BIDDING DOCUMENT

FOR THE

PROCUREMENT OF GOODS

BY

NATIONAL COMPETITIVE BIDDING

Subject of Procurement: SUPPLY AND DELIVERY OF TOOLS AND EQUIPMENT FOR COMMUNITY TECHNICAL COLLEGES (CTCs) AND COMMUNITY SKILLS DEVELOPMENT CENTRES (CSDCs)

Procurement Reference Number: TEVETA-0058-1-26

Procurement Method: National Competitive Bidding (NCB)

Date of Issue: 10th November 2026

Closing Date: 30th November 2026

TABLE OF CONTENTS

Section 1. Instructions to Bidders 3

Section 2. Bid Data Sheet (BDS) 44

Section 3. Evaluation and Qualification Criteria ... **Error! Bookmark not defined.**

Section 4. Bidding Forms ..... **Error! Bookmark not defined.**

Section 5. Eligible Countries ..... **Error! Bookmark not defined.**

Section 6. Corruption and Fraud ..... **Error! Bookmark not defined.**

Section 7. Statement of Requirements 47

Section 8. General Conditions of Contract ..... **Error! Bookmark not defined.**

Section 9. Special Conditions of Contract 263

Section 10. Contract Forms 265

SECTION 1. INSTRUCTIONS TO BIDDERS

A. GENERAL

1. SCOPE OF BID

1.1 The Procuring and Disposing Entity indicated in the Bid Data Sheet (BDS), invites Bids by the issue of this Bidding Document for the supply of Goods and Related Services incidental thereto as specified in Section 7, Statement of Requirement. These Instructions to Bidders shall be read in conjunction with the BDS. The subject of procurement, the procurement reference number, and number of lots of this Bidding Document are provided in the BDS.

1.2 The Bidding Document is issued under the procurement method indicated in the BDS

1.3 In This Bidding Documents—

(a) "Act" means the Public Procurement and Disposal of Public Assets Act;
(b) "day" means calendar day;
(c) "in writing" means communicated in written form with proof of receipt;
(d) "Regulations" means Public Procurement Regulations; and
(e) singular includes plural and vice versa.

2. SOURCE OF FUNDS

2.1 The Procuring and Disposing Entity has an approved budget from public funds toward the cost of the procurement described in the BDS. The Procuring and Disposing Entity intends to use these funds to cover eligible payments under the Contract.

2.2 Payments will be made directly by the Procuring and Disposing Entity and will be subject in all respects to the terms and conditions of the resulting contract placed by the Procuring and Disposing Entity.

3. CORRUPTION AND FRAUD

3.1 The Malawi Government requires that all Bidders comply with the legal framework on corrupt and fraudulent practices as outlined in the Anti-Corruption legal framework in Malawi.

3.2 In line with the existing anti-corruption law and policy, and as provided in this clause, a Bidder, including its agents, sub-contractors, sub-consultants, service providers, suppliers, and personnel are subject to the signed Anti-Corruption Declaration in the Bidding documents as part of the qualification criteria.

4. ELIGIBLE BIDDERS

4.1 A Bidder may be a natural person, legal person, government-owned entity or any combination of them with a formal intent to enter into an agreement or under an existing agreement in the form of a joint venture, consortium, or association. In the case of a joint venture, consortium, or association all parties shall be jointly and severally liable.

4.2 Bidders intending to enter into a joint venture arrangement should submit a letter of intent together with their Bid.

4.3 A Bidder wishing to be considered for preferences and other reservation schemes as micro, small and medium-sized enterprise (MSME) shall comply with Public Procurement and Disposal of Public Assets (Participation by Micro Small and Medium Enterprises) Order 2020 (MSME Order).

4.4 A Bidder found to be in conflict of interest shall be disqualified from participating in the Bidding process. A Bidder may be considered to have a conflict of interest with one or more parties in a Bidding process, if the Bidder is associated or have been associated in the past, directly or indirectly, with a firm or any of its affiliates which have been engaged by the Government of Malawi to provide consulting services for the preparation of the design, specifications, and other documents to be used for the procurement of the goods to be purchased under this Invitation for Bids.

4.5.1 A Bidder that has been debarred from participating in public procurement in accordance with Section 79 of the Act, at the date of the deadline for Bid submission or thereafter, shall be ineligible.

4.6 Government-owned enterprises shall be eligible if they can establish that they are legally and financially autonomous and are not a dependent agency, directly or indirectly, of the Procuring and Disposing Entity or the Government of Malawi.

4.7 A Bidder shall provide evidence of their eligibility satisfactory to the Procuring and Disposing Entity, to verify that the Bidder—

(a) has the legal capacity to enter into an Agreement and is registered with appropriate professional regulatory institution as required by existing legislation;

(b) is not insolvent, in receivership, bankrupt or being wound up, not have had their business activities suspended and not be the subject of legal proceedings for any of the foregoing; and

(c) has fulfilled their tax obligations in accordance with the relevant tax laws.

4.7.1 To demonstrate compliance with the criteria in Sub-Clause 4.7, a Bidder shall submit with its Bid—

(a) its business registration certificate;
(b) professional registration certificate where applicable based on the business the Bidder does;
(c) a declaration that it is not debarred;
(d) tax registration certificates for the Bidders issued by the Malawi Revenue Authority;
(e) tax clearance certificates for the Bidders issued by the Malawi Revenue Authority;
(f) a supplier registration certificate issued by the Public Procurement and Disposal of Public Assets Authority; and
(g) such other documentary evidence as may be specified in the BDS.

5 ELIGIBLE GOODS AND RELATED SERVICES

5.1 All goods and related services to be supplied under the Contract shall have as their country of origin, an eligible country in accordance with Section 5, Eligible Countries.

5.1 For purposes of this Clause, the term "goods" includes commodities, raw materials, machinery, equipment, and industrial plants; and "related services" includes services such as insurance, installation, training, and initial maintenance.

5.2 The term "country of origin" means the country where the goods have been mined, grown, cultivated, produced, manufactured, or processed; or through manufacture, processing, or assembly, another commercially recognised article results that differs substantially in its basic characteristics from its imported components.

5.3 The nationality of the company that assembles, distributes, or sells the goods shall not determine their origin of the goods.

5.4 If required in the BDS, a Bidder shall demonstrate that it has been duly authorised by the manufacturer of the goods to supply, in the Republic of Malawi, the goods indicated in its Bid.

B. BIDDING DOCUMENTS

6 SECTIONS OF BIDDING DOCUMENT

6.1 The Bidding Document consists of Parts 1, 2, and 3, which include all the following Sections which shall be read in conjunction with any Addenda issued in accordance with clause 8.

Part 1 Bidding Procedures
(a) Section 1 Instructions to Bidders (ITB)
(b) Section 2 Bid Data Sheet (BDS)

(c) Section 3 Evaluation and Qualification Criteria (EQC)
(d) Section 4 Bidding Forms
(e) Section 5 Eligible Countries
(f) Section 6 Corruption and Fraud

Part 2 Supply Requirements
Section 7 Statement of Requirements

Part 3 Contract
(a) Section 8 General Conditions of Contract (GCC)
(b) Section 9 Special Conditions of Contract (SCC)
(c) Section 10 Contract Forms

6.2 The Invitation to Bid is not part of the Bidding Document

6.3 The Procuring and Disposing Entity is not responsible for the completeness of the Bidding Documents and their addenda if they were not obtained directly from the Procuring and Disposing Entity. A Bidder who did not obtain the Bidding Document directly from the Procuring and Disposing Entity shall be rejected during evaluation. Where a Bidding Document is obtained from the Procuring and Disposing Entity on a Bidder's behalf, the Bidder's name must be registered with the Procuring and Disposing Entity at the time of sale and issue.

6.4 The Bidder shall examine all instructions, forms, terms, and specifications in the Bidding Documents.

6.5 Failure to furnish all information or documentation required by the Bidding Documents may result in the rejection of the Bid.

7 CLARIFICATION OF BIDDING DOCUMENT

7.1 A prospective Bidder requiring any clarification of a Bidding Document shall submit a request for clarification to the Procuring and Disposing Entity in writing at the Procuring and Disposing Entity's address indicated in the BDS.

7.2 The Procuring and Disposing Entity shall respond in writing to any request for clarification, provided that such request is received no later than fourteen (14) days prior to the deadline for submission of Bids.

7.3 The Procuring and Disposing Entity shall forward copies of its response to all Bidders who acquired the Bidding Documents directly from it, including a description of the inquiry but without identifying its source.

7.4 Where a Procuring and Disposing Entity determines that it is necessary to amend the Bidding Document as a result of a clarification given under this paragraph, it shall amend the Bidding Document following the procedure under clause 8.

8 AMENDMENT TO BIDDING DOCUMENTS

7.1 At any time prior to the deadline for submission of Bids, the Procuring and Disposing Entity may amend the Bidding Documents by issuing addenda.

8.2 Any addendum issued shall be part of the Bidding Documents and shall be communicated in writing to all Bidders who have obtained the bidding Documents directly from the Procuring and Disposing Entity.

8.3 To give prospective Bidders reasonable time in which to take an addendum into account in preparing their Bids, the Procuring and Disposing Entity may, at its discretion, extend the deadline for the submission of Bids, pursuant to sub-clause 24.2.

C. PREPARATION OF BIDS

9 COST OF BIDDING

A Bidder shall bear all costs associated with the preparation and submission of its Bid, and the Procuring and Disposing Entity shall not be responsible or liable for those costs, regardless of the conduct or outcome of the Bidding process, except as provided for under Section 83 (10) (d) of the Act.

10 LANGUAGE OF BID

10.1 All communication in the Bidding process shall be in English and in writing unless otherwise specified in the BDS.

10.2 The Bid including correspondence and documents relating to the Bid exchanged by the Bidder and the Procuring and Disposing Entity, shall be written in English unless otherwise specified in the BDS.

10.3 Supporting documents and printed literature which are part of the Bid may be in another language provided that the documents are accompanied by an accurate translation of the relevant passages in English, in which case, for purposes of interpretation of the Bid, such translation shall govern.

11 DOCUMENTS COMPRISING THE BID

The Bid shall comprise the following documents—

(a) the Bid Submission Sheet and the applicable Price Schedules in accordance with clause 12;

(b) a Bid Security or a Bid Securing Declaration, in accordance with clause 21;

(c) alternative Bids, if permissible, in accordance with clause13;

(d) written confirmation authorising the signatory of the Bid to commit the Bidder, in accordance with clause 22;

(e) documentary evidence in accordance with clause 16 establishing the Bidder's eligibility to Bid;
(f) documentary evidence in accordance with clause 17, establishing that the Goods and Related Services to be provided by the Bidder are of eligible origin;
(g) documentary evidence in accordance with clause 18, that the Goods and Related Services conform to the Bidding Documents;
(h) documentary evidence in accordance with clause 19 establishing the Bidder's qualifications to perform the contract if its Bid is accepted; and
(i) any other documents required in the BDS.

12 BID SUBMISSION SHEET AND PRICE SCHEDULES

12.1 A Bidder shall submit the Bid Submission Sheet using the form furnished in Section 4, Bidding Forms. The form must be completed without any alterations to its format, and no substitutes shall be accepted. All blank spaces shall be filled in with the information requested, as follows—

(a) the reference of the Bidding Document and the number of each addendum received;
(b) a brief description of the Goods and Related Services offered;
(c) the total Bid price;
(d) any discounts offered and the methodology for their application;
(e) the period of validity of the Bid;
(f) a commitment to submit a Performance Security required and the amount;
(g) a declaration of nationality of the Bidder;
(h) a declaration that the Bidder, including all parties comprising the Bidder, is not participating, as a Bidder, in more than one Bid in this Bidding process; except for alternative Bids in accordance with clause 13;
(i) confirmation that the Bidder has not been declared ineligible or suspended by the Public Procurement and Disposal of Public Asset Authority and any of Malawi's development partners who have entered into a cross-debarment agreement with Malawi;
(j) a declaration concerning investigations relating to any other public procurement tender exercise or awarded contract;
(k) a declaration on gratuities and commissions;
(l) the names and addresses of the Directors and Beneficial owners of the Bidder;
(m) a declaration concerning the country of registration the Bidder; and
(n) an authorised signature of the Bidder.

12.2 The Bidder shall submit the Price Schedules for Goods and Related Services, using the forms provided in Section 4, Bidding Forms. The Price Schedule Forms shall include—

(a) the item number;
(b) a brief description of the Goods or Related Services to be supplied;
(c) their country of origin and percentage of national content for Goods manufactured in Malawi;
(d) the quantity, which shall be the estimated quantity specified in Section 7, Statement of Requirements;
(e) the total price per item;
(f) the unit prices;
(g) customs duties and all taxes paid or payable in Malawi;
(h) levy from the Authority;
(i) subtotals and totals per Price Schedule; and
(j) authorised signature.

13 ALTERNATIVE BIDS

13.1 Unless otherwise indicated in the BDS, alternative Bids shall not be considered.

13.2 Where permitted, alternative Bids do not need to conform precisely to the Statement of Requirements, but shall at least—

(a) meet the objectives and performance requirements prescribed in the Statement of Requirements;
(b) be substantially within any delivery or completion schedule, budget or other performance parameters stated in the Bidding document; and
(c) clearly state the benefits of the alternative Bid over any solution which conforms precisely to the Statement of Requirements, in terms of technical performance, price, operating costs or any other benefit.

13.3 A Bidder may submit both a main Bid, which conforms, precisely to the Statement of Requirements and an alternative Bid.

13.4 Where a Bidder submits more than one Bid, each Bid shall be submitted as a separate Bid and shall conform to the instructions for preparation and submission of Bids in its own right, without any reliance on any other Bid. Each Bid shall be signed separately, authorised, sealed, labelled and submitted in accordance with the instructions for submission of Bids and shall be accompanied by a separate Bid Security or Bid Securing Declaration, if so required. Such Bids shall be labelled "Main Bid" and "Alternative Bid".

13.5 The evaluation of alternative Bids shall use the same methodology, criteria and weights as the evaluation of main Bids, except that the detailed technical evaluation shall consider only the objectives and/or performance requirements prescribed in the Statement of Requirements.

14 BID PRICES AND DISCOUNTS

14.1 The prices and discounts quoted by the Bidder in the Bid Submission Sheet and in the Price Schedules shall conform to the requirements in this clause.

14.2 All items in the Statement of Requirements shall be listed and priced separately in the Price Schedules. If a Price Schedule shows items listed but not priced, their prices shall be assumed to be included in the prices of other items. Items not listed in the Price Schedule shall be assumed to be not included in the Bid, and provided that the Bid is substantially responsive, the corresponding adjustment shall be applied in accordance with sub-clause 31.3.

14.3 The price to be quoted in the Bid Submission Sheet, in accordance with Sub-Clause12.1(c), shall be the total price of the Bid, excluding any discounts offered.

14.4 The Bidder shall quote any unconditional discounts and the methodology for their application in the Bid Submission Sheet, in accordance with sub-clause12.1(d).

14.5 The terms EXW (Ex Works), CIF (Cost Insurance & Freight), CIP (Carriage & Insurance Paid), and other similar terms shall be governed by the rules prescribed in the current edition of Incoterms, published by The International Chamber of Commerce, at the date of the Invitation for Bids or as specified in the BDS.

14.6 Prices proposed on the Price Schedule Forms for Goods and Related Services, shall be disaggregated solely for the purpose of facilitating the comparison of Bids by the Procuring and Disposing Entity. This shall not in any way limit the Procuring and Disposing Entity's right to contract on any of the terms offered:

(a) for Goods—

(i) the price of the goods shall be quoted Delivery Duty Paid(DDP) named place of delivery, or as specified in the BDS;

(ii)

(iii) all Malawian customs duties, levies and sales and other taxes already paid or payable on the goods or on the components and raw material used in the manufacture or assembly if the contract is awarded to the Bidder;

(iv) Levies imposed by the Public Procurement and Disposal of Public Assets Authority ; and

(v) the total price for the item.

(b) For related services—

(i) the price of the related services;

(ii) all Malawian customs duties, levies and sales and other taxes already paid or payable on the related services if the contract is awarded to the Bidder;

(iii) levies imposed by the Public Procurement and Disposal of Public Assets Authority; and

(iv) the total price for the item.

14.7 Prices quoted by the Bidder shall be fixed during the Bidder's performance of the Contract and not subject to variation on any account, unless otherwise specified in the BDS.

14.8 A Bid submitted with an adjustable price quotation shall be treated as non-responsive and shall be rejected, pursuant to clause 30. However, if in accordance with the BDS, prices quoted by the Bidder shall be subject to adjustment during the performance of the Contract, a Bid submitted with a fixed price quotation shall not be rejected, but the price adjustment shall be treated as zero.

14.8 If indicated in sub-clause1.1, Bids are being invited for individual contracts (lots) or for any combination of contracts (packages). Bidders wishing to offer any price reduction for the award of more than one Contract shall specify in their Bid the price reductions applicable to each package, or alternatively, to individual Contracts within the package. Price reductions or discounts shall be submitted in accordance with Sub-Clause14.4, provided the Bids for all lots are submitted and opened at the same time.

14.9 If so indicated in Sub-Clause1.1, Bids are being invited for individual contracts (lots) or for any combination of contracts (packages). Prices quoted shall correspond to one hundred (100) % of the items specified for each lot and to one hundred (100) % of the quantities specified for each item of a lot. Bidders wishing to offer any price reduction for the award of more than one Contract shall specify in their Bid the price reductions applicable to each package or, alternatively, to individual contracts within the package. Price reductions shall be submitted in accordance with sub-clause14.4, provided the Bids for all lots are submitted and opened at the same time.

15 CURRENCY OF BID

Bidders shall quote their Bids in Malawi Kwacha.

16 DOCUMENTS ESTABLISHING THE ELIGIBILITY OF THE BIDDER

To establish their eligibility in accordance with clause 4, a Bidder shall complete the eligibility declarations in the Bid Submission Sheet, included in Section 4, Bidding Forms.

17 DOCUMENTS ESTABLISHING THE ELIGIBILITY OF GOODS AND RELATED SERVICES

To establish the eligibility of the Goods and Related Services, in accordance with clause 5, Bidders shall complete the country-of-origin declarations in the Price Schedule Forms, included in Section 4, Bidding Forms.

18 DOCUMENTS ESTABLISHING THE CONFORMITY OF THE GOODS AND RELATED SERVICES TO THE BIDDING DOCUMENTS

18.1 To establish the conformity of Goods and Related Services to the Bidding Document, a Bidder shall furnish as part of its Bid the documentary evidence specified in Section 6, Statement of Requirements.

18.2 The documentary evidence may be in the form of literature, drawings or data, and shall consist of a detailed description of the essential technical and performance characteristics of the Goods and Related Services, demonstrating substantial responsiveness of the Goods and Related Services to those requirements, and if applicable, a statement of deviations and exceptions to the provisions of the Statement of Requirements.

18.3 Standards for workmanship, process, material, and equipment, as well as references to brand names or catalogue numbers specified by the Procuring and Disposing Entity in the Statement of Requirements, are intended to be descriptive only and not restrictive. The Bidder may offer other standards of quality, brand names, and/or catalogue numbers, provided that it demonstrates, to the Procuring and Disposing Entity's satisfaction, that the substitutions ensure substantial equivalence or are superior to those specified in the Statement of Requirements.

19 DOCUMENTS ESTABLISHING THE QUALIFICATIONS OF THE BIDDER

To establish qualifications to perform the Contract, a Bidder shall submit the evidence indicated for each qualification criterion specified in Section 3, Evaluation and Qualification Criteria.

20 PERIOD OF VALIDITY OF BIDS

20.1 Bids shall remain valid for the period specified in the BDS after the Bid submission deadline prescribed by the Procuring and Disposing Entity. The Procuring and Disposing Entity shall reject a Bid valid for a shorter period as non-responsive.

20.2 In exceptional circumstances, prior to expiry of the Bid validity period, the Procuring and Disposing Entity may request Bidders to extend the period of validity of their Bids. The request and the responses shall be made in writing.

20.3 If a Bid Security or Bid Securing Declaration is requested in accordance with clause 21, it shall also be extended for a corresponding period. A Bidder may refuse the request without forfeiting its Bid Security. Similarly, if a Bid Securing Declaration is requested in accordance with clause 21, it shall be extended for a corresponding period. A Bidder may refuse the request without bearing any

consequence whatsoever. A Bidder granting the request shall not be required or permitted to modify its Bid, except as provided in sub-clause 26.1.

20.4 In the case of fixed price contracts, if the award is delayed by a period exceeding sixty (60) days beyond the expiry of the initial Bid validity, the Contract price shall be adjusted by a factor specified in the request for extension. Bid evaluation shall be based on the Bid Price without taking into consideration the above correction.

21 BID SECURITY AND BID SECURING DECLARATION

21.1 Unless otherwise specified in the BDS, a Bidder shall furnish as part of its Bid, a Bid Security or a Bid Securing Declaration in original form and for Bid Security in the amount for the Bid Security specified in the BDS.

21.2 The Bid Security shall be in any of the following forms—

(a) Bank Demand Guarantee; or
(b) Bank certified cheque,
Both the guarantee or bank cheque shall be from a reputable bank within Malawi. The Bid security shall be submitted using the Bid Security Form included in Section 4, Bidding Forms, acceptable to the Procuring and Disposing Entity. In either case, the form must include the complete name of the Bidder. The Bid Security shall be valid for twenty-eighty days beyond the end of the validity period of the Bid. This shall also apply if the period for Bid validity is extended.

21.3 The Procuring and Disposing Entity shall reject, as non-compliant, any Bid that is not accompanied by a substantially responsive Bid Security or a Bid Security Declaration, if a Bid Security or a Bid Security Declaration is required in accordance with clause 21.1.

21.4 The Bid Securities shall be returned as promptly as possible upon the successful Bidder signing the contract and furnishing Performance Security.

21.5 The Bid Security may be forfeited—

(a) if a Bidder withdraws its Bid during the period of Bid validity specified by the Bidder on the Bid Submission Sheet, except as provided in sub-clause 21.2; or
(b) if the successful Bidder fails to—
(i) sign the Contract in accordance with clause 45;
(ii) furnish a performance security in accordance with clause 44; or
(iii) accept the correction of its Bid Price pursuant to sub-clause 31.5.

In the alternative:

21.6 Unless otherwise specified in the BDS, the Bidder shall furnish as part of its Bid, a Bid Securing Declaration in original as specified in the BDS.

21.7 The Bid Securing Declaration of unsuccessful Bidders shall be cancelled as promptly as possible upon the successful Bidder's furnishing of the Performance Security pursuant to Clause 44.

21.8 The Bid Securing Declaration of the successful Bidder shall not be returned to the Bidder but retained in procurement file as part of records once the successful Bidder has signed the Contract and furnished the required performance security.

21.9 The Bid Securing Declaration shall be valid for twenty-eight (28) calendar days up to and after the end of the validity period of the Bid. This shall also apply if the period for Bid validity is extended.

21.10 The Procuring and Disposing Entity shall, reject as non-responsive, a Bid not accompanied by a substantially responsive Bid Securing Declaration, if one is required in accordance with sub-clause 21.6.

21.11 The Bid Securing Declaration of unsuccessful Bidders shall not be returned to the owners upon the successful Bidder's signing of the contract or furnishing of the performance security pursuant to clause 45 but will remain in the Procuring and Disposing Entity's procurement files for record purposes only.

21.12 Failure by the Procuring and Disposing Entity to allow Bidders use the Bid Securing Declaration Form may lead to a punishable offense.

22 FORMAT AND SIGNING OF BID

22.1 A Bidder shall prepare one original of the documents comprising the Bid as described in Clause11 and clearly mark it "ORIGINAL." In addition, the Bidder shall submit copies of the Bid, in the number specified in the BDS and clearly mark them "COPY." In the event of any discrepancy between the original and the copies, the original shall prevail.

22.2 The original and all copies of the Bid shall be typed or written in indelible ink and shall be signed by a person duly authorised to sign on behalf of the Bidder. The name and position held by each person signing the authorisation must be typed or printed below the signature. All pages of the Bid, except for un-amended printed literature, shall be signed or initialled by the person signing the Bid.

22.3 Any interlineation, erasures, or overwriting shall be valid only if they are signed or initialled by the person signing the Bid.

D. SUBMISSION AND OPENING OF BIDS

23 SEALING AND MARKING OF BIDS

23.1 A Bidder shall enclose the original and each copy of the Bid, including alternative Bids, if permitted in accordance with clause 13, in separate sealed envelopes, duly marking the envelopes as "ORIGINAL" and "COPY." These envelopes containing the original and the copies shall then be enclosed in one single envelope, securely sealed in such a manner that opening and resealing cannot be achieved undetected.

23. 2 The inner and outer envelopes shall—

(a) be addressed to the Procuring and Disposing Entity in accordance with BDS; and

(b) bear the procurement reference number indicated in the BDS.

23.3 The inner envelopes shall also indicate the name and address of the Bidder to enable the Bid to be returned unopened in case it is declared "late" pursuant to clause 25.1.

23.4 If all envelopes are not sealed and marked as required, the Procuring and Disposing Entity shall assume no responsibility for the misplacement or premature opening of the Bid.

24 DEADLINE FOR SUBMISSION OF BIDS

24.1 Bids must be received by the Procuring and Disposing Entity at the address and no later than the date and time indicated in the BDS.

24.2 The Procuring and Disposing Entity may, at its discretion, extend the deadline for the submission of Bids by amending the Bidding Documents in accordance with clause 8, in which case all rights and obligations of the Procuring and Disposing Entity and Bidders previously subject to the deadline shall thereafter be subject to the deadline as extended.

25 LATE BIDS

The Procuring and Disposing Entity shall not consider any Bid that is delivered and arrives after the deadline for submission of Bids. Any Bid received by the Procuring and Disposing Entity after the deadline for submission of Bids shall be declared late, rejected, and returned unopened to the Bidder.

26 MODIFICATIONS, SUBSTITUTIONS AND WITHDRAWAL OF BIDS

26.1 A Bidder may modify, substitute or withdraw its Bid after it has been submitted by sending a written notice, duly signed by an authorised representative. The corresponding substitution or modification of the Bid must accompany the respective written notice. All notices must be—

(a) submitted in accordance with clause 23 (except for withdrawal notices which do not require copies), and in addition, the respective

envelopes shall be clearly marked "Withdrawal," "Substitution," or "Modification;" and

(b) received by the Procuring and Disposing Entity prior to the deadline prescribed for submission of Bids, in accordance with clause 24.

26.2 Bids requested to be withdrawn in accordance with sub-clause 26.1 shall be returned unopened to the Bidders.

26.3 No Bid may be withdrawn, substituted, or modified in the interval between the deadline for submission of Bids and expiry of the period of Bid validity specified by the Bidder on the Bid Submission Sheet or any extension thereof.

26.4 Bids may only be modified by withdrawal of the original Bid and submission of a replacement Bid in accordance with sub-clause 26.1. Modifications submitted in any other way shall not be taken into account in the evaluation of Bids.

27 BID OPENING

27.1 The Procuring and Disposing Entity shall conduct the Bid opening in the presence of Bidders` designated representatives who choose to attend the Bid opening, and at the address, date and time specified in the BDS.

27.2 Envelopes marked "WITHDRAWAL" shall be opened and read out and the envelope with the corresponding Bid shall not be opened but returned to the Bidder.

27.3 No Bid withdrawal shall be permitted unless the corresponding withdrawal notice contains a valid authorisation to request the withdrawal and is read out at Bid opening.

27.4 Envelopes marked "SUBSTITUTION" shall be opened and read out and exchanged with the corresponding Bid being substituted, and the substituted Bid shall not be opened, but returned to the Bidder. No Bid substitution shall be permitted unless the corresponding substitution notice contains a valid authorisation to request the substitution and is read out at Bid opening.

27.5 Envelopes marked "MODIFICATION" shall be opened and read out with the corresponding Bid. No Bid modification shall be permitted unless the corresponding modification notice contains a valid authorisation to request the modification and is read out at Bid opening. Only envelopes that are opened and read out at Bid opening shall be considered further.

27.6 All other envelopes shall be opened one at a time, reading out: the name of the Bidder and whether there is a modification; the Bid Prices, including any discounts and alternative offers; the presence of a Bid Security, if required; and any other details as the Procuring and Disposing Entity may consider appropriate. No Bid shall be rejected at Bid opening except for late Bids, in accordance with clause 25.

27.7 The Procuring and Disposing Entity will prepare a record of the Bid opening that shall include, as a minimum—

(a) the name of the Bidder and whether there is a withdrawal, substitution, or modification; and

(b) the Bid Price per lot if applicable, including any discounts and alternative offers; and the presence or absence of a Bid security or Bid securing declaration, if one was required.

27.8 The Bidders' representatives who are present shall be requested to sign the record. The omission of a Bidder's signature on the record shall not invalidate the contents and effect of the record. A copy of the record shall immediately after opening be distributed to Bidders upon request or published on the website of the Procuring and Disposing Entity within one working day from the date of the Bid opening.

E. EVALUATION AND COMPARISON OF BIDS

28 CONFIDENTIALITY

28.1 Information relating to the examination, evaluation, comparison, and post qualification of Bids, and recommendation of contract award, shall not be disclosed to Bidders or any other persons not officially concerned with such process until information on Contract award is communicated to all Bidders.

28.2 Any effort by a Bidder to influence the Procuring and Disposing Entity in the examination, evaluation, comparison, and post-qualification of the Bids or Contract award decisions shall result in the rejection of its Bid.

28.3 Notwithstanding sub-clause 28.2, from the time of Bid opening to the time of Contract award, if any Bidder wishes to contact the Procuring and Disposing Entity on any matter related to the Bidding process, it should do so in writing.

29 CLARIFICATION OF BIDS

29.1 To assist in the examination, evaluation, comparison and post qualification of a Bid, the Procuring and Disposing Entity may, in writing , request any bidder for a clarification of its Bid.

29.2 Any clarification submitted by a Bidder that is not in response to a request by the Procuring and Disposing Entity shall not be considered. The Procuring and Disposing Entity's request for clarification and the response shall be in writing.

29.3 No change in the prices or substance of the Bid shall be sought, offered, or permitted, except to confirm the correction of arithmetic errors discovered

by the Procuring and Disposing Entity in the evaluation of the Bids, in accordance with clause 31.

30 EXAMINATION AND DETERMINATION OF RESPONSIVENESS OF BIDS

30.1 The Procuring and Disposing Entity's determination of a Bid's compliance and responsiveness shall be based on the contents of the Bid.

30.2 A substantially responsive Bid shall be one that conforms to all the terms, conditions, and specifications of the Bidding Documents without material deviation, reservation, or omission. A material deviation, reservation, or omission is one that-

(a) affects in any substantial way the scope, quality, or performance of the Goods and Related Services specified in the Contract;

(b) limits in any substantial way, inconsistent with the Bidding Documents, the Procuring and Disposing Entity's rights or the Bidder's obligations under the Contract; or

(c) if rectified, would unfairly affect the competitive position of other Bidders presenting substantially responsive Bids.

30.3 A Bid shall be rejected if it is not substantially responsive to the Bidding Documents and may not subsequently be made responsive by the Bidder by correction of the material deviation, reservation, or omission.

31 NONCONFORMITIES, ERRORS, AND OMISSIONS

31.1 Where a Bid is substantially responsive, the Procuring and Disposing Entity may waive any non-conformity or omissions in the Bid that does not constitute a material deviation.

31.2 Provided that the Procuring and Disposing Entity may request that the Bidder submit the necessary information or documentation, within a reasonable period of time, to rectify nonmaterial nonconformities or omissions in the Bid related to documentation requirements. Such omission shall not be related to any aspect of the price of the Bid. Failure of the Bidder to comply with the request may result in the rejection of its Bid.

31.3 Where a Bid is substantially responsive, the Procuring and Disposing Entity shall rectify nonmaterial nonconformities or omissions. To this effect, the Bid Price shall be adjusted, for comparison purposes only, to reflect the price of the missing or non-conforming item or component. The adjustment shall be made using the highest price quoted among all the other Bidders for the missing or non-conforming item.

31.4 The Procuring and Disposing Entity shall correct arithmetical errors on the following basis under clause 31.3 as follows—

(a) if there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected, unless there is an obvious misplacement of the decimal point in the unit price, in which case the total price as quoted shall govern and the unit price shall be corrected;

(b) if there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and

(c) if there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to (a) and (b) above.

31.5 If the Bidder that submitted the lowest evaluated Bid does not accept the correction of errors, its Bid shall be disqualified and its Bid Security or Bid Securing Declaration may be forfeited or invalidated respectively.

32 PRELIMINARY EXAMINATION OF BIDS

32.1 The Procuring and Disposing Entity shall examine the Bids to confirm that all documents and technical documentation requested in clause 11 have been provided, and to determine the completeness of each document submitted.

32.2 The Procuring and Disposing Entity shall confirm that the documents listed in this clause and information have been provided in the Bid. If any of the following documents or information is missing, the Bid shall be rejected.

(a) Bid Submission Sheet, including—
- *(i)* a brief description of the Goods and Related Services offered;
- *(ii)* the price of the Bid; and
- *(iii)* the period of validity of the Bid;

(b) Price Schedules;
(c) Written confirmation of authorisation to commit Bidder;
(d) Bid Security, if applicable; and
(e) Bid Securing Declaration, if applicable

33 EXAMINATION OF TERMS AND CONDITIONS

33.1 The Procuring and Disposing Entity shall examine a Bid to confirm that the Bidder has accepted all terms and conditions specified in the BDS and the Special Conditions of Contract without any material deviation or reservation.

33.2 The Procuring and Disposing Entity shall examine the technical aspects of the Bid submitted in accordance with Clause 18, to confirm that all

requirements specified in Section 7, Statement of Requirements of the Bidding Documents, have been met without any material deviation or reservation

33.3 If, after the examination of the terms and conditions and the technical evaluation, the Procuring and Disposing Entity determines that the Bid is not substantially responsive in accordance with clause 30, it shall reject the Bid.

34 PREFERENCES AND RESERVATION SCHEMES

34.1 A Procuring and Disposing Entity may apply a preference if so specified in the BDS. Where a Preference applies the details to be applied shall be provided in Section 3 Evaluation and Qualification Criteria.

34.2 The Procuring and Disposing Entity shall apply the preference for micro, small and medium enterprises and marginalised groups in accordance with the MSME Order or Bidders qualified under Administration of Preferential Treatment. If so specified in the BDS, Bid Evaluation shall be in accordance with the procedures and criteria specified in Section 3, Evaluation and Qualification criteria.

34.3 The Procuring and Disposing Entity shall set aside certain procurement requirements for micro, small and medium enterprises and marginalised groups by restricting Bidding to those enterprises in accordance with MSME Order.

34.4 The Procuring and Disposing Entity shall state in the BDS all procurement that have been set aside for micro, small and medium enterprises.

34.5 In the event that the procurement is not contained in the Schedule under the Order the Procuring and Disposing Entity may reserve some portions of procurement for award to MSMEs and marginalised groups. Such reservations shall be specified in the BDS.

34.6 A Bidder shall be eligible to participate in the Bidding process as Bidders qualified under the Public Procurement and Disposal of Public Assets Act or the MSME Order only if it furnishes the Procuring and Disposing Entity or the Authority, as the case may be evidence, proving eligibility in accordance with relevant Regulations or the MSME Order.

35 DETAILED EVALUATION

35.1 The Procuring and Disposing Entity shall evaluate each Bid that has been determined, up to this stage of the evaluation, to be substantially responsive.

35.2 The Procuring and Disposing Entity shall use all the criteria and methodologies defined in this Clause and in Section 3, Evaluation and Qualification Criteria. No other criteria or methodology shall be permitted.

36 FINANCIAL EVALUATION

36.1 The Procuring and Disposing Entity shall financially evaluate each Bid that has been determined, up to this stage of the evaluation, to be substantially compliant and responsive.

36.2 Bids that have passed detailed evaluation and complied with all the terms and conditions shall be evaluated financially to determine the conformity of prices offered. In doing so, the Procuring and Disposing Entity shall examine the contents of a price to confirm if all taxes or discounts have been taken into account. Thereafter, the Procuring and Disposing Entity shall check arithmetical errors to have correct prices. Bids that have passed all the stages including financial evaluation shall be declared substantially responsive.

36.3 To financially evaluate a Bid, the Procuring and Disposing Entity shall only use the criteria and methodologies defined in this clause and in Section 3, Evaluation Methodology and Criteria. No other criteria or methodology shall be permitted.

36.4 To financially compare Bids, the Procuring and Disposing Entity shall consider the following—

(a) the Bid price;

(b) price adjustment for correction of arithmetic errors in accordance with sub-clause 31.4;

(c) price adjustment due to discounts offered in accordance with sub-clause 12.1 (d);

(d) adjustment for nonconformities and omissions in accordance with Sub-Clause 31.3;

(e) application of all the evaluation factors indicated in Section 3, Evaluation and Qualification Criteria; and

(f) adjustments due to the application of a margin of preference, in accordance with Clause 34.

36.5 In the calculation of the evaluated cost of Bids, the Procuring and Disposing Entity shall exclude and not take into account—

(a) in the case of goods manufactured in the Republic of Malawi or goods of foreign origin already located in the Republic of Malawi, sales and other similar taxes, which will be payable on the goods if a contract is awarded to the Bidder;

(b) in the case of goods of foreign origin offered from abroad, customs duties and other similar import taxes which will be

payable on the goods if the contract is awarded to the Bidder; and

(c) any allowance for price adjustment during the period of execution of the Contract, if provided in the Bid.

36.6 The Procuring and Disposing Entity's evaluation of price of evaluation of a Bid may require the consideration of other factors, in addition to the Bid Price quoted in accordance with clause 12. These factors may be related to the characteristics, performance, and terms and conditions of purchase of the Goods and Related Services. The factors selected, if any, shall be expressed in monetary terms to facilitate comparison of Bids as specified in Section 3, Evaluation and Qualification Criteria. The factors to be used and the methodology of application shall be indicated in Section 3, Evaluation and Qualification Criteria.

36.7 If these Bidding Documents allow Bidders to quote separate prices for different lots, and the award to a single Bidder of multiple lots, the methodology of evaluation to determine the lowest evaluated lot combinations, including any discounts offered in the Bid Submission Sheet, is specified in the BDS and detailed in Section 3 Evaluation and Qualification Criteria

37 COMPARISON AND DETERMINATION OF LOWEST EVALUATED BID

37.1 The Procuring and Disposing Entity shall compare all substantially responsive Bids to determine the lowest evaluated Bid, in accordance with sub-clause 14.6.

37.2 The Procuring and Disposing Entity shall apply the relevant preference as specified in the BDS.

37.3 A successful Bid shal1 be the lowest evaluated Bid subject to any margin of preference provided in the Bidding documents.

38 ENVIRONMENTAL AND SOCIO-ECONOMIC POLICIES

38.1 Bidders shall be evaluated taking into account compliance with Environmental protection policies, laws and regulations applicable in Malawi for sustainable development.

38.2 The Procuring and Disposing Entity may specify in its evaluation criteria, a method to determine or assess how Bidders promote general as well as specific policies and programmes for sustainability and environmental protection.

38.3 Bidders shall be evaluated taking into account its compliance with the protection against Child Labour and other policies, laws and regulations applicable in Malawi as well as policies against exploitative labour.

38.4 Bidders shall be evaluated taking into account compliance with restrictions on Sexual Exploitation and Gender Based Violence and all its prohibition policies, laws and regulations applicable in Malawi and in international conventions or agreements on gender equality

38.5 The Procuring and Disposing Entity may specify in its evaluation criteria, a method to determine or assess how Bidders should show compliance with Child Labour and Unfair Labour Practices, general laws and regulations as well as specific policies and programmes for protection of children from any form of child labour and adherence to applicable fair labour practices.

39 POST-QUALIFICATION OF THE LOWEST EVALUATED BIDDER

39.1 The Procuring and Disposing Entity shall determine whether the Bidder that is selected as having submitted the lowest evaluated and substantially responsive Bid is qualified to perform the contract satisfactorily

39.2 The determination shall be based on an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder, pursuant to clause19, to clarifications in accordance with clause 29 and the qualification criteria indicated in Section 3, Evaluation and Qualification Criteria. Factors not included in Section 3 shall not be used in the evaluation of the Bidder's qualification.

39.3 The Procuring and Disposing Entity may conduct due diligence on certain procurements. In doing so, it shall prepare its own budget for such an activity and shall not rely or depend on the resources of a Bidder. Due diligence reports shall form part of the evaluation data used by the evaluation teams or Internal Procurement and Disposal Committee when making decisions.

39.4 An affirmative determination shall be a prerequisite for award of the Contract to the Bidder. A negative determination shall result in disqualification of the Bid, in which event the Procuring and Disposing Entity shall proceed to the next lowest evaluated Bid to make a similar determination of that Bidder's capabilities to perform satisfactorily.

40 PROCURING AND DISPOSING ENTITY'S RIGHT TO ACCEPT ANY BID, AND TO REJECT ANY OR ALL BIDS.

The Procuring and Disposing Entity reserves the right to accept or reject any Bid, and to annul the Bidding process and reject all Bids at any time prior to contract award, without thereby incurring any liability to Bidders.

F. AWARD OF CONTRACT

41 AWARD CRITERIA

Subject to clause 36, the Procuring and Disposing Entity will award a contract to the Bidder whose Bid has been determined to be substantially responsive

to the Bidding documents and who has offered the lowest evaluated Bid Price.

42 PROCURING AND DISPOSING ENTITY'S RIGHT TO VARY QUANTITIES AT AWARD

At the time the Contract is awarded, the Procuring and Disposing Entity reserves the right to increase or decrease the quantity of Works and Related Goods/ Services originally specified in Section 7, Statement of Requirement, provided this does not exceed the percentages indicated in the BDS, and without any change in the unit prices or other terms and conditions of the Bid and the Bidding Documents.

43 NOTICE OF INTENTION TO AWARD THE CONTRACT, NOTIFICATION OF AWARD, AND CONTRACT NEGOTIATIONS

43.1 Prior to expiry of the period of Bid validity, where a procurement contract is below the threshold for the requirement for publication of an intention to award a contract, the Procuring and Disposing Entity shall notify the successful Bidder, in writing, that its Bid has been accepted. At the same time, the Procuring and Disposing Entity shall also notify all other Bidders of the results of the Bidding processes. The notice of acceptance shall not be sent until all the necessary approvals have been obtained.

43.2 Prior to expiry of the period of Bid validity, the Procuring and Disposing Entity shall publish a Notice of Intention to Award in two widely circulated newspapers and on the Authority's website for a period of fourteen (14) days for any procurement contract in accordance with the threshold set by the Director General before signing the contract.

43.3 Prior to the signing of the contract but after the completion of intention to award proceedings, the Procuring and Disposing Entity may enter into negotiations with the successful Bidder on the modalities for the execution of the contract not changing the material factors of the contract.

43.4 The Notification of Award shall not be sent until all the necessary approvals have been obtained or the fourteen days' standstill period has expired, wherever necessary.

44 PERFORMANCE SECURITY

44.1 Within thirty (30) days of receipt of notification of award from the Procuring and Disposing Entity, a successful Bidder shall furnish the performance security included in Section 10, Contract Forms, or any other form acceptable to the Procuring and Disposing Entity, in accordance with the Special Conditions of Contract.

44.2 Failure of the successful Bidder to submit the Performance Security or sign the Contract shall constitute sufficient grounds for annulment of the award

and forfeiture of the Bid security. In that event, the Procuring and Disposing Entity may award the Contract to the next lowest evaluated Bidder.

45 SIGNING THE CONTRACT

45.1 Promptly after notification or after the elapsing of the fourteen (14) days of the still period, the Procuring and Disposing Entity shall send the successful Bidder the Contract documents.

45.2 Within thirty (30) days of receipt of the Contract documents, the successful Bidder shall sign, date, and return the Contract documents to the Procuring and Disposing Entity to finalise the signing process.

46 SETTLEMENT OF DISPUTES

46.1 Where a dispute arise out of the performance of the contract by either party, such disputes shall be resolved amicably. Should amicable dispute resolution fail, the matter shall be taken to arbitration, depending on the agreement by two parties. However, should arbitration still not yield positive results to either party, either party so wronged shall take the matter to the local courts.

46.2 For purposes of this Contract, the Procuring and Disposing Entity proposes the person named in the BDS to be appointed as Adjudicator under the Contract, at an hourly fee specified in the BDS, plus reimbursable expenses. If the Bidder objects to the Adjudicator proposed by the Procuring and Disposing Entity, he should so state in his Bid, and present an alternative candidate, together with the candidate's daily fees and biographical data.

46.3 If, in the Notification of Award, the Procuring and Disposing Entity and Bidder have not agreed on the appointment of the Adjudicator, the Adjudicator shall be appointed by the Appointing Authority designated in the Special Conditions of Contract at the request of either party.

SECTION 2. BID DATA SHEET (BDS)

Instructions to Bidders (ITB) reference	Data relevant to ITB
A. General	
ITB 1.1	The Procuring and Disposing Entity is: TEVET Authority The number of lots is: **9** The procurement reference number is: **TEVETA-0058-1-26**
ITB 1.1	The subject of the procurement is: Supply and Delivery of Training Tools and Equipment for Lunjika and Thambani Community Skills Development Centres (CSDCs) and Mgayi Community Technical College (CTC) The number and identification of Lots in this Bidding Document is: **9**
ITB 1.2	The Bidding Document is issued under: National Competitive Tender Procedure.
ITB 4.1	The individuals or firms in a joint venture, consortium or association shall be: jointly liable
ITB 5.4	The Bidder *shall* be required to include with its Bid documentation from the Manufacturer of the Goods that it has been duly authorised to supply, in Malawi, the Goods indicated in its Bid.
B. Bidding Documents	
ITB 7.1	For clarification purposes only, the Procuring and Disposing Entity's address is: Attention: **The Chairperson, Internal Procurement and Disposal Committee (IPDC)** Street Address: **Corner African Unity Road/Independence Drive** Name of Building: **TEVETA House** Floor/Room number: **Ground Floor, Procurement and Disposal Unit** City: **Lilongwe** Postal Address: **207213** Telephone: **+265 888 890 938** Email address: **procurement@tevetamw.com** Any Request for clarification shall be received by the procuring and disposing entity no later than: **17th November 2026**

Instructions to Bidders (ITB) reference	Data relevant to ITB
C. Preparation of Bids	
ITB 11 (i)	The Bidder shall submit with its Bid the following additional documents: **(a) Company Registration Certificate** **(b) Latest PPDA Registration Certificate** **(c) Latest MRA Tax Clearance Certificate** **(d) Technical Specifications and Details of Items meeting the minimum specifications required.** **(e) A Bid Securing Declaration form** **(f) Bid Price and Price Schedule**
ITB 14. 5	For Goods and Related Services, the Bidder shall quote prices using the following Incoterms: **INCOTERMS 2020**
ITB 14.7	The prices quoted by the Bidder shall be: FIXED
ITB 20.1	The Bid validity period shall be: **90** days.
ITB 21.1	A Bid Securing declaration ***shall* be** required
D. Submission and Opening of Bids	
ITB 22.1	In addition to the original copy of the Bid, the number of copies required is: **TWO**
ITB 24.1	For **Bid submission purposes** only, the Purchaser's address is: Attention: **The Chairperson, Internal Procurement and Disposal Committee (IPDC)** Street Address: **Corner African Unity Road/Independence Drive** Building Name: **TEVETA House** Floor/Room number: **Procurement and Disposal Unit, Ground Floor** City: **Lilongwe** Postal Address/Post Code: **207213** Country: **MALAWI** **The deadline for Bid submission is:** Date: **30th November 2026** Time: **10:00 Hours**
ITB 27.1	The **Bid opening** shall take place at: **TEVETA Secretariat** Building Name: **TEVETA House** Street Address: **Corner African Unity Road/Independence Drive**

Instructions to Bidders (ITB) reference	Data relevant to ITB
	Floor/Room number: **TEVETA Boardroom, Second Floor** City: **Lilongwe** Country: **MALAWI** Date: **30th November 2026** Time: **10:00 Hours**
E. Evaluation, and Comparison of Bids	
ITB 34	A margin of preference in favour of micro, small and medium enterprises (*shall not)* apply Where the Margin of preference applies, it shall be:
ITB 34.4; 34.5	The following procurements have been set aside for MSMEs and marginalised groups:
F. Award of Contract	
ITB 42	The percentage by which quantities may be increased is: 15% The percentage by which quantities may be decreased is: 15%

SECTION 3. EVALUATION AND QUALIFICATION CRITERIA

This section, read in conjunction with Section 1, Instructions to Bidders, and Section 2, Bid Data Sheet, contains all the factors, methods and criteria that the Procuring and Disposing Entity shall use to evaluate a Bid and determine whether a Bidder has the required qualifications. No other factors, methods or criteria shall be used.

1. ADDITIONAL EVALUATION FACTORS

1.1 In accordance with Clause 36.4(e), the Procuring and Disposing Entity shall, when evaluating Bids, take into account, in addition to the Bid price, the following factors which will be quantified as specified in 1.2 below—

(a) compliance with the minimum technical specification is required for all items marked as mandatory;

(b) for non-mandatory items, all deviations will be reviewed, and those items with inferior specifications subjected to an adjustment to the Bid price;

(c) the delivery schedule offered by the Bidder; and

(d) the payment schedule proposed by the Bidder.

1.2 The factors specified in 1.1 will be quantified as follows—

(a) failure to meet or exceed the specified minimum technical specifications for mandatory requirements will result in rejection of the Bid. Superior specifications will be considered on the same basis as those Bids meeting the minimum technical specification;

(b) for each non-mandatory technical specification, Bids offering a lower specification of the item will be reviewed, and a notional adjustment made to the Bid price for evaluation purposes only. For each percentage drop in the specification offered against the required technical specification, a corresponding percentage of the estimated cost of replacement of the item with a fully conforming specification will be added to the Bid price for evaluation. Bids with inferior non-mandatory technical specifications or a performance of less than 75% of the required item specification may be subject to rejection. Superior specifications will be considered on the same basis as those Bids meeting the minimum technical specification;

(c) late delivery schedules proposed by the Bidder will result in a 1% addition to the Bid Price (for evaluation purposes only) for each week of delay up to a maximum of 15%. Bids offering delivery schedules later than [number] months after the specified delivery period may be rejected at the discretion of the Procuring Entity; and

(d) for payment schedules proposed by the Bidder which would result in earlier payment to the Supplier than that proposed in the Bidding documents, the difference in the net present value of the Bidder's proposal shall be added to the Bid price for evaluation purposes.

2. EVALUATION OF MULTIPLE CONTRACTS

If in accordance with sub-clause 36.7, the Procuring and Disposing Entity is allowed to award one or multiple lots to more than one Bidder. The Procuring and Disposing Entity shall determine the lowest-evaluated lot combinations, by—

(a) evaluating only lots or contracts that include at least the percentages of items per lot and quantity per item as specified in clause 14.9 of the ITB; and

(b) considering –

(i) the lowest-evaluated Bid for each lot that meets the requirement of evaluation criteria;

(ii) the price reduction per lot and the methodology for their application as offered by the Bidder in its Bid; and

(iii) the contract-award sequence that provides the optimum economic combination, taking into account any limitations due to constraints in supply or execution capacity determined in accordance with the post-qualification criteria, as set in ECQ Clause 4, Post Qualification.

3. MARGIN OF PREFERENCE AND SET ASIDES

The Procuring and Disposing Entity shall grant a margin of preference to locally manufactured goods or goods supplied from within Malawi by Malawian suppliers for the purpose of Bid comparison, in accordance with the procedures outlined in clause 34 of the ITB of the Bidding Document.

Similarly, marginalised groups shall have procurements set aside for them in accordance with the regulations and in the manner prescribed in the EQC.

4. POST QUALIFICATION

After determining the lowest-evaluated Bid in accordance with Sub-Clause 37.1, the Procuring and Disposing Entity shall carry out the post-qualification of the Bidder in accordance with clause 39 of the ITB, using only the factors, methods and criteria specified below. Factors not included in this Section shall not be used in the evaluation of the Bidder's qualification.

5. PARTICIPATION BY MICRO, SMALL AND MEDIUM ENTERPRISES

If so, indicated in the Bid Data Sheet, Bidders for goods contracts applying for a margin of preference for participation by micro, small and medium enterprises (MSME Order) in Bid evaluation shall provide such information, including details of ownership, certificates of registration, certificate of the category within the MSME Order as are necessary to confirm whether a

particular Bidder or group of Bidders qualifies for preference based on being a micro, small and medium enterprise.

A margin of preference may be awarded to established MSME contractors who are registered as Malawian contractors by the National Construction Industry Council, and Ministry of Trade.

The margin of preference for MSMEs shall be applied as follows: —

After Bids have been received and reviewed by the Procuring and Disposing Entity, responsive Bids shall be classified into the following groups—

Group A, namely, Bids offered by MSMEs Bidders and joint ventures eligible for the preference.

Group B, namely, Bids offered by other Bidders.

For the purpose of evaluation and comparison of Bids only, an amount equal to the percentage, as indicated in the MSME Order, of the Bid amount shall be added to Bids received from Bidders in Group B.

SECTION 4. BIDDING FORMS

[Input of Information to be completed by Bidder]

BID SUBMISSION SHEET

Date: [*insert date (as day, month and year) of Bid Submission*] ……/……../……

Procurement Reference Number: [*insert reference number*] …….

To: [*insert complete name of Procuring and Disposing Entity*]……..

……..

We, the undersigned, declare that:

We have examined and have no reservations to the Bidding Documents, including Addenda No: [*insert the number and issuing date of each Addenda*];

We offer to supply in conformity with the Bidding Documents and in accordance with the delivery schedule specified in the Statement of Requirements the following Goods and Related Services: [*insert a brief description of the Goods and Related Services*];

The total price of our Bid is: [*insert the total Bid price in words and figures, indicating the various amounts and the respective currencies*];

Our Bid shall be valid for a period of [*specify the number of calendar days*] days from the date fixed for the Bid submission deadline in accordance with the Bidding Documents, and it shall remain binding upon us and may be accepted at any time before expiry of that period;

We, including any subcontractors for any part of the contract resulting from this procurement process, are eligible to participate in public procurement in accordance with clause 4 of the ITB and have not been suspended by the Public Procurement and Disposal of Assets Authority in Malawi from participating in public procurement;

We, including any subcontractors for any part of the contract resulting from this procurement process, are eligible to participate in public procurement in accordance with clause 4 of the ITB and have not been debarred by the Authority or any cooperating partner which has entered into a cross debarment agreement with the Authority;

We are not participating, as Bidders, in more than one Bid in this Bidding process;

We do not have any conflict of interest and have not participated in the preparation of the original Statement of Requirements for the Procuring and Disposing Entity; and

Our firm, its affiliates or subsidiaries, including subcontractors or suppliers for any part of the contract are not under investigation by the Anti-Corruption Bureau or any other law enforcement body in Malawi relating to participation in any public procurement tender exercise or execution of any public procurement contract relating to the purchase of goods, works and services by any Procuring and Disposing Entity.

The names and physical addresses of the Directors of our firm are provided in the table below

NAME	ADDRESS

The names and physical addresses of the Beneficial owners of our company are provided in the table below

NAME	ADDRESS

If our Bid is accepted, we commit to obtain a performance security in accordance with the Bidding Documents, in the amount of [*insert amount and currency in words and figures of the performance security*] for the due performance of the Contract;

We understand that you are not bound to accept the lowest evaluated Bid or any other Bid that you may receive.

Authorised By: [*to be completed by someone who has the power of attorney for the Bidder*]

Signature : _____ Name: _____

Position: _____ Date: _____ *(DD/MM/YY)*

Authorised for and on behalf of (Company name):

Company : _____

Registered Address: _____

Beneficial Ownership Disclosure Form

INSTRUCTIONS TO BIDDERS: DELETE THIS BOX ONCE YOU HAVE COMPLETED THE FORM

This Beneficial Ownership Disclosure Form ("Form") is to be completed by the Bidder. In case of a joint venture, the Bidder must submit a separate Form for each member of the Joint Venture. The beneficial ownership information to be submitted in this Form shall be current as at the date of its submission.

For the purposes of this Form, a Beneficial Owner of a Bidder is any natural person who ultimately owns or controls the Bidder by meeting one or more of the following conditions-

1. *directly or indirectly holding 5% or more of the shares*
2. *directly or indirectly holding 5% or more of the voting rights*
3. *directly or indirectly having the right to appoint a majority of the board of directors or equivalent governing body of the Bidder.*
4. *directly or indirectly, has a substantial economic interest in or receives substantial economic benefit from, a company, whether acting alone or together with other persons;*
5. *has a significant stake in a company and on whose behalf activity of a company is conducted; or*
6. *exercises significant control or influence over a person through a formal or informal agreement, and where such ownership, control or interest is through a trust, the trustee (s), beneficiaries, or anyone who controls the trust.*

RFB No.: [insert number of RFB process]

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

To: **[**insert **complete name of Purchaser]**

In response to your request in the Letter of Acceptance dated [insert date of letter of Acceptance] to furnish additional information on beneficial ownership: [select one option as applicable and delete the options that are not applicable]

(i) We hereby provide the following beneficial ownership information.

Details of beneficial ownership

Identity of Beneficial Owner	Directly or indirectly holding 5% or more of the shares (Yes / No)	Directly or indirectly holding 5 % or more of the Voting Rights (Yes / No)	Directly or indirectly having the right to appoint a majority of the board of the directors or an equivalent governing body of the Bidder (Yes / No)
[include full name (last, middle, first), nationality, country of residence]			

OR

(ii) We declare that there is no Beneficial Owner meeting one or more of the following conditions:

- directly or indirectly holding 5% or more of the shares
- directly or indirectly holding 5% or more of the voting rights
- directly or indirectly having the right to appoint a majority of the board of directors or equivalent governing body of the Bidder

OR

(iii) We declare that we are unable to identify any Beneficial Owner meeting one or more of the following conditions. [If this option is selected, the Bidder shall provide explanation on why it is unable to identify any Beneficial Owner]

- directly or indirectly holding 5% or more of the shares
- directly or indirectly holding 5% or more of the voting rights
- directly or indirectly having the right to appoint a majority of the board of directors or equivalent governing body of the Bidder]"

Name of the Bidder:[1] [insert **complete name of the Bidder**]

Name of the person duly authorized to sign the Bid on behalf of the Bidder:[2] [insert **complete name of person duly authorized to sign the Bid**]

Title of the person signing the Bid: [insert **complete title of the person signing the Bid**]

Signature of the person named above: _

Date signed [insert **ordinal number**] day of [insert **month**], [insert **year**]

[1] In the case of the Bid submitted by a Joint Venture specify the name of the Joint Venture as Bidder. In the event that the Bidder is a joint venture, each reference to "Bidder" in the Beneficial Ownership Disclosure Form (including this Introduction thereto) shall be read to refer to the joint venture member.

[2] Person signing the Bid shall have the power of attorney given by the Bidder. The power of attorney shall be attached with the Bid Schedules.

PRICE SCHEDULE FOR GOODS AND RELATED SERVICES

[*Input of Information to be completed by Bidder*]
Notes: The Procurement Levy is calculated based on Sub-total before taxes.

Authorised By: [*to be completed by someone who has the power of attorney for the Bidder*]

1	*2*	*3*	*4*	*5*	*6*	*7*
Item No.	Good or Related Service	Country of origin	Quantity (No. of units)	Unit price [1]	Import Duties, per unit [1]	Total Price
[Insert number of item]	[name of items, good or related service]	[insert country of origin of this item]	[insert number of units of this item to be purchased]	[insert the unit price of this item, excluding all import duties and taxes, paid or payable in the Republic of Malawi]	[insert all import duties, in the Republic of Malawi on this item]	[insert the total price for this item, which is the sum of columns 5 and 6]
1						
2						
Sub-Total						
VAT						
PPDA Levy (1%)						
Total Bid Price						

Signature: _____ Name: _____

Position: _____ Date: _____
(DD/MM/YY)

Authorised for and on behalf of (Company name):

Company _____
:
Registered Address: ……..…..

……...

Note to Bidders: This Bid Security should be on the letterhead of the issuing Financial Institution and should be signed by a person with the proper authority to sign the Bid Security. It should be included by the Bidder in its Bid, in accordance with Clause21, and except for indicated fields, no changes shall be made in this template. Any changes made shall result to rejection of the Bid

BID SECURITY

[Input of Information to be completed by Guarantor]

Procurement Reference Number: [insert reference number]

Alternative No: [insert identification No if this is a Bid for an alternative]

To: [insert complete name of Procuring and Disposing Entity]

Whereas [insert complete name of Bidder] (hereinafter "the Bidder") has submitted its Bid dated [insert date (as day, month and year) of Bid submission] for Procurement reference Number [insert Procurement Reference Number] for the supply of [insert brief description of the Goods and Related Services], hereinafter called the "Bid."

KNOW ALL PEOPLE by these presents that WE [insert complete name of institution issuing the Bid Security], of [insert city of domicile and country of nationality] having our registered office at [insert full address of the issuing institution] (hereinafter "the Guarantor"), are bound unto [insert complete name of the Procuring and Disposing Entity] (hereinafter "the Procuring and Disposing Entity") in the sum of [specify in words the amount and currency of the Bid security] (specify the amount and currency in figures), for which payment well and truly to be made to the aforementioned Procuring and Disposing Entity, the Guarantor binds itself, its successors or assignees by these presents. Sealed with the Common Seal of this Guarantor this [insert day in numbers] day of [insert month], [insert year].

THE CONDITIONS of this obligation are the following—

(a) If the Bidder withdraws its Bid during the period of Bid validity specified by the Bidder in the Bid Submission Sheet, except as provided in sub-clause 26.2 of the ITB; or

(b) If the Bidder, having been notified of the acceptance of its Bid by the Procuring and Disposing Entity, during the period of Bid validity, fails or refuses to—
- *(i)* execute the Contract; or
- *(ii)* furnish the Performance Security, in accordance with the clause 44 of the ITB; or
- *(iii)* accept the correction of its Bid by the Procuring and Disposing Entity, pursuant to clause 31 of the ITB.

We undertake to pay the Procuring and Disposing Entity up to the above amount upon receipt of its first written demand, without the Procuring and Disposing Entity having to substantiate its demand, provided that in its demand the Procuring and Disposing Entity states that the amount claimed by it is due to it, owing to the occurrence of one or more of the above conditions, specifying the occurred conditions.

This security shall remain in force up to and including twenty-eight (28) days after the period of Bid validity, and any demand in respect thereof should be received by the Guarantor no later than the above date.
Authorised By:

Signature: _____ Name: _____

Position: _____ Date: _____
(DD/MM/YY)

Authorised for and on behalf of:

Company: _____

Duly authorised to sign the Bid for and on behalf of: [insert complete name of Guarantor]

Note to Bidders: This Bid Securing Declaration should be on the letterhead of the Bidder and should be signed by a person with the proper authority to sign the Bid Securing Declaration. It should be included by the Bidder in its Bid, in accordance with Clause21.

BID SECURING DECLARATION

[The Bidder shall fill in this form in accordance with the instructions indicated.]

Date: [insert date (day, month and year) of Bid submission] ……../……../…….

Procurement Reference No.: [insert number of Bidding process] ……..

Alternative No.: [insert identification No. if this is a Bid for an alternative] ……

To: [insert complete name of Procuring and Disposing Entity]……..…

……..…….

We, the undersigned, declare that

1. We understand that, according to your conditions, Bids must be supported by a Bid Securing Declaration.

2. We accept that we will automatically be suspended from being eligible for Bidding in any contract with the Procuring and Disposing Entity and any other government entity for a period of twenty-four (24) months starting on the date as may be determined by the Authority if we are in breach of our obligation(s) under the Bid conditions, because: have withdrawn our Bid during the period of Bids validity specified by us in the Bid Data Sheet; or having been notified of the acceptance of our Bid by the Procuring and Disposing Entity during the period of Bid validity, (i) refuse or fail to execute the contract, if required, or (ii) fail or refuse to furnish the Performance Security, in accordance with clause 44 of the ITB; or have refused to accept the correction of our Bid by the Procuring and Disposing Entity, pursuant to clause 31.5 of the ITB.

3. We understand that this Bid Securing Declaration shall expire if we are not the successful Bidder, upon the earlier of (i) our receipt of a copy of your notification of the name of the successful Bidder; or (ii) thirty (30) days after the expiration of the Bid.

4. We understand that if we are a Joint Venture, the Bid Securing Declaration must be in the name of the Joint Venture that submits the Bid. If the Joint Venture has not been legally constituted at the time of Bidding, the Bid

Securing Declaration shall be in the names of all future partners as named in the letter of intent.

Authorised By: [*to be completed by someone who has the power of attorney for the Bidder*]

Signature : _____ Name: _____

Position: _____ Date: _____
(DD/MM/YY)

Authorised for and on behalf of (Company name):

Company : _____

Registered Address: _____

[*This letter of authorisation should be on the letterhead of the Manufacturer and should be signed by a person with the proper authority to sign documents that are binding on the Manufacturer. It should be included by the Bidder in its Bid, if so indicated in the BDS.*]

Manufacturer's Authorisation

[Input of Information to be completed by Manufacturer]

Date: [insert date (as day, month and year) of Bid Submission]. ……../……../…….

Procurement Reference Number: [insert number of Bidding process]……...

To: [insert complete name of Procuring and Disposing Entity] ……..

……

WHEREAS [insert complete name of Manufacturer], who are official manufacturers of [insert type of goods manufactured], having factories at [insert full address of Manufacturer], do hereby authorise [insert complete name of Bidder] to submit a Bid in relation to the Invitation for Bids indicated above, the purpose of which is to provide the following Goods, manufactured by us [insert name and or brief description of the Goods], and to subsequently negotiate and sign the Contract.

We hereby extend our full guarantee and warranty in accordance with Clause 27 of the General Conditions of Contract, with respect to the Goods offered by the above firm in reply to this Invitation for Bids.

Authorised By: [*to be completed by someone who has the power of attorney for the Bidder*]

Signature : _____ Name: _____

Position: _____ Date: _____

Authorised for and on behalf of (Company name): *(DD/MM/YY)*

Company : _____

Registered Address: _____

ENVIRONMENTAL, SOCIAL, HEALTH AND SAFETY DECLARATION

We, _____ (*Name of Bidder*) bearing the company registration number _____, hereby:

1. **PLEDGE THAT**:

We have read, understood, and will comply with—

(a) the Environment Management legal framework or policies in conservation and management of the environment;
(b) all necessary and appropriate measures to protect and manage the environment;
(c) all necessary and appropriate measures to conserve natural resources and to promote sustainable utilization of natural resources; and
(d) all steps and measures necessary for ensuring that social safeguard issues including but not limited to gender, human rights, disability, Child Protection, HIV and AIDS are mainstreamed throughout all construction stages to minimize the negative impacts on the environment, social, health and safety matters

2. **AGREE THAT**:

In the event that our Bid is successful, we shall, within 15 days from the receipt of the Acceptance Letter comply with the requirements to produce the following environmental, social, health and safety plans as provided in Section 10:- Site Organisation Plan, Mobilisation and Construction Schedule Plan, Code of Conduct for Contractors Personnel Plan, ESHS Management Strategies and Implementation Plan.

Contract negotiations shall only commence if our plans comply with the Malawi standards on the protection and management of the environmental, social, health and safety matters.

We will automatically be suspended from being eligible for Bidding in any contract with the Procuring and Disposing Entity and any other government entity for a period of twenty-four (24) months starting on the date as may be determined by the Authority if we are in breach of our obligation(s) under the Bid conditions.

Signed: [insert signature of person whose name and capacity are shown] In the capacity of [*insert legal capacity of person signing the Bid*]

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

Duly authorised to sign the Bid for and on behalf of: [*insert complete name of Bidder*]

Dated on _____ day of _____, _____ [*insert date of signing*]

SECTION 5. ELIGIBLE COUNTRIES

Procurement Reference Number: _____

All countries are eligible except countries subject to the following provisions.

A country shall not be eligible if—

(a) as a matter of law or official regulation, the Government of the Republic of Malawi 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, the Government of the Republic of Malawi prohibits any import of Goods from that country or any payments to persons or entities in that country.

SECTION 6. CORRUPTION AND FRAUD

The Malawi Government requires that Procuring and Disposing Entities, as well as Bidders and Suppliers, participating in public procurement, observe the highest standard of ethics during the procurement and execution of such contracts.

(a) For the purposes of this provision, unless the context otherwise requires—

(i) "coercive practices" mean practices intended at harming or threatening to harm, directly or indirectly, a person or a person's asset, to influence that person's participation in a procurement proceeding, or effect the execution of a procurement contract";

(ii) "collusive practices" means a scheme or arrangement between two or more Bidders, with or without the knowledge of the Procuring and Disposing Entity, designed to establish prices at artificial, non-competitive levels;

(iii) "corrupt practice" has the meaning ascribed to the term in the Corrupt Practices Act (Cap 7:04 of the Laws of Malawi);

(iv) "fraudulent practice" means a misrepresentation or omission of facts in order to influence a procurement process, the execution of a contract or avoid an obligation;

(v) "obstructive practice" means deliberately destroying, falsifying, altering, or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede a Bank investigation into allegations of a corrupt, fraudulent, coercive or collusive practice; and/or threatening, harassing or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation.

(b) The Government will reject a recommendation for award if it determines that the Bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive or coercive practices in competing for the contract in question;

(c) The Authority shall debar a Bidder from participation in public procurement for a specified period of time if it at any time determines that the firm has engaged in corrupt, fraudulent, collusive or coercive practices in competing for, or in executing, a contract; and

(d) The Procuring and Disposing Entity shall cause every Bidder to acknowledge and sign Anti-Corruption Declaration in this Section under Oath, a confirmation that the Bidder, its subcontractors, joint venture partners, or any other associate has not been convicted or is under investigation on corruption and fraud related cases. Failure to sign the Declaration shall lead to disqualification.

Bidders shall read and understand this provision; and will show acknowledgement of having read and understood the provision by signing compliance Form in this Section/form below:

ANTI-CORRUPTION DECLARATION FORM

We/I, _____ (*Name of Bidder*) bearing the company registration number _____, hereby:

1. **PLEDGE THAT:**

We have read and understood, and will comply with all applicable laws and policies relating to anti-corruption and fraud.

We shall not, through any of our representatives, agents or any persons associated to us, commit any corruption offence or breach any of the applicable laws and/or provisions. We shall not encourage any corruption elements within our business practices, activities, operations, and transactions.

We have not been convicted nor are we aware that we are subject of any corruption related investigation, inquiry, or enforcement proceedings by the relevant authorities and will report of such investigation as soon as we become aware as reasonably practicable and to the extent permitted by law.

We shall take all measures and implement appropriate measures to ensure compliance with the Anti-Corruption Legal Framework.

We shall report to any relevant Authority, a public officer attempting to solicit a bribe or advantage from us, or any other person connected to us to be awarded a contract.

2. **AGREE THAT:**

In the event that we are in a confirmed breach of this declaration, the Procuring and Disposing Entity may disqualify the Bid, revoke or terminate the contract if awarded to us without any liability whatsoever on its part, indemnify the Procuring and Disposing Entity for any loss.

Signed: [insert signature of person whose name and capacity are shown] In the capacity of [insert legal capacity of person signing the Bid]

Name: [insert complete name of person signing the Bid]

Duly authorised to sign the Bid for and on behalf of: [insert complete name of Bidder]

Dated on _____ day of _____, _____ [insert date of signing]

SECTION 7. STATEMENT OF REQUIREMENTS

LIST OF GOODS AND RELATED SERVICES

Procurement Reference Number: TEVETA-0058-1-26

LOT 1(A): FURNITURE – LUNJIKA CSDC

Item No.	Description of Goods or Related Service	Technical Specifications	Qty
1	Office Desks for Administration Block	150 (L), 75cm (H), 70cm (W) Color: walnut	**12**
2	Office Chairs for Administration Block	High back, leather 360-degree swivel with linked arms Color: black	**12**
3	Double-Door Steel Cupboard / Cabinet	Heavy-duty sheet steel (0.7mm – 0.8mm doors and body). Equipped with 4 internal height-adjustable shelves. **Height:** 1800 mm **Width:** 900 mm **Depth:** 450 mm 3-point locking system with keys, hardened enamel or powder-coated finish (grey/ivory).	**6**
4	**Tertiary/College Student Desk** (Single Seater)	**Top:** 25mm pre-laminated high-density particle board or structural plywood with 2mm heavy-duty PVC edge banding. **Frame:** Mild Steel (MS) tubular or square pipe structure (minimum 1.2mm wall thickness). **Height:** 750 mm – 760 mm **Width (Single):** 600 mm – 700 mm **Width (Double):** 1100 mm – 1200 mm **Depth:** 450 mm – 500 mm Scratch and stain-resistant top. Frames are CO2 welded and	**150**

		finished with epoxy powder coating (min. 50 microns). Includes integral structural book rack/shelf underneath and side bag hooks.	
5	**Classroom Student Chair** (Heavy-Duty)	**Seat/Backrest:** Ergonomically contoured, high-impact injected polypropylene (reinforced plastic) or high-density laminated plywood. **Base:** Heavy-duty round MS steel pipe frame (22mm to 25mm diameter, 1.2mm thickness). **Total Height:** 780 mm – 820 mm **Seat Height:** 440 mm – 460 mm **Seat Width:** 400 mm – 420 mm Riveted or tamper-proof bolted shell fixation, rubberized non-marring floor glides/ferrules to eliminate floor scraping and noise, stackable design up to 5 chairs high	**150**

LOT 1(B): FURNITURE – THAMBANI CSDC

Item No.	Description of Goods or Related Service	Technical Specifications	Qty
1	Office Desks for Administration Block	150 (L), 75cm (H), 70cm (W) Color: walnut	**12**
2	Office Chairs for Administration Block	High back, leather 360 degrees swivel with linked arms Color: black	**12**
3	Double-Door Steel Cupboard / Cabinet	Heavy-duty sheet steel (0.7mm – 0.8mm doors and body). Equipped with 4 internal height-adjustable shelves. **Height:** 1800 mm **Width:** 900 mm **Depth:** 450 mm 3-point locking system with keys, hardened enamel or	**6**

		powder-coated finish (grey/ivory).	
4	**Tertiary/College Student Desk** (Single Seater)	**Top:** 25mm pre-laminated high-density particle board or structural plywood with 2mm heavy-duty PVC edge banding. **Frame:** Mild Steel (MS) tubular or square pipe structure (minimum 1.2mm wall thickness). **Height:** 750 mm – 760 mm **Width (Single):** 600 mm – 700 mm **Width (Double):** 1100 mm – 1200 mm **Depth:** 450 mm – 500 mm Scratch and stain-resistant top. Frames are CO2 welded and finished with epoxy powder coating (min. 50 microns). Includes integral structural book rack/shelf underneath and side bag hooks.	**150**
5	**Classroom Student Chair** (Heavy-Duty)	**Seat/Backrest:** Ergonomically contoured, high-impact injected polypropylene (reinforced plastic) or high-density laminated plywood. **Base:** Heavy-duty round MS steel pipe frame (22mm to 25mm diameter, 1.2mm thickness). **Total Height:** 780 mm – 820 mm **Seat Height:** 440 mm – 460 mm **Seat Width:** 400 mm – 420 mm	**150**

		Riveted or tamper-proof bolted shell fixation, rubberized non-marring floor glides/ferrules to eliminate floor scraping and noise, stackable design up to 5 chairs high	

LOT 1(C): FURNITURE - MGAYI CTC

Item No.	Description of Goods or Related Service	Technical Specifications	Qty
1	Office Desks for Administration Block	150 (L), 75cm (H), 70cm (W) Color: walnut	**12**
2	Office Chairs for Administration Block	High back, leather 360 degrees swivel with linked arms Color: black	**12**
3	Double-Door Steel Cupboard / Cabinet	Heavy-duty sheet steel (0.7mm – 0.8mm doors and body). Equipped with 4 internal height-adjustable shelves. **Height:** 1800 mm **Width:** 900 mm **Depth:** 450 mm 3-point locking system with keys, hardened enamel or powder-coated finish (grey/ivory).	**6**
4	**Tertiary/College Student Desk** (Single Seater)	**Top:** 25mm pre-laminated high-density particle board or structural plywood with 2mm heavy-duty PVC edge banding. **Frame:** Mild Steel (MS) tubular or square pipe structure (minimum 1.2mm wall thickness).	

		Height: 750 mm – 760 mm **Width (Single):** 600 mm – 700 mm **Width (Double):** 1100 mm – 1200 mm **Depth:** 450 mm – 500 mm Scratch and stain-resistant top. Frames are CO2 welded and finished with epoxy powder coating (min. 50 microns). Includes integral structural book rack/shelf underneath and side bag hooks.	**120**
	Classroom Student Chair (Heavy-Duty)	**Seat/Backrest:** Ergonomically contoured, high-impact injected polypropylene (reinforced plastic) or high-density laminated plywood. **Base:** Heavy-duty round MS steel pipe frame (22mm to 25mm diameter, 1.2mm thickness). **Total Height:** 780 mm – 820 mm **Seat Height:** 440 mm – 460 mm **Seat Width:** 400 mm – 420 mm Riveted or tamper-proof bolted shell fixation, rubberized non-marring floor glides/ferrules to eliminate floor scraping and noise, stackable design up to 5 chairs high	**120**

LOT 2(A): TRAINING EQUIPMENT AND MACHINES - FABRICATION AND WELDING (FBW) – LUNJIKA CSDC

Item No.	Description of Goods or Related Service	Technical Specifications	Malawi Grid & Safety Compliance	Qty
1	**DC Inverter Welding Machine (400A AC/DC)**	**Output:** 5–400A AC/DC; **Input:** 400V 3-Phase; **Processes:** TIG (GTAW) & MMA (SMAW); **Duty Cycle:** 60% @ 400A; **Features:** Built-in VRD, IGBT technology, Dual digital display meters, Arc Force & Hot Start; **Enclosure:** IP23S.	Built-in voltage tolerance (±15%) for ESCOM line spikes. Fan-on-Demand limits dust intake. VRD ensures safe student rod swaps.	1
2	**AC Rectifier Welding Machine**	**Output:** 40A–400A AC continuous shunt; **Input:** 400V 3-Phase; **Control:** Mechanical moving core shunt; **Duty Cycle:** 60% @ 400A; **Insulation:** Class H (180°C limit); **Features:** Heavy insulated outputs, thermal trip warning light.	100% analog transformer architecture with **no fragile digital PCBs**. Fully immune to abrupt load-shedding surges.	1
3	**Oxy-Acetylene Welding & Cutting Set**	**Regulators:** Dual-stage heavy-duty gas regulators with dual pressure gauges; **Torch:** Industrial shank with mixing head, welding nozzles (#1–#5), cutting attachment & nozzles; **Hose:** 10m twin vulcanized rubber hose line.	**Mandatory twin dual-ended flashback arrestors** on both torch and regulator ends. 100% immune to power blackouts.	**1**
4	**AC/DC TIG Welding Machine (200A)**	**Output:** 5A–200A AC/DC; **Input:** 230V Single-Phase; **Controls:** AC balance control (40Hz–200Hz) for aluminum training; **Ignition:** High-Frequency (HF) & Lift-TIG; **Kits:** 4m WP-26 TIG torch, Argon flowmeter regulator.	Standard 230V single-phase plug-and-play for benches. Built-in VRD handles auxiliary safety during MMA/Stick exercises.	10
5	**MIG Welding Machine**	**Output:** 30A–250A DC; **Input:** 230V Single-Phase; **Wire Feeder:** Heavy-duty integrated dual-gear metal feeder block; **Capacity:** 0.8mm–1.2mm wire rolls; **Kits:** 3m Euro-connect MIG torch, heated gas regulator.	Euro-connect torch design ensures universal compatibility and cheap, easy consumable replacement in Blantyre/Lilongwe.	10
6	**Rolling Machine (Initial Pinch)**	**Working Length:** 1250mm–1500mm max width; **Bending Capacity:** Up to 3.0mm mild steel; **Geometry:** 3-Roll initial pinch; **Rolls:** 75mm–90mm induction-hardened steel; **Release:** Swing-out top roll with quick lock.	Manual or heavy mechanical gear drive to eliminate digital board breakdowns. Features mechanical emergency foot/kick bars.	5
7	**Plasma Cutting Machine**	**Output:** 20A–100A DC; **Input:** 400V 3-Phase; **Capacity:** 25mm clean cut, 35mm sever cut;	Pilot Arc allows student training on rusted or painted educational scrap	1

		Ignition: Non-HF Pilot Arc mechanism; **Air Feed:** 5.0–6.5 bar air input (fitted with rear filter/separator).	metal. Interlocking torch safety switch prevents firing.	
8	**Drilling Machine Portable (1/College)**	**Power:** 750W–850W industrial motor; **Input:** 230V Single-Phase; **Chuck:** 13mm heavy keyed all-metal chuck; **Modes:** Dual-mode Rotary & Hammer action; **Speed:** Variable trigger (0–3000 RPM) with mechanical reverse.	Integrated internal mechanical safety slip clutch prevents student wrist injuries if a drill bit jams in thick iron plate.	1
9	**Radial Arm Drill Machine**	**Capacity:** Up to 32mm/40mm drilling in mild steel; **Input:** 400V 3-Phase; **Spindle Taper:** MT4; **Arm Travel:** 700mm–1000mm radius, 360° manual swivel; **Gearbox:** 6-speed geared manual selection (50–2000 RPM).	Magnetic starter switch with **No-Volt Release (NVR)** protection prevents dangerous tool auto-restart when grid power returns.	2
10	**Profile Cutting Machine**	**Type:** Motorized Oxy-Fuel Track Cutter; **Input:** 230V Single-Phase; **Speed Range:** 50mm–750mm/min reversible drive motor; **Torch:** Heavy injector type with rack adjustments; **Track:** 2x 1.8m interlocking steel tracks.	Relies on basic analog forward/reverse tracking speed control circuits that tolerate volatile localized voltage fluctuations.	2
11	**Compressor Heavy Duty**	**Type:** Two-stage cast-iron twin-cylinder reciprocating compressor; **Tank:** Min 200L–300L pressure-certified horizontal vessel; **Air Delivery:** 15–20 CFM @ 10 Bar (145 PSI); **Motor:** 4.0kW–5.5kW induction motor, 400V 3-Phase.	Motor fitted with localized thermal overload relays and a star-delta starter panel to safely handle deep ESCOM voltage drops.	2
12	**Guillotine**	**Type:** Mechanical/Hydraulic Shear; **Capacity:** 4.0mm mild steel, 2.5mm stainless steel; **Cutting Length:** 2000mm–2500mm; **Backgauge:** Manual lead-screw with mechanical counter; **Foot Pedal:** Shrouded safety switch.	**Mandatory clear-view front finger guards** and rear photoelectric light curtains. Heavy tropicalized hydraulic seals for 40°C heat.	**1**
14	**Resistance Welding Machine**	**Type:** Pedestal Rocker-Arm Spot Welder; **Capacity:** 15 kVA–25 kVA nominal; **Input:** 400V 3-Phase; **Arm Length:** 400mm adjustable arm with physical foot-pedal; **Control:** Digital IC timer weld controller.	Integrated water-cooling loop protection for internal thyristor thyristors and welding arms during repetitive school use.	1
15	**Bench Vice**	**Jaw Width:** 150mm (6"); **Jaw Opening:** Min 150mm; **Material:** Unbreakable SG ductile iron or cast steel (Min 450 MPa tensile); **Base:** 360° swivel with heavy dual locking pins; **Anvil:** Rear anvil face.	Ductile iron casting resists sudden heavy impacts from student hammer errors without cracking or splintering.	10

16	**Fume Extractor**	**Type:** Mobile high-vacuum cartridge filtration unit; **Capacity:** 1200–1500 m³/h airflow; **Arm:** 3m flexible positional arm (150mm diameter) with 360° hood; **Filtration:** 3-stage filtration system.	Protections ensure student safety from carcinogenic weld vapors in unventilated blocks. Standard single-phase 230V input.	1
17	**Micrometer**	**Type:** Outside Vernier Micrometer; **Range:** 0mm–25mm; **Resolution:** 0.01mm mechanical graduation; **Material:** Hardened steel frame with carbide anvil/spindle faces; **Lock:** Frame lock lever.	Provided inside an impact-resistant padded wooden or molded plastic storage case to preserve precision from ambient grit/dust.	1
18	**Stakes (Sheet Metal forming set)**	**Material:** Drop-forged high-grade tool steel with polished working faces; **Set Composition:** 1x Half-Moon, 1x Blowhorn (tapered dual horns), 1x Creasing, 1x Beakhorn; **Base:** Heavy cast-iron holder plate.	Pure mechanical bench-locked tools. Heavy tool-steel construction handles repeated student shaping errors without marking.	1
19	**Portable Drilling Machines**	**Power:** 750W–850W; **Input:** 230V 50Hz; **Chuck:** 13mm heavy keyed all-metal chuck; **Modes:** Rotary & Hammer; **Speed:** Variable trigger (0–3000 RPM); **Housing:** Metal gear case.	Duplicate pool item matching Item 8 specifications to simplify institutional spare parts inventories and pricing schedules.	10
20	**Angle Grinders**	**Disc Size:** 115mm (4.5") or 125mm (5"); **Power:** 850W–1100W motor, 230V Single-Phase; **Spindle:** M14; **Safety:** Tool-free burst-proof wheel guard; **Switch:** Dead-man two-motion switch.	Labyrinth dust-sealed armature and field coil windings protect internal motors from short-circuiting due to metallic dust grinding.	10
21	**Metal Spraying Machines**	Industrial flame-wire or electric-arc thermal spraying system; Anti-corrosion/wear-resistant coating capability (zinc, aluminum, bronze alloys); Includes gas regulators, flowmeters, hoses, and spray gun assembly.		3
22	**High-Speed & Hot Air Torches (Guns)**	Power: 1600W – 3000W; 230V AC; Continuously adjustable temperature control range up to 600°C–700°C; Digital LED temperature display; Built-in thermal overload protection.		5
23	**Wide-Band Pressure Rollers**	High-durability silicone or heavy brass roller wheel; Wheel width: 40mm – 80mm; Ergonomic hardwood or steel frame handle; Heavy-duty internal ball bearings.		3
24	**Hot Plates**	Heavy cast-iron or ceramic-coated rectangular surface (min. 300mm x 300mm); Variable built-in		5

		thermostat up to 350°C; LED power indicator light; 240V AC.		
25	**Machine Tractors**	Portable motorized magnetic or track-guided welding/cutting carriage; Automated straight-line gas/plasma cutting or MIG welding capability; Variable travel speed control; 220V AC.		3
26	**High-Frequency Spark Guns**	**Portable high-frequency spark/leak detector and igniter unit; Insulated safety probe handle; Variable sensitivity output control; Heavy-duty carrying case.**		5
27	**Ultrasonic Plastic Welders**	Operating frequency: 20kHz – 35kHz; Output power: 800W – 2000W; Pneumatic or precision manual press stand; Digital amplitude and weld-time controls.		2
28	**Linear Vibration Welders**	Industrial-grade thermoplastic assembly system (Bioclimatic/Bondmatic equivalent); High frequency and clamp force capacity tailored to standard institutional workshop footprints.		2
29	**Lathe Machines (Center Lathe)**	Swing over bed: 330mm – 400mm; Distance between centers: 1000mm – 1500mm; 3-phase electric motor (415V, 50Hz); Quick-change tool post, 3-jaw & 4-jaw chucks, safety footbrake, coolant pump, full debris enclosure.		1
30	**Shaping Machines (Metal Shaper)**	Stroke length: 450mm – 500mm; Variable ram speed settings; Swivel tool head; V-belt drive system powered by a 3-phase electric motor (415V, 50Hz); Rigid cast-iron foundation base.		2

TOOLS – FABRICATION AND WELDING

Item No.	**Description of Goods or Related Service**	**Technical Specifications**	**Unit of Measure**	**Qty**
31	Welding helmet	• Lens Shade DIN 10 • Dark lens 108x51x3mm	Each	30

		• Glass clear lens 108x89mm • Impact resistant plastic (DIN 175B) • Flame retardant • Front flip • Adjustable head strip		
32	Welding goggles	• Green flip top • Lens shade DIN5 • Ventilation poles	Each	30
33	Steel Tape Measure	5 m Reverse printed blade Nylon coated blade • Housed in a high impact plastic case Magnetic hook	Each	30
34	Leather Gloves (Elbow)	• Heavy duty • Reinforced palm and thumb • Length 200mm • Green/blue/grey • Compliant with EN420	Pair	30
35	Leather gloves (Palm)	• Heavy duty • Reinforced palm and thumb • Palm length • Green/blue/grey • EN420 • Type A	Pair	30
36	Steel ruler	• Length 600mm • Stainless steel with polished finish • Metric to imperial conversion • Permanent black figures and graduation	Each	30

		• Accuracy ± 0.2mm • Square end flexible		
37	Try square	• Length 300mm • Stainless steel with polished finish • Metric to imperial conversion • Permanent black figures and graduation • Accuracy ± 0.2mm • Square end flexible high-speed blade	Each	30
38	Ball peen Hammer	• Drop forged • Striking faces induction hardened and precision ground • Blue epoxy powder coated • Hard wood handle • 375 mm length handle 0.840 kilograms weight	Each	30
39	Adjustable Hacksaw complete with blade	• Compliant with BS 1919 • Die Cast D styled handle • Tubular chrome coated frame • Wing nut blade Tensioning • For 250 mm (10″) and 300 mm (12″) hacksaw blades. • Shatterproof HSS blades • 24 teeth per inch	Set	30

30	Snips (General purpose)	• Drop forged carbon steel • Hardened precision ground blades • Length 200mm • Sheet thickness 1.2mm at strength of 600N/mm^2	Each	30
31	Nozzle cleaner	• High strength needle type files • Anodised aluminium flip-up pocket case • 6 Piece pack	Each	30
32	Scriber	• Length 180mm • Hardened and tempered high-grade steel • Knurled body • Double ended with one straight point and the other at 900	Each	30
33	Welders' chipping hammer	• Hardened and tempered spring steel head • Chisel edge and point striking faces • Epoxy coating • Spring steel impact absorbing handle • 300g pick and flat ends	Each	30
34	Chisel and Punch set (6 pieces)	• Chrome Molybdenum Vanadium air hardened tempered along the full length • 45CrMoV7 steel • Striking head induction tempered to prevent shattering	Set	30

		• Working edge polished and clear vanished • In a PVC pack		
35	Rubber Mallet	• Face 65mm Diameter • Head size 24Oz • Handle length 300mm	Each	30
36	Leather Apron	• One-piece 600x1200cm • Two side pockets • neck and back stripes	Each	30
37	Adjustable wrench open end	• Chrome Vanadium Steel 31CrV3 • Manganese Phosphate finish • 150 mm length Jaw set at 15 Degrees • Ground head		
38	Screwdriver set (6 piece)	• Flat Head marked • Cross head PH1 and PH2 • Slotted/Straight head 4, 5.5, 6.5 and 8mm) • Hanging hole • Ergonomic grip handle • Vanadium, molybdenum tempered steel • Compliant with DIN – ISO 2380- 2 • Blade tip according to DIN – ISO 2380- 1 Form A	Set	30

		• Precision made blade tip		
39	File (Engineers Industrial) set with plastic handles	• Compliant with BS 498:1990 • 1 hand file (250mm) • 1 flat file (250mm) • 1 Round file (250mm) • 1 Half round file (250mm) • Manufactured from chrome/molybdenum steel • Hardened and tempered • Bastard cut, second cut and smooth cut	Each	30
40	Taps and die set	• M3 – M12 • High speed steel ground thread (ISO 529) • Tapping drills (BS328/DIN338N) • Split dies and nuts manufactured to BS1127	Each	30
41	Spring universal divider	• Must have a Circular spring bow joining the legs. • Extension on the bow for used when pivoting • 60g by weight • Length 200mm	Each	30
42	Spring inside calliper	• Must have a Circular spring bow joining the legs. • Extension on the bow for used when pivoting • 60g by weight • Length 200mm	Each	30
43	Spring outside calliper	• Must have a Circular spring bow joining the legs. • Extension on the bow for used when pivoting	Each	30

		• 60g by weight		
44	Portable arc welding Machine	• Input 230V • 50HZ • Maximum output 200A • 60% Duty cycle at 160A	Each	30
45	Angle Grinder	• Input 220-240V and 13 Amps • RPM above 2200 • Output 1200 Watts • Disc size 9”	Each	30
46	Portable Drilling Machine	• 115 mm • Spindle thread 14” • 220-240 V A/C 13Amps • 900 Watts output • Light Duty • Metal drive gears	Each	30
47	Drilling Bits set from 1 mm to 13 mm	• General purpose drill bits • Should be imperial set • Point angle of 118 Degrees • Normal helix angle • Relief angle of 10 Degrees to 20 Degrees • Tolerance of h8 • Compliant with BS 328 DIN 338 RN	Each	30
48	Tong	• Length 500mm • Closed mouth • Flat	Each	30
49	Soldering iron	• Copper bit • Wooden handle	Each	30

		• Straight shaft		
50	Combination pliers with cutter	• Chrome Vanadium steel with vinyl handle • Double polished head and joint with induction hardened cutting edges • Scattered gripping and crimping jaws behind the head	Each	30
51	Wire Brash	• With wooden handle • With scraper • Bristle type	Each	30
52	Toolbox empty, with Steel Padlocks and with keys	• 5 Compartments • Smooth and easy opening • Maximum access to the bottom tray • Lockable phosphate and powder coated • Length 550 mm • Width 248 mm • Height 220 mm		30
53	Soldering Irons (Standard & Electric)	• Power: 60W – 150W; Voltage: 220–240V AC, 50Hz; Thermostatically controlled; Interchangeable copper/iron-plated tips; Heat-resistant handle; Fitted with BS 1363 3-pin fused plug.	Each	10
54	Welding Nozzles	• Heavy-duty chrome-zirconium copper or high-grade stainless-	Each	5

	(Tacking, Cranked, Hot Plate, Speed)	steel construction; High heat resistance; Compatible with standard institutional M6/M8 torch barrel configurations.		

LOT 2(B): TRAINING EQUIPMENT AND MACHINES - FABRICATION AND WELDING (FBW) – THAMBANI CSDC

Item No.	Equipment Name	Technical Specifications	Malawi Grid & Safety Compliance	Qty
1	**DC Inverter Welding Machine (400A AC/DC)**	**Output:** 5–400A AC/DC; **Input:** 400V 3-Phase; **Processes:** TIG (GTAW) & MMA (SMAW); **Duty Cycle:** 60% @ 400A; **Features:** Built-in VRD, IGBT technology, Dual digital display meters, Arc Force & Hot Start; **Enclosure:** IP23S.	Built-in voltage tolerance (±15%) for ESCOM line spikes. Fan-on-Demand limits dust intake. VRD ensures safe student rod swaps.	1
2	**AC Rectifier Welding Machine**	**Output:** 40A–400A AC continuous shunt; **Input:** 400V 3-Phase; **Control:** Mechanical moving core shunt; **Duty Cycle:** 60% @ 400A; **Insulation:** Class H (180°C limit); **Features:** Heavy insulated outputs, thermal trip warning light.	100% analogue transformer architecture with **no fragile digital PCBs**. Fully immune to abrupt load-shedding surges.	1
3	**Oxy-Acetylene Welding & Cutting Set**	**Regulators:** Dual-stage heavy-duty gas regulators with dual pressure gauges; **Torch:** Industrial shank with mixing head, welding nozzles (#1–#5), cutting attachment & nozzles; **Hose:** 10m twin vulcanized rubber hose line.	**Mandatory twin dual-ended flashback arrestors** on both torch and regulator end. 100% immune to power blackouts.	**1**
4	**AC/DC TIG Welding Machine (200A)**	**Output:** 5A–200A AC/DC; **Input:** 230V Single-Phase; **Controls:** AC balance control (40Hz–200Hz) for aluminium training; **Ignition:** High-Frequency (HF) & Lift-TIG; **Kits:** 4m WP-26 TIG torch, Argon flowmeter regulator.	Standard 230V single-phase plug-and-play for benches. Built-in VRD handles auxiliary safety during MMA/Stick exercises.	10
5	**MIG Welding Machine**	**Output:** 30A–250A DC; **Input:** 230V Single-Phase; **Wire Feeder:** Heavy-duty integrated dual-gear metal feeder block; **Capacity:** 0.8mm–1.2mm wire rolls; **Kits:** 3m Euro-connect MIG torch, heated gas regulator.	Euro-connect torch design ensures universal compatibility and cheap, easy consumable replacement in Blantyre/Lilongwe.	10

6	**Rolling Machine (Initial Pinch)**	**Working Length:** 1250mm–1500mm max width; **Bending Capacity:** Up to 3.0mm mild steel; **Geometry:** 3-Roll initial pinch; **Rolls:** 75mm–90mm induction-hardened steel; **Release:** Swing-out top roll with quick lock.	Manual or heavy mechanical gear drive to eliminate digital board breakdowns. Features mechanical emergency foot/kick bars.	5
7	**Plasma Cutting Machine**	**Output:** 20A–100A DC; **Input:** 400V 3-Phase; **Capacity:** 25mm clean cut, 35mm sever cut; **Ignition:** Non-HF Pilot Arc mechanism; **Air Feed:** 5.0–6.5 bar air input (fitted with rear filter/separator).	Pilot Arc allows student training on rusted or painted educational scrap metal. Interlocking torch safety switch prevents firing.	1
8	**Drilling Machine Portable (1/College)**	**Power:** 750W–850W industrial motor; **Input:** 230V Single-Phase; **Chuck:** 13mm heavy keyed all-metal chuck; **Modes:** Dual-mode Rotary & Hammer action; **Speed:** Variable trigger (0–3000 RPM) with mechanical reverse.	Integrated internal mechanical safety slip clutch prevents student wrist injuries if a drill bit jams in thick iron plate.	1
9	**Radial Arm Drill Machine**	**Capacity:** Up to 32mm/40mm drilling in mild steel; **Input:** 400V 3-Phase; **Spindle Taper:** MT4; **Arm Travel:** 700mm–1000mm radius, 360° manual swivel; **Gearbox:** 6-speed geared manual selection (50–2000 RPM).	Magnetic starter switch with **No-Volt Release (NVR)** protection prevents dangerous tool auto-restart when grid power returns.	2
10	**Profile Cutting Machine**	**Type:** Motorized Oxy-Fuel Track Cutter; **Input:** 230V Single-Phase; **Speed Range:** 50mm–750mm/min reversible drive motor; **Torch:** Heavy injector type with rack adjustments; **Track:** 2x 1.8m interlocking steel tracks.	Relies on basic analog forward/reverse tracking speed control circuits that tolerate volatile localized voltage fluctuations.	2
11	**Compressor Heavy Duty**	**Type:** Two-stage cast-iron twin-cylinder reciprocating compressor; **Tank:** Min 200L–300L pressure-certified horizontal vessel; **Air Delivery:** 15–20 CFM @ 10 Bar (145 PSI); **Motor:** 4.0kW–5.5kW induction motor, 400V 3-Phase.	Motor fitted with localized thermal overload relays and a star-delta starter panel to safely handle deep ESCOM voltage drops.	2
12	**Guillotine**	**Type:** Mechanical/Hydraulic Shear; **Capacity:** 4.0mm mild steel, 2.5mm stainless steel; **Cutting Length:** 2000mm–2500mm; **Backgauge:** Manual lead-screw with mechanical counter; **Foot Pedal:** Shrouded safety switch.	**Mandatory clear-view front finger guards** and rear photoelectric light curtains. Heavy tropicalized hydraulic seals for 40°C heat.	**1**
14	**Resistance Welding Machine**	**Type:** Pedestal Rocker-Arm Spot Welder; **Capacity:** 15 kVA–25 kVA nominal; **Input:** 400V 3-Phase;	Integrated water-cooling loop protection for internal thyristor thyristors and	1

		Arm Length: 400mm adjustable arm with physical foot-pedal; **Control:** Digital IC timer weld controller.	welding arms during repetitive school use.	
15	**Bench Vice**	**Jaw Width:** 150mm (6"); **Jaw Opening:** Min 150mm; **Material:** Unbreakable SG ductile iron or cast steel (Min 450 MPa tensile); **Base:** 360° swivel with heavy dual locking pins; **Anvil:** Rear anvil face.	Ductile iron casting resists sudden heavy impacts from student hammer errors without cracking or splintering.	10
16	**Fume Extractor**	**Type:** Mobile high-vacuum cartridge filtration unit; **Capacity:** 1200–1500 m^3/h airflow; **Arm:** 3m flexible positional arm (150mm diameter) with 360° hood; **Filtration:** 3-stage filtration system.	Protections ensure student safety from carcinogenic weld vapours in unventilated blocks. Standard single-phase 230V input.	1
17	**Micrometer**	**Type:** Outside Vernier Micrometer; **Range:** 0mm–25mm; **Resolution:** 0.01mm mechanical graduation; **Material:** Hardened steel frame with carbide anvil/spindle faces; **Lock:** Frame lock lever.	Provided inside an impact-resistant padded wooden or moulded plastic storage case to preserve precision from ambient grit/dust.	1
18	**Stakes (Sheet Metal forming set)**	**Material:** Drop-forged high-grade tool steel with polished working faces; **Set Composition:** 1x Half-Moon, 1x Blowhorn (tapered dual horns), 1x Creasing, 1x Beak horn; **Base:** Heavy cast-iron holder plate.	Pure mechanical bench-locked tools. Heavy tool-steel construction handles repeated student shaping errors without marking.	1
19	**Portable Drilling Machines**	**Power:** 750W–850W; **Input:** 230V 50Hz; **Chuck:** 13mm heavy keyed all-metal chuck; **Modes:** Rotary & Hammer; **Speed:** Variable trigger (0–3000 RPM); **Housing:** Metal gear case.	Duplicate pool item matching Item 8 specifications to simplify institutional spare parts inventories and pricing schedules.	10
20	**Angle Grinders**	**Disc Size:** 115mm (4.5") or 125mm (5"); **Power:** 850W–1100W motor, 230V Single-Phase; **Spindle:** M14; **Safety:** Tool-free burst-proof wheel guard; **Switch:** Dead-man two-motion switch.	Labyrinth dust-sealed armature and field coil windings protect internal motors from short-circuiting due to metallic dust grinding.	10
21	**Metal Spraying Machines**	Industrial flame-wire or electric-arc thermal spraying system; Anti-corrosion/wear-resistant coating capability (zinc, aluminium, bronze alloys); Includes gas regulators, flowmeters, hoses, and spray gun assembly.		3
22	**High-Speed & Hot Air Torches (Guns)**	Power: 1600W – 3000W; 230V AC; Continuously adjustable temperature control ranges up to 600°C–700°C; Digital LED temperature display; Built-in thermal overload protection.		5

23	**Wide-Band Pressure Rollers**	High-durability silicone or heavy brass roller wheel; Wheel width: 40mm – 80mm; Ergonomic hardwood or steel frame handle; Heavy-duty internal ball bearings.		3
24	**Hot Plates**	Heavy cast-iron or ceramic-coated rectangular surface (min. 300mm x 300mm); Variable built-in thermostat up to 350°C; LED power indicator light; 240V AC.		5
25	**Machine Tractors**	Portable motorized magnetic or track-guided welding/cutting carriage; Automated straight-line gas/plasma cutting or MIG welding capability; Variable travel speed control; 220V AC.		3
26	**High-Frequency Spark Guns**	**Portable high-frequency spark/leak detector and igniter unit; Insulated safety probe handle; Variable sensitivity output control; Heavy-duty carrying case.**		5
27	**Ultrasonic Plastic Welders**	Operating frequency: 20kHz – 35kHz; Output power: 800W – 2000W; Pneumatic or precision manual press stand; Digital amplitude and weld-time controls.		2
28	**Linear Vibration Welders**	Industrial-grade thermoplastic assembly system (Bioclimatic/Bondmatic equivalent); High frequency and clamp force capacity tailored to standard institutional workshop footprints.		2
29	**Lathe Machines (Center Lathe)**	Swing over bed: 330mm – 400mm; Distance between centers: 1000mm – 1500mm; 3-phase electric motor (415V, 50Hz); Quick-change tool post, 3-jaw & 4-jaw chucks, safety footbrake, coolant pump, full debris enclosure.		1
30	**Shaping Machines (Metal Shaper)**	Stroke length: 450mm – 500mm; Variable ram speed settings; Swivel tool head; V-belt drive system powered by a 3-phase electric motor (415V, 50Hz); Rigid cast-iron foundation base.		2
TOOLS – FABRICATION AND WELDING				

Item No.	Description of Goods or Related Service	Technical Specifications	Unit of Measure	Qty
31	Welding helmet	• Lens Shade DIN10 • Dark lens 108x51x3mm • Glass clear lens 108x89mm • Impact resistant plastic (DIN 175B) • Flame retardant • Front flip • Adjustable head strip	Each	30
32	Welding goggles	• Green flip top • Lens shade DIN5 • Ventilation poles	Each	30
33	Steel Tape Measure	5 m Reverse printed blade Nylon coated blade Housed in a high impact plastic case Magnetic hook	Each	30
34	Leather Gloves (Elbow)	• Heavy duty • Reinforced palm and thumb • Length 200mm • Green/blue/grey • Compliant with EN420	Pair	30
35	Leather gloves (Palm)	• Heavy duty • Reinforced palm and thumb • Palm length • Green/blue/grey	Pair	30

		• EN420 • Type A		
36	Steel ruler	• Length 600mm • Stainless steel with polished finish • Metric to imperial conversion • Permanent black figures and graduation • Accuracy ± 0.2mm • Square end flexible	Each	30
37	Try square	• Length 300mm • Stainless steel with polished finish • Metric to imperial conversion • Permanent black figures and graduation • Accuracy ± 0.2mm • Square end flexible high speed blade	Each	30
38	Ball peen Hammer	Drop forged Striking faces induction hardened and ecision ground Blue epoxy powder coated Hard wood handle 375 mm length handle 0.840 kilograms weight	Each	30
39	Adjustable Hacksaw complete with blade	Compliant with BS 1919 Die Cast D styled handle Tubular chrome coated frame Wing nut blade Tensioning	Set	30

		For 250 mm (10”) and 300 mm (12”) cksaw blades. Shatterproof HSS blades 24 teeth per inch		
40	Snips (General purpose)	• Drop forged carbon steel • Hardened precision ground blades • Length 200mm • Sheet thickness 1.2mm at strength of 600N/mm^2	Each	30
41	Nozzle cleaner	• High strength needle type files • Anodised aluminium flip-up pocket case • 6 Piece pack	Each	30
42	Scriber	• Length 180mm • Hardened and tempered high-grade steel • Knurled body • Double ended with one straight point and the other at 900	Each	30
43	Welders’ chipping hammer	• Hardened and tempered spring steel head • Chisel edge and point striking faces • Epoxy coating • Spring steel impact absorbing handle • 300g pick and flat ends	Each	30
44	Chisel and Punch set (6 pieces)	• Chrome Molybdenum Vanadium air hardened tempered along the full length • 45CrMoV7 steel	Set	30

		• Striking head induction tempered to prevent shattering • Working edge polished and clear vanished • In a PVC pack		
45	Rubber Mallet	• Face 65mm Diameter • Head size 24Oz • Handle length 300mm	Each	30
46	Leather Apron	• One-piece 600x1200cm • Two side pockets • neck and back stripes	Each	30
47	Adjustable wrench open end	• Chrome Vanadium Steel 31CrV3 • Manganese Phosphate finish • 150 mm length Jaw set at 15 Degrees • Ground head		
48	Screwdriver set (6 piece)	• Flat Head marked • Cross head PH1 and PH2 • Slotted/Straight head 4, 5.5, 6.5 and 8mm) • Hanging hole • Ergonomic grip handle • Vanadium, molybdenum tempered steel • Compliant with DIN – ISO 2380- 2 • Blade tip according to DIN – ISO 2380- 1 Form A • Precision made blade tip	Set	30
49	File (Engineers Industrial) set	• Compliant with BS 498:1990	Each	30

	with plastic handles	• 1 hand file (250mm) • 1 flat file (250mm) • 1 Round file (250mm) • 1 Half round file (250mm) • Manufactured from chrome/molybdenum steel • Hardened and tempered • Bastard cut, second cut and smooth cut		
50	Taps and die set	• M3 – M12 • High speed steel ground thread (ISO 529) • Tapping drills (BS328/DIN338N) • Split dies and nuts manufactured to BS1127	Each	30
51	Spring universal divider	• Must have a Circular spring bow joining the legs. • Extension on the bow for used when pivoting • 60g by weight • Length 200mm	Each	30
52	Spring inside calliper	• Must have a Circular spring bow joining the legs. • Extension on the bow for used when pivoting • 60g by weight • Length 200mm	Each	30
53	Spring outside calliper	• Must have a Circular spring bow joining the legs. • Extension on the bow for used when pivoting • 60g by weight	Each	30

54	Portable arc welding Machine	• Input 230V • 50HZ • Maximum output 200A • 60% Duty cycle at 160A	Each	30
55	Angle Grinder	• Input 220-240V and 13 Amps • RPM above 2200 • Output 1200 Watts • Disc size 9"	Each	30
56	Portable Drilling Machine	• 115 mm • Spindle thread 14" • 220-240 V A/C 13Amps • 900 Watts output • Light Duty • Metal drive gears	Each	30
57	Drilling Bits set from 1 mm to 13 mm	• General purpose drill bits • Should be imperial set • Point angle of 118 Degrees • Normal helix angle • Relief angle of 10 Degrees to 20 Degrees • Tolerance of h8 • Compliant with BS 328 DIN 338 RN	Each	30
58	Tong	• Length 500mm • Closed mouth • Flat	Each	30
59	Soldering iron	• Copper bit • Wooden handle	Each	30

		• Straight shaft		
60	Combination pliers with cutter	• Chrome Vanadium steel with vinyl handle • Double polished head and joint with induction hardened cutting edges • Scattered gripping and crimping jaws behind the head	Each	30
61	Wire Brash	• With wooden handle • With scraper • Bristle type	Each	30
62	Toolbox empty, with Steel Padlocks and with keys	• 5 Compartments • Smooth and easy opening • Maximum access to the bottom tray • Lockable phosphate and powder coated • Length 550 mm • Width 248 mm • Height 220 mm		30
63	Soldering Irons (Standard & Electric)	• Power: 60W – 150W; Voltage: 220–240V AC, 50Hz; Thermostatically controlled; Interchangeable copper/iron-plated tips; Heat-resistant handle; Fitted with BS 1363 3-pin fused plug.	Each	10
64	Welding Nozzles (Tacking, Cranked, Hot Plate, Speed)	• Heavy-duty chrome-zirconium copper or high-grade stainless-steel construction; High heat resistance; Compatible with standard institutional M6/M8 torch barrel configurations.	Each	5

LOT 2(C): TRAINING EQUIPMENT AND MACHINES - FABRICATION AND WELDING (FBW) – MGAYI CTC

Item No.	Description of Goods or Related Service	Technical Specifications	Malawi Grid & Safety Compliance	Qty
1	**DC Inverter Welding Machine (400A AC/DC)**	**Output:** 5–400A AC/DC; **Input:** 400V 3-Phase; **Processes:** TIG (GTAW) & MMA (SMAW); **Duty Cycle:** 60% @ 400A; **Features:** Built-in VRD, IGBT technology, Dual digital display meters, Arc Force & Hot Start; **Enclosure:** IP23S.	Built-in voltage tolerance (±15%) for ESCOM line spikes. Fan-on-Demand limits dust intake. VRD ensures safe student rod swaps.	1
2	**AC Rectifier Welding Machine**	**Output:** 40A–400A AC continuous shunt; **Input:** 400V 3-Phase; **Control:** Mechanical moving core shunt; **Duty Cycle:** 60% @ 400A; **Insulation:** Class H (180°C limit); **Features:** Heavy insulated outputs, thermal trip warning light.	100% analogue transformer architecture with **no fragile digital PCBs**. Fully immune to abrupt load-shedding surges.	1
3	**Oxy-Acetylene Welding & Cutting Set**	**Regulators:** Dual-stage heavy-duty gas regulators with dual pressure gauges; **Torch:** Industrial shank with mixing head, welding nozzles (#1–#5), cutting attachment & nozzles; **Hose:** 10m twin vulcanized rubber hose line.	**Mandatory twin dual-ended flashback arrestors** on both torch and regulator end. 100% immune to power blackouts.	**1**
4	**AC/DC TIG Welding Machine (200A)**	**Output:** 5A–200A AC/DC; **Input:** 230V Single-Phase; **Controls:** AC balance control (40Hz–200Hz) for aluminium training; **Ignition:** High-Frequency (HF) & Lift-TIG; **Kits:** 4m WP-26 TIG torch, Argon flowmeter regulator.	Standard 230V single-phase plug-and-play for benches. Built-in VRD handles auxiliary safety during MMA/Stick exercises.	10
5	**MIG Welding Machine**	**Output:** 30A–250A DC; **Input:** 230V Single-Phase; **Wire Feeder:** Heavy-duty integrated dual-gear metal feeder block; **Capacity:** 0.8mm–1.2mm wire rolls; **Kits:** 3m Euro-connect MIG torch, heated gas regulator.	Euro-connect torch design ensures universal compatibility and cheap, easy consumable replacement in Blantyre/Lilongwe.	10
6	**Rolling Machine (Initial Pinch)**	**Working Length:** 1250mm–1500mm max width; **Bending Capacity:** Up to 3.0mm mild steel; **Geometry:** 3-Roll initial pinch; **Rolls:** 75mm–90mm induction-hardened steel; **Release:** Swing-out top roll with quick lock.	Manual or heavy mechanical gear drive to eliminate digital board breakdowns. Features mechanical emergency foot/kick bars.	5
7	**Plasma Cutting Machine**	**Output:** 20A–100A DC; **Input:** 400V 3-Phase; **Capacity:** 25mm clean cut, 35mm sever cut;	Pilot Arc allows student training on rusted or painted educational scrap	1

		Ignition: Non-HF Pilot Arc mechanism; **Air Feed:** 5.0–6.5 bar air input (fitted with rear filter/separator).	metal. Interlocking torch safety switch prevents firing.	
8	**Drilling Machine Portable (1/College)**	**Power:** 750W–850W industrial motor; **Input:** 230V Single-Phase; **Chuck:** 13mm heavy keyed all-metal chuck; **Modes:** Dual-mode Rotary & Hammer action; **Speed:** Variable trigger (0–3000 RPM) with mechanical reverse.	Integrated internal mechanical safety slip clutch prevents student wrist injuries if a drill bit jams in thick iron plate.	1
9	**Radial Arm Drill Machine**	**Capacity:** Up to 32mm/40mm drilling in mild steel; **Input:** 400V 3-Phase; **Spindle Taper:** MT4; **Arm Travel:** 700mm–1000mm radius, 360° manual swivel; **Gearbox:** 6-speed geared manual selection (50–2000 RPM).	Magnetic starter switch with **No-Volt Release (NVR)** protection prevents dangerous tool auto-restart when grid power returns.	2
10	**Profile Cutting Machine**	**Type:** Motorized Oxy-Fuel Track Cutter; **Input:** 230V Single-Phase; **Speed Range:** 50mm–750mm/min reversible drive motor; **Torch:** Heavy injector type with rack adjustments; **Track:** 2x 1.8m interlocking steel tracks.	Relies on basic analogue forward/reverse tracking speed control circuits that tolerate volatile localized voltage fluctuations.	2
11	**Compressor Heavy Duty**	**Type:** Two-stage cast-iron twin-cylinder reciprocating compressor; **Tank:** Min 200L–300L pressure-certified horizontal vessel; **Air Delivery:** 15–20 CFM @ 10 Bar (145 PSI); **Motor:** 4.0kW–5.5kW induction motor, 400V 3-Phase.	Motor fitted with localized thermal overload relays and a star-delta starter panel to safely handle deep ESCOM voltage drops.	2
12	**Guillotine**	**Type:** Mechanical/Hydraulic Shear; **Capacity:** 4.0mm mild steel, 2.5mm stainless steel; **Cutting Length:** 2000mm–2500mm; **Back gauge:** Manual leadscrew with mechanical counter; **Foot Pedal:** Shrouded safety switch.	**Mandatory clear-view front finger guards** and rear photoelectric light curtains. Heavy tropicalized hydraulic seals for 40°C heat.	**1**
14	**Resistance Welding Machine**	**Type:** Pedestal Rocker-Arm Spot Welder; **Capacity:** 15 kVA–25 kVA nominal; **Input:** 400V 3-Phase; **Arm Length:** 400mm adjustable arm with physical foot-pedal; **Control:** Digital IC timer weld controller.	Integrated water-cooling loop protection for internal thyristor thyristors and welding arms during repetitive school use.	1
15	**Bench Vice**	**Jaw Width:** 150mm (6"); **Jaw Opening:** Min 150mm; **Material:** Unbreakable SG ductile iron or cast steel (Min 450 MPa tensile); **Base:** 360° swivel with heavy dual locking pins; **Anvil:** Rear anvil face.	Ductile iron casting resists sudden heavy impacts from student hammer errors without cracking or splintering.	10

16	**Fume Extractor**	**Type:** Mobile high-vacuum cartridge filtration unit; **Capacity:** 1200–1500 m^3/h airflow; **Arm:** 3m flexible positional arm (150mm diameter) with 360° hood; **Filtration:** 3-stage filtration system.	Protections ensure student safety from carcinogenic weld vapours in unventilated blocks. Standard single-phase 230V input.	1
17	**Micrometer**	**Type:** Outside Vernier Micrometer; **Range:** 0mm–25mm; **Resolution:** 0.01mm mechanical graduation; **Material:** Hardened steel frame with carbide anvil/spindle faces; **Lock:** Frame lock lever.	Provided inside an impact-resistant padded wooden or moulded plastic storage case to preserve precision from ambient grit/dust.	1
18	**Stakes (Sheet Metal forming set)**	**Material:** Drop-forged high-grade tool steel with polished working faces; **Set Composition:** 1x Half-Moon, 1x Blowhorn (tapered dual horns), 1x Creasing, 1x Beak horn; **Base:** Heavy cast-iron holder plate.	Pure mechanical bench-locked tools. Heavy tool-steel construction handles repeated student shaping errors without marking.	1
19	**Portable Drilling Machines**	**Power:** 750W–850W; **Input:** 230V 50Hz; **Chuck:** 13mm heavy keyed all-metal chuck; **Modes:** Rotary & Hammer; **Speed:** Variable trigger (0–3000 RPM); **Housing:** Metal gear case.	Duplicate pool item matching Item 8 specifications to simplify institutional spare parts inventories and pricing schedules.	10
20	**Angle Grinders**	**Disc Size:** 115mm (4.5") or 125mm (5"); **Power:** 850W–1100W motor, 230V Single-Phase; **Spindle:** M14; **Safety:** Tool-free burst-proof wheel guard; **Switch:** Dead-man two-motion switch.	Labyrinth dust-sealed armature and field coil windings protect internal motors from short-circuiting due to metallic dust grinding.	10
21	**Metal Spraying Machines**	Industrial flame-wire or electric-arc thermal spraying system; Anti-corrosion/wear-resistant coating capability (zinc, aluminium, bronze alloys); Includes gas regulators, flowmeters, hoses, and spray gun assembly.		3
22	**High-Speed & Hot Air Torches (Guns)**	Power: 1600W – 3000W; 230V AC; Continuously adjustable temperature control ranges up to 600°C–700°C; Digital LED temperature display; Built-in thermal overload protection.		5
23	**Wide-Band Pressure Rollers**	High-durability silicone or heavy brass roller wheel; Wheel width: 40mm – 80mm; Ergonomic hardwood or steel frame handle; Heavy-duty internal ball bearings.		3
24	**Hot Plates**	Heavy cast-iron or ceramic-coated rectangular surface (min. 300mm x 300mm); Variable built-in thermostat up to 350°C; LED power indicator light; 240V AC.		5

25	**Machine Tractors**	Portable motorized magnetic or track-guided welding/cutting carriage; Automated straight-line gas/plasma cutting or MIG welding capability; Variable travel speed control; 220V AC.		3
26	**High-Frequency Spark Guns**	Portable high-frequency spark/leak detector and igniter unit; Insulated safety probe handle; Variable sensitivity output control; Heavy-duty carrying case.		5
27	**Ultrasonic Plastic Welders**	Operating frequency: 20kHz – 35kHz; Output power: 800W – 2000W; Pneumatic or precision manual press stand; Digital amplitude and weld-time controls.		2
28	**Linear Vibration Welders**	Industrial-grade thermoplastic assembly system (Bioclimatic/Bond Matic equivalent); High frequency and clamp force capacity tailored to standard institutional workshop footprints.		2
29	**Lathe Machines (Center Lathe)**	Swing over bed: 330mm – 400mm; Distance between centers: 1000mm – 1500mm; 3-phase electric motor (415V, 50Hz); Quick-change tool post, 3-jaw & 4-jaw chucks, safety foot brake, coolant pump, full debris enclosure.		1
30	**Shaping Machines (Metal Shaper)**	Stroke length: 450mm – 500mm; Variable ram speed settings; Swivel tool head; V-belt drive system powered by a 3-phase electric motor (415V, 50Hz); Rigid cast-iron foundation base.		2

TOOLS – FABRICATION AND WELDING

Item No.	Description of Goods or Related Service	Technical Specifications	Unit of Measure	Qty
31	Welding helmet	• Lens Shade DIN10 • Dark lens 108x51x3mm • Glass clear lens 108x89mm	Each	30

		• Impact resistant plastic (DIN 175B) • Flame retardant • Front flip • Adjustable head strap		
32	Welding goggles	• Green flip top • Lens shade DIN 5 • Ventilation poles	Each	30
33	Steel Tape Measure	5 m Reverse printed blade Nylon coated blade Housed in a high impact plastic case Magnetic hook	Each	30
34	Leather Gloves (Elbow)	• Heavy duty • Reinforced palm and thumb • Length 200mm • Green/blue/grey • Compliant with EN420	Pair	30
35	Leather gloves (Palm)	• Heavy duty • Reinforced palm and thumb • Palm length • Green/blue/grey • EN420 • Type A	Pair	30
36	Steel ruler	• Length 600mm • Stainless steel with polished finish • Metric to imperial conversion	Each	30

		• Permanent black figures and graduation • Accuracy ± 0.2mm • Square end flexible		
37	Try square	• Length 300mm • Stainless steel with polished finish • Metric to imperial conversion • Permanent black figures and graduation • Accuracy ± 0.2mm • Square end flexible high-speed blade	Each	30
38	Ball pein Hammer	Drop forged Striking faces induction hardened and ecision ground Blue epoxy powder coated Hard wood handle 375 mm length handle 0.840 kilograms weight	Each	30
39	Adjustable Hacksaw complete with blade	Compliant with BS 1919 Die Cast D styled handle Tubular chrome coated frame Wing nut blade Tensioning For 250 mm (10”) and 300 mm (12”) cksaw blades. Shatterproof HSS blades 24 teeth per inch	Set	30
40	Snips (General purpose)	• Drop forged carbon steel	Each	30

		• Hardened precision ground blades • Length 200mm • Sheet thickness 1.2mm at strength of 600N/mm^2		
41	Nozzle cleaner	• High strength needle type files • Anodised aluminium flip-up pocket case • 6 Piece pack	Each	30
42	Scriber	• Length 180mm • Hardened and tempered high-grade steel • Knurled body • Double ended with one straight point and the other at 900	Each	30
43	Welders' chipping hammer	• Hardened and tempered spring steel head • Chisel edge and point striking faces • Epoxy coating • Spring steel impact absorbing handle • 300g pick and flat ends	Each	30
44	Chisel and Punch set (6 pieces)	• Chrome Molybdenum Vanadium air hardened tempered along the full length • 45CrMoV7 steel • Striking head induction tempered to prevent shattering • Working edge polished and clear vanished • In a PVC pack	Set	30
45	Rubber Mallet	• Face 65mm Diameter	Each	30

		• Head size 24Oz • Handle length 300mm		
46	Leather Apron	• One-piece 600x1200cm • Two side pockets • neck and back stripes	Each	30
47	Adjustable wrench open end	• Chrome Vanadium Steel 31CrV3 • Manganese Phosphate finish • 150 mm length Jaw set at 15 Degrees • Ground head		
48	Screwdriver set (6 piece)	• Flat Head marked • Cross head PH1 and PH2 • Slotted/Straight head 4, 5.5, 6.5 and 8mm) • Hanging hole • Ergonomic grip handle • Vanadium, molybdenum tempered steel • Compliant with DIN – ISO 2380- 2 • Blade tip according to DIN – ISO 2380- 1 Form A • Precision made blade tip	Set	30
49	File (Engineers Industrial) set with plastic handles	• Compliant with BS 498:1990 • 1 hand file (250mm) • 1 flat file (250mm) • 1 Round file (250mm) • 1 Half round file (250mm)	Each	30

		• Manufactured from chrome/molybdenum steel • Hardened and tempered • Bastard cut, second cut and smooth cut		
50	Taps and die set	• M3 – M12 • High speed steel ground thread (ISO 529) • Tapping drills (BS328/DIN338N) • Split dies and nuts manufactured to BS1127	Each	30
51	Spring universal divider	• Must have a Circular spring bow joining the legs. • Extension on the bow for used when pivoting • 60g by weight • Length 200mm	Each	30
52	Spring inside calliper	• Must have a Circular spring bow joining the legs. • Extension on the bow for used when pivoting • 60g by weight • Length 200mm	Each	30
53	Spring outside calliper	• Must have a Circular spring bow joining the legs. • Extension on the bow for used when pivoting • 60g by weight	Each	30
54	Portable arc welding Machine	• Input 230V • 50HZ • Maximum output 200A • 60% Duty cycle at 160A	Each	30

55	Angle Grinder	• Input 220-240V and 13 Amps • RPM above 2200 • Output 1200 Watts • Disc size 9″	Each	30
56	Portable Drilling Machine	• 115 mm • Spindle thread 14″ • 220-240 V A/C 13Amps • 900 Watts output • Light Duty • Metal drive gears	Each	30
57	Drilling Bits set from 1 mm to 13 mm	• General purpose drill bits • Should be imperial set • Point angle of 118 Degrees • Normal helix angle • Relief angle of 10 Degrees to 20 Degrees • Tolerance of h8 • Compliant with BS 328 DIN 338 RN	Each	30
58	Tong	• Length 500mm • Closed mouth • Flat	Each	30
59	Soldering iron	• Copper bit • Wooden handle • Straight shaft	Each	30
60	Combination pliers with cutter	• Chrome Vanadium steel with vinyl handle	Each	30

		• Double polished head and joint with induction hardened cutting edges • Scattered gripping and crimping jaws behind the head		
61	Wire Brash	• With wooden handle • With scraper • Bristle type	Each	30
62	Toolbox empty, with Steel Padlocks and with keys	• 5 Compartments • Smooth and easy opening • Maximum access to the bottom tray • Lockable phosphate and powder coated • Length 550 mm • Width 248 mm • Height 220 mm		30
63	Soldering Irons (Standard & Electric)	• Power: 60W – 150W; Voltage: 220–240V AC, 50Hz; Thermostatically controlled; Interchangeable copper/iron-plated tips; Heat-resistant handle; Fitted with BS 1363 3-pin fused plug.	Each	10
64	Welding Nozzles (Tacking, Cranked, Hot Plate, Speed)	• Heavy-duty chrome-zirconium copper or high-grade stainless-steel construction; High heat resistance; Compatible with standard institutional M6/M8 torch barrel configurations.	Each	5

LOT 3(A): ELECTRICAL INSTALLATION – LUNJIKA CSDC

Item No.	Description of Goods or Related Service	Technical Specifications	Malawi Grid & Safety Compliance	Qty
1	**Solar System Simulating Equipment**	Mobile/benchtop station; Includes physical monocrystalline PV module, programmable MPPT charge controller, pure sine wave inverter (230V 50Hz), deep-cycle solar battery bank; Artificial software-controlled solar irradiance array (Halogen/LED); USB/Ethernet data logger for real-time tracking on PC.	Allows safe, fault-programmable student training on off-grid and grid-tied solar setups entirely indoors.	1 set
2	**Electrical multi-meter**	Digital Multi-meter (DMM); **CAT III 600V / CAT II 1000V safety certified**; Measures AC/DC Voltage (up to 600V), AC/DC Current (up to 10A fused), Resistance (up to 40MΩ), Capacitance, Diode, and Acoustic continuity; Wrapped in shock-absorbing rubber holster; Includes silicone test leads.	**Mandatory high-category safety rating** to prevent catastrophic tool failure or arc-flash injury during student mistakes.	**10 Pcs**
3	**Desktop Computer for Auto-CAD**	Intel Core i7 or AMD Ryzen 7 (Min 8 cores, ≥ 3.0 GHz); 32GB DDR5 RAM; 1TB NVMe M.2 SSD; Dedicated workstation GPU (NVIDIA RTX or AMD Radeon Pro with min 8GB VRAM); 24" Full HD IPS anti-glare monitor; Windows 11 Pro 64-bit; **Includes individual 650VA Line-Interactive UPS with built-in AVR**.	**Individual UPS bundled pricing is mandatory** to protect motherboards and prevent student data loss during ESCOM load shedding.	**20 Pcs**
4	**3-Phase Transformer**	Double-wound, air-cooled educational lab transformer; 1.0 kVA to 2.0 kVA rating; Primary: 400V AC Delta (Δ); Secondary: 230V/400V AC Star (Y) with accessible neutral; Upright panel with 4mm shrouded safety sockets; Integrated phase fuses and thermal trip.	Transparent inspection window lets students see inner windings safely. Shrouded safety sockets prevent finger shocks.	4 Pcs
5	**Single-Phase Transformer**	Multi-tap educational isolation transformer; 500VA to 1000VA rating; Inputs/Outputs configurable for 230V / 115V / 48V / 24V / 12V AC at 50Hz; Enclosed benchtop unit with	Safe voltage step-down source for introductory student bench wiring experiments.	4 Pcs

		integrated input fuse and carry handle.		
6	**3-Phase Motor**	Industrial Squirrel Cage Induction Motor; 0.75 kW to 1.5 kW (1.0 HP to 2.0 HP); 400V AC, 3-Phase, 50Hz; Star/Delta configurable terminal box; Standard IEC frame with keyed output shaft; IP55 dust/splash rating.	Rugged industrial build designed to handle repetitive student reversing and star-delta starting exercises.	4 Pcs
7	**Single-Phase Motor**	Capacitor-Start, Capacitor-Run industrial induction motor; 0.37 kW to 0.75 kW (0.5 HP to 1.0 HP); 230V AC Single-Phase, 50Hz; Built-in manual reset thermal overload protection switch.	Standard workshop bench utility motor for single-phase control wiring practice.	4 Pcs
8	**Insulation Resistant Tester (Megger)**	Selectable DC testing voltages: 250V, 500V, 1000V, and 2500V; Insulation measurement range up to 100 GΩ; Measures AC/DC voltage up to 600V; Audible continuity tester; **CAT IV 600V safety certified**; Auto-discharge circuit function.	Vital tool for testing power transmission and distribution lines; auto-discharge safely releases lingering capacitive charge.	3 Pcs
9	**Wooden Poles - Electrical Poles**	Straight-grain Eucalyptus (Saligna/Grandis) timber poles; Full-length pressure impregnation treated with Creosote or CCA (Copper Chrome Arsenate); Overall length: 9.0 Meters; Min top diameter: 140mm; Base diameter: 200mm+.	Treated strictly to international standards to resist severe termite rot and tropical weathering on the outdoor training field.	6 Pcs
10	**Aluminium Conductors**	All Aluminium Conductor (AAC) or Aluminium Conductor Steel Reinforced (ACSR) overhead line; 50 mm² cross-sectional area (code name "Wasp" or equivalent standard cross-section); multi-strand design.	Sized to standard low-voltage line dimensions used nationally by ESCOM for easy practical training relevance.	20 m
11	**Plumb Bob**	400g to 500g solid brass or polished steel body; Hexagonal or teardrop shape with replaceable screw-cap point; Includes 10 meters of braided nylon cord.	Used for verifying absolute vertical alignment when training students on electrical pole installations.	2 pcs
12	**Clamp On Meter**	True-RMS AC Digital Clamp Meter; Minimum 30mm jaw opening capacity; Measures AC current from 0.1A up to 400A/600A without breaking	Allows safe non-contact current measurements on live overhead distribution wires or main switchboards.	2 Pcs

		circuit; Measures AC/DC voltage and resistance; **CAT III 600V certified**.		
13	**Safety Belt**	Full-body fall arrest lineman harness with integrated heavy padded positioning tool belt; 1 dorsal D-ring (fall arrest), 2 lateral side D-rings (positioning); Includes adjustable core-mantle rope lanyard with steel snap-hooks; EN 361/358 compliant.	**Mandatory PPE item** to secure students while practicing overhead climbing tasks on the wooden poles.	**6 PCs**
14	**Insulating Gloves**	**Class 0 High-Voltage Rubber Insulating Gloves**; Max certified working voltage of **1000V AC** (tested to 5000V AC); Anatomically shaped natural dielectric rubber; **Supplied with heavy leather outer protective over-gloves**.	Leather over-gloves are mandatory to protect the fragile rubber dielectric lining from structural tears or punctures.	2 Pair
15	**Climbers**	Adjustable steel wood-pole climbing gaffs/spikes; High-tensile alloy steel shank with contoured, padded calf cuffs; Heavy-duty double-riveted leather/neoprene secure straps; Hardened tool-steel replaceable spikes.	Heavy-duty lineman hardware to enable students to scale wooden utility poles during distribution training.	2 pairs
16	**Come Along**	Parallel-jaw aluminium/steel wire conductor pulling grip; Sized to cleanly grip aluminium strands from 5mm to 15mm outside diameter without stripping wire face; Safe working load: 1000kg to 1500kg.	Used for tensioning overhead aluminum conductors safely without damaging structural wires.	2 Pcs
17	**Shackle Insulator**	High-grade wet-process glazed porcelain or UV-stabilized polymer; Low-voltage rating (up to 1kV); **Supplied complete with galvanized D-iron mounting brackets, bolts, and split pins**.	Standard overhead dead-end assembly lining for low-voltage residential drop training.	6 Pcs
18	**Pin Insulator**	Glazed porcelain or composite polymer insulator; Rated for low-to-medium voltage line distribution (1kV to 11kV); **Supplied with heavy-duty galvanized steel mounting pin shank**.	Used on pole crossarms to train students on straight-line overhead network distributions.	6 Pcs
19	**Stay Insulator**	Egg/Stay type glazed porcelain insulator; Sized for high-tensile stay wires; High mechanical	Essential component used to train students on installing guy wires to	6Pcs

		tensile strength to support pole anchor bracing lines.	balance mechanical pole tension.	
20	**Spring Benders (20mm)**	Internal conduit bending spring; Designed for 20mm outer-diameter PVC conduit piping; High-tensile square-profile spring steel wire with zinc-plated anti-rust finish; Fitted with an integrated end pull-ring.	Allows students to bend PVC conduit pipes cleanly during wall installations without kinking or collapsing the pipe walls.	20 Pcs
21	**Set of Electrical Screwdriver (Terminal Flat)**	**1000V Fully Insulated handle and blade shaft sleeve; VDE and GS safety certified**; Chrome-Vanadium-Molybdenum tempered steel; Compliant with **DIN - ISO 2380-2**; Blade tips matching **DIN - ISO 2380-1 Form A** precision ground.	**1000V VDE certification is non-negotiable** to shield students from accidental electrocution during live panel calibrations.	**20 Pcs**
22	**Set of Electrical Screwdriver (Terminal Star)**	**1000V Fully Insulated handle and shaft sleeve; VDE and GS safety certified**; Chrome-Vanadium-Molybdenum core; Star tip profiles matching standard Phillips (PH1, PH2) and Posidrive (PZ1, PZ2) tip standards.	Companion set to Item 22, explicitly insulated for terminal control panel screws and breaker housing adjustments.	20 Sets
23	**Set of Electrical Screwdriver (Giant Flat & Star)**	Heavy-duty large-scale insulated cabinet screwdrivers; **1000V VDE/GS certified**; Large flat slotted tips (6.5mm–8.0mm) and large star tips (PH3/PZ3); 100mm to 150mm insulated shaft lengths.	Intended for high-torque assembly framing inside main distribution boards and machine terminal box fittings.	20 Sets
24	**Electrician Hacksaw**	Low-profile or mini-hacksaw frame assembly designed for tight-space workspace enclosures; Supplied fitted with 250mm/300mm Bi-Metal, 24 TPI (Teeth Per Inch) flexible shatter-proof cutting blades.	Tailored for clean, burr-free cutting of PVC trunking, plastic conduit pipes, and light copper grounding bars.	20 Pcs
25	**Pliers**	Heavy-duty industrial combination pliers; **1000V VDE/GS certified injected comfort handles with protective slip guards**; Drop-forged high-grade tool steel;	Induction-hardened cutting edges. | Standard high-insulation hand tools for bending, gripping, and cutting copper conductor wires safely	20 Pcs
26	**General Pliers**	Duplicate pool item matching Item 26; **1000V VDE/GS insulation certified** with integrated protective thumb slips; Hardened jaw steel	Ensures ample student tool quantities across large classroom benches while maintaining rigid safety baselines	20 Pcs

		optimized for stripping and twisting cable wire strands.		
27	**Side Cutter**	Diagonal cutting pliers; **1000V VDE/GS fully insulated handles** with high-leverage offset rivet; Induction-hardened offset cutting edges optimized for clean flush-cutting of copper wire up to 4mm.	Designed for clean, flat cutting of wires inside tight junction boxes without leaving dangerous protruding wire points.	20 Pcs
28	**Fishing Tape**	**30 Meters in length**; Flexible, non-conductive, non-corrosive premium polyester or fiberglass core wire profile; **Housed inside a non-conductive impact-resistant plastic payout casing** with thumb lock	**Non-conductive casing and wire are mandatory** to ensure safety if students pull draw wires through conduits near active panels.	**20 Pcs**
29	**Striper (Wire Stripper**	Automatic self-adjusting mechanical wire stripper or adjustable screw-stop stripping pliers; Capacity to cleanly strip single/multi-strand insulation from 0.2mm² up to 6.0mm² wires without nicking copper	Prevents students from scoring or weakening internal copper conductor strands during cable termination preparation	20 Pcs

Basic Tools for Electrical Installation and Electronics

Item No.	Description of Goods or Related Service	Key Technical Specifications	Unit of Measure	Qty
30	Digital Multi Meter	• Voltage max 12 – 1000 Volts • Removable rubber holster with integral lead holder •Resistance Max 32.6 Kilo Ohms • Auto ranging reading/peak hold, bar graph • Overload indication • Low battery indicator tilt stand and hanger. • Single pole phase testing • Safety rating Cat III 600V and Cat II 1000V	Each	30
31	Screw drivers Set of 6 piece of flat head	• Head marked • 1000V Fully insulation including the blade • Hanging hole • Ergonomic grip handle • Vanadium, molybdenum tempered steel •Compliant with DIN – ISO 2380-2	Set	30

		• Blade tip according to DIN–ISO 2380- 1 Form A •Precision made blade tip		
32	Engineers' pliers Straight	• Compliant with ISO 5746 • For flat and round grip • Chrome Vanadium Cr59V3 • Chrome plated • 200 mm • 1000 V fully insulated handles	Pair	30
33	Long nose plier	• Compliant with ISO 5746 • For flat and round grip • Chrome Vanadium Cr59V3 • Chrome plated • 200 mm • 1000 V fully insulated handles • Long flat jaws and gripping surfaces	Each	30
34	Side Cutter	• Compliant with ISO 5746 • For flat and round grip • Chrome Vanadium Cr59V3 • Oil hardened Chrome plated • 200 mm • 1000 V fully insulated handles • Cutting edges inductively hardened	Each	30
35	Spring bender	• ½" bender • ¾" bender	Each	30
36	Fishing tape	• Noncorrosive • Nonconductive • 30 m in length steel • Housed in a non- conductive casing	Each	30
37	Chasing hammer	• 500 g, by weight •Wooden Handle •Teethed edge	Each	30
38	Adjustable Hacksaw complete with blade	• Compliant with BS 1919 • Die Cast D styled handle • Tubular chrome coated frame • Wing nut blade Tensioning • For 250 mm (10") and 300 mm (12") hacksaw blades. • Shatterproof HSS blades • 24 teeth per inch	Set	30

39	Ball pein Hammer	• Drop forged • Striking faces induction hardened and precision ground • Blue epoxy powder coated • Hard wooden handle • 375 mm length handle • 0.840 kilograms weight	Each	30
40	Steel Tape Measure	· Length 5m Reverse printed blades, nylon coated to last longer · Plastic cased · Double sided marked blade • With a sliding magnetic hook and belt clip	Each	30
41	Electric soldering iron	• 70W, 240V and 3 wire cable	Each	30
42	Solder sucker	• Single handed • Temperature resistant • Can be placed directly onto the solder • Anti- static body • Nozzle size 3 mm OD, 1.5 mm ID and 20 mm length • Heat resistant tip • aluminum housing • 195 mm length • Plastic with rubber seals	Each	30
43	Chisel	• 2-3/4 " blade width • one-piece forged handle and blade of strong alloy • Corrosion resistant black finish • 203.2 overall length • 0.5 Kgs by weight • With protective rubber shield	Each	30
44	Cold chisel	• chrome vanadium air hardened steel • blade width of 10 mm x200mm • Multi- coating of impact • Octagonal grip shank	Each	30
45	Spirit Level	• 100cm in length • Yellow powder coated with metric Graduation. 100 cm long Level Standard anti slip end caps	Each	30
46		• 3 mm Flat end tip	Each	30

	Screw Driver tester	• Nickel plated Iron • 1000V insulated body • 100 - 500 V Neon Lamp		
47	Combination spanner 6 -22 mm (26 piece set)	• Compliant with ISO 3318 and ISO 7738 • Cr31V3 •Chromium plated • In a pouch	Set	30
48	Neon voltage tester	• 90 –250V • AC/DC with pocket clip • 5-inch lead probe	Each	15
49	Toolbox empty, with Steel Padlock and keys	• 5 Compartments • Smooth and easy opening • Maximum access to the bottom tray • Lockable phosphate and powder coated • Length 550 mm • Width 248 mm • Height 220 mm	Each	30

LOT 3(B): ELECTRICAL INSTALLATION – THAMBANI CSDC

Item No.	Description of Goods or Related Service	Technical Specifications	Malawi Grid & Safety Compliance	Qty
1	**Solar System Simulating Equipment**	Mobile/benchtop station; Includes physical monocrystalline PV module, programmable MPPT charge controller, pure sine wave inverter (230V 50Hz), deep-cycle solar battery bank; Artificial software-controlled solar irradiance array (Halogen/LED); USB/Ethernet data logger for real-time tracking on PC.	Allows safe, fault-programmable student training on off-grid and grid-tied solar setups entirely indoors.	1 set
2	**Electrical multi-meter**	Digital Multi-meter (DMM); **CAT III 600V / CAT II 1000V safety certified**; Measures AC/DC Voltage (up to 600V), AC/DC Current (up to 10A fused), Resistance (up to 40MΩ), Capacitance, Diode, and Acoustic continuity; Wrapped in shock-absorbing rubber holster; Includes silicone test leads.	**Mandatory high-category safety rating** to prevent catastrophic tool failure or arc-flash injury during student mistakes.	**10 Pcs**

3	**Desktop Computer for Auto-CAD**	Intel Core i7 or AMD Ryzen 7 (Min 8 cores, ≥ 3.0 GHz); 32GB DDR5 RAM; 1TB NVMe M.2 SSD; Dedicated workstation GPU (NVIDIA RTX or AMD Radeon Pro with min 8GB VRAM); 24" Full HD IPS anti-glare monitor; Windows 11 Pro 64-bit; **Includes individual 650VA Line-Interactive UPS with built-in AVR**.	**Individual UPS bundled pricing is mandatory** to protect motherboards and prevent student data loss during ESCOM load shedding.	**20 Pcs**
4	**3-Phase Transformer**	Double-wound, air-cooled educational lab transformer; 1.0 kVA to 2.0 kVA rating; Primary: 400V AC Delta (Δ); Secondary: 230V/400V AC Star (Y) with accessible neutral; Upright panel with 4mm shrouded safety sockets; Integrated phase fuses and thermal trip.	Transparent inspection window lets students see inner windings safely. Shrouded safety sockets prevent finger shocks.	4 Pcs
5	**Single-Phase Transformer**	Multi-tap educational isolation transformer; 500VA to 1000VA rating; Inputs/Outputs configurable for 230V / 115V / 48V / 24V / 12V AC at 50Hz; Enclosed benchtop unit with integrated input fuse and carry handle.	Safe voltage step-down source for introductory student bench wiring experiments.	4 Pcs
6	**3-Phase Motor**	Industrial Squirrel Cage Induction Motor; 0.75 kW to 1.5 kW (1.0 HP to 2.0 HP); 400V AC, 3-Phase, 50Hz; Star/Delta configurable terminal box; Standard IEC frame with keyed output shaft; IP55 dust/splash rating.	Rugged industrial build designed to handle repetitive student reversing and star-delta starting exercises.	4 Pcs
7	**Single-Phase Motor**	Capacitor-Start, Capacitor-Run industrial induction motor; 0.37 kW to 0.75 kW (0.5 HP to 1.0 HP); 230V AC Single-Phase, 50Hz; Built-in manual reset thermal overload protection switch.	Standard workshop bench utility motor for single-phase control wiring practice.	4 Pcs
8	**Insulation Resistant Tester (Megger)**	Selectable DC testing voltages: 250V, 500V, 1000V, and 2500V; Insulation measurement range up to 100 GΩ; Measures AC/DC voltage up to 600V; Audible continuity tester; **CAT IV 600V safety certified**; Auto-discharge circuit function.	Vital tool for testing power transmission and distribution lines; auto-discharge safely releases lingering capacitive charge.	3 Pcs

9	**Wooden Poles - Electrical Poles**	Straight-grain Eucalyptus (Saligna/Grandis) timber poles; Full-length pressure impregnation treated with Creosote or CCA (Copper Chrome Arsenate); Overall length: 9.0 Meters; Min top diameter: 140mm; Base diameter: 200mm+.	Treated strictly to international standards to resist severe termite rot and tropical weathering on the outdoor training field.	6 Pcs
10	**Aluminium Conductors**	All Aluminium Conductor (AAC) or Aluminium Conductor Steel Reinforced (ACSR) overhead line; 50 mm^2 cross-sectional area (code name "Wasp" or equivalent standard cross-section); multi-strand design.	Sized to standard low-voltage line dimensions used nationally by ESCOM for easy practical training relevance.	20 m
11	**Plumb Bob**	400g to 500g solid brass or polished steel body; Hexagonal or teardrop shape with replaceable screw-cap point; Includes 10 meters of braided nylon cord.	Used for verifying absolute vertical alignment when training students on electrical pole installations.	2 pcs
12	**Clamp On Meter**	True-RMS AC Digital Clamp Meter; Minimum 30mm jaw opening capacity; Measures AC current from 0.1A up to 400A/600A without breaking circuit; Measures AC/DC voltage and resistance; **CAT III 600V certified**.	Allows safe non-contact current measurements on live overhead distribution wires or main switchboards.	2 Pcs
13	**Safety Belt**	Full-body fall arrest lineman harness with integrated heavy padded positioning tool belt; 1 dorsal D-ring (fall arrest), 2 lateral side D-rings (positioning); Includes adjustable core-mantle rope lanyard with steel snap-hooks; EN 361/358 compliant.	**Mandatory PPE item** to secure students while practicing overhead climbing tasks on the wooden poles.	**6 PCs**
14	**Insulating Gloves**	**Class 0 High-Voltage Rubber Insulating Gloves**; Max certified working voltage of **1000V AC** (tested to 5000V AC); Anatomically shaped natural dielectric rubber; **Supplied with heavy leather outer protective over-gloves**.	Leather over-gloves are mandatory to protect the fragile rubber dielectric lining from structural tears or punctures.	2 Pair
15	**Climbers**	Adjustable steel wood-pole climbing gaffs/spikes; High-tensile alloy steel shank with contoured, padded calf cuffs; Heavy-duty double-riveted leather/neoprene secure straps;	Heavy-duty lineman hardware to enable students to scale wooden utility poles during distribution training.	2 pairs

		Hardened tool-steel replaceable spikes.		
16	**Come Along**	Parallel jaw aluminium/steel wire conductor pulling grip; Sized to cleanly grip aluminium strands from 5mm to 15mm outside diameter without stripping wire face; Safe working load: 1000kg to 1500kg.	Used for tensioning overhead aluminium conductors safely without damaging structural wires.	2 Pcs
17	**Shackle Insulator**	High-grade wet-process glazed porcelain or UV-stabilized polymer; Low-voltage rating (up to 1kV); **Supplied complete with galvanized D-iron mounting brackets, bolts, and split pins**.	Standard overhead dead-end assembly lining for low-voltage residential drop training.	6 Pcs
18	**Pin Insulator**	Glazed porcelain or composite polymer insulator; Rated for low-to-medium voltage line distribution (1kV to 11kV); **Supplied with heavy-duty galvanized steel mounting pin shank**.	Used on pole crossarms to train students on straight-line overhead network distributions.	6 Pcs
19	**Stay Insulator**	Egg/Stay type glazed porcelain insulator; Sized for high-tensile stay wires; High mechanical tensile strength to support pole anchor bracing lines.	Essential component used to train students on installing guy wires to balance mechanical pole tension.	6Pcs
20	**Spring Benders (20mm)**	Internal conduit bending spring; Designed for 20mm outer-diameter PVC conduit piping; High-tensile square-profile spring steel wire with zinc-plated anti-rust finish; Fitted with an integrated end pull-ring.	Allows students to bend PVC conduit pipes cleanly during wall installations without kinking or collapsing the pipe walls.	20 Pcs
21	**Set of Electrical Screwdriver (Terminal Flat)**	**1000V Fully Insulated handle and blade shaft sleeve; VDE and GS safety certified**; Chrome-Vanadium-Molybdenum tempered steel; Compliant with **DIN - ISO 2380-2**; Blade tips matching **DIN - ISO 2380-1 Form A** precision ground.	**1000V VDE certification is non-negotiable** to shield students from accidental electrocution during live panel calibrations.	**20 Pcs**
22	**Set of Electrical Screwdriver (Terminal Star)**	**1000V Fully Insulated handle and shaft sleeve; VDE and GS safety certified**; Chrome-Vanadium-Molybdenum core; Star tip profiles matching standard Phillips (PH1, PH2) and Posidrive (PZ1, PZ2) tip standards.	Companion set to Item 22, explicitly insulated for terminal control panel screws and breaker housing adjustments.	20 Sets

23	**Set of Electrical Screwdriver (Giant Flat & Star)**	Heavy-duty large-scale insulated cabinet screwdrivers; **1000V VDE/GS certified**; Large flat slotted tips (6.5mm–8.0mm) and large star tips (PH3/PZ3); 100mm to 150mm insulated shaft lengths.	Intended for high-torque assembly framing inside main distribution boards and machine terminal box fittings.	20 Sets
24	**Electrician Hacksaw**	Low-profile or mini-hacksaw frame assembly designed for tight-space workspace enclosures; Supplied fitted with 250mm/300mm Bi-Metal, 24 TPI (Teeth Per Inch) flexible shatter-proof cutting blades.	Tailored for clean, burr-free cutting of PVC trunking, plastic conduit pipes, and light copper grounding bars.	20 Pcs
25	**Pliers**	Heavy-duty industrial combination pliers; **1000V VDE/GS certified injected comfort handles with protective slip guards**; Drop-forged high-grade tool steel;	Induction-hardened cutting edges. | Standard high-insulation hand tools for bending, gripping, and cutting copper conductor wires safely	20 Pcs
26	**General Pliers**	Duplicate pool item matching Item 26; **1000V VDE/GS insulation certified** with integrated protective thumb slips; Hardened jaw steel optimized for stripping and twisting cable wire strands.	Ensures ample student tool quantities across large classroom benches while maintaining rigid safety baselines	20 Pcs
27	**Side Cutter**	Diagonal cutting pliers; **1000V VDE/GS fully insulated handles** with high-leverage offset rivet; Induction-hardened offset cutting edges optimized for clean flush-cutting of copper wire up to 4mm.	Designed for clean, flat cutting of wires inside tight junction boxes without leaving dangerous protruding wire points.	20 Pcs
28	**Fishing Tape**	**30 Meters in length**; Flexible, non-conductive, non-corrosive premium polyester or fiberglass core wire profile; **Housed inside a non-conductive impact-resistant plastic payout casing** with thumb lock	**Non-conductive casing and wire are mandatory** to ensure safety if students pull draw wires through conduits near active panels.	**20 Pcs**
29	**Striper (Wire Stripper**	Automatic self-adjusting mechanical wire stripper or adjustable screw-stop stripping pliers; Capacity to cleanly strip single/multi-strand insulation from 0.2mm² up to 6.0mm² wires without nicking copper	Prevents students from scoring or weakening internal copper conductor strands during cable termination preparation	20 Pcs
Basic Tools for Electrical Installation and Electronics				

Item No.	Description of Goods or Related Service	Technical Specifications	Unit of Measure	Qty
30	Digital Multi Meter	• Voltage max 12 – 1000 Volts • Removable rubber holster with integral lead holder •Resistance Max 32.6 Kilo Ohms • Auto ranging reading/peak hold, bar graph • Overload indication • Low battery indicator tilt stand and hanger. • Single pole phase testing • Safety rating Cat III 600V and Cat II 1000V	Each	30
31	Screw drivers Set of 6 piece of flat head	• Head marked • 1000V Fully insulation including the blade • Hanging hole • Ergonomic grip handle • Vanadium, molybdenum tempered steel •Compliant with DIN – ISO 2380-2 • Blade tip according to DIN–ISO 2380- 1 Form A •Precision made blade tip	Set	30
32	Engineers' pliers Straight	• Compliant with ISO 5746 • For flat and round grip • Chrome Vanadium Cr59V3 • Chrome plated • 200 mm • 1000 V fully insulated handles	Pair	30
33	Long nose plier	• Compliant with ISO 5746 • For flat and round grip • Chrome Vanadium Cr59V3 • Chrome plated • 200 mm • 1000 V fully insulated handles • Long flat jaws and gripping surfaces	Each	30

34	Side Cutter	• Compliant with ISO 5746 • For flat and round grip • Chrome Vanadium Cr59V3 • Oil hardened Chrome plated • 200 mm • 1000 V fully insulated handles • Cutting edges inductively hardened	Each	30
35	Spring bender	• ½" bender • ¾" bender • Noncorrosive • Nonconductive • 30 m in length steel • Housed in a non- conductive casing	Each	30
36	Fishing tape		Each	30
37	Chasing hammer	• 500 g, by weight •Wooden Handle •Teethed edge	Each	30
38	Adjustable Hacksaw complete with blade	• Compliant with BS 1919 • Die Cast D styled handle • Tubular chrome coated frame • Wing nut blade Tensioning • For 250 mm (10") and 300 mm (12") hacksaw blades. • Shatterproof HSS blades • 24 teeth per inch	Set	30
39	Ball peen Hammer	• Drop forged • Striking faces induction hardened and precision ground • Blue epoxy powder coated • Hard Wood handle • 375 mm length handle • 0.840 kilograms weight	Each	30
40	Steel Tape Measure	· Length 5m Reverse-printed blades, nylon-coated to last longer · Plastic-cased · Double-sided marked blade • With a sliding magnetic hook and belt clip	Each	30
41	Electric soldering iron	• 70W, 240V and 3-wire cable	Each	30

42	Solder sacker	• Single-handed • Temperature resistant • Can be placed directly onto the solder • Anti- static body • Nozzle size 3 mm OD, 1.5 mm ID and 20 mm length • Heat-resistant tip • Aluminum housing • 195 mm length • Plastic with rubber seals	Each	30
43	Chisel	• 2-3/4 " blade width • One-piece forged handle and blade of strong alloy • Corrosion-resistant black finish • 203.2 overall length • 0.5 Kgs by weight • With protective rubber shield	Each	30
44	Cold chisel	• chrome vanadium air-hardened steel • Blade width of 10 mm x 200 mm • Multi- coating of impact • Octagonal grip shank	Each	30
45	Spirit Level	• 1000 mm in length • Yellow powder coated with metric Graduation. 1000mm long Level Standard anti slip end caps	Each	30
46	Screw Driver tester	• 3 mm Flat end tip • Nickel plated Iron • 1000V insulated body • 100 - 500 V Neon Lamp	Each	30
47	Combination spanner 6 -22 mm (26 piece set)	• Compliant with ISO 3318 and ISO 7738 • Cr31V3 •Chromium plated • In a pouch	Set	30
48	Neon voltage tester	• 90 –250V • AC/DC with pocket clip • 5-inch lead probe	Each	15

49	Toolbox empty, with Steel Padlock and keys	• 5 Compartments • Smooth and easy opening •Maximum access to the bottom tray • Lockable phosphate and powder coated • Length 550 mm • Width 248 mm • Height 220 mm	Each	30

LOT 4(A): TRAINING EQUIPMENT AND MACHINES - INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) - LUNJIKA CSDC

Item No.	Description of Goods or Related Service	Technical Specifications	Unit of Measure	Qty
1	All in one Desktop Computers **i7/500GB SSD**	• **Processor (CPU):** Intel Core i7 13th Generation • **Storage:** 512GB SSD • **Memory (RAM):** 16GB • **Display:** 24-inch Full HD (1920 x 1080 resolution) • **Operating System:** Windows 11 • **Connectivity & Ports:** Built-in Wi-Fi, Bluetooth, integrated 1080p webcam, built-in stereo speakers, USB Type-C/Type-A ports, and an HDMI-out or HDMI-in port. • **Included Accessories:** keyboard and mouse.	Each	30
2	Laptop Computer	• **Processor:** Intel® Core™ i7 • **Display:** 15.6 inches • **Memory (RAM):** 16 GB • **Storage:** 512 GB • **Operating System:** Windows 11 • **Ports:**	Each	2

		○ 1 x USB Type-C® 10Gbps ○ 2 x USB Type-A 5Gbps signaling rate ○ 1 x HDMI ○ 1 x Headphone/microphone combo ○ 1 x AC smart pin ○ **Connectivity:** Wi-Fi and Bluetooth.		
3	Projector	• 3-Chip 3LCD Technology • **Native Resolution**: 1080p • **Brightness:** 2800 Lumens • **Dynamic Contrast Ratio**: Up to 35,000:1 • **Light Source& Life**: 200W UHE Lamp; 4,500 hours (Normal) / 7,500 hours (ECO) • **HDR Support**: HDR10 and HLG • **Lens Adjustments**: Vertical Lens Shift (±60%), Manual Focus, 1.62x Optical Zoom • **Audio**: Built in Speaker; Bluetooth audio out	Each	1
4	Air conditioner	Capacity: 15,000 BTUs High wall split unit: Yes Cooling/heating current: 6.0/7.8 Remote controlled: Yes Accessories: Automatic voltage switcher (AVS) Installation: Yes Warranty: At least 12 months	Each	1
5	Heavy duty Printer and Photocopiers All in One Printer	• **Print and Copy Speed:** 40 ppm (pages per minute) for A4, and 21 ppm for A3. • **Functions:** Standard print, copy, and color scan. • **Resolution:** 1200 x 1200 dpi for printing; up to 600 x 600 dpi for scanning and copying. • **Monthly Duty Cycle:** Up to 165,000 pages per month. • **Paper Capacity:** Standard 1,100 sheets (two 500 sheets plus a 100-sheet multi-purpose tray).	Each	1

		• **Paper Sizes:** Supports A5R up to A3 (Ledger). • **Memory and Storage:** Standard 2 GB RAM, with a standard 8 GB SSD / optional 320 GB HDD. • **Control Panel:** 9-inch color touchscreen display. • **Connectivity:** USB and Gigabit Ethernet.		
6	Router(1x150, 000)	• **Device Interfaces:** Four 10/100/1000 Gigabit Ethernet LAN ports, one Gigabit WAN port, and a USB 2.0 port. • **Wireless Speeds:** Up to 300 Mbps on the 2.4 GHz band and 867 Mbps on the 5 GHz band. • **Wireless Standards:** IEEE 802.11ac, 802.11n, 802.11g, and 802.11a compatible. • **Antennas:** External dual-band antennas for extended wireless coverage. • **Security:** WPA/WPA2 wireless encryption and a built-in firewall (NAT/SPI). • **Features:** Supports QoS (Quality of Service) for traffic prioritization and WPS (Wi-Fi Protected Setup) for fast device connection	Each	2
7	**Network Switches**	• 24-Port or 48-Port Gigabit Ethernet (10/100/1000 Mbps); Smart Managed Layer 2/3 capabilities; PoE+ (Power over Ethernet) support across all ports; Dual SFP/SFP+ uplink ports; 19-inch rack-mountable.	Each	3
8	**Modems / Routers**	• Industrial enterprise-grade dual-band 4G/5G LTE cellular routers and ADSL/Fibre broadband gateways; High-gain external antennas; Built-in firewall and secure VPN configuration protocols.	Each	2

9	**Wireless Access Points (WAPs)**	• Enterprise Wi-Fi 6 (802.11ax) dual-band standard; Ceiling or wall-mountable design; Power over Ethernet (PoE) enabled; Centralized controller-based management capabilities.	Each	3
10	**Network Security Devices (Firewall)**	• Hardware-based Next-Generation Firewall (NGFW); Deep Packet Inspection (DPI); Web content filtering, intrusion prevention system (IPS), and 1-year automated security patch subscription license.	Each	3
11	**Multimedia Projectors**	• Native Resolution: Full HD (1920 x 1080p); Brightness: Minimum 3500 ANSI Lumens; Inputs: 2x HDMI, 1x VGA, USB; Long lamp life (min 10,000 hours eco-mode); Includes ceiling mounting bracket.	Each	15
12	**Instructional Laptops**	• Processor: Intel Core i5 or AMD Ryzen 5 (Current Generation); Memory: Minimum 8GB DDR4 RAM (16GB preferred for ICT/CAD); Storage: Minimum 512GB PCIe NVMe SSD; Display: 14" or 15.6" Anti-Glare FHD screen; OS: Windows 11 Pro; Reinforced carrying case.	Each	15

LOT 4(B): TRAINING EQUIPMENT AND MACHINES - INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) – THAMBANI CSDC

Item No.	Description of Goods or Related Service	Technical Specifications	Unit of Measure	Qty
1	All in one Desktop Computers **i7/500GB SSD**	• **Processor (CPU):** Intel Core i7 13th Generation • **Storage:** 512GB SSD • **Memory (RAM):** 16GB • **Display:** 24-inch Full HD (1920 x 1080 resolution)	Each	30

		• **Operating System:** Windows 11 • **Connectivity & Ports:** Built-in Wi-Fi, Bluetooth, integrated 1080p webcam, built-in stereo speakers, USB Type-C/Type-A ports, and an HDMI-out or HDMI-in port. **Included Accessories:** keyboard and mouse.		
2	Laptop Computer	• **Processor:** Intel® Core™ i7 • **Display:** 15.6 inches • **Memory (RAM):** 16 GB • **Storage:** 512 GB • **Operating System:** Windows 11 • **Ports:** o 1 x USB Type-C® 10Gbps o 2 x USB Type-A 5Gbps signaling rate o 1 x HDMI o 1 x Headphone/microphone combo o 1 x AC smart pin **Connectivity:** Wi-Fi and Bluetooth.	Each	2
3	Projector	• 3-Chip 3LCD Technology • **Native Resolution**: 1080p • **Brightness:** 2800 Lumens • **Dynamic Contrast Ratio**: Up to 35,000:1 • **Light Source & Life**: 200W UHE Lamp; 4,500 hours (Normal) / 7,500 hours (ECO) • **HDR Support**: HDR10 and HLG • **Lens Adjustments**: Vertical Lens Shift (±60%), Manual Focus, 1.62x Optical Zoom • **Audio**: Built in Speaker; Bluetooth audio out	Each	1
4	Air conditioner	Capacity: 15,000 BTUs High wall split unit: Yes Cooling/heating current: 6.0/7.8	Each	1

		Remote controlled: Yes Accessories: Automatic voltage switcher (AVS) Installation: Yes Warranty: At least 12 months		
5	Heavy duty Printer and Photocopiers All in One Printer	• **Print and Copy Speed:** 40 ppm (pages per minute) for A4, and 21 ppm for A3. • **Functions:** Standard print, copy, and color scan. • **Resolution:** 1200 x 1200 dpi for printing; up to 600 x 600 dpi for scanning and copying. • **Monthly Duty Cycle:** Up to 165,000 pages per month. • **Paper Capacity:** Standard 1,100 sheets (two 500 sheet cassettes plus a 100-sheet multi-purpose tray). • **Paper Sizes:** Supports A5R up to A3 (Ledger). • **Memory and Storage:** Standard 2 GB RAM, with a standard 8 GB SSD / optional 320 GB HDD. • **Control Panel:** 9-inch color touchscreen display. • **Connectivity:** USB and Gigabit Ethernet.	Each	1
6	Router(1x150, 000)	• **Device Interfaces:** Four 10/100/1000 Gigabit Ethernet LAN ports, one Gigabit WAN port, and a USB 2.0 port. • **Wireless Speeds:** Up to 300 Mbps on the 2.4 GHz band and 867 Mbps on the 5 GHz band. • **Wireless Standards:** IEEE 802.11ac, 802.11n, 802.11g, and 802.11a compatible. • **Antennas:** External dual-band antennas for extended wireless coverage. • **Security:** WPA/WPA2 wireless encryption and a built-in firewall (NAT/SPI).	Each	2

		• **Features:** Supports QoS (Quality of Service) for traffic prioritization and WPS (Wi-Fi Protected Setup) for fast device connection		
7	**Network Switches**	• 24-Port or 48-Port Gigabit Ethernet (10/100/1000 Mbps); Smart Managed Layer 2/3 capabilities; PoE+ (Power over Ethernet) support across all ports; Dual SFP/SFP+ uplink ports; 19-inch rack-mountable.	Each	3
8	**Modems / Routers**	• Industrial enterprise-grade dual-band 4G/5G LTE cellular routers and ADSL/Fibre broadband gateways; High-gain external antennas; Built-in firewall and secure VPN configuration protocols.	Each	2
9	**Wireless Access Points (WAPs)**	• Enterprise Wi-Fi 6 (802.11ax) dual-band standard; Ceiling or wall-mountable design; Power over Ethernet (PoE) enabled; Centralized controller-based management capabilities.	Each	3
10	**Network Security Devices (Firewall)**	• Hardware-based Next-Generation Firewall (NGFW); Deep Packet Inspection (DPI); Web content filtering, intrusion prevention system (IPS), and 1-year automated security patch subscription license.	Each	3
11	**Multimedia Projectors**	• Native Resolution: Full HD (1920 x 1080p); Brightness: Minimum 3500 ANSI Lumens; Inputs: 2x HDMI, 1x VGA, USB; Long lamp life (min 10,000 hours eco-mode); Includes ceiling mounting bracket.	Each	15
12	**Instructional Laptops**	• Processor: Intel Core i5 or AMD Ryzen 5 (Current Generation); Memory: Minimum 8GB DDR4 RAM (16GB preferred for ICT/CAD); Storage: Minimum 512GB PCIe NVMe SSD; Display: 14" or 15.6" Anti-Glare FHD	Each	15

		screen; OS: Windows 11 Pro; Reinforced carrying case.		

LOT 4(C): TRAINING EQUIPMENT AND MACHINES - INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) – MGAYI CTC

Item No.	Description of Goods or Related Service	Technical Specifications	Unit of Measure	Qty
1	All-in-one Desktop Computers **i7/500GB SSD**	• **Processor (CPU):** Intel Core i7 13th Generation • **Storage:** 512GB SSD • **Memory (RAM):** 16GB • **Display:** 24-inch Full HD (1920 x 1080 resolution) • **Operating System:** Windows 11 • **Connectivity & Ports:** Built-in Wi-Fi, Bluetooth, integrated 1080p webcam, built-in stereo speakers, USB Type-C/Type-A ports, and an HDMI-out or HDMI-in port. • **Included Accessories:** keyboard and mouse.		30
2	Laptop Computer	• **Processor:** Intel® Core™ i7 • **Display:** 15.6 inches • **Memory (RAM):** 16 GB • **Storage:** 512 GB • **Operating System:** Windows 11 • **Ports:** o 1 x USB Type-C® 10Gbps o 2 x USB Type-A 5Gbps signaling rate o 1 x HDMI		2

		○ 1 x Headphone/microphone combo ○ 1 x AC smart pin ○ **Connectivity:** Wi-Fi and Bluetooth.		
3	Projector	• 3-Chip 3LCD Technology • **Native Resolution**: 1080p • **Brightness:** 2800 Lumens • **Dynamic Contrast Ratio**: Up to 35,000:1 • **Light Source & Life**: 200W UHE Lamp; 4,500 hours (Normal) / 7,500 hours (ECO) • **HDR Support**: HDR10 and HLG • **Lens Adjustments**: Vertical Lens Shift (±60%), Manual Focus, 1.62x Optical Zoom • **Audio**: Built in Speaker; Bluetooth audio out.		1
4	Air conditioner	Capacity: 15,000 BTUs High wall split unit: Yes Cooling/heating current: 6.0/7.8 Remote controlled: Yes Accessories: Automatic voltage switcher (AVS) Installation: Yes Warranty: At least 12 months		1
5	Heavy-duty Printer and Photocopiers All-in-One Printer	• **Print and Copy Speed:** 40 ppm (pages per minute) for A4, and 21 ppm for A3. • **Functions:** Standard print, copy, and color scan. • **Resolution:** 1200 x 1200 dpi for printing; up to 600 x 600 dpi for scanning and copying. • **Monthly Duty Cycle:** Up to 165,000 pages per month. • **Paper Capacity:** Standard 1,100 sheets (two 500 sheets plus a 100-sheet multi-purpose tray). • **Paper Sizes:** Supports A5R up to A3 (Ledger). • **Memory and Storage:** Standard 2 GB RAM, with a standard 8 GB SSD / optional 320 GB HDD. • **Control Panel:** 9-inch color touchscreen display.		1

		• **Connectivity:** USB and Gigabit Ethernet.		
6	Router(1x150, 000)	• **Device Interfaces:** Four 10/100/1000 Gigabit Ethernet LAN ports, one Gigabit WAN port, and a USB 2.0 port. • **Wireless Speeds:** Up to 300 Mbps on the 2.4 GHz band and 867 Mbps on the 5 GHz band. • **Wireless Standards:** IEEE 802.11ac, 802.11n, 802.11g, and 802.11a compatible. • **Antennas:** External dual-band antennas for extended wireless coverage. • **Security:** WPA/WPA2 wireless encryption and a built-in firewall (NAT/SPI). • **Features:** Supports QoS (Quality of Service) for traffic prioritization and WPS (Wi-Fi Protected Setup) for fast device connection		2
7	**Network Switches**	• 24-Port or 48-Port Gigabit Ethernet (10/100/1000 Mbps); Smart Managed Layer 2/3 capabilities; PoE+ (Power over Ethernet) support across all ports; Dual SFP/SFP+ uplink ports; 19-inch rack-mountable.	Each	3
8	**Modems / Routers**	• Industrial enterprise-grade dual-band 4G/5G LTE cellular routers and ADSL/Fibre broadband gateways; High-gain external antennas; Built-in firewall and secure VPN configuration protocols.	Each	2
9	**Wireless Access Points (WAPs)**	• Enterprise Wi-Fi 6 (802.11ax) dual-band standard; Ceiling or wall-mountable design; Power over Ethernet (PoE) enabled; Centralized controller-based management capabilities.	Each	3
10	**Network Security**	• Hardware-based Next-Generation Firewall (NGFW); Deep Packet	Each	3

	Devices (Firewall)	Inspection (DPI); Web content filtering, intrusion prevention system (IPS), and 1-year automated security patch subscription license.		
11	**Multimedia Projectors**	• Native Resolution: Full HD (1920 x 1080p); Brightness: Minimum 3500 ANSI Lumens; Inputs: 2x HDMI, 1x VGA, USB; Long lamp life (min 10,000 hours eco-mode); Includes ceiling mounting bracket.	Each	15
12	**Instructional Laptops**	• Processor: Intel Core i5 or AMD Ryzen 5 (Current Generation); Memory: Minimum 8GB DDR4 RAM (16GB preferred for ICT/CAD); Storage: Minimum 512GB PCIe NVMe SSD; Display: 14" or 15.6" Anti-Glare FHD screen; OS: Windows 11 Pro; Reinforced carrying case.	Each	15

LOT 5 (A): BRICKLAYING TRAINING EQUIPMENT AND MACHINES – LUNJIKA CSDC

Item No.	Description of Goods or Related Service	Technical Specifications	Malawi Grid, Site & Safety Compliance	Qty
1	**Brick/Block Making Machine (Heavy Duty)**	**Type:** Manual-hydraulic or mechanical drop-vibration mobile egg-layer block machine; **Capacity:** 4 to 6 drops per cycle (approx. 2000–3000 blocks per 8-hour shift); **Molds Included:** Standard Malawi size moulds (6-inch/150mm and 9-inch/230mm blocks); **Power:** Optional 5.5HP electric motor (400V, 3-Phase, 50Hz) or 6HP standalone diesel engine package.	**Diesel engine option strongly recommended** to allow students to continue block production during ESCOM load-shedding hours. Built with extra-thick abrasive-resistant steel plate moulds to handle coarse local river sands.	**3 sets**

2	**Brick Cutting Machine (Heavy Duty)**	**Blade Capacity:** 350mm to 400mm diamond rim segment blade; **Max Cutting Depth:** 125mm to 150mm; **Power:** 2.2kW to 3.0kW industrial motor (230V Single-Phase or 400V 3-Phase, 50Hz); **Table Setup:** Heavy-duty sliding roller table with precision guide rails and an integrated water-feed splash guard.	**Mandatory integrated high-volume water pump** for continuous wet cutting to completely suppress silica dust in the student breathing zone. Magnetic switch with No-Volt Release (NVR) prevents dangerous blade auto-restart.	**3 Sets**
3	**Tile Cutting Machine (Heavy Duty)**	**Type:** Industrial manual rail cutter or overhead-rail wet tile saw (dual preference for site work); **Max Cut Length:** 800mm to 1200mm (suitable for large format porcelain/ceramic tiles); **Breaking Force:** Minimum 800kg manual breaking mechanism; **Construction:** Heavy-duty rigid aluminium alloy base with dual chrome-plated steel guide rails and tungsten carbide scoring wheel.	Features a laser cutting-guide line (battery-operated) and an anti-slipping extended rubber surface to help beginners achieve accurate, straight cuts without wasting tiles.	3 Pcs
4	**Terrazzo Grinding & Polishing Machine**	**Working Width:** 400mm to 500mm grinding path width; **Power Input:** 4.0kW to 5.5kW heavy industrial induction motor, 400V AC, 3-Phase, 50Hz; **Disc Setup:** Multi-head planetary or counter-rotating disc plates accepting standard diamond or abrasive stone segments; **Features:** Adjustable handle height, integrated water tank (min 20L–30L), dust extraction port interface.	Motor enclosure must be rated to **IP55 minimum** to protect internal electrical coils from wet cement slurry and fine stone dust splashes.	3 Sets

5	**Concrete Mixer (Heavy Duty)**	**Batch Capacity:** 350 Liters to 400 Liters wet output batch (equivalent to a standard 1-bag or 2-bag batch mixture); **Drum Build:** Heavy-duty cast-iron ring gear with a reinforced thick steel plate mixing drum; **Power Source:** 6HP to 9HP air-cooled, single-cylinder diesel engine with a manual crank starter mechanism.	**Must be 100% independent of the electrical grid (Diesel Engine Powered)** to ensure large concrete pours (foundations/slabs) are never ruined halfway through due to sudden blackout schedules. Fitted with a heavy lockable steel engine cowl.	**1 set**
6	**Dumpy Level (Heavy Duty)**	**Magnification:** 32x optical magnification minimum; **Accuracy:** ±1.0mm or better standard deviation per 1km double-run levelling; **Compensator:** Air-damped magnetic automatic compensator with a working range of ±15'; **Objective Aperture:** 36mm to 40mm; **Kit Includes:** Heavy-duty dome-head aluminium tripod, 5-meter telescopic leveling staff (E-graduation), plumb bob, and rugged hard-shell transit case.	High dust and water ingress protection (**IP66 rating required**). Optical lenses must feature anti-fungal coatings to survive storage in highly humid conditions without degrading visibility.	5 PCs
7	**Poker Vibrator (Heavy Duty)**	**Drive Unit:** Standalone 5.5HP air-cooled petrol engine or 4HP diesel engine built into a heavy-duty protective tubular steel roll-cage frame; **Coupling Type:** Standard claw/dynapac quick-release coupling system; **Vibrator Needle:** Supplied with 2x 35mm diameter and 2x 50mm diameter poker needles, each fitted with a 6-meter heavy-duty flexible rubber drive shaft.	Portable mechanical system independent of the grid. Built with internal dual bearings and hardened steel heads to withstand prolonged student handling during foundation casting.	2 Pcs
8	**Shovels**	Heavy-gauge tempered high-carbon steel blades; Available in Round-Mouth and Square-		5

		Mouth profiles; Reinforced hardwood (Ash) or fiberglass Y-grip handles.		
9	**Picks (Pickaxes)**	Forged steel pick/mattock head weight: 5lb to 6lb; Shock-absorbing, non-slip composite fiberglass or premium hickory timber handle.		5
10	**Hoes**	Mortar-mixing and agricultural pattern hoes; Forged steel blades (width 6–8 inches); Reinforced neck socket; Long straight solid hardwood timber handle.		5
11	**Wheelbarrows**	Heavy-duty site construction wheelbarrows; Minimum 65L to 85L fluid capacity seamless steel tray (powder-coated/galvanized); Heavy-gauge tubular steel frame; Pneumatic rubber tire.		2
12	**Scaffolding**	Heavy-duty welded tubular steel frame scaffolding components; Section size approx. 1.5m x 2.0m per bay; Includes diagonal cross-braces, adjustable base jacks, lock pins, and anti-slip walking boards.		1

BRICKLAYING BASIC HAND TOOLS

Item No.	Description of Goods or Related Service	Technical Specifications	Unit of Measure	Qty
13	Tape Measure	• Length 30m, • High tensile strength fiberglass blade • Dual scale (*metric and imperial*) • Tape housed in high impact plastic case with flush winding handle and belt clip	Each	30
14	Tape Measure	• Length 5m,	Each	

		• Reverse printed blade, nylon coated to last longer • Double sided marked blade • With a sliding magnetic hook and belt clip • Plastic cased		30
15	Builder's line	• Length 100m, • Made of acrylic twine	Each	30
16	Brick trowel	• Length 280 mm • Ground polished, hardened and tempered high carbon steel alloy blades • Tapered to the tip with high angle handles • Chromed ferrule to hold the tang firmly • Solid plastic handle	Each	30
17	Spirit level	• Length 1m, • Extruded aluminium body with powder coat finish. • Three factory set vials • Top marked with metric and imperial (inches) graduation • Have a V-groove	Each	30
18	Builders square	• Length 500mm x 400mm • Manufactured of ground polished, hardened and tempered high steel carbon alloy blade	Each	30
19	Pointing trowel	• Length 150 mm blade, plastic handle • Manufactured of ground polished, hardened and tempered high steel carbon alloy blade • With high angle handle • Chromed ferrule to hold the forged tang firmly	Each	30
20	Jointer round	• 10mm diameter, • plastic handle • Size 150 mm	Each	30
21	Wooden float	• Size 290 x 100 mm • Manufactured from plastic/wood	Each	
22	Chasing hammer	• Length 250 mm • Wooden handle • Be suitable to dress brick and stonework prior to rendering • Replaceable plain and comb style bits supplied separately • With fine grain, forged steel head, hardened and tempered with polished faces	Each	30
23	Claw hammer	• With fine grain, drop forged steel Head • Striking face induction hardened and precision • Blue epoxy powder coated head • With hardwood handle	Each	30
24	Mallet hammer (Set of 30)	• Face size: (42, 55, 280) mm • Length: (280, 315, 300) mm	Each	30

		• Rubber head • Wooden handle		
25	Tile cutter	• Portable, • 450W- 240V electric motor • Designed to cut porcelain, glazed ceramic, slate, quarry, stone tiles • With rimmed diamond cutting blade • 450 cutting guide and 3.5 Litre capacity water reservoir • Safety features include blade guard, thermal overload protection.	Each	5
26	Shinning trowel	• Length 280 mm • Aluminium shank, single tang banana pattern • Six rivet construction cross ground • Hardened and tempered steel blade • Solid plastic handle	Each	30
27	Skirting trowel	• 75 X 230mm, • Hardened and tempered steel blade • Wooden handle	Each	30
28	Sliding bevel	• Length 230mm • Stainless steel blade • Rosewood stock with brace tips for greater wear resistance • With a brace screw to lock the sliding steel blade into position	Each	30
29	Bolster	• Length 300mm • High carbon tool frame	Each	30
30	Boat Level	• Length 300 mm • Die cast aluminium frame with mild measuring face for accuracy • Vertical and horizontal vials to measure normally and upside down • To include leather belt pouch. With magnet	Each	30
31	Internal & External Trowels	• Length 150mm • Hardened and tempered steel blade • wooden handle	Pair	30
32	Lime Brush	• length 300mm • Sisal Fillings, • Wooden handle	Each	30
33	Toolbox empty, with Steel Padlocks and with keys	• 5 Compartments • Smooth and easy opening • Maximum access to the bottom tray • Lockable phosphate and powder coated • Length 550 mm • Width 248 mm • Height 220 mm	Each	30

LOT 6 (A): TAILORING AND FASHION DESIGN EQUIPMENT AND MACHINES – LUNJIKA CSDC

Item No.	Description of Goods or Related Service	Technical Specifications	Unit of Measure	Qty
1	Industrial straight machine	Sewing speed 4,000 to 5,500 stitches per minute, up to 5mm stitch length, DBx1 needle system and 5.5mm presser foot lift	Set	5
2	Industrial overlocking machine five thread	5,000 to 7,500 stitches per minute speed, automatic lubrication, energy saving motor type	Set	2
3	Embroidery machine big two heads	15 needles per head, 1,200 stitches per minute speed, 20 to 100 million stitches memory capacity	Set	2
4	Cutting table	Cutting table with drawers, standard height 90cm, 120cm to 320 length dimensions	Each	5
5	Heavy duty iron(industrial)	Power output 1,000 to 1,800 watts, weight 2.1 to 4kg	Set	3
6	Domestic treadle Sewing machine. 5-25 SPI (Stitch per Inch) Reverse feed machine Treadle stand with five drawer top that is sturdy Plastic carry case.	800 to 1,200 stitches per minute, stitch length 0mm to 4 mm or 6mm	Set	30
7	Dummy (dress form)	Built with high density foam, height adjustment 55 to 80 inches	Set	5
8	Steam iron	Stainless steel, voltage 220v-240v at 50-60Hz	Set	5
9	Embroidery small	St 20 to 30 inches dimensions, Stitch speed 1,000 to 1,200	Set	5
10	Buttonhole and button set	Single needle local stitch, sewing speed 3,000 to 4,200	Set	2
11	Flat bot chain stitch machine	5 threads, stich length 1.5mm to 3.6mm	Set	2

12	Industrial overlocking 5 thread	2 needle 5 thread safety stitch, needle system DCx27	Set	2

BASIC TOOLS FOR TAILORING FASHION AND DESIGN

Item No.	Description of Goods or Related Service	Technical Specifications	Unit of Measure	Qty
13	Sewing machine (Domestic) Hand Operated	• 5-25 SPI (Stitch per Inch) • Reverse feed machine • Plastic carry case	EA	5
14	Tweezer	• Stainless steel • Length; 5 inches (125 mm)	Each	30
15	Tape Measure	• Length 2 meters • Thread reinforced nylon • Dual calibrated cm/inches	Each	30
16	Tailor's Fabric Scissors	• Stainless steel blades • Straight and curved blade tips • Length 240 - 250mm • Asymmetrical plastic handle design	Pair	30
17	Paper scissors	• Stainless steel blades • All metal • Length 255 mm • Curved tips	Each	30
18	Oil can	• 150 ml capacity • Enamel finish • Heavy gauge steel casing • Seamless metal bodied • Positive force feed brass and valves	Each	30
19	Tailor's Thread cutting snips	• Lightweight plastic with finger hole for stability • Replaceable stainless-steel blades • Length 125 mm	Pair	30
20	Tailors chalk (Box)	• Hard • Washable	Box	50
21	Screw drivers Set	• Flathead tip size 4 mm • Flathead tip size 5.5 mm • Cross head (Phillip) PH 1 • Blade tips according to DIN ISO 2380 – 1 form A • 3 Component Handles • Power grip with hanging hole • Positive fit joint of handle and blade for optimum transmission of force type of handled at the end of the tip • Molybdenum-Vanadium tempered steel	Set	30
22	Bobbin and Bobbin case	• Made of high steel grade • Reparable	Set	30
23	Apron	• Made of cotton, • Have two bands (neck and back)	Each	30

24	Cleaning brushes	• 50 mm, • Polyester Bristles • Wood Varnished Sash Handle • Brass color ferrule	Each	30
25	Grading ruler 1m, Steel	• Made of steel • Length 1 m	Each	30
26	Toolbox empty, with Steel Padlocks and with keys	• 5 Compartments • Smooth and easy opening • Maximum access to the bottom tray • Lockable phosphate and powder coated • Length 550 mm • Width 248 mm • Height 220 mm		30

LOT 6 (B): TAILORING AND FASHION DESIGN EQUIPMENT AND MACHINES – THAMBANI CSDC

Item No.	Description of Goods or Related Service	Technical Specifications	Unit of Measure	Qty
1	Industrial straight machine	Sewing speed 4,000 to 5,500 stitches per minute, up to 5mm stitch length, DBx1 needle system and 5.5mm presser foot lift	Set	5
2	Industrial overlocking machine five thread	5,000 to 7,500 stitches per minute speed, automatic lubrication, energy saving motor type	Set	2
3	Embroidery machine big two heads	15 needles per head, 1,200 stitches per minute speed, 20 to 100 million stitches memory capacity	Set	2
4	Cutting table	Cutting table with drawers, standard height 90cm, 120cm to 320 length dimensions	Each	5
5	Heavy duty iron(industrial)	Power output 1,000 to 1,800 watts, weight 2.1 to 4kg	Set	3
6	Domestic treadle Sewing machine. 5-25 SPI (Stitch per Inch) Reverse feed machine Treadle stand with five drawer top that is sturdy Plastic carry case.	800 to 1,200 stitches per minute, stitch length 0mm to 4 mm or 6mm	Set	30

7	Dummy (dress form)	Built with high density foam, height adjustment 55 to 80 inches	Set	5
8	Steam iron	Stainless steel, voltage 220v-240v at 50-60Hz	Set	5
9	Embroidery small	St 20 to 30 inches dimensions, Stitch speed 1,000 to 1,200	Set	5
10	Buttonhole and button set	Single needle local stitch, sewing speed 3,000 to 4,200	Set	2
11	Flat bot chain stitch machine	5 threads, stich length 1.5mm to 3.6mm	Set	2
12	Industrial overlocking 5 thread	2 needle 5 thread safety stitch, needle system DCx27	Set	2

BASIC TOOLS FOR TAILORING FASHION AND DESIGN

Item No.	Description of Goods or Related Service	Technical Specifications	Unit of Measure	Qty
13	Sewing machine (Domestic) Hand Operated	• 5-25 SPI (Stitch per Inch) • Reverse feed machine • Plastic carry case	EA	5
14	Tweezer	• Stainless steel • Length; 5 inches (125 mm)	Each	30
15	Tape Measure	• Length 2 meters • Thread reinforced nylon • Dual calibrated cm/inches	Each	30
16	Tailor's Fabric Scissors	• Stainless steel blades • Straight and curved blade tips • Length 240 - 250mm • Asymmetrical plastic handle design	Pair	30
17	Paper scissors	• Stainless steel blades • All metal • Length 255 mm • Curved tips	Each	30
18	Oil can	• 150 ml capacity • Enamel finish • Heavy gauge steel casing • Seamless metal bodied • Positive force feed brass and valves	Each	30
19	Tailor's Thread cutting snips	• Lightweight plastic with finger hole for stability • Replaceable stainless-steel blades • Length 125 mm	Pair	30
20	Tailors chalk (Box)	• Hard • Washable	Box	50

21	Screw drivers Set	• Flathead tip size 4 mm • Flathead tip size 5.5 mm • Cross head (Phillip) PH 1 • Blade tips according to DIN ISO 2380 – 1 form A • 3 Component Handles • Power grip with hanging hole • Positive fit joint of handle and blade for optimum transmission of force type of handled at the end of the tip • Molybdenum-Vanadium tempered steel	Set	30
22	Bobbin and Bobbin case	• Made of high steel grade • Reparable	Set	30
23	Apron	• Made of cotton, • Have two bands (neck and back)	Each	30
24	Cleaning brushes	• 50 mm, • Polyester Bristles • Wood Varnished Sash Handle • Brass color ferrule	Each	30
25	Grading ruler 1m, Steel	• Made of steel • Length 1 m	Each	30
26	Toolbox empty, with Steel Padlocks and with keys	• 5 Compartments • Smooth and easy opening • Maximum access to the bottom tray • Lockable phosphate and powder coated • Length 550 mm • Width 248 mm • Height 220 mm		30

LOT 6 (C): TAILORING AND FASHION DESIGN EQUIPMENT AND MACHINES – THAMBANI CSDC

Item No.	Description of Goods or Related Service	Technical Specifications	Unit of Measure	Qty
1	Industrial straight machine	Sewing speed 4,000 to 5,500 stitches per minute, up to 5mm stitch length, DBx1 needle system and 5.5mm presser foot lift	Set	5
2	Industrial overlocking machine five thread	5,000 to 7,500 stitches per minute speed, automatic lubrication, energy saving motor type	Set	2
3	Embroidery machine big two heads	15 needles per head, 1,200 stitches per minute speed, 20 to 100 million stitches memory capacity	Set	2
4	Cutting table	Cutting table with drawers, standard height 90cm, 120cm to 320 length dimensions	Each	5

5	Heavy duty iron(industrial)	Power output 1,000 to 1,800 watts, weight 2.1 to 4kg	Set	3
6	Domestic treadle Sewing machine. 5-25 SPI (Stitch per Inch) Reverse feed machine Treadle stand with five drawer top that is sturdy Plastic carry case.	800 to 1,200 stitches per minute, stitch length 0mm to 4 mm or 6mm	Set	30
7	Dummy (dress form)	Built with high density foam, height adjustment 55 to 80 inches	Set	5
8	Steam iron	Stainless steel, voltage 220v-240v at 50-60Hz	Set	5
9	Embroidery small	St 20 to 30 inches dimensions, Stitch speed 1,000 to 1,200	Set	5
10	Buttonhole and button set	Single needle local stitch, sewing speed 3,000 to 4,200	Set	2
11	Flat bot chain stitch machine	5 threads, stich length 1.5mm to 3.6mm	Set	2
12	Industrial overlocking 5 thread	2 needle 5 thread safety stitch, needle system DCx27	Set	2

BASIC TOOLS FOR TAILORING FASHION AND DESIGN

Item No.	Description of Goods or Related Service	Technical Specifications	Unit of Measure	Qty
13	Sewing machine (Domestic) Hand Operated	• 5-25 SPI (Stitch per Inch) • Reverse feed machine • Plastic carry case	EA	5
14	Tweezer	• Stainless steel • Length; 5 inches (125 mm)	Each	30
15	Tape Measure	• Length 2 meters • Thread reinforced nylon • Dual calibrated cm/inches	Each	30
16	Tailor's Fabric Scissors	• Stainless steel blades • Straight and curved blade tips • Length 240 - 250mm	Pair	30

		• Asymmetrical plastic handle design		
17	Paper scissors	• Stainless steel blades • All metal • Length 255 mm • Curved tips	Each	30
18	Oil can	• 150 ml capacity • Enamel finish • Heavy gauge steel casing • Seamless metal bodied • Positive force feed brass and valves	Each	30
19	Tailor's Thread cutting snips	• Lightweight plastic with finger hole for stability • Replaceable stainless-steel blades • Length 125 mm	Pair	30
20	Tailors chalk (Box)	• Hard • Washable	Box	50
21	Screw drivers Set	• Flathead tip size 4 mm • Flathead tip size 5.5 mm • Cross head (Phillip) PH 1 • Blade tips according to DIN ISO 2380 – 1 form A • 3 Component Handles • Power grip with hanging hole • Positive fit joint of handle and blade for optimum transmission of force type of handled at the end of the tip • Molybdenum-Vanadium tempered steel	Set	30
22	Bobbin and Bobbin case	• Made of high steel grade • Reparable	Set	30
23	Apron	• Made of cotton, • Have two bands (neck and back)	Each	30
24	Cleaning brushes	• 50 mm, • Polyester Bristles • Wood Varnished Sash Handle • Brass color ferrule	Each	30
25	Grading ruler 1m, Steel	• Made of steel • Length 1 m	Each	30
26	Toolbox empty, with Steel Padlocks and with keys	• 5 Compartments • Smooth and easy opening • Maximum access to the bottom tray • Lockable phosphate and powder coated • Length 550 mm • Width 248 mm • Height 220 mm		30

LOT 7: TRAINING EQUIPMENT AND MACHINES FOR CARPENTRY AND JPOINERY – THAMBANI CSDC

Item No.	Description of Goods or Related Service	Technical Specifications	Malawi Grid & Safety Compliance	Qty
1	**Thicknesser (Heavy Duty Industrial)**	Max planing width: 400mm–500mm; Max thicknessing depth: 4mm; Cutting block speed: 5000 RPM with 3 or 4 resharpenable HSS knives; Power: 3.7kW to 5.5kW induction motor, 400V, 3-Phase, 50Hz; Motorized or precision manual thickness height adjustment with mechanical/digital read-out; Fitted with anti-kickback fingers and segmented infeed rollers.	**400V 3-Phase ESCOM grid compliant**. Industrial magnetic switch with No-Volt Release (NVR) protection. Integrated dust collection hood interface (min 100mm).	**1 Pc**
2	**Dimension Saw (Sliding Table Panel Saw)**	Sliding table length: 2500mm to 3200mm; Main blade diameter: 300mm to 350mm; Max cutting height: 80mm–100mm at 90°; Tilting range: 0° to 45°; Scoring blade included (diameter 120mm, powered by independent motor); Power: Main motor 4.0kW to 5.5kW, Scoring motor 0.75kW, 400V, 3-Phase, 50Hz.	Fitted with over-blade safety guard and riving knife. Heavy-duty magnetic starter with NVR protection to survive abrupt grid dropouts safely.	1 Pc
3	**Spindle Moulder (Shaper Machine)**	Spindle diameter: 30mm; Spindle speeds: 4 speed settings (3000/4500/6000/9000 RPM); Max tooling diameter:	Includes adjustable ring guard, curve-shaping guide, micro-adjustable fence plates, and dual	1Pc

		200mm; Vertical spindle stroke: 100mm–140mm; Table size: Min 800mm x 700mm; Power: 3.0kW to 4.0kW induction motor, 400V, 3-Phase, 50Hz.	mechanical emergency stop switches.	
4	**Router Machine (Heavy Duty Plunge Router)**	Collet capacity: 12mm (1/2") and 6mm/8mm sleeves; Power Input: 1600W to 2100W industrial motor; Variable Speed: 9000 to 22000 RPM with constant speed control under load; Plunge depth capacity: 0mm to 70mm with micro-fine depth adjustments.	Standard 230V single-phase plug. Features electronic soft-start to prevent power line overload trip-outs during frequent load shedding restarts.	1 Pc
5	**Compressor (Refurbishment & Maintenance Service)**	Complete technical overhaul service for the non-functional institutional compressor: 1. Full pressure vessel certification/hydro-test. 2. Replacement of head gaskets, piston rings, and air/oil filters. 3. Procurement of new 400V 3-Phase or 230V 1-Phase matching induction motor (if burnt out). 4. Installation of new automatic pressure switch, unloader valve, safety relief valve, and calibrated pressure gauges.	Refurbished system must be certified code-compliant and safely integrated with a star-delta or magnetic starter switch containing low-voltage release.	1 Job
6	**Circular Saw (Bosch Handheld Type - Spares Pool)**	Procurement of specialized spare parts and high-grade consumables to service the existing Bosch circular saw: 1. Replacement carbon brushes (OEM matching). 2. High-performance Bi-Metal saw blades (184mm or 235mm matching unit frame,	Ensures original machine safety is maintained. Replacement blades must match exact RPM limits of the operational tool frame.	1 Job

		24-tooth for rip cuts and 40-tooth for cross-cuts, 20mm/30mm arbor). 3. Heavy-duty replacement power cable (min 3m, rubberized).		
7	**Portable Power Plane**	Planing width: 82mm; Planing depth adjustment: 0mm to 2.5mm or 3.0mm; Rebating depth capacity: 0mm to 9mm; No-load speed: 16000 RPM; Power Input: 600W to 750W; Equipped with dual-blade cutter block holding tungsten carbide mini-planer blades.	230V Single-Phase, 50Hz. Ergonomic handle with safety lock-off button to prevent accidental trigger activation by trainees.	4 Pcs
8	**Belt Sander (Portable Industrial)**	Belt size: 76mm x 533mm or 100mm x 610mm; Belt speed: Variable from 250m/min to 450m/min; Power Input: 850W to 1200W heavy-duty motor; Features: Auto-tracking belt system, flat top design for inverted bench-mounted operation, integrated dust bag or extraction adapter.	Labyrinth dust-sealed armature and switch housing to eliminate internal fire hazards caused by fine wood flour buildup inside live electric cells.	4 Pcs
9	**Router Plane (Hand Tool)**	Traditional precision hand router plane; Body material: Ductile cast iron; Base dimensions: ~200mm width; Fine screw-feed depth adjustment mechanism; Supplied with a set of 3 interchangeable tool-steel cutters (6mm, 12mm, and spear-point).	100% mechanical manual tool. Entirely independent of grid blackouts, allowing precision joint refinement training to continue anytime.	1 Pc

10	**Drilling Machine (Heavy Duty Impact Bench Type)**	Chuck capacity: 13mm or 16mm heavy-duty keyed all-metal chuck; Speed control: Multi-speed pulley configuration or electronic variable speed; Column drill structure or industrial corded drill configuration with bench-mount stand attachment; Motor: 550W to 750W, 230V, Single-Phase, 50Hz.	Equipped with low-voltage magnetic switch panels (NVR) on bench variants, or auxiliary safety handles and mechanical slip clutches on handheld pool variants.	5 Pcs
11	**Jig Saw (Orbital Action Handheld)**	Power Input: 650W to 720W; No-load stroke rate: 800 to 2800 spm (variable speed dial); Stroke length: 26mm; Cutting capacity: Wood up to 90mm-135mm, Steel up to 10mm; 3-stage or 4-stage orbital action settings; Tool-less blade change system.	230V Single-Phase. Transparent plastic anti-splinter finger guard and integrated dust blower interface to keep the line-of-cut visible for safe student training.	5 PCs
12	**Heavy Fixed Sprayer (Paint Spray Station)**	Pressure-feed spray system outfit; Container capacity: 10 Liter to 20 Liter heavy gauge steel pressure paint pot; Spray gun: Industrial pressure-feed spray gun with 1.4mm, 1.8mm, and 2.0mm stainless steel nozzle setups; Fluid and air pressure regulators fitted with dual glass dials.	Pressure pot must feature an ASME/CE certified over-pressure safety relief valve. Requires dry air line integration from the main workshop air network.	1 set
13	**Lathe Machine (Wood Lathe with Copy Attachment)**	Distance between centers: 1000mm to 1200mm; Swing over bed: 350mm to 400mm; Spindle speeds: 4 to 10 mechanical/pulley speeds ranging from 500 to 3000 RPM; Headstock spindle	Includes integrated mechanical copy attachment profile tracer for uniform student furniture leg replication.	1 Pc

		thread: M33 x 3.5 with MT2 taper; Power: 1.1kW to 1.5kW induction motor, 400V, 3-Phase, 50Hz.	Magnetic safety switch with NVR.	
14	**Portable Sprayer (HVLP System)**	Type: Standalone turbine High Volume Low Pressure (HVLP) paint sprayer or gravity/suction feed gun kit; Cup capacity: 1000ml aluminum fluid canister; Nozzle kit size: 1.3mm and 1.5mm brass/stainless steel needles; Turbine motor (if standalone): 1200W, 230V Single-Phase, 50Hz; Includes flexible 6m air delivery hose.	Designed for highly efficient paint atomization with minimal overspray bounce-back, minimizing hazardous wood finish vapor exposure to trainees.	4 Pcs
15	**Portable Nail / Pin Gun (Pneumatic Brad Nailer)**	Type: Heavy duty pneumatic straight brad nailer / pin tacker; Fastener capacity range: 15mm to 50mm length (18-gauge brad nails / 23-gauge pins); Magazine capacity: Min 100 nails with quick side-loading rail mechanism; Working operating air pressure: 4.8 to 7.5 Bar (70-110 PSI).	Equipped with dual-action contact safety trip mechanism (nose trigger must be physically compressed against timber stock before the firing valve will release).	4 Pcs

BASIC TOOL FOR CARPENRTY AND JOINERY

Item No	**Description of Goods or Related Service**	**Technical Specifications**	**Unit of Measure**	**Qty**

1	Claw hammer	• With fine grain, drop forged steel Head • Striking face induction hardened and precision • Blue epoxy powder coated head • With hardwood handle	Each	30
2	Ball Pein hammer	• With fine grain, drop forged steel Head • Striking faces induction hardened and precision • Blue epoxy powder coated head • With hardwood handle	Each	30
3	Cross cut saw	• Length 600mm • Hardened and ground steel with glazed and polished blade • Tensioned and fully sprung • In wallet and tooth guard	Each	30
4	Tenon Saw	• 250 mm, high grade steel blade • Hardened and ground steel with glazed and polished blade • Tensioned and fully sprung • Highly polished brass back and handle • In wallet and tooth guard	Each	30
5	Rip saw	• Length 600mm, • High-quality hardened steel blade • Solid plastic handle	Each	30
6	Jack plane No. 5	• High-performance carbon steel blade hardened and tampered • Fully adjustable frog for all tasks and timber types • Unbreakable polypropylene handle and knob shaped for comfort • Adjustable Cutter for the depth of cut alignment • Tight fitting spring steel cap iron for optimum shaving flow	Each	30

		• Cast fine grey iron base for stability and ware resistance.		
7	Smoothing Plane No. 4,	• High-performance carbon steel blade, hardened and tempered • Fully adjustable frog for all tasks and timber types • Unbreakable polypropylene handle and knob shaped for comfort • Adjustable Cutter for the depth of cut alignment • Tight fitting spring steel cap iron for optimum shaving flow • Cast fine grey iron base for stability and ware resistance.	Each	30
8	Brace Ratchet	• High Speed Steel • Chrome coated	Each	30
9	Wheel Brace	• Overall length 215 • Die cast body • Plastic handle with plastic grips and screw top for bit storage	Each	30
10	Drill bit set (7 bits)	• Solid single twist • Spur point and hexagonal shank.	Each	20 sets
11	Tape Measure	• Length 5m, • Reverse printed blade, nylon coated to last longer • Plastic cased • Double sided marked blade • With a sliding magnetic hook and belt clip	Each	30
12	Mortice gauge	• Length 150 mm • Manufactured from rose wood • Has a pull slide • Has a brass adjustable screw and a brass plated head • Fitted with a single and double spur	Each	30

13	Combination Try Square	• Length 300mm • With spirit level • Die cast zinc alloy head with 300 mm rule • Spare lock and nut and mandrel for 300 mm • Spare scriber for 300 mm	Each	30
14	Chisel set (4)	• Sizes (6, 10, 13, 19) mm • With chrome vanadium alloy tips hardened, tempered ground and polished • Handles with impact resistant end caps.	Each	30 sets
15	Screw drivers set (7 pieces)	• Flathead tip size 4 mm • Flathead tip size 5.5 mm • Flathead tip size 5.5 mm • Cross head (Phillip) PH 1 • Blade tips according to DIN ISO 2380 – 1 form A • 3 Component Handles • Power grip with hanging hole • Positive fit joint of handle and blade for optimum transmission of force type of handled at the end of the tip • Molybdenum-Vanadium tempered steel	Each	30 sets
16	Spoke shave	• Cast iron body • High-performance carbon steel blade, hardened and tempered • Rigid handles shaped for comfort	Each	30
17	Pincer Steel,	• Length 200 mm • Manufactured from chrome-vanadium steel with induction hardened ground and polished jaws • Bonded vinyl coated handles.	Each	30
18	File, (set)	• Length 255 mm, (flat, round, half round, three square), • Manufactured according to BS 498:1990	Set	30 sets

		• With solid plastic grip handles		
19	Rasp set of 3	• Length 300 mm • flat, round, half round • With tough, enamelled alloy bodies • High carbon heat treated steel blades	Each	15 sets
20	Oil stone	• Face (200 x 50 x 25) mm • Bench stone • Combination aluminium oxide	Each	15
21	Spirit level	• Length 1m, • Extruded aluminium body with powder coat finish. • Three factory set vials • Top marked with metric and imperial (inches) graduation • Have a V-groove	Each	30
22	G Clamp *(light duty)*	• Made of pressed steel • Welded steel frame • Chrome plated steel screw, handle and swivel shoes	Set	30
23	Sash Clamp	• Length 1,200 mm • SG du cast iron heads and slides • Bars manufactured from bright drawn steel • Made of reinforced steel	Each	30
24	Saw Set	• Made of steel body • Can be used for coarse and fine setting	Each	30 sets

25	Toolbox empty, with Steel Padlocks and with keys	• 5 Compartments • Smooth and easy opening • Maximum access to the bottom tray • Lockable phosphate and powder coated • Length 550 mm • Width 248 mm • Height 220 mm		30
26	Portable sprayer (rechargeable)	**Power Source:** 18V to 20V Lithium-Ion rechargeable battery (interchangeable system preferred). **Battery Capacity:** 2.0 Ah to 4.0 Ah (provides ~15 to 30 minutes of continuous spraying per charge). **Motor Type:** Brushless motor (highly recommended for longevity and spark reduction around volatile carpentry finishes). **Technology:** HVLP (High-Volume Low-Pressure) to maximize transfer efficiency and minimize overspray in a student workshop. **Flow Rate:** Adjustable, up to 15–20 fluid ounces per minute (450–600 ml/min). **Max Viscosity:** 40 to 50 DIN-s (should include a viscosity testing cup for student training). **Cup Capacity:** 30 to 40 fluid ounces (900 ml to 1200 ml) plastic or aluminum container. **Nozzle Sizes Included:** 1.5mm to 1.8mm (for thin stains, sealers, and clear coats) and 2.5mm (for thicker latex or primers). **Spray Patterns:** 3-way adjustable air cap (Horizontal slot, Vertical slot, and Circular).	each	30
27	Portable Nail/Pin Gun	Fastener Gauge: 23-Gauge (0.023 in / 0.58 mm thickness)	each	30

		Nail Length Range: **1/2" to 1-3/8" (12mm to 35mm)** minimum capacity Power Source: Cordless Battery (12V or 18V Lithium-Ion) Magazine Capacity: **100 to 120 Pins** minimum Drive Mechanism: Nitrogen Air Spring / Sealed Gas Cylinder Tool Weight: **3.0 to 4.5 lbs (1.3 to 2.0 kg)** with battery installed		
28	Mallet Hammer	**Head Material**: Beech, Hickory, or White Oak **(Dense** Hardwood) **Head Weight:** 12 oz to 16 oz (approx. 340g to 450g) **Head Shape:** Rectangular / Angled Faces (Joiner's Style) **Handle Construction:** Tapered, Mortised (Removable) Handle	Each	30
29	**Theodolites**	Digital electronic engineering theodolite; Minimum 30x optical magnification; Dual-side illuminated digital LCD matrix display; Includes heavy-duty aluminium levelling tripod stand.		
30	**Plumb Bobs**	Precision-machined solid brass or nickel-plated steel body; Weight range: 16 oz to 32 oz; Hardened screw-top tip; Includes minimum 5-meter braided nylon suspension cord.		
31	**Dumpy Levels (Automatic)**	Optical automatic level; Minimum 32x magnification; Magnetic-damped automatic compensator; IP54 water/dust rating; Includes heavy aluminium tripod and 5m telescoping levelling staff.		

LOT 8: TOOLS FOR COSMETOLOGY (HAIRDRESSING AND BARBERING) – THAMBANI CSDC

Item No.	Description of Goods or Related Service	Technical Specifications		Qty
1	**Mannequin, Male**	**Hair Type:** 100% genuine human hair (suitable for chemical processing, bleaching, colouring, perm training, and hot tool styling); **Facial Features: Full human hair beard and Mustache** (min 4–6 inches beard length for beard grooming and line-up training); **Hair Specs: Short hair lengths** (approx. 6–10 inches from crown), dark brown or black hair; rubberized dense PVC base layout.	Base must feature a universal plug-in socket hole underneath to fit standard adjustable table-clamp tripod stands.	30 Pcs
2	**Mannequin, Female**	**Hair Type:** 100% genuine human hair (grade AAA quality for heat up to 200°C, curling, straightener work, and chemical processing); **Hair Length: Long hair** (minimum 20 to 24 inches from crown); **Growth Pattern: Natural hand-implanted crown growth direction patterns** and realistic density distributions to mimic actual human scalp divisions accurately.	Must withstand repeated hot-tool application without melting. Fits standard desktop training clamps universally.	30 Pcs
3	**Hairbrush Set (Hard & Soft)**	**Composition per Set (2 Brushes):** 1. **Hard Bristled Brush:** Reinforced wild boar or stiff nylon bristles set in an ergonomic solid wood or rubberized chassis (ideal for distributing thick product and creating slick styles). 2. **Soft Bristled Brush:** Soft natural boar or flexible nylon bristles with protective rounded ball-tips (ideal for fine hair finishing and scalp comfort).	Hand grips must feature non-slip textures to ensure steady student handling during wet practical exams.	30 sets
4	**Comb Set (Teasing & Detangling)**	**Composition per Set (2 Combs):** 1. **Teasing/Tail Comb:** Fine-toothed layout with a stainless-steel pin tail or multi-length pin set for backcombing, precision parting,	Crafted from professional-grade, high-heat carbon fibre composite that is **100% anti-**	30 sets

		and sectioning. 2. **Detangling/Wide-Tooth Comb:** Broad, smooth-edged widely spaced teeth to gently separate wet or coarse coiled hair without snagging.	**static and chemical-resistant**.	
5	**Scissors and Shears Master Kit**	**Composition per Set (4 Specialized Professional Tools):** 1. **Straight Cutting Shear:** 5.5" to 6.0" length, ultra-sharp convex edge for general perimeter cutting and blunt work. 2. **Layering/Sliding Shear:** 6.5" to 7.0" long ergonomic crane handle design for long-hair slide cutting and layering transitions. 3. **Texturizing/Thinning Shear:** 28 to 32 teeth layout for blending texturizing weight and shaping seamless bangs. 4. **Grooming Shear:** Short 4.5" to 5.0" blunt-tip precision trimmer shear for clean necklines and close clipper-over-comb finish work. **Material:** Premium Japanese 440C Stainless Steel (Rockwell Hardness HRC 58-60) with adjustable tension clicks; supplied in a zipped storage pouch with finger inserts.	Blades must be resharpen able. Handles must feature ergonomic offset thumb configurations to reduce repetitive student strain.	30sets
6	**Blow Dryer (Durable Commercial)**	**Power:** 2000W to 2400W high-velocity AC motor (Professional long-life salon motor); **Electrical Input:** 230V AC, Single-Phase, 50Hz (Fitted with a standard fused Type G Malawi 3-pin plug); **Controls:** Minimum 3 heat settings, 2 speed settings, and an independent functional **Instant Cold Shot button**; **Accessories:** Removable rear filter cover for lint cleaning; supplied with 2 click-on concentrator nozzles.	Equipped with internal auto-reset thermal safety cut-off switches to prevent fire if a student accidentally blocks air intake.	30 Pcs
7	**Curling Iron (Durable Commercial)**	**Barrel Size:** Standard universal size (25mm to 32mm / 1-inch to 1.25-inch diameter barrel) with a heavy spring-loaded hair clamp; **Material:** Ceramic or Tourmaline-infused coating for uniform heat distribution; **Temperature Control:** Adjustable	Must include an integrated fold-out safety counter stand and an insulated cool-tip end to prevent	30 Pcs

		digital dial ranging from 120°C up to 210°C; **Electrical Input:** 230V Single-Phase, 50Hz with a **360-degree tangle-free heavy-duty salon swivel cord** (min 2.5m length).	facial or finger burns.	
8	**Hair Clipper (Professional Heavy Duty)**	**Motor:** High-torque electromagnetic or rotary motor running at \(\ge \) 6000 RPM; **Blades:** High-carbon steel adjustable crunch blade or ceramic taper blade with an integrated adjustable taper lever (0.5mm to 1.2mm fade range); **Power:** Corded/Cordless dual operation capability (lithium-ion battery with min 90-min runtime, charging on standard 230V 50Hz); **Accessories Included:** Set of minimum 8 metal-reinforced premium attachment guide combs (#1–#8), blade oil, and cleaning brush.	Heavy-duty casing designed to withstand accidental drops at the workstation. Must feature low vibration to minimize student hand fatigue.	30 Pcs
9	**Hair Trimmer (Detailing & Outlining)**	**Blades:** Ultra-thin, zero-gap adjustable T-blade structure for precision neck lines, crisp dry shaving, and artwork outlines; **Motor:** High-speed rotary motor; **Power System:** Built-in rechargeable Lithium battery or heavy-duty corded setup (230V, Single-Phase, 50Hz).	Fitted with corrosion-resistant stainless-steel blades to handle wet neck lines and frequent cleaning sprays.	30 Pcs
10	**Aprons (Soft Cloth, White)**	**Material:** Thick, tightly woven premium cotton-polyester or treated soft microfiber fabric in **solid white colour**; **Design Profile:** Full-coverage bib apron styling with adjustable neck loops and heavy-duty extra-long fabric back tie straps; **Properties:** Lightweight, bleach-resistant, and machine-washable.	Features dual deep reinforced front utility pockets to store combs, clips, and shears safely during active styling exercises.	30 Pcs
11	**A Mirror (Large Hanging Type)**	**Dimensions:** Minimum 500mm x 700mm overall viewing face size; **Glass Quality:** High-definition distortion-free silver mirror glass (min 4mm to 5mm thickness) with a polished edge configuration; **Backing Frame:** Solid wood, rigid plastic, or metal protective backing	Backing face must feature anti-shatter safety film reinforcement to hold fragments intact if accidentally struck.	30 Pcs

		chassis equipped with a **heavy-duty integrated central top metal hook or dual ring brackets for flush wall-hanging alignment**.		
12	**Spray Bottle (Durable Medium)**	**Volume Capacity:** 300ml to 500ml liquid capacity (Medium volume profile); **Mechanism:** High-efficiency continuous ultra-fine mist trigger spray mechanism or adjustable brass/heavy plastic leak-proof nozzle pump; **Material:** Thick, impact-resistant PET or HDPE transparent/translucent plastic body.	Trigger spray pump assembly must be durable enough to handle continuous chemical sanitizers or water mixtures without leaking.	30 Pcs
13	**Gloves (Thin Plastic)**	**Material:** Disposable, thin, ultra-flexible Clear Polyethylene (PE) or Clear Vinyl material; **Size Mix:** Assorted carton delivery (Suggested: 10 Cartons Small, 15 Cartons Medium, 5 Cartons Large); **Packaging: 100 pieces per carton box (dispenser style)**; **Properties:** 100% Latex-free and powder-free to prevent student skin allergy irritation.	Formulated with embossed surface textures to provide reliable grip retention during wet shampooing and hair dye mixtures.	30 Cartons
14	**Master Toolbox (Empty with Padlock)**	**Internal Layout: 5-Compartment cantilever storage design with smooth and easy opening linkages** providing total visibility and maximum direct access to the bottom base tray when expanded; **Dimensions: Length 550 mm × Width 248 mm × Height 220 mm** (\(\pm \)5mm allowance); **Finish Treatment:** Chemically phosphate anti-rust bath followed by an industrial scratch-resistant powder-coated exterior finish; **Locking Security:** Rigid top double-handles locking together over a reinforced padlock hasp slot; **supplied complete with a heavy-duty Solid Steel Padlock and 3 matching brass keys per box**.	Rugged all-steel layout ensures students can securely lock up their valuable toolkits (**Items 3, 4, 5, 8, 9**) inside communal lockers.	30 Pcs

15	**Hair Dryers**	Salon-grade professional handheld blow dryers; Power: 2000W – 2400W; Heavy-duty AC collector motor; Variable heat/speed control; Cool-shot function; Styling concentrator nozzles included.	Each	1
16	**Hair Steamers**	Professional floor-standing mobile roller unit or wall-mount configuration; Built-in ozone generator; Digital countdown timer; Auto shut-off low-water sensor; Stainless steel heating core.	Each	1
17	**Sterilizers**	Salon-grade dual-action UV light cabinet or dry-heat autoclave instrument sterilizer; For metallic combs, shears, and clipper blades; Automatic timer; Safety door micro-interlock switch	Each	1
18	**Hair Tongs**	Professional ceramic/tourmaline barrel curling irons; Barrel sizes: 19mm – 32mm; Rapid heating with digital temperature control up to 210°C; 360° salon swivel cord	Each	1
19	**Trolleys**	Multi-tier (minimum 4 drawers) mobile salon utility workstation; Impact-resistant ABS plastic or powder-coated steel frame; 360° smooth-rolling, hair-resistant lockable casters	Each	1
20	**Multimedia Projectors**	Native Resolution: Full HD (1920 x 1080p); Brightness: Minimum 3500 ANSI Lumens; Inputs: 2x HDMI, 1x VGA, USB; Long lamp life (min 10,000 hours eco-mode); Includes ceiling mounting bracket	Each	1
21	**Instructional Laptops**	Processor: Intel Core i5 or AMD Ryzen 5 (Current Generation); Memory: Minimum 8GB DDR4 RAM (16GB preferred for ICT/CAD); Storage: Minimum 512GB PCIe NVMe SSD; Display: 14" or 15.6" Anti-Glare FHD screen; OS: Windows 11 Pro; Reinforced carrying case	Each	1

LOT 9: TRAINING EQUIPMENT AND MACHINES FOR PLUMBING – MGAYI CTC

Item No	Description of Goods or Related Service	Technical Specifications	QTY
1	PPR Welding machine (1xK300,000)	Procure PPR Welding machine	1
2	Gas welding equipment (1xK200,000)	Procure gas welding equipment	1

The specific conditions for the goods are attached and will form an integral part of any resulting contract.

DELIVERY AND COMPLETION SCHEDULE

The delivery or completion period shall commence from the date of the last signature on the contract. Refer to Incoterms specified in the ITB or the BDS for the interpretation of the delivery period.

LOT 1:

ITEM NUMBER	DESCRIPTION OF GOODS OR RELATED SERVICE	DELIVERY COMPLETION PERIOD (DAYS/WEEKS/MONTHS)	DELIVERY POINT/SITE
1	Furniture	45 days	Lunjika & Thambani CSDCs and Mgayi CTC
2	Training Equipment and Machines – Fabrication and Welding (FBW)	45 days	Lunjika & Thambani CSDCs and Mgayi CTC
3	Electrical Installation	45 days	Lunjika & Thambani CSDCs
4	Training Equipment and Machines – Information Technology (ICT)	45 days	Lunjika & Thambani CSDCs and Mgayi CTC
5	Training Equipment and Machines - Bricklaying	45 days	Lunjika CSDC
6	Training Equipment – Tailorin g and Fashion Design (TFD)	45 days	Lunjika & Thambani CSDCs and Mgayi CTC
7	Training Equipment and Machines – Carpentry and Joinery	45 days	Thambani CSDC
8	Tools for Cosmetology (Hairdressing and Barbering)	45 days	Thambani CSDC
9	Training Equipment and Machines for Plumbing	45 days	Mgayi CTC

TECHNICAL SPECIFICATIONS AND COMPLIANCE SHEET

Procurement Reference Number: TEVETA-0058-1-26

[Column "b" states the minimum technical specification of the item(s) required by the Procuring and Disposing Entity.]

[The Bidder is to complete column "c" with the technical specification of the item(s) offered and to state whether the offered items "comply" or do "not comply" giving details of the areas of compliance and non-compliance respectively.]

LOT 1(A): FURNITURE – LUNJIKA CSDC

ITEM NO.	TECHNICAL SPECIFICATIONS OF ITEMS REQUIRED INCLUDING APPLICABLE STANDARDS		COMPLIANCE OF SPECIFICATIONS OFFERED
1	Office Desks for Administration Block	150 (L), 75cm (H), 70cm (W) Color: walnut	
2	Office Chairs for Administration Block	High back, leather 360-degree swivel with linked arms Color: black	
3	Double-Door Steel Cupboard / Cabinet	Heavy-duty sheet steel (0.7mm – 0.8mm doors and body). Equipped with 4 internal height-adjustable shelves. **Height:** 1800 mm **Width:** 900 mm **Depth:** 450 mm 3-point locking system with keys, hardened enamel or powder-coated finish (grey/ivory).	
4	**Tertiary/College Student Desk** (Single Seater)	**Top:** 25mm pre-laminated high-density particle board or structural plywood with 2mm heavy-duty PVC edge banding. **Frame:** Mild Steel (MS) tubular or square pipe	

		structure (minimum 1.2mm wall thickness). **Height:** 750 mm – 760 mm **Width (Single):** 600 mm – 700 mm **Width (Double):** 1100 mm – 1200 mm **Depth:** 450 mm – 500 mm Scratch and stain-resistant top. Frames are CO2 welded and finished with epoxy powder coating (min. 50 microns). Includes integral structural book rack/shelf underneath and side bag hooks.	
5	**Classroom Student Chair** (Heavy-Duty)	**Seat/Backrest:** Ergonomically contoured, high-impact injected polypropylene (reinforced plastic) or high-density laminated plywood. **Base:** Heavy-duty round MS steel pipe frame (22mm to 25mm diameter, 1.2mm thickness). **Total Height:** 780 mm – 820 mm **Seat Height:** 440 mm – 460 mm **Seat Width:** 400 mm – 420 mm Riveted or tamper-proof bolted shell fixation, rubberized non-marring floor glides/ferrules to eliminate floor scraping and noise, stackable design up to 5 chairs high	

LOT 1(B): FURNITURE – THAMBANI CSDC

ITEM NO.	TECHNICAL SPECIFICATIONS OF ITEMS REQUIRED INCLUDING APPLICABLE STANDARDS		COMPLIANCE OF SPECIFICATIONS OFFERED
1	Office Desks for Administration Block	150 (L), 75cm (H), 70cm (W) Color: walnut	
2	Office Chairs for Administration Block	High back, leather 360 degrees swivel with linked arms Color: black	
3	Double-Door Steel Cupboard / Cabinet	Heavy-duty sheet steel (0.7mm – 0.8mm doors and body). Equipped with 4 internal height-adjustable shelves. **Height:** 1800 mm **Width:** 900 mm **Depth:** 450 mm 3-point locking system with keys, hardened enamel or powder-coated finish (grey/ivory).	
4	**Tertiary/College Student Desk** (Single Seater)	**Top:** 25mm pre-laminated high-density particle board or structural plywood with 2mm heavy-duty PVC edge banding. **Frame:** Mild Steel (MS) tubular or square pipe structure (minimum 1.2mm wall thickness). **Height:** 750 mm – 760 mm **Width (Single):** 600 mm – 700 mm **Width (Double):** 1100 mm – 1200 mm **Depth:** 450 mm – 500 mm	

		Scratch and stain-resistant top. Frames are CO2 welded and finished with epoxy powder coating (min. 50 microns). Includes integral structural book rack/shelf underneath and side bag hooks.	
5	**Classroom Student Chair** (Heavy-Duty)	**Seat/Backrest:** Ergonomically contoured, high-impact injected polypropylene (reinforced plastic) or high-density laminated plywood. **Base:** Heavy-duty round MS steel pipe frame (22mm to 25mm diameter, 1.2mm thickness). **Total Height:** 780 mm – 820 mm **Seat Height:** 440 mm – 460 mm **Seat Width:** 400 mm – 420 mm Riveted or tamper-proof bolted shell fixation, rubberized non-marring floor glides/ferrules to eliminate floor scraping and noise, stackable design up to 5 chairs high	

LOT 1(C): FURNITURE - MGAYI CTC

ITEM NO.	TECHNICAL SPECIFICATIONS OF ITEMS REQUIRED INCLUDING APPLICABLE STANDARDS		COMPLIANCE OF SPECIFICATIONS OFFERED
1	Office Desks for Administration Block	150 (L), 75cm (H), 70cm (W) Color: walnut	

2	Office Chairs for Administration Block	High back, leather 360 degrees swivel with linked arms Color: black	
3	Double-Door Steel Cupboard / Cabinet	Heavy-duty sheet steel (0.7mm – 0.8mm doors and body). Equipped with 4 internal height-adjustable shelves. **Height:** 1800 mm **Width:** 900 mm **Depth:** 450 mm 3-point locking system with keys, hardened enamel or powder-coated finish (grey/ivory).	
4	**Tertiary/College Student Desk** (Single Seater)	**Top:** 25mm pre-laminated high-density particle board or structural plywood with 2mm heavy-duty PVC edge banding. **Frame:** Mild Steel (MS) tubular or square pipe structure (minimum 1.2mm wall thickness). **Height:** 750 mm – 760 mm **Width (Single):** 600 mm – 700 mm **Width (Double):** 1100 mm – 1200 mm **Depth:** 450 mm – 500 mm Scratch and stain-resistant top. Frames are CO2 welded and finished with epoxy powder coating (min. 50 microns). Includes integral structural	

		book rack/shelf underneath and side bag hooks.	
	Classroom Student Chair (Heavy-Duty)	**Seat/Backrest:** Ergonomically contoured, high-impact injected polypropylene (reinforced plastic) or high-density laminated plywood. **Base:** Heavy-duty round MS steel pipe frame (22mm to 25mm diameter, 1.2mm thickness). **Total Height:** 780 mm – 820 mm **Seat Height:** 440 mm – 460 mm **Seat Width:** 400 mm – 420 mm Riveted or tamper-proof bolted shell fixation, rubberized non-marring floor glides/ferrules to eliminate floor scraping and noise, stackable design up to 5 chairs high	

LOT 2(A): TRAINING EQUIPMENT AND MACHINES - FABRICATION AND WELDING (FBW) – LUNJIKA CSDC

ITEM NO.	TECHNICAL SPECIFICATIONS OF ITEMS REQUIRED INCLUDING APPLICABLE STANDARDS			COMPLIANCE OF SPECIFICATIONS OFFERED
1	**DC Inverter Welding Machine (400A AC/DC)**	**Output:** 5–400A AC/DC; **Input:** 400V 3-Phase; **Processes:** TIG (GTAW) & MMA (SMAW); **Duty Cycle:** 60% @ 400A; **Features:** Built-in VRD, IGBT technology, Dual digital display meters, Arc	Built-in voltage tolerance (±15%) for ESCOM line spikes. Fan-on-Demand limits dust intake. VRD ensures safe student rod swaps.	

		Force & Hot Start; **Enclosure:** IP23S.		
2	**AC Rectifier Welding Machine**	**Output:** 40A–400A AC continuous shunt; **Input:** 400V 3-Phase; **Control:** Mechanical moving core shunt; **Duty Cycle:** 60% @ 400A; **Insulation:** Class H (180°C limit); **Features:** Heavy insulated outputs, thermal trip warning light.	100% analog transformer architecture with **no fragile digital PCBs**. Fully immune to abrupt load-shedding surges.	
3	**Oxy-Acetylene Welding & Cutting Set**	**Regulators:** Dual-stage heavy-duty gas regulators with dual pressure gauges; **Torch:** Industrial shank with mixing head, welding nozzles (#1–#5), cutting attachment & nozzles; **Hose:** 10m twin vulcanized rubber hose line.	**Mandatory twin dual-ended flashback arrestors** on both torch and regulator ends. 100% immune to power blackouts.	
4	**AC/DC TIG Welding Machine (200A)**	**Output:** 5A–200A AC/DC; **Input:** 230V Single-Phase; **Controls:** AC balance control (40Hz–200Hz) for aluminum training; **Ignition:** High-Frequency (HF) & Lift-TIG; **Kits:** 4m WP-26 TIG torch, Argon flowmeter regulator.	Standard 230V single-phase plug-and-play for benches. Built-in VRD handles auxiliary safety during MMA/Stick exercises.	
5	**MIG Welding Machine**	**Output:** 30A–250A DC; **Input:** 230V Single-Phase; **Wire Feeder:** Heavy-duty integrated dual-gear metal feeder block; **Capacity:** 0.8mm–1.2mm wire rolls; **Kits:** 3m Euro-connect MIG torch, heated gas regulator.	Euro-connect torch design ensures universal compatibility and cheap, easy consumable replacement in Blantyre/Lilongwe.	
6	**Rolling Machine (Initial Pinch)**	**Working Length:** 1250mm–1500mm max width; **Bending Capacity:** Up to 3.0mm mild steel; **Geometry:** 3-Roll initial pinch; **Rolls:** 75mm–90mm induction-hardened steel; **Release:** Swing-out top roll with quick lock.	Manual or heavy mechanical gear drive to eliminate digital board breakdowns. Features mechanical emergency foot/kick bars.	

7	**Plasma Cutting Machine**	**Output:** 20A–100A DC; **Input:** 400V 3-Phase; **Capacity:** 25mm clean cut, 35mm sever cut; **Ignition:** Non-HF Pilot Arc mechanism; **Air Feed:** 5.0–6.5 bar air input (fitted with rear filter/separator).	Pilot Arc allows student training on rusted or painted educational scrap metal. Interlocking torch safety switch prevents firing.	
8	**Drilling Machine Portable (1/College)**	**Power:** 750W–850W industrial motor; **Input:** 230V Single-Phase; **Chuck:** 13mm heavy keyed all-metal chuck; **Modes:** Dual-mode Rotary & Hammer action; **Speed:** Variable trigger (0–3000 RPM) with mechanical reverse.	Integrated internal mechanical safety slip clutch prevents student wrist injuries if a drill bit jams in thick iron plate.	
9	**Radial Arm Drill Machine**	**Capacity:** Up to 32mm/40mm drilling in mild steel; **Input:** 400V 3-Phase; **Spindle Taper:** MT4; **Arm Travel:** 700mm–1000mm radius, 360° manual swivel; **Gearbox:** 6-speed geared manual selection (50–2000 RPM).	Magnetic starter switch with **No-Volt Release (NVR)** protection prevents dangerous tool auto-restart when grid power returns.	
10	**Profile Cutting Machine**	**Type:** Motorized Oxy-Fuel Track Cutter; **Input:** 230V Single-Phase; **Speed Range:** 50mm–750mm/min reversible drive motor; **Torch:** Heavy injector type with rack adjustments; **Track:** 2x 1.8m interlocking steel tracks.	Relies on basic analog forward/reverse tracking speed control circuits that tolerate volatile localized voltage fluctuations.	
11	**Compressor Heavy Duty**	**Type:** Two-stage cast-iron twin-cylinder reciprocating compressor; **Tank:** Min 200L–300L pressure-certified horizontal vessel; **Air Delivery:** 15–20 CFM @ 10 Bar (145 PSI); **Motor:** 4.0kW–5.5kW induction motor, 400V 3-Phase.	Motor fitted with localized thermal overload relays and a star-delta starter panel to safely handle deep ESCOM voltage drops.	
12	**Guillotine**	**Type:** Mechanical/Hydraulic Shear; **Capacity:** 4.0mm	**Mandatory clear-view front finger guards** and rear	

		mild steel, 2.5mm stainless steel; **Cutting Length:** 2000mm–2500mm; **Backgauge:** Manual lead-screw with mechanical counter; **Foot Pedal:** Shrouded safety switch.	photoelectric light curtains. Heavy tropicalized hydraulic seals for 40°C heat.	
14	**Resistance Welding Machine**	**Type:** Pedestal Rocker-Arm Spot Welder; **Capacity:** 15 kVA–25 kVA nominal; **Input:** 400V 3-Phase; **Arm Length:** 400mm adjustable arm with physical foot-pedal; **Control:** Digital IC timer weld controller.	Integrated water-cooling loop protection for internal thyristor thyristors and welding arms during repetitive school use.	
15	**Bench Vice**	**Jaw Width:** 150mm (6"); **Jaw Opening:** Min 150mm; **Material:** Unbreakable SG ductile iron or cast steel (Min 450 MPa tensile); **Base:** 360° swivel with heavy dual locking pins; **Anvil:** Rear anvil face.	Ductile iron casting resists sudden heavy impacts from student hammer errors without cracking or splintering.	
16	**Fume Extractor**	**Type:** Mobile high-vacuum cartridge filtration unit; **Capacity:** 1200–1500 m^3/h airflow; **Arm:** 3m flexible positional arm (150mm diameter) with 360° hood; **Filtration:** 3-stage filtration system.	Protections ensure student safety from carcinogenic weld vapors in unventilated blocks. Standard single-phase 230V input.	
17	**Micrometer**	**Type:** Outside Vernier Micrometer; **Range:** 0mm–25mm; **Resolution:** 0.01mm mechanical graduation; **Material:** Hardened steel frame with carbide anvil/spindle faces; **Lock:** Frame lock lever.	Provided inside an impact-resistant padded wooden or molded plastic storage case to preserve precision from ambient grit/dust.	
18	**Stakes (Sheet Metal forming set)**	**Material:** Drop-forged high-grade tool steel with polished working faces; **Set Composition:** 1x Half-Moon, 1x Blowhorn (tapered dual horns), 1x Creasing, 1x Beakhorn; **Base:** Heavy cast-iron holder plate.	Pure mechanical bench-locked tools. Heavy tool-steel construction handles repeated student shaping errors without marking.	

19	**Portable Drilling Machines**	**Power:** 750W–850W; **Input:** 230V 50Hz; **Chuck:** 13mm heavy keyed all-metal chuck; **Modes:** Rotary & Hammer; **Speed:** Variable trigger (0–3000 RPM); **Housing:** Metal gear case.	Duplicate pool item matching Item 8 specifications to simplify institutional spare parts inventories and pricing schedules.	
20	**Angle Grinders**	**Disc Size:** 115mm (4.5") or 125mm (5"); **Power:** 850W–1100W motor, 230V Single-Phase; **Spindle:** M14; **Safety:** Tool-free burst-proof wheel guard; **Switch:** Dead-man two-motion switch.	Labyrinth dust-sealed armature and field coil windings protect internal motors from short-circuiting due to metallic dust grinding.	
21	**Metal Spraying Machines**	Industrial flame-wire or electric-arc thermal spraying system; Anti-corrosion/wear-resistant coating capability (zinc, aluminum, bronze alloys); Includes gas regulators, flowmeters, hoses, and spray gun assembly.		
22	**High-Speed & Hot Air Torches (Guns)**	Power: 1600W – 3000W; 230V AC; Continuously adjustable temperature control range up to 600°C–700°C; Digital LED temperature display; Built-in thermal overload protection.		
23	**Wide-Band Pressure Rollers**	High-durability silicone or heavy brass roller wheel; Wheel width: 40mm – 80mm; Ergonomic hardwood or steel frame handle; Heavy-duty internal ball bearings.		
24	**Hot Plates**	Heavy cast-iron or ceramic-coated rectangular surface (min. 300mm x 300mm); Variable built-in thermostat up to 350°C; LED power indicator light; 240V AC.		
25	**Machine Tractors**	Portable motorized magnetic or track-guided welding/cutting carriage; Automated straight-line gas/plasma cutting or MIG welding capability; Variable		

		travel speed control; 220V AC.		
26	**High-Frequency Spark Guns**	**Portable high-frequency spark/leak detector and igniter unit; Insulated safety probe handle; Variable sensitivity output control; Heavy-duty carrying case.**		
27	**Ultrasonic Plastic Welders**	Operating frequency: 20kHz – 35kHz; Output power: 800W – 2000W; Pneumatic or precision manual press stand; Digital amplitude and weld-time controls.		
28	**Linear Vibration Welders**	Industrial-grade thermoplastic assembly system (Bioclimatic/Bondmatic equivalent); High frequency and clamp force capacity tailored to standard institutional workshop footprints.		
29	**Lathe Machines (Center Lathe)**	Swing over bed: 330mm – 400mm; Distance between centers: 1000mm – 1500mm; 3-phase electric motor (415V, 50Hz); Quick-change tool post, 3-jaw & 4-jaw chucks, safety footbrake, coolant pump, full debris enclosure.		
30	**Shaping Machines (Metal Shaper)**	Stroke length: 450mm – 500mm; Variable ram speed settings; Swivel tool head; V-belt drive system powered by a 3-phase electric motor (415V, 50Hz); Rigid cast-iron foundation base.		

TOOLS – FABRICATION AND WELDING

ITEM NO.	**TECHNICAL SPECIFICATIONS OF ITEMS REQUIRED INCLUDING APPLICABLE STANDARDS**	**COMPLIANCE OF SPECIFICATIONS OFFERED**

31	Welding helmet	• Lens Shade DIN 10 • Dark lens 108x51x3mm • Glass clear lens 108x89mm • Impact-resistant plastic (DIN 175B) • Flame retardant • Front flip • Adjustable head strip	
32	Welding goggles	• Green flip top • Lens shade DIN5 • Ventilation poles	
33	Steel Tape Measure	5 m Reverse printed blade Nylon coated blade • Housed in a high impact plastic case Magnetic hook	
34	Leather Gloves (Elbow)	• Heavy duty • Reinforced palm and thumb • Length 200mm • Green/blue/grey • Compliant with EN420	
35	Leather gloves (Palm)	• Heavy duty • Reinforced palm and thumb • Palm length • Green/blue/grey • EN420 • Type A	
36	Steel ruler	• Length 600mm • Stainless steel with polished finish • Metric to imperial conversion	

		• Permanent black figures and graduation • Accuracy ± 0.2mm • Square end flexible	
37	Try square	• Length 300mm • Stainless steel with polished finish • Metric to imperial conversion • Permanent black figures and graduation • Accuracy ± 0.2mm • Square end flexible high-speed blade	
38	Ball peen Hammer	• Drop forged • Striking faces induction hardened and precision ground • Blue epoxy powder coated • Hard wood handle • 375 mm length handle 0.840 kilograms weight	
39	Adjustable Hacksaw complete with blade	• Compliant with BS 1919 • Die Cast D styled handle • Tubular chrome coated frame • Wing nut blade Tensioning • For 250 mm (10”) and 300 mm (12”) hacksaw blades. • Shatterproof HSS blades	

		• 24 teeth per inch	
30	Snips (General purpose)	• Drop forged carbon steel • Hardened precision ground blades • Length 200mm • Sheet thickness 1.2mm at strength of 600N/mm^2	
31	Nozzle cleaner	• High strength needle type files • Anodised aluminium flip-up pocket case • 6 Piece pack	
32	Scriber	• Length 180mm • Hardened and tempered high-grade steel • Knurled body • Double ended with one straight point and the other at 900	
33	Welders' chipping hammer	• Hardened and tempered spring steel head • Chisel edge and point striking faces • Epoxy coating • Spring steel impact absorbing handle • 300g pick and flat ends	
34	Chisel and Punch set (6 pieces)	• Chrome Molybdenum Vanadium air hardened tempered along the full length • 45CrMoV7 steel • Striking head induction tempered to prevent shattering	

		• Working edge polished and clear vanished • In a PVC pack	
35	Rubber Mallet	• Face 65mm Diameter • Head size 24Oz • Handle length 300mm	
36	Leather Apron	• One-piece 600x1200cm • Two side pockets • neck and back stripes	
37	Adjustable wrench open end	• Chrome Vanadium Steel 31CrV3 • Manganese Phosphate finish • 150 mm length Jaw set at 15 Degrees • Ground head	
38	Screwdriver set (6 piece)	• Flat Head marked • Cross head PH1 and PH2 • Slotted/Straight head 4, 5.5, 6.5 and 8mm) • Hanging hole • Ergonomic grip handle • Vanadium, molybdenum tempered steel • Compliant with DIN – ISO 2380- 2 • Blade tip according to DIN – ISO 2380- 1 Form A	

		• Precision made blade tip	
39	File (Engineers Industrial) set with plastic handles	• Compliant with BS 498:1990 • 1 hand file (250mm) • 1 flat file (250mm) • 1 Round file (250mm) • 1 Half round file (250mm) • Manufactured from chrome/molybdenum steel • Hardened and tempered • Bastard cut, second cut and smooth cut	
40	Taps and die set	• M3 – M12 • High-speed steel ground thread (ISO 529) • Tapping drills (BS328/DIN338N) • Split dies and nuts manufactured to BS1127	
41	Spring universal divider	• Must have a Circular spring bow joining the legs. • Extension on the bow for used when pivoting • 60g by weight • Length 200mm	
42	Spring inside calliper	• Must have a Circular spring bow joining the legs. • Extension on the bow for used when pivoting • 60g by weight • Length 200mm	
43	Spring outside calliper	• Must have a Circular spring bow joining the legs. • Extension on the bow for used when pivoting	

		• 60g by weight	
44	Portable arc welding Machine	• Input 230V • 50HZ • Maximum output 200A • 60% Duty cycle at 160A	
45	Angle Grinder	• Input 220-240V and 13 Amps • RPM above 2200 • Output 1200 Watts • Disc size 9”	
46	Portable Drilling Machine	• 115 mm • Spindle thread 14” • 220-240 V A/C 13Amps • 900 Watts output • Light Duty • Metal drive gears	
47	Drilling Bits set from 1 mm to 13 mm	• General purpose drill bits • Should be imperial set • Point angle of 118 Degrees • Normal helix angle • Relief angle of 10 Degrees to 20 Degrees • Tolerance of h8 • Compliant with BS 328 DIN 338 RN	
48	Tong	• Length 500mm • Closed mouth • Flat	
49	Soldering iron	• Copper bit • Wooden handle	

		• Straight shaft	
50	Combination pliers with cutter	• Chrome Vanadium steel with vinyl handle • Double polished head and joint with induction hardened cutting edges • Scattered gripping and crimping jaws behind the head	
51	Wire Brash	• With wooden handle • With scraper • Bristle type	
52	Toolbox empty, with Steel Padlocks and with keys	• 5 Compartments • Smooth and easy opening • Maximum access to the bottom tray • Lockable phosphate and powder coated • Length 550 mm • Width 248 mm • Height 220 mm	
53	Soldering Irons (Standard & Electric)	• Power: 60W – 150W; Voltage: 220–240V AC, 50Hz; Thermostatically controlled; Interchangeable copper/iron-plated tips; Heat-resistant handle; Fitted with BS 1363 3-pin fused plug.	
54	Welding Nozzles	• Heavy-duty chrome-zirconium copper or high-grade stainless-	

	(Tacking, Cranked, Hot Plate, Speed)	steel construction; High heat resistance; Compatible with standard institutional M6/M8 torch barrel configurations.		

LOT 2(B): TRAINING EQUIPMENT AND MACHINES - FABRICATION AND WELDING (FBW) – THAMBANI CSDC

ITEM NO.	TECHNICAL SPECIFICATIONS OF ITEMS REQUIRED INCLUDING APPLICABLE STANDARDS			COMPLIANCE OF SPECIFICATIONS OFFERED
1	**DC Inverter Welding Machine (400A AC/DC)**	**Output:** 5–400A AC/DC; **Input:** 400V 3-Phase; **Processes:** TIG (GTAW) & MMA (SMAW); **Duty Cycle:** 60% @ 400A; **Features:** Built-in VRD, IGBT technology, Dual digital display meters, Arc Force & Hot Start; **Enclosure:** IP23S.	Built-in voltage tolerance (±15%) for ESCOM line spikes. Fan-on-Demand limits dust intake. VRD ensures safe student rod swaps.	
2	**AC Rectifier Welding Machine**	**Output:** 40A–400A AC continuous shunt; **Input:** 400V 3-Phase; **Control:** Mechanical moving core shunt; **Duty Cycle:** 60% @ 400A; **Insulation:** Class H (180°C limit); **Features:** Heavy insulated outputs, thermal trip warning light.	100% analogue transformer architecture with **no fragile digital PCBs**. Fully immune to abrupt load-shedding surges.	
3	**Oxy-Acetylene Welding & Cutting Set**	**Regulators:** Dual-stage heavy-duty gas regulators with dual pressure gauges; **Torch:** Industrial shank with mixing head, welding nozzles (#1–#5), cutting attachment & nozzles; **Hose:** 10m twin vulcanized rubber hose line.	**Mandatory twin dual-ended flashback arrestors** on both torch and regulator end. 100% immune to power blackouts.	
4	**AC/DC TIG Welding Machine (200A)**	**Output:** 5A–200A AC/DC; **Input:** 230V Single-Phase; **Controls:** AC balance control (40Hz–200Hz) for aluminium training; **Ignition:** High-Frequency (HF) & Lift-TIG; **Kits:** 4m WP-26 TIG torch, Argon flowmeter regulator.	Standard 230V single-phase plug-and-play for benches. Built-in VRD handles auxiliary safety during MMA/Stick exercises.	

5	**MIG Welding Machine**	**Output:** 30A–250A DC; **Input:** 230V Single-Phase; **Wire Feeder:** Heavy-duty integrated dual-gear metal feeder block; **Capacity:** 0.8mm–1.2mm wire rolls; **Kits:** 3m Euro-connect MIG torch, heated gas regulator.	Euro-connect torch design ensures universal compatibility and cheap, easy consumable replacement in Blantyre/Lilongwe.	
6	**Rolling Machine (Initial Pinch)**	**Working Length:** 1250mm–1500mm max width; **Bending Capacity:** Up to 3.0mm mild steel; **Geometry:** 3-Roll initial pinch; **Rolls:** 75mm–90mm induction-hardened steel; **Release:** Swing-out top roll with quick lock.	Manual or heavy mechanical gear drive to eliminate digital board breakdowns. Features mechanical emergency foot/kick bars.	
7	**Plasma Cutting Machine**	**Output:** 20A–100A DC; **Input:** 400V 3-Phase; **Capacity:** 25mm clean cut, 35mm sever cut; **Ignition:** Non-HF Pilot Arc mechanism; **Air Feed:** 5.0–6.5 bar air input (fitted with rear filter/separator).	Pilot Arc allows student training on rusted or painted educational scrap metal. Interlocking torch safety switch prevents firing.	
8	**Drilling Machine Portable (1/College)**	**Power:** 750W–850W industrial motor; **Input:** 230V Single-Phase; **Chuck:** 13mm heavy keyed all-metal chuck; **Modes:** Dual-mode Rotary & Hammer action; **Speed:** Variable trigger (0–3000 RPM) with mechanical reverse.	Integrated internal mechanical safety slip clutch prevents student wrist injuries if a drill bit jams in thick iron plate.	
9	**Radial Arm Drill Machine**	**Capacity:** Up to 32mm/40mm drilling in mild steel; **Input:** 400V 3-Phase; **Spindle Taper:** MT4; **Arm Travel:** 700mm–1000mm radius, 360° manual swivel; **Gearbox:** 6-speed geared manual selection (50–2000 RPM).	Magnetic starter switch with **No-Volt Release (NVR)** protection prevents dangerous tool auto-restart when grid power returns.	
10	**Profile Cutting Machine**	**Type:** Motorized Oxy-Fuel Track Cutter; **Input:** 230V Single-Phase; **Speed Range:** 50mm–750mm/min reversible drive motor; **Torch:** Heavy injector type with rack adjustments; **Track:** 2x 1.8m interlocking steel tracks.	Relies on basic analog forward/reverse tracking speed control circuits that tolerate volatile localized voltage fluctuations.	

11	**Compressor Heavy Duty**	**Type:** Two-stage cast-iron twin-cylinder reciprocating compressor; **Tank:** Min 200L–300L pressure-certified horizontal vessel; **Air Delivery:** 15–20 CFM @ 10 Bar (145 PSI); **Motor:** 4.0kW–5.5kW induction motor, 400V 3-Phase.	Motor fitted with localized thermal overload relays and a star-delta starter panel to safely handle deep ESCOM voltage drops.	
12	**Guillotine**	**Type:** Mechanical/Hydraulic Shear; **Capacity:** 4.0mm mild steel, 2.5mm stainless steel; **Cutting Length:** 2000mm–2500mm; **Backgauge:** Manual lead-screw with mechanical counter; **Foot Pedal:** Shrouded safety switch.	**Mandatory clear-view front finger guards** and rear photoelectric light curtains. Heavy tropicalized hydraulic seals for 40°C heat.	
14	**Resistance Welding Machine**	**Type:** Pedestal Rocker-Arm Spot Welder; **Capacity:** 15 kVA–25 kVA nominal; **Input:** 400V 3-Phase; **Arm Length:** 400mm adjustable arm with physical foot-pedal; **Control:** Digital IC timer weld controller.	Integrated water-cooling loop protection for internal thyristor thyristors and welding arms during repetitive school use.	
15	**Bench Vice**	**Jaw Width:** 150mm (6"); **Jaw Opening:** Min 150mm; **Material:** Unbreakable SG ductile iron or cast steel (Min 450 MPa tensile); **Base:** 360° swivel with heavy dual locking pins; **Anvil:** Rear anvil face.	Ductile iron casting resists sudden heavy impacts from student hammer errors without cracking or splintering.	
16	**Fume Extractor**	**Type:** Mobile high-vacuum cartridge filtration unit; **Capacity:** 1200–1500 m^3/h airflow; **Arm:** 3m flexible positional arm (150mm diameter) with 360° hood; **Filtration:** 3-stage filtration system.	Protections ensure student safety from carcinogenic weld vapours in unventilated blocks. Standard single-phase 230V input.	
17	**Micrometer**	**Type:** Outside Vernier Micrometer; **Range:** 0mm–25mm; **Resolution:** 0.01mm mechanical graduation; **Material:** Hardened steel frame with carbide anvil/spindle faces; **Lock:** Frame lock lever.	Provided inside an impact-resistant padded wooden or moulded plastic storage case to preserve precision from ambient grit/dust.	
18	**Stakes (Sheet**	**Material:** Drop-forged high-grade tool steel with polished	Pure mechanical bench-locked tools.	

	Metal forming set)	working faces; **Set Composition:** 1x Half-Moon, 1x Blowhorn (tapered dual horns), 1x Creasing, 1x Beak horn; **Base:** Heavy cast-iron holder plate.	Heavy tool-steel construction handles repeated student shaping errors without marking.	
19	**Portable Drilling Machines**	**Power:** 750W–850W; **Input:** 230V 50Hz; **Chuck:** 13mm heavy keyed all-metal chuck; **Modes:** Rotary & Hammer; **Speed:** Variable trigger (0–3000 RPM); **Housing:** Metal gear case.	Duplicate pool item matching Item 8 specifications to simplify institutional spare parts inventories and pricing schedules.	
20	**Angle Grinders**	**Disc Size:** 115mm (4.5") or 125mm (5"); **Power:** 850W–1100W motor, 230V Single-Phase; **Spindle:** M14; **Safety:** Tool-free burst-proof wheel guard; **Switch:** Dead-man two-motion switch.	Labyrinth dust-sealed armature and field coil windings protect internal motors from short-circuiting due to metallic dust grinding.	
21	**Metal Spraying Machines**	Industrial flame-wire or electric-arc thermal spraying system; Anti-corrosion/wear-resistant coating capability (zinc, aluminium, bronze alloys); Includes gas regulators, flowmeters, hoses, and spray gun assembly.		
22	**High-Speed & Hot Air Torches (Guns)**	Power: 1600W – 3000W; 230V AC; Continuously adjustable temperature control ranges up to 600°C–700°C; Digital LED temperature display; Built-in thermal overload protection.		
23	**Wide-Band Pressure Rollers**	High-durability silicone or heavy brass roller wheel; Wheel width: 40mm – 80mm; Ergonomic hardwood or steel frame handle; Heavy-duty internal ball bearings.		
24	**Hot Plates**	Heavy cast-iron or ceramic-coated rectangular surface (min. 300mm x 300mm); Variable built-in thermostat up to 350°C; LED power indicator light; 240V AC.		
25	**Machine Tractors**	Portable motorized magnetic or track-guided welding/cutting carriage; Automated straight-line gas/plasma cutting or MIG		

		welding capability; Variable travel speed control; 220V AC.		
26	**High-Frequency Spark Guns**	**Portable high-frequency spark/leak detector and igniter unit; Insulated safety probe handle; Variable sensitivity output control; Heavy-duty carrying case.**		
27	**Ultrasonic Plastic Welders**	Operating frequency: 20kHz – 35kHz; Output power: 800W – 2000W; Pneumatic or precision manual press stand; Digital amplitude and weld-time controls.		
28	**Linear Vibration Welders**	Industrial-grade thermoplastic assembly system (Bioclimatic/Bondmatic equivalent); High frequency and clamp force capacity tailored to standard institutional workshop footprints.		
29	**Lathe Machines (Center Lathe)**	Swing over bed: 330mm – 400mm; Distance between centers: 1000mm – 1500mm; 3-phase electric motor (415V, 50Hz); Quick-change tool post, 3-jaw & 4-jaw chucks, safety footbrake, coolant pump, full debris enclosure.		
30	**Shaping Machines (Metal Shaper)**	Stroke length: 450mm – 500mm; Variable ram speed settings; Swivel tool head; V-belt drive system powered by a 3-phase electric motor (415V, 50Hz); Rigid cast-iron foundation base.		

TOOLS – FABRICATION AND WELDING

ITEM NO.	**TECHNICAL SPECIFICATIONS OF ITEMS REQUIRED INCLUDING APPLICABLE STANDARDS**		**COMPLIANCE OF SPECIFICATIONS OFFERED**
31	Welding helmet	• Lens Shade DIN10 • Dark lens 108x51x3mm	

		• Glass clear lens 108x89mm • Impact resistant plastic (DIN 175B) • Flame retardant • Front flip • Adjustable head strip	
32	Welding goggles	• Green flip top • Lens shade DIN5 • Ventilation poles	
33	Steel Tape Measure	5 m Reverse printed blade Nylon coated blade Housed in a high impact ıstic case Magnetic hook	
34	Leather Gloves (Elbow)	• Heavy duty • Reinforced palm and thumb • Length 200mm • Green/blue/grey • Compliant with EN420	
35	Leather gloves (Palm)	• Heavy duty • Reinforced palm and thumb • Palm length • Green/blue/grey • EN420 • Type A	

36	Steel ruler	• Length 600mm • Stainless steel with polished finish • Metric to imperial conversion • Permanent black figures and graduation • Accuracy ± 0.2mm • Square end flexible	
37	Try square	• Length 300mm • Stainless steel with polished finish • Metric to imperial conversion • Permanent black figures and graduation • Accuracy ± 0.2mm • Square end flexible high speed blade	
38	Ball peen Hammer	Drop forged Striking faces induction rdened and precision ground Blue epoxy powder coated Hard wood handle 375 mm length handle 0.840 kilograms weight	
39	Adjustable Hacksaw complete with blade	Compliant with BS 1919 Die Cast D styled handle Tubular chrome coated frame Wing nut blade Tensioning	

		For 250 mm (10”) and 300 n (12”) hacksaw blades. Shatterproof HSS blades 24 teeth per inch	
40	Snips (General purpose)	• Drop forged carbon steel • Hardened precision ground blades • Length 200mm • Sheet thickness 1.2mm at strength of 600N/mm^2	
41	Nozzle cleaner	• High strength needle type files • Anodised aluminium flip-up pocket case • 6 Piece pack	
42	Scriber	• Length 180mm • Hardened and tempered high-grade steel • Knurled body • Double ended with one straight point and the other at 900	
43	Welders’ chipping hammer	• Hardened and tempered spring steel head • Chisel edge and point striking faces • Epoxy coating • Spring steel impact absorbing handle • 300g pick and flat ends	
44	Chisel and Punch set (6 pieces)	• Chrome Molybdenum Vanadium air hardened tempered along the full length	

		• 45CrMoV7 steel • Striking head induction tempered to prevent shattering • Working edge polished and clear vanished • In a PVC pack	
45	Rubber Mallet	• Face 65mm Diameter • Head size 24Oz • Handle length 300mm	
46	Leather Apron	• One-piece 600x1200cm • Two side pockets • neck and back stripes	
47	Adjustable wrench open end	• Chrome Vanadium Steel 31CrV3 • Manganese Phosphate finish • 150 mm length Jaw set at 15 Degrees • Ground head	
48	Screwdriver set (6 piece)	• Flat Head marked • Cross head PH1 and PH2 • Slotted/Straight head 4, 5.5, 6.5 and 8mm) • Hanging hole • Ergonomic grip handle • Vanadium, molybdenum tempered steel • Compliant with DIN – ISO 2380- 2	

		• Blade tip according to DIN – ISO 2380- 1 Form A • Precision made blade tip	
49	File (Engineers Industrial) set with plastic handles	• Compliant with BS 498:1990 • 1 hand file (250mm) • 1 flat file (250mm) • 1 Round file (250mm) • 1 Half round file (250mm) • Manufactured from chrome/molybdenum steel • Hardened and tempered • Bastard cut, second cut and smooth cut	
50	Taps and die set	• M3 – M12 • High speed steel ground thread (ISO 529) • Tapping drills (BS328/DIN338N) • Split dies and nuts manufactured to BS1127	
51	Spring universal divider	• Must have a Circular spring bow joining the legs. • Extension on the bow for used when pivoting • 60g by weight • Length 200mm	
52	Spring inside calliper	• Must have a Circular spring bow joining the legs.	

		• Extension on the bow for used when pivoting • 60g by weight • Length 200mm	
53	Spring outside calliper	• Must have a Circular spring bow joining the legs. • Extension on the bow for used when pivoting • 60g by weight	
54	Portable arc welding Machine	• Input 230V • 50HZ • Maximum output 200A • 60% Duty cycle at 160A	
55	Angle Grinder	• Input 220-240V and 13 Amps • RPM above 2200 • Output 1200 Watts • Disc size 9”	
56	Portable Drilling Machine	• 115 mm • Spindle thread 14” • 220-240 V A/C 13Amps • 900 Watts output • Light Duty • Metal drive gears	
57	Drilling Bits set from 1 mm to 13 mm	• General purpose drill bits • Should be imperial set • Point angle of 118 Degrees	

		• Normal helix angle • Relief angle of 10 Degrees to 20 Degrees • Tolerance of h8 • Compliant with BS 328 DIN 338 RN	
58	Tong	• Length 500mm • Closed mouth • Flat	
59	Soldering iron	• Copper bit • Wooden handle • Straight shaft	
60	Combination pliers with cutter	• Chrome Vanadium steel with vinyl handle • Double polished head and joint with induction hardened cutting edges • Scattered gripping and crimping jaws behind the head	
61	Wire Brash	• With wooden handle • With scraper • Bristle type	
62	Toolbox empty, with Steel Padlocks and with keys	• 5 Compartments • Smooth and easy opening • Maximum access to the bottom tray • Lockable phosphate and powder coated • Length 550 mm • Width 248 mm	

		• Height 220 mm		
63	Soldering Irons (Standard & Electric)	• Power: 60W – 150W; Voltage: 220–240V AC, 50Hz; Thermostatically controlled; Interchangeable copper/iron-plated tips; Heat-resistant handle; Fitted with BS 1363 3-pin fused plug.		
64	Welding Nozzles (Tacking, Cranked, Hot Plate, Speed)	• Heavy-duty chrome-zirconium copper or high-grade stainless-steel construction; High heat resistance; Compatible with standard institutional M6/M8 torch barrel configurations.		

LOT 2(C): TRAINING EQUIPMENT AND MACHINES - FABRICATION AND WELDING (FBW) – MGAYI CTC

ITEM NO.	TECHNICAL SPECIFICATIONS OF ITEMS REQUIRED INCLUDING APPLICABLE STANDARDS			COMPLIANCE OF SPECIFICATIONS OFFERED
1	**DC Inverter Welding Machine (400A AC/DC)**	**Output:** 5–400A AC/DC; **Input:** 400V 3-Phase; **Processes:** TIG (GTAW) & MMA (SMAW); **Duty Cycle:** 60% @ 400A; **Features:** Built-in VRD, IGBT technology, Dual digital display meters, Arc Force & Hot Start; **Enclosure:** IP23S.	Built-in voltage tolerance (±15%) for ESCOM line spikes. Fan-on-Demand limits dust intake. VRD ensures safe student rod swaps.	
2	**AC Rectifier Welding Machine**	**Output:** 40A–400A AC continuous shunt; **Input:** 400V 3-Phase; **Control:** Mechanical moving core shunt; **Duty Cycle:** 60% @ 400A; **Insulation:** Class H (180°C limit); **Features:** Heavy insulated outputs, thermal trip warning light.	100% analog transformer architecture with **no fragile digital PCBs**. Fully immune to abrupt load-shedding surges.	

3	**Oxy-Acetylene Welding & Cutting Set**	**Regulators:** Dual-stage heavy-duty gas regulators with dual pressure gauges; **Torch:** Industrial shank with mixing head, welding nozzles (#1–#5), cutting attachment & nozzles; **Hose:** 10m twin vulcanized rubber hose line.	**Mandatory twin dual-ended flashback arrestors** on both torch and regulator end. 100% immune to power blackouts.	
4	**AC/DC TIG Welding Machine (200A)**	**Output:** 5A–200A AC/DC; **Input:** 230V Single-Phase; **Controls:** AC balance control (40Hz–200Hz) for aluminium training; **Ignition:** High-Frequency (HF) & Lift-TIG; **Kits:** 4m WP-26 TIG torch, Argon flowmeter regulator.	Standard 230V single-phase plug-and-play for benches. Built-in VRD handles auxiliary safety during MMA/Stick exercises.	
5	**MIG Welding Machine**	**Output:** 30A–250A DC; **Input:** 230V Single-Phase; **Wire Feeder:** Heavy-duty integrated dual-gear metal feeder block; **Capacity:** 0.8mm–1.2mm wire rolls; **Kits:** 3m Euro-connect MIG torch, heated gas regulator.	Euro-connect torch design ensures universal compatibility and cheap, easy consumable replacement in Blantyre/Lilongwe.	
6	**Rolling Machine (Initial Pinch)**	**Working Length:** 1250mm–1500mm max width; **Bending Capacity:** Up to 3.0mm mild steel; **Geometry:** 3-Roll initial pinch; **Rolls:** 75mm–90mm induction-hardened steel; **Release:** Swing-out top roll with quick lock.	Manual or heavy mechanical gear drive to eliminate digital board breakdowns. Features mechanical emergency foot/kick bars.	
7	**Plasma Cutting Machine**	**Output:** 20A–100A DC; **Input:** 400V 3-Phase; **Capacity:** 25mm clean cut, 35mm sever cut; **Ignition:** Non-HF Pilot Arc mechanism; **Air Feed:** 5.0–6.5 bar air input (fitted with rear filter/separator).	Pilot Arc allows student training on rusted or painted educational scrap metal. Interlocking torch safety switch prevents firing.	
8	**Drilling Machine Portable (1/College)**	**Power:** 750W–850W industrial motor; **Input:** 230V Single-Phase; **Chuck:** 13mm heavy keyed all-metal chuck; **Modes:** Dual-mode Rotary & Hammer action; **Speed:** Variable trigger (0–3000 RPM) with mechanical reverse.	Integrated internal mechanical safety slip clutch prevents student wrist injuries if a drill bit jams in thick iron plate.	

9	**Radial Arm Drill Machine**	**Capacity:** Up to 32mm/40mm drilling in mild steel; **Input:** 400V 3-Phase; **Spindle Taper:** MT4; **Arm Travel:** 700mm–1000mm radius, 360° manual swivel; **Gearbox:** 6-speed geared manual selection (50–2000 RPM).	Magnetic starter switch with **No-Volt Release (NVR)** protection prevents dangerous tool auto-restart when grid power returns.	
10	**Profile Cutting Machine**	**Type:** Motorized Oxy-Fuel Track Cutter; **Input:** 230V Single-Phase; **Speed Range:** 50mm–750mm/min reversible drive motor; **Torch:** Heavy injector type with rack adjustments; **Track:** 2x 1.8m interlocking steel tracks.	Relies on basic analogue forward/reverse tracking speed control circuits that tolerate volatile localized voltage fluctuations.	
11	**Compressor Heavy Duty**	**Type:** Two-stage cast-iron twin-cylinder reciprocating compressor; **Tank:** Min 200L–300L pressure-certified horizontal vessel; **Air Delivery:** 15–20 CFM @ 10 Bar (145 PSI); **Motor:** 4.0kW–5.5kW induction motor, 400V 3-Phase.	Motor fitted with localized thermal overload relays and a star-delta starter panel to safely handle deep ESCOM voltage drops.	
12	**Guillotine**	**Type:** Mechanical/Hydraulic Shear; **Capacity:** 4.0mm mild steel, 2.5mm stainless steel; **Cutting Length:** 2000mm–2500mm; **Back gauge:** Manual leadscrew with mechanical counter; **Foot Pedal:** Shrouded safety switch.	**Mandatory clear-view front finger guards** and rear photoelectric light curtains. Heavy tropicalized hydraulic seals for 40°C heat.	
14	**Resistance Welding Machine**	**Type:** Pedestal Rocker-Arm Spot Welder; **Capacity:** 15 kVA–25 kVA nominal; **Input:** 400V 3-Phase; **Arm Length:** 400mm adjustable arm with physical foot-pedal; **Control:** Digital IC timer weld controller.	Integrated water-cooling loop protection for internal thyristor thyristors and welding arms during repetitive school use.	
15	**Bench Vice**	**Jaw Width:** 150mm (6"); **Jaw Opening:** Min 150mm; **Material:** Unbreakable SG ductile iron or cast steel (Min 450 MPa tensile); **Base:** 360° swivel with heavy dual locking pins; **Anvil:** Rear anvil face.	Ductile iron casting resists sudden heavy impacts from student hammer errors without cracking or splintering.	

16	**Fume Extractor**	**Type:** Mobile high-vacuum cartridge filtration unit; **Capacity:** 1200–1500 m³/h airflow; **Arm:** 3m flexible positional arm (150mm diameter) with 360° hood; **Filtration:** 3-stage filtration system.	Protections ensure student safety from carcinogenic weld vapours in unventilated blocks. Standard single-phase 230V input.	
17	**Micrometer**	**Type:** Outside Vernier Micrometer; **Range:** 0mm–25mm; **Resolution:** 0.01mm mechanical graduation; **Material:** Hardened steel frame with carbide anvil/spindle faces; **Lock:** Frame lock lever.	Provided inside an impact-resistant padded wooden or moulded plastic storage case to preserve precision from ambient grit/dust.	
18	**Stakes (Sheet Metal forming set)**	**Material:** Drop-forged high-grade tool steel with polished working faces; **Set Composition:** 1x Half-Moon, 1x Blowhorn (tapered dual horns), 1x Creasing, 1x Beak horn; **Base:** Heavy cast-iron holder plate.	Pure mechanical bench-locked tools. Heavy tool-steel construction handles repeated student shaping errors without marking.	
19	**Portable Drilling Machines**	**Power:** 750W–850W; **Input:** 230V 50Hz; **Chuck:** 13mm heavy keyed all-metal chuck; **Modes:** Rotary & Hammer; **Speed:** Variable trigger (0–3000 RPM); **Housing:** Metal gear case.	Duplicate pool item matching Item 8 specifications to simplify institutional spare parts inventories and pricing schedules.	
20	**Angle Grinders**	**Disc Size:** 115mm (4.5") or 125mm (5"); **Power:** 850W–1100W motor, 230V Single-Phase; **Spindle:** M14; **Safety:** Tool-free burst-proof wheel guard; **Switch:** Dead-man two-motion switch.	Labyrinth dust-sealed armature and field coil windings protect internal motors from short-circuiting due to metallic dust grinding.	
21	**Metal Spraying Machines**	Industrial flame-wire or electric-arc thermal spraying system; Anti-corrosion/wear-resistant coating capability (zinc, aluminium, bronze alloys); Includes gas regulators, flowmeters, hoses, and spray gun assembly.		
22	**High-Speed & Hot Air Torches (Guns)**	Power: 1600W – 3000W; 230V AC; Continuously adjustable temperature control ranges up to 600°C–700°C; Digital LED		

		temperature display; Built-in thermal overload protection.		
23	**Wide-Band Pressure Rollers**	High-durability silicone or heavy brass roller wheel; Wheel width: 40mm – 80mm; Ergonomic hardwood or steel frame handle; Heavy-duty internal ball bearings.		
24	**Hot Plates**	Heavy cast-iron or ceramic-coated rectangular surface (min. 300mm x 300mm); Variable built-in thermostat up to 350°C; LED power indicator light; 240V AC.		
25	**Machine Tractors**	Portable motorized magnetic or track-guided welding/cutting carriage; Automated straight-line gas/plasma cutting or MIG welding capability; Variable travel speed control; 220V AC.		
26	**High-Frequency Spark Guns**	Portable high-frequency spark/leak detector and igniter unit; Insulated safety probe handle; Variable sensitivity output control; Heavy-duty carrying case.		
27	**Ultrasonic Plastic Welders**	Operating frequency: 20kHz – 35kHz; Output power: 800W – 2000W; Pneumatic or precision manual press stand; Digital amplitude and weld-time controls.		
28	**Linear Vibration Welders**	Industrial-grade thermoplastic assembly system (Bioclimatic/Bond Matic equivalent); High frequency and clamp force capacity tailored to standard institutional workshop footprints.		
29	**Lathe Machines (Center Lathe)**	Swing over bed: 330mm – 400mm; Distance between centers: 1000mm – 1500mm; 3-phase electric motor (415V, 50Hz); Quick-change tool post, 3-jaw & 4-jaw chucks, safety foot brake, coolant pump, full debris enclosure.		
30	**Shaping Machines**	Stroke length: 450mm – 500mm; Variable ram speed settings; Swivel tool head; V-		

	(Metal Shaper)	belt drive system powered by a 3-phase electric motor (415V, 50Hz); Rigid cast-iron foundation base.		

TOOLS – FABRICATION AND WELDING

ITEM NO.	TECHNICAL REQUIRED STANDARDS	SPECIFICATIONS OF ITEMS INCLUDING APPLICABLE	COMPLIANCE OF SPECIFICATIONS OFFERED
31	Welding helmet	• Lens Shade DIN10 • Dark lens 108x51x3mm • Glass clear lens 108x89mm • Impact resistant plastic (DIN 175B) • Flame retardant • Front flip • Adjustable head strap	
32	Welding goggles	• Green flip top • Lens shade DIN 5 • Ventilation poles	
33	Steel Tape Measure	5 m Reverse printed blade Nylon coated blade Housed in a high impact stic case Magnetic hook	
34	Leather Gloves (Elbow)	• Heavy duty • Reinforced palm and thumb	

		• Length 200mm • Green/blue/grey • Compliant with EN420	
35	Leather gloves (Palm)	• Heavy duty • Reinforced palm and thumb • Palm length • Green/blue/grey • EN420 • Type A	
36	Steel ruler	• Length 600mm • Stainless steel with polished finish • Metric to imperial conversion • Permanent black figures and graduation • Accuracy ± 0.2mm • Square end flexible	
37	Try square	• Length 300mm • Stainless steel with polished finish • Metric to imperial conversion • Permanent black figures and graduation • Accuracy ± 0.2mm • Square end flexible high-speed blade	
38	Ball pein Hammer	Drop forged	

		Striking faces induction rdened and precision ground Blue epoxy powder coated Hard wood handle 375 mm length handle 0.840 kilograms weight	
39	Adjustable Hacksaw complete with blade	Compliant with BS 1919 Die Cast D styled handle Tubular chrome coated frame Wing nut blade Tensioning For 250 mm (10") and 300 n (12") hacksaw blades. Shatterproof HSS blades 24 teeth per inch	
40	Snips (General purpose)	• Drop forged carbon steel • Hardened precision ground blades • Length 200mm • Sheet thickness 1.2mm at strength of 600N/mm^2	
41	Nozzle cleaner	• High strength needle type files • Anodised aluminium flip-up pocket case • 6 Piece pack	
42	Scriber	• Length 180mm • Hardened and tempered high-grade steel • Knurled body	

		• Double ended with one straight point and the other at 900	
43	Welders' chipping hammer	• Hardened and tempered spring steel head • Chisel edge and point striking faces • Epoxy coating • Spring steel impact absorbing handle • 300g pick and flat ends	
44	Chisel and Punch set (6 pieces)	• Chrome Molybdenum Vanadium air hardened tempered along the full length • 45CrMoV7 steel • Striking head induction tempered to prevent shattering • Working edge polished and clear vanished • In a PVC pack	
45	Rubber Mallet	• Face 65mm Diameter • Head size 24Oz • Handle length 300mm	
46	Leather Apron	• One-piece 600x1200cm • Two side pockets • neck and back stripes	
47	Adjustable wrench open end	• Chrome Vanadium Steel 31CrV3 • Manganese Phosphate finish • 150 mm length Jaw set at 15 Degrees	

		• Ground head	
48	Screwdriver set (6 piece)	• Flat Head marked • Cross head PH1 and PH2 • Slotted/Straight head 4, 5.5, 6.5 and 8mm) • Hanging hole • Ergonomic grip handle • Vanadium, molybdenum tempered steel • Compliant with DIN – ISO 2380- 2 • Blade tip according to DIN – ISO 2380- 1 Form A • Precision made blade tip	
49	File (Engineers Industrial) set with plastic handles	• Compliant with BS 498:1990 • 1 hand file (250mm) • 1 flat file (250mm) • 1 Round file (250mm) • 1 Half round file (250mm) • Manufactured from chrome/molybdenum steel • Hardened and tempered • Bastard cut, second cut and smooth cut	
50	Taps and die set	• M3 – M12 • High speed steel ground thread (ISO 529) • Tapping drills (BS328/DIN338N)	

		• Split dies and nuts manufactured to BS1127	
51	Spring universal divider	• Must have a Circular spring bow joining the legs. • Extension on the bow for used when pivoting • 60g by weight • Length 200mm	
52	Spring inside calliper	• Must have a Circular spring bow joining the legs. • Extension on the bow for used when pivoting • 60g by weight • Length 200mm	
53	Spring outside calliper	• Must have a Circular spring bow joining the legs. • Extension on the bow for used when pivoting • 60g by weight	
54	Portable arc welding Machine	• Input 230V • 50HZ • Maximum output 200A • 60% Duty cycle at 160A	
55	Angle Grinder	• Input 220-240V and 13 Amps • RPM above 2200 • Output 1200 Watts • Disc size 9”	

56	Portable Drilling Machine	• 115 mm • Spindle thread 14” • 220-240 V A/C 13Amps • 900 Watts output • Light Duty • Metal drive gears	
57	Drilling Bits set from 1 mm to 13 mm	• General purpose drill bits • Should be imperial set • Point angle of 118 Degrees • Normal helix angle • Relief angle of 10 Degrees to 20 Degrees • Tolerance of h8 • Compliant with BS 328 DIN 338 RN	
58	Tong	• Length 500mm • Closed mouth • Flat	
59	Soldering iron	• Copper bit • Wooden handle • Straight shaft	
60	Combination pliers with cutter	• Chrome Vanadium steel with vinyl handle • Double polished head and joint with induction hardened cutting edges • Scattered gripping and crimping jaws behind the head	

61	Wire Brash	• With wooden handle • With scraper • Bristle type		
62	Toolbox empty, with Steel Padlocks and with keys	• 5 Compartments • Smooth and easy opening • Maximum access to the bottom tray • Lockable phosphate and powder coated • Length 550 mm • Width 248 mm • Height 220 mm		
63	Soldering Irons (Standard & Electric)	• Power: 60W – 150W; Voltage: 220–240V AC, 50Hz; Thermostatically controlled; Interchangeable copper/iron-plated tips; Heat-resistant handle; Fitted with BS 1363 3-pin fused plug.		
64	Welding Nozzles (Tacking, Cranked, Hot Plate, Speed)	• Heavy-duty chrome-zirconium copper or high-grade stainless-steel construction; High heat resistance; Compatible with standard institutional M6/M8 torch barrel configurations.		

LOT 3(A): ELECTRICAL INSTALLATION – LUNJIKA CSDC

ITEM NO.	TECHNICAL SPECIFICATIONS OF ITEMS REQUIRED INCLUDING APPLICABLE STANDARDS			COMPLIANCE OF SPECIFICATIONS OFFERED
1	**Solar System Simulating Equipment**	Mobile/benchtop station; Includes physical monocrystalline PV	Allows safe, fault-programmable student training on off-grid and	

		module, programmable MPPT charge controller, pure sine wave inverter (230V 50Hz), deep-cycle solar battery bank; Artificial software-controlled solar irradiance array (Halogen/LED); USB/Ethernet data logger for real-time tracking on PC.	grid-tied solar setups entirely indoors.	
2	**Electrical multi-meter**	Digital Multi-meter (DMM); **CAT III 600V / CAT