive and non-transferable rights (without the rights to sub-license) to use the know how and other technical information disclosed to the contract or under the contract. Nothing contained here-in shall be construed as transferring ownership of any patent, utility model, trademark, design, copy right, know-how or other intellectual rights from the contractor or any other third party to the Procuring Entity.

17.6 Limitation of Liability

17.6.1 Neither Party shall be liable to the other Party for loss of use of anyW orks, loss of profit, loss of any contractor for any in director consequential loss or damage which may be suffered by the other Party in connection with the Contract, other than as specifically provided in Sub-Clause 8.7 [Delay Damages]; Sub-Clause 11.2 [Cost of Remedying Defects]; Sub-Clause 15.4 [Payment after Termination]; Sub-Clause 16.4 [Payment on Termination]; Sub-Clause 17.1 [Indemnities]; Sub-Clause 17.4(b) [Consequences of Procuring Entity's Risks] and Sub-Clause 17.5 [Intellectual and Industrial Property Rights].

17.6.2 The total liability of the Contractor to the Procuring Entity, under or in connection with the Contract other than under Sub-Clause 4.19 [Electricity, Water and Gas], Sub-Clause 4.20 [Procuring Entity's Equipment and Free- Issue Materials], Sub-Clause 17.1 [Indemnities] and Sub-Clause 17.5 [Intellectual and Industrial Property Rights], shall not exceed the sum resulting from the application of a multiplier (less or greater than one) to the Accepted Contract Amount, as stated in **the Special Conditions of Contract**, or (if such multiplier or other sum is not so stated) the Accepted Contract Amount.

17.6.3 This Sub-Clause shall not limit liability in any case of fraud, deliberate default or reckless misconduct by the defaulting Party.

17.7 Use of Procuring Entity's Accommodation/Facilities

17.7.1 The Contractor shall take full responsibility for the care of the Procuring Entity provided accommodation and facilities, if any, as detailed in the Specification, from the respective dates of hand-over to the Contractor until cessation of occupation (where hand-over or cessation of occupation may take place after the date stated in the Taking-Over Certificate for the Works).

17.7.2 If any loss or damage happens to any of the above items while the Contractor is responsible for their care arising from any cause whatsoever other than those for which the Procuring Entity is liable, the Contractor

shall, at his own cost, rectify the loss or damage to the satisfaction of the Engineer.

18. INSURANCE

18.1 General Requirements for Insurances

18.1.1 In this Clause, "insuring Party" means, for each type of insurance, the Party responsible for effecting and maintaining the insurance specified in the relevant Sub-Clause.

18.1.2 Wherever the Contractor is the insuring Party, each insurance shall be effected with insurers and in terms approved by the Procuring Entity. These terms shall be consistent with any terms agreed by both Parties before the date of the Letter of Acceptance. This agreement of terms shall take precedence over the provisions of this Clause.

18.1.3 Wherever the Procuring Entity is the insuring Party, each insurance shall be effected with insurers and in terms acceptable to the Contractor. These terms shall be consistent with any terms agreed by both Parties before the date of the Letter of Acceptance. This agreement of terms shall take precedence over the provisions of this Clause.

18.1.4 If a policy is required to indemnify joint insured, the cover shall apply separately to each insured as though a separate policy had been issued for each of the joint insured. If a policy indemnifies additional joint insured, namely in addition to the insured specified in this Clause, (i) the Contractor shall act under the policy on behalf of these additional joint insured except that the Procuring Entity shall act for Procuring Entity's Personnel, (ii) additional joint insured shall not be entitled to receive payments directly from the insurer or to have any other direct dealings with the insurer, and (iii) the insuring Party shall require all additional joint insured to comply with the conditions stipulated in the policy.

18.1.5 Each policy insuring against loss or damage shall provide for payments to be made in the currencies required to rectify the loss or damage. Payments received from insurers shall be used for the rectification of the loss or damage.

18.1.6 The relevant insuring Party shall, within the respective periods stated in **the Special Conditions of Contract** (calculated from the Commencement Date), submit to the other Party:

a) Evidence that the insurances described in this Clause have been affected, and
b) copies of the policies for the insurances described in Sub-Clause 18.2 [Insurance for Works and Contractor's Equipment] and Sub-Clause 18.3 [Insurance against Injury to Persons and Damage to Property].

18.1.7 When each premium is paid, the insuring Party shall submit evidence of payment to the other Party. Whenever evidence or policies are submitted, the insuring Party shall also give notice to the Engineer.

18.1.8 Each Party shall comply with the conditions stipulated in each of the insurance policies. The insuring Party shall keep the insurers informed of any relevant changes to the execution of the Works and ensure that insurance is maintained in accordance with this Clause.

18.1.9 Neither Party shall make any material alteration to the terms of any insurance without the prior approval of the other Party. If an insurer makes (or at tempts to make) any alteration, the Party first notified by the insurer shall promptly give notice to the other Party.

18.1.10 If the insuring Party fails to effect and keep in force any of the insurances it is required to effect and maintain under the Contractor fails to provide satisfactory evidence and copies of policies in accordance with this Sub- Clause, the other Party may (at its option and without prejudice to any other right or remedy) effect insurance for the relevant coverage and pay the premiums due. The insuring Party shall pay the amount of these premiums to the other Party, and the Contract Price shall be adjusted accordingly.

18.1.11 Nothing in this Clause limits the obligations, liabilities or responsibilities of the Contractor or the Procuring Entity, under the other terms of the Contractor otherwise. Any amounts not insured or not recovered from the insurers shall be borne by the Contractor and/or the Procuring Entity.

18.1.12 Procuring Entity in accordance with these obligations, liabilitieso r responsibilities. However, if the insuring Party fails to effect and keep in force an insurance which is available and which it is required to effect and maintain under the Contract, and the other Party neither approves the omission nor effects insurance for the coverage relevant to this default, any moneys which should have been recoverable under

this insurance shall be paid by the insuring Party.

18.1.13 Payments by one Party to the other Party shall be subject to Sub-Clause 2.5 [Procuring Entity's Claims] or Sub- Clause 20.1 [Contractor's Claims], as applicable.

18.1.14 The Contractor shall be entitled to place all insurance relating to the Contract (including, but not limited to the insurance referred to Clause 18) with insurers from any eligible source country.

18.2 Insurance for Works and Contractor's Equipment

18.2.1 The insuring Party shall insure the Works, Plant, Material sand Contractor's Documents for not less than the full reinstatement cost including the costs of demolition, removal of debris and professional fees and profit. This insurance shall be effective from the date by which the evidence is to be submitted under sub-paragraph (a) of Sub-Clause 18.1 [General Requirements for Insurances], until the date of issue of the Taking-Over Certificate for the Works.

18.2.2 The insuring Party shall maintain this insurance to provide cover until the date of issue of the Performance Certificate, for loss or damage for which the Contractor is liable arising from a cause occurring prior to the issue of the Taking-Over Certificate, and for loss or damage caused by the Contractor in the course of any other operations (including those under Clause 11 [Defects Liability]).

18.2.3 The insuring Party shall insure the Contractor's Equipment for not less than the full replacement value, including delivery to Site. For each item of Contractor's Equipment, the insurance shall be effective while it is being transported to the Site and until it is no longer required as Contractor's Equipment.

18.2.4 Unless otherwise stated in the Special Conditions, insurances under this Sub-Clause:

a) Shal lbe effected and maintained by the Contractor as insuring Party,

b) shall be in the joint names of the Parties, who shall be jointly entitled to receive payments from the insurers, payments being held or allocated to the Party actually bearing the costs of rectifying the loss or damage,

c) shall cover all loss and damage from any cause not listed in Sub-Clause 17.3 [Procuring Entity's Risks],

d) shall also cover, to the extent specifically required in the tendering documents of the Contract, loss or damage to a part of the Works which is attributable to the use or occupation by the Procuring Entity of another part of the Works, and loss or damage from the risks listed in sub-paragraphs (c), (g) and (h)of Sub-Clause 17.3 [Procuring Entity's Risks], excluding (in each case) risks which are not insurable at commercially reasonable terms, with deductibles per occurrence of not more than the amount stated **in the Special Conditions** of Contract (if an amount is not so stated,t his sub-paragraph (d) shall not apply), and

e) may however exclude loss of, damage to, and reinstatement of:

   i) a part of the Works which is in a defective condition due to a defect in its design, materials or workmanship (but cover shall include any other parts which are lost or damaged as a direct result of this defective condition and not as described in sub-paragraph (ii) below),

   ii) apart of the Works which is lost or damaged inorder to reinstate any other part of the Works if this other part is in a defective condition due to a defect in its design, materials or workmanship,

   iii) apart of the Works which has been taken over by the Procuring Entity, except to the extent that the Contractor is liable for the loss or damage, and

   iv) Goods while they are not in Kenya, subject to Sub-Clause 14.5 [Plant and Materials intended for the Works].

18.2.5 If, more than one year after the Base Date, the cover described in sub-paragraph (d) above ceases to be available at commercially reasonable terms, the Contractor shall (as insuring Party) give notice to the Procuring Entity, with supporting particulars. The Procuring Entity shall then (i) be entitled subject to Sub-Clause 2.5 [Procuring Entity's Claims] to payment of an amount equivalent to such commercially reasonable terms asthe Contractor should have expected to have paid for such cover, and (ii) be deemed, unless he obtains the cover at commercially reasonable terms, to have approved the omission under Sub-Clause 18.1 [General Requirements for Insurances].

18.3 Insurance against Injury to Persons and Damage to Property

18.3.1 The insuring Party shall insure against each Party's liability for any loss, damage, death or bodily injury which may occur to any physical property (except things insured under Sub-Clause 18.2 [Insurance for

Works and Contractor's Equipment]) or to any person (except persons insured under Sub-Clause 18.4 [Insurance for Contractor's Personnel]), which may arise out of the Contractor's performance of the Contract and occurring before the issue of the Performance Certificate.

18.3.2 This insurance shall be for a limit per occurrence of not less than the amount stated in **the Special Conditions of Contract**, with no limit on the number of occurrences. If an amount is not stated in the **Special Conditions of Contract**, this Sub-Clause shall not apply.

18.3.3 Unless otherwise stated in the Special Conditions, the insurances specified in this Sub-Clause:

a) Shall be effected and maintained by the Contractor as insuring Party,
b) shall be in the joint names of the Parties,
c) shall be extended to cover liability for all loss and damage to the Procuring Entity's property (except things insured under Sub-Clause 18.2) arising out of the Contractor's performance of the Contract, and
d) may however exclude liability to the extent that it arises from:
   i) the Procuring Entity's right to have the Permanent Works executed on, over, under, in or
   ii) through any land, and to occupy this land for the Permanent Works,
   iii) damage which is an unavoidable result of the Contractor's obligations to execute the
   iv) Works and remedy any defects, and
   v) a cause listed in Sub-Clause 17.3 [Procuring Entity's Risks], except to the extent that cover is available at commercially reasonable terms.

18.4 Insurance for Contractor's Personnel

18.4.1 The Contractor shall effect and maintain insurance against liability for claims, damages, losses and expenses (including legal fees and expenses) arising from injury, sickness, disease or death of any person employed by the Contractor or any other of the Contractor's Personnel.

18.4.2 The insurance shall cover the Procuring Entity and the Architect against liability for claims, damages, losses and expenses (including legal fees and expenses) arising from injury, sickness, disease or death of any person employed by the Contractoror any othe rof the Contractor's Personnel, except that this insurance may exclude losses and claims to the extent that they arise from any act or neglect of the Procuring Entity or of the Procuring Entity's Personnel.

18.4.3 The insurance shall be maintained in full force and effect during the whole time that these personnel are assisting in the execution of the Works. For a Subcontractor's employees, the insurance may be effected by the Subcontractor, but the Contractor shall be responsible for compliance with this Clause.

19. FORCE MAJEURE

19.1 Definition of Force Majeure

19.1.1 In this Clause, “Force Majeure” means an exceptional event or circumstance:

a) Which is beyond a Party's control,
b) Which such Party could not reasonably have provided against before entering into the Contract,
c) which, having arisen, such Party could not reasonably have avoided or over come, and
d) which is not substantially attributable to the other Party.

19.1.2 Force Majeure may include, but is not limited to, exceptional events or circumstances of the kind listed below, s olong as conditions (a) to (d) above are satisfied:

a) war, hostilities (whether war be declared or not), invasion, act of foreign enemies,
b) rebellion, terrorism, sabotage by persons other than the Contractor's Personnel, revolution, insurrection, military or usurped power, or civil war,
c) riot, commotion, disorder, strike or lock out by persons other than the Contractor's Personnel,
d) munitions of war, explosive materials, ionizing radiation or contamination by radio-activity, except as may be attributable to the Contractor's use of such munitions, explosives, radiation or radio-activity, and
e) natural catastrophes such as earthquake, hurricane, typhoon or volcanic activity.

19.2 Notice of Force Majeure

19.2.1 If a Party is or will be prevented from performing its substantial obligations under the Contract by Force Majeure, then it shall give notice to the other Party of the event or circumstances constituting the Force Majeure and shall specify the obligations, the performance of which is or will be prevented. The notice

shall be given within 14 days after the Party became aware, or should have become aware, of the relevant event or circumstance constituting Force Majeure.

19.2.2 The Party shall, having given notice, be excused performance of its obligations for so long as such Force Majeure prevents it from performing them.

19.2.3 Not withstanding any other provision of this Clause, Force Majeure shall not apply to obligations of either Party to make payments to the other Party under the Contract.

19.3 Duty to Minimize Delay

Each Party shall at all times use all reasonable endeavors to minimize any delay in the performance of the Contract as a result of Force Majeure. A Party shall give notice to the other Party when it ceases to be affected by the Force Majeure.

19.4 Consequences of Force Majeure

19.4.1 If the Contractor is prevented from performing his substantial obligations under the Contract by Force Majeure of which notice has been given under Sub-Clause 19.2 [Notice of Force Majeure], and suffers delay and/ or incurs Cost by reason of such Force Majeure, the Contractor shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:

a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and

b) if the event or circumstance is of the kind described in sub-paragraphs (i) to (iv) of Sub-Clause 19.1 [Definition of Force Majeure] and, in sub-paragraphs (ii) to (iv), occurs in Kenya, payment of any such Cost, including the costs of rectifying or replacing the Works and/or Goods damaged or destroyed by Force Majeure, to the extent they are not indemnified through the insurance policy referred to in Sub- Clause18.2 [Insurance for Works and Contractor's Equipment].

19.4.2 After receiving this notice, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these matters.

19.5 Force Majeure Affecting Subcontractor

If any Subcontractor is entitled under any contract or agreement relating to the Works to relief from force majeure on terms additional to or broader than those specified in this Clause, such additional or broader force majeure events or circumstances shall not excuse the Contractor's non-performance or entitle him to relief under this Clause.

19.6 Optional Termination, Payment and Release

19.6.1 If the execution of substantially all the Works in progress is prevented for a continuous period of 84 days by reason of Force Majeure of which notice has been given under Sub-Clause 19.2 [Notice of Force Majeure], or for multiple periods which total more than 140 days due to the same notified Force Majeure, then either Party may give to the other Party a notice of termination of the Contract. In this event, the termination shall take effect 7 days after the notice is given, and the Contractor shall proceed in accordance with Sub-Clause 16.3 [Cessation of Work and Removal of Contractor's Equipment].

19.6.2 Upon such termination, the Architect shall determine the value of the work done and issue a Payment Certificate which shall include:

a) theamountspayableforanyworkcarriedoutforwhichapriceisstatedintheContract;

b) the Cost of Plant and Materials ordered for the Works which have been delivered to the Contractor, or of which the Contractor is liable to accept delivery: this Plant and Materials shall become the property of (and be at the risk of) the Procuring Entity when paid for by the Procuring Entity, and the Contractor shall place the same at the Procuring Entity's disposal;

c) other Cost or liabilities which in the circumstances were reasonably and necessarily incurred by the Contractor in the expectation of completing the Works;

d) the Cost of removal of Temporary Works and Contractor's Equipment from the Site and the return of these items to the Contractor's works in his country (or to any other destination at no greater cost); and

e) the Cost of repatriation of the Contractor's staff and lab or employed wholly in connection with the Works at the date of termination.

19.7 Release from Performance

Not withstanding any other provision of this Clause, if any event or circumstance outside the control of the Parties (including, but not limited to, Force Majeure) arises which makes it impossible or unlawful for either or both Parties to fulfil its or their contractual obligations or which, under the law governing the Contract, entitles the Parties to be released from further performance of the Contract, then upon notice by either Party to the other Partyofsucheventorcircumstance:

a) The Parties shall be discharged from further performance, without prejudice to the rights of either Party in respect of any previous breach of the Contract, and

b) The sum payable by the Procuring Entity to the Contractor shall be the same as would have been payable under Sub-Clause 19.6 [Optional Termination, Payment and Release] if the Contract had been terminated under Sub-Clause 19.6.

20. SETTLEMENT OF CLAIMS AND DISPUTES

20.1 Contractor's Claims

20.1.1 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 Engineer, 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.

20.1.2 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.

20.1.3 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.

20.1.4 TheContractorshallkeepsuch contemporary records as may be necessary to substantiate any claim, either on the Site or at an other location acceptable to the Engineer. Without admitting the Procuring Entity's liability, the Architect 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 Architect to inspect all these records and shall (if instructed) submit copies to the Engineer.

20.1.5 Within 42days 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 Engineer, the Contractor shall send to the Architect 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 Architect 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 Engineer.

20.1.6 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 Architect and approved by the Contractor, the Architect 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 time period.

20.1.7 Within the above defined period of 42 days, the Architect shall proceed in accordance with Sub-Clause 3.5 [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.

20.1.8 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.

20.1.9 If the Architect does not respond within the time frame defined in this Clause, either Party may consider

that the claim is rejected by the Architect and any of the Parties may refer the dispute for amicable settlement in accordance with Clause 20.3.

20.1.10 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 20.3.

20.2 Procuring Entity's Claims

20.2.1 If the Procuring Entity considers itself to be entitled to any payment under any Clause of these Conditionsor otherwise in connection with the Contract, and/or to any extension of the Defects Notification Period, the Procuring Entity or the Architect shall give notice and particulars to the Contractor. However, notice is not required for payments due under Sub-Clause 4.19 [Electricity, Water and Gas], under Sub-Clause 4.20 [Procuring Entity's Equipment and Free-Issue Materials], or for other services requested by the Contractor.

20.2.2 The notice shall be given as soon as practicable and no longer than 30 days afte rthe Procuring Entity became aware, or should have become aware, of the event or circumstances giving rise to the claim. A notice relating to any extension of the Defects Notification Period shall be given before the expiry of such period.

20.2.3 The particulars shall specify the Clause or other basis of the claim and shall include substantiation of the amount and/or extension to which the Procuring Entity considers itself to be entitled in connection with the Contract. The Architect shall then proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine (i) the amount (if any) which the Procuring Entity is entitled to be paid by the Contractor, and/ or (ii) the extension (if any) of the Defects Notification Period in accordance with Sub-Clause 11.3 [Extension of Defects Notification Period].

20.2.4 This amount may be included as a deduction in the Contract Price and Payment Certificates. The Procuring Entity shall only be entitled to set off against or make any deduction from an amount certified in a Payment Certificate, or to otherwise claim against the Contractor, in accordance with this Sub-Clause.

20.3 Amicable Settlement

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 20.1 above should move to commence arbitrationa fter 60 days from the day on which a notice of a claim was given, even if no attempt at an amicable settlement has been made.

20.4 Matters that may be referred to arbitration

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) Whether or not the issue of an instruction by the Architect is empowered by these Conditions.
b) Whether or not a certificate has been improperly withheld or is not in accordance with these Conditions.
c) Any dispute arising in respect risks arising from matters referred to in Clause 17.3 and Clause 19.
e) 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.

20.5 Arbitration

20.5.1 Any claim or dispute between the Parties arising out of or in connection with the Contract not settled amicably in accordance with Sub-Clause 20.3 shall be finally settled by arbitration.

20.5.2 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.

20.5.3 Not withstanding 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.

20.5.4 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 a ward any sums which ought to have been the subject of or included in any certificate.

20.5.5 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 require mentor notice had been given.

20.5.6 The arbitrators shall have full power to open up, review and revise any certificate, determination, instruction, opinion or valuation of the Engineer, relevant to the dispute. Nothing shall disqualify representatives of the Parties and the Architect from being called as a witness and giving evidence before the arbitrators on any matter whatsoever relevant to the dispute.

20.5.7 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.

20.5.7 Arbitration may be commenced prior to or after completion of the Works. The obligations of the Parties, and the Architect shall not be altered by reason of any arbitration being conducted during the progress of the Works.

20.5.8 Thetermsofthere muneration 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.

20.6 Arbitration with National Contractors

20.6.1 If the Contractis with national contractors, arbitration proceedings will be conducted in accordance with the Arbitration Laws ofKenya. 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

20.6.2 The institution written to first by the aggrieved party shall take precedence over all other institutions.

20.7 Arbitration with Foreign Contractors

20.7.1 Arbitration with foreign contractors shall be conducted in accordance with the arbitration rules of the United Nations Commission on International Trade Law (UNCITRAL); or with proceedings administered by the International Chamber of Commerce (ICC) and conducted under the ICC Rules of Arbitration; by one or more arbitrators appointed in accordance with said arbitration rules.

20.7.2 The place of arbitration shall be a location specified in the **SCC;** and the arbitration shall be conducted in the language for communications defined in Sub-Clause1.4 [Law and Language].

20.8 Alternative Arbitration Proceedings

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.

20.9 Failureto Comply with Arbitrator's Decision

20.9.1 The award of such Arbitrator shall be final and binding up on the parties.

20.9.2 In the even tthat 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.

20.10 Contract operations to continue

Notwithstanding any reference to arbitration herein,

1.1.1 the parties shall continue to perform their respective obligations under the Contract unless they otherwise agree; and

1.1.2 the Procuring Entity shall pay the Contractor any monies due the Contractor.

Section IX - Special Conditions of Contract

The following Special Conditions shall supplement the GCC. Whenever there is a conflict, the provisions here in shall prevail over those in the GCC.

Conditions	Sub-Clause	Data
Part A - Contract Data		
Procuring Entity's name and address	Heading	**State Department of Housing and Urban Development**
Name and Reference No. of the Contract	Heading and 1.1	**Proposed Construction of Chuka PW AHP Project, Chuka Igambang'ombe Constituency, Tharaka Nithi County with Associated Infrastructure** **Contract No: MLPWHUD/SDHUD/AHP /345/2023-2024**
Time for Completion	1.1.	**540 days**
Defects Liability Period	1.1	**365 Days**
Defects Notification Period	1.1	**14 Days**
Time for the Parties entering into a Contract Agreement	1.6	Within 30 days
Time for access to the Site	2.1.1	No later than the Commencement Date, and not later than **14 days** after Commencement Date
Engineers Name and address	Heading and 3.1.1	**Director, Housing Department.** State Department for Housing and Urban Development, P.O Box 30119-00100, Nairobi, Kenya
Architect Duties and Authority	3.1.6 (b) (ii)	Variations resulting in an increase of the Accepted Contract Amount shall be **as guided by the Public Procurement and Asset Disposal Act, 2015 and all amendments thereafter and attendant Regulations.**
Contractor's Representative's name	4.3.1	*[insert the name of the Contractor's Representative agreed by the Procuring Entity prior to Contract signature]*
Performance Security	4.2.1	The performance security will be in the form of a **Bank Demand Guarantee** (from Banks categorized as "Large" by the Central Bank of Kenya under the Directory of Commercial Banks which can be obtained from the Central Bank Website in the following Link under Bank Supervision: https://www.centralbank.go.ke/wp-content/uploads/2023/06/Directory-of-Licenced-Commercial-Banks-Authorised-NOHCs-June-2023.pdf), in the amount(s) of **10%** percent of the Accepted Contract Amount and in the same currency(ies) of the Accepted Contract Amount.
Normal working hours	6.5	**0800hrs to 17hours**
Commencement Date	8.1.1	14 day after site hand over
Delay damages for the Works	8.7 & 14.15(b)	**0.05%** of the Contract Price per day. *If Sections are to be used, refer to Table: Summary of Sections below*
Maximum amount of delay damages	8.7.1	**10%** of the final Contract Price.
Provisional Sums	13.6. (b)(ii)	*[If there are Provisional Sums, insert a percentage for adjustment of Provisional Sums]* _____%
Adjustments for Changes in Cost	13.9	**N/A**

<table>
<tr><th>Conditions</th><th>Sub-Clause</th><th>Data</th></tr>
<tr><td>Total advance payment</td><td>14.2.1</td><td>Up to 10% of the Accepted Contract Amount secured by an advance Bank guarantee (from Banks categorized as "Large" by the Central Bank of Kenya under the Directory of Commercial Banks which can be obtained from the Central Bank Website in the following Link under Bank Supervision: https://www.centralbank.go.ke/wp-content/uploads/2023/06/Directory-of-Licenced-Commercial-Banks-Authorised-NOHCs-June-2023.pdf), and payable in the currencies and proportions in which the Accepted Contract Amount maybe be payable

ADVANCE PAYMENT DISBURSEMENT AGREEMENT

This is issued Pursuant to provisions of Section 45(1) and 148 of PPADA, 2015 and Regulation 136 (4) and (5) of PPADR,2020

The advance payment of Kshs. …… in respect to the Contract Number …… for Contract Sum of Kshs. ……being the amount approved as advance payment will be paid in a bank account approved and regulated by the Central Bank of Kenya. This shall be processed as provided below and shall be administered by the Bank as per the Schedule below.

This is a pre-condition prior to access of the Advance Payment that the Contractor shall mobilize early works on the site prior to making an application for an advance payment. Early works are as follows;

1. Mobilization on site
• General and particular preliminaries
• Security and hoarding
• Site Office
• Sanitation/storage
• Access Roads
2. Setting out
3. Site clearance

In addition, the Contractor shall be required to submit this signed completed agreement accompanied by an advance payment guarantee in support therefore before payment is disbursed.

Disbursement Schedule Submitted by Contractor

<table>
<tr><th>S/ No</th><th>% of payment</th><th>Amount</th><th>Purpose</th><th>Supplier</th></tr>
<tr><td>1.</td><td></td><td></td><td>.....</td><td></td></tr>
<tr><td>2.</td><td></td><td></td><td>.....</td><td></td></tr>
<tr><td>3.</td><td></td><td></td><td>.....</td><td></td></tr>
<tr><td>4.</td><td></td><td></td><td>Cash related items eg (labour ...)</td><td>Contractor</td></tr>
</table>

I, [CONTRACTOR NAME], commit that the Funds shall be used in line with the above disbursement schedule and hereby authorize the bank to make payment to the suppliers on my behalf.

Yours sincerely,

FOR PRINCIPAL SECRETARY …….

FOR CONTRACTOR …….</td></tr>
</table>

Conditions	Sub-Clause	Data
Repayment amortization rate of advance payment	14.2.5 (b)	The amounts to be recovered in each payment certificate shall be computed using the following formula: **R = $\frac{A(x^{1} - x^{11})}{90 - 30}$** **Where;** **A** - Amount of the advance which has been granted. **x^{1}** - The amount of proposed cumulative payments as a percentage of the original amount of the Contract. This figure will exceed 30% but not exceed 90%. **x^{11}** - The amount of the previous cumulative payments as a percentage of the original amount of the Contract. This figure will be below 90% but not less than 30%. **R** - Amount to be reimbursed in current valuation.
Percentage of Retention	14.3.2 (c)	**10%** of the certified amounts The 10% retention monies can be released at upon application by the Contractor and provision of a security in the form of a Retention Money Security (Form No.8) payable in the currencies and proportions in which the Accepted Contract Amount maybe be payable. A Retention Money Security from Banks categorized as "Large" by the Central Bank of Kenya under the Directory of Commercial Banks which can be obtained from the Central Bank Website in the following Link under Bank Supervision: https://www.centralbank.go.ke/wp-content/uploads/2023/06/Directory-of-Licenced-Commercial-Banks-Authorised-NOHCs-June-2023.pdf)
Limit of Retention Money	14.3.2 (c)	Not applicable
Plant and Materials	14.5.3(b)(i)	Not applicable
	14.5.3(c)(i)	Not applicable
Minimum Amount of Interim Payment Certificates	14.6.2	**2.5 %** of the Accepted Contract Amount.
Publishing source of commercial interest rates for financial charges in case of delayed payment	14.8	**Shall be in accordance with the prevailing mean Commercial lending rate as determined by the Central Bank of Kenya.**
Key Personnel names	16.9.1	*[insert the name of each Key Personnel agreed by the Procuring Entity prior to Contract signature]*
Maximum total liability of the Contractor to the Procuring Entity	17.6.2	The product of **1.1** times the Accepted Contract Amount.
Periods for submission of insurance: a. evidence of insurance. b. relevant policies	18.1.6	 **14 days after execution of contract** **14 days after execution of contract**
Maximum amount of deductibles for insurance of the Procuring Entity's risks	18.2.4 (d)	*[Insert maximum amount of deductibles]*
Minimum amount of third-party insurance	18.3.2	*As per applicable Kenyan law*
The place of arbitration	20.7.2	**Nairobi, Kenya**

SECTION X - CONTRACT FORMS

FORM No. 1 - NOTIFICATION OF INTENTION TO AWARD

FORM NO. 2 – REQUEST FOR REVIEW

FORM No. 3-LETTEROF AWARD

FORM No. 4 - CONTRACT AGREEMENT

FORM No. 5 - PERFORMANCE SECURITY [Option 1 - Unconditional Demand Bank Guarantee]

FORM No. 6- PERFORMANCE SECURITY [Option 2– Performance Bond]

FORM No. 7 - ADVANCE PAYMENT SECURITY

FORM No. 8 - RETENTION MONEY SECURITY

FORM No 1: NOTIFICATION OF INTENTION TOAWARD OF CONTRACT

This Notification of Award shall be sent to each Tenderer that submitted a Tender and was not successful. 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 Award

   i) Procuring Entity: *[insert the name of the ProcuringEntity]*

   ii) Project: *[insert name ofproject]*

   iii) Contract title: *[insert the name of thecontract]*

   iv) ITT No: *[insert ITT reference number from ProcurementPlan]*

   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 by submitting a Procurement-related Complaint in relation to the decision to award the contracts.

   a) The successful tenderers

   i) Name of successful Tender _____

   ii) Address of the successful Tender _____

   _____

   iii) Contract price of the successful Tender Kenya Shillings _____

   (in words _____)

   b) The reasons for your tender being unsuccessful are as follows:

   c) OtherTenderers

   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.

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 a debriefing

a) DEADLINE: The dead line 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*]
iv) 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 receip tof 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 a vailable from the Website www.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: _____

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 of ……dated the…day of ……..20…….in the matter of Tender No……..…of ……..20….. 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 of ……....20….……

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 *[amoun tin numbers and words] [name of currency]*, as corrected and modified in accordance with the Instructions to Tenderers, is here by accepted by…… *(name of Procuring Entity).*

You are requested to furnish the Performance Security within 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 Worksknownas_____should be executed by the Contractor, and has accepted a Tender by the Contractor for the execution and completion of these Worksand the remedying of any defects there in,

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) theNotification of Award
   b) the Form 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 here by 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 here by covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying of defects there in, 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.

   INWITNESS where of the parties here to have caused this Agreement to be executed in accordance with the Laws of Kenya on the day, month and year specified above.

   Signeda nd 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 informedthat_____(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. Atthe request of the Contractor, we as Guarantor, here by 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 it self 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],* inresponse tot he 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.*

[1] *The Guarantor shall insert an amount representing the percentage of the Accepted Contract Amount specified in the Letter of Acceptance, less provisional sums, if any, and denominated either in the currency of the Contract or a freely convertible currency acceptable to the Beneficiary.*

[2] *Insert the date twenty-eight days after the expected completion date as described in GC Clause 11.9. The Procuring Entity should note that in the event of an extension of this date for completion of the Contract, the Procuring Entity would need to request an extension of this guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee.*

FORM No. 6- PERFORMANCE SECURITY

[Option 2– Performance Bond]

*[**Note:** Procuring Entities a readvised to use Performance Security – Unconditiona lDemand Bank Guarantee in stead of Performance Bond due to difficulties involved in calling Bond holder to action]*

[Guarantor letterhead or SWIFT identifier code]

Beneficiary: *[insertnameandAddressof*ProcuringEntity*]*

Date: _____*[Insert date of issue]*

PERFORMANCE BONDNo.:_____

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 there to, which to the extent here in provided for, are by reference made part here of and are here in 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 there under, the Surety may promptly remedy the default, or shall promptly:

   a) Complete the Contract in accordance with its terms and conditions; or

   b) 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 a vailable 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

   c) Pay the Procuring Entity the amount required by Procuring Entity to complete the Contract in accordance with its terms and conditions upto 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 here in or the heirs, executors, administrators, successors, and assigns of the Procuring Entity.

6. In testimony whereof, the Contractor has here unto set his hand and affixed his seal, and the Surety has caused these presents to be sealed with his corporate seal duly at tested by the signature of his legal representative, this day _____of_____20_____.

SIGNED ON_____on behalf of_____

By_____in the capacity of_____

Inthepresenceof_____

SIGNED ON_____on behalf of_____

By_____in the capacity of_____

Inthepresence of_____

FORM NO. 7 - ADVANCE PAYMENT SECURITY

[Demand Bank Guarantee]
[Guarantor letterhead]

Beneficiary: _____ *[Insert name and Address of* ProcuringEntity*]*

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, here by 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, oronthe _____ dayof _____,2 _____,[2] whichever is earlier. Consequently, any 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.

_____

[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.*

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[1] *The Guarantor shall insert an amount representing the amount of the advance payment and denominated either in the currency of the advance paymen tas specified in the Contract.*

[2] *Insert the expected expiration date of the Time for Completion. The Procuring Entity should note that in the event of an extension of the time for completion of the Contract, the Procuring Entity would need to request an extension of this guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in 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 executionof *[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 upto 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])*[1] upon receipt by us of the Beneficiary's complying demands upported by the Beneficiary's statement, whether in the demand itself or in a separate signed document accompanying or identifyingthedemand, stating that the Contractor is in breach of its obligation(s) under the Contract, without your needing to prove or showgrounds for your demand or the sum specified there in.

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 ofApplicant'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.

_____

[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.*

[1] *The Guarantor shall insert an amount representing the amount of the second half of the Retention Money.*

[2] *Insert a date that is twenty-eight days after the expiry of retention period after the actua lcompletion date of the contract. The Procuring Entity should note that in the event of an extension of this date for completion of the Contract, the Procuring Entity would need to request an extension of this guarantee from the*

Guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee.

FORM NO. 9 BENEFICIAL OWNERSHIP DISCLOSURE FORM

(Amended and issued pursuant to PPRA CIRCULAR No. 02/2022)

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 pursuant to Regulation 13 (2A) and 13 (6) of the Companies (Beneficial Ownership Information) Regulations, 2020. 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 legal person (tenderer) or arrangements or a natural person on whose behalf a transaction is conducted, and includes those persons who exercise ultimate effective control over a legal person (Tenderer) or arrangement.

Tender Reference No.:_____[*insert identification no*]

Name of the Tender Title/Description:_____*[insert name of the assignment]* to:

_____*[insert complete name of Procuring Entity]*

In response to the requirement in 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

	Details of all Beneficial Owners		**% of shares a person holds in the company Directly or indirectly**	**% of voting rights a person holds in the company**	**Whether a person directly or indirectly holds a right to appoint or remove a member of the board of directors of the company or an equivalent governing body of the Tenderer** (Yes / No)	**Whether a person directly or indirectly exercises significant influence or control over the Company (tenderer) (Yes / No)**
1.	Full Name		Directly---------- % of shares Indirectly---------- % of shares	Directly…… ……% of voting rights Indirectly---------- % of voting rights	1. Having the right to appoint a majority of the board of the directors or an equivalent governing body of the Tenderer: Yes -----No---- 2. Is this right held directly or indirectly?: Direct…… … Indirect…… ...	1. Exercises significant influence or control over the Company body of the Company (tenderer) Yes -----No---- 2. Is this influence or control exercised directly or indirectly? Direct…….. Indirect……
	National identity card number or Passport number					
	Personal Identification Number (where applicable)					
	Nationality					
	Date of birth *[dd/mm/yyyy]*					
	Postal address					
	Residential address					
	Telephone number					
	Email address					

	Details of all Beneficial Owners		**% of shares a person holds in the company Directly or indirectly**	**% of voting rights a person holds in the company**	**Whether a person directly or indirectly holds a right to appoint or remove a member of the board of directors of the company or an equivalent governing body of the Tenderer** (Yes / No)	**Whether a person directly or indirectly exercises significant influence or control over the Company (tenderer) (Yes / No)**
	Occupation or profession					
2.	Full Name		Directly---------- % of shares Indirectly---------- % of shares	Directly…… …….% of voting rights Indirectly---------- % of voting rights	1. Having the right to appoint a majority of the board of the directors or an equivalent governing body of the Tenderer: Yes -----No---- 2. Is this right held directly or indirectly?: Direct…… … Indirect…… ...	1. Exercises significant influence or control over the Company body of the Company (tenderer**)** Yes -----No---- 2. Is this influence or control exercised directly or indirectly? Direct…….. Indirect……
	National identity card number or Passport number					
	Personal Identification Number (where applicable)					
	Nationality(ies)					
	Date of birth *[dd/mm/yyyy]*					
	Postal address					
	Residential address					
	Telephone number					
	Email address					
	Occupation or profession					
3. **e.t .c**						

II) Am fully aware that beneficial ownership information above shall be reported to the Public Procurement Regulatory Authority together with other details in relation to contract awards and shall be maintained in the Government Portal, published and made publicly available pursuant to Regulation 13(5) of the Companies (Beneficial Ownership Information) Regulations, 2020.(Notwithstanding this paragraph Personally Identifiable Information in line with the Data Protection Act shall not be published or made public). *Note that Personally Identifiable Information (PII) is defined as any information that can be used to distinguish one person from another and can be used to deanonymize previously anonymous data. This information includes National identity card number or Passport number, Personal Identification Number, Date of birth, Residential address, email address and Telephone number.*

III) In determining who meets the threshold of who a beneficial owner is, the Tenderer must consider a natural person who in relation to the company:

(a) holds at least ten percent of the issued shares in the company either directly or indirectly;

(b) exercises at least ten percent of the voting rights in the company either directly or indirectly;

(c) holds a right, directly or indirectly, to appoint or remove a director of the company; or

(d) exercises significant influence or control, directly or indirectly, over the company.

IV) What is stated to herein above is true to the best of my knowledge, information and belief.

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]*

Designation 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 this ..... [insert date of signing] day of..... [Insert month], [insert year]

Bidder Official Stamp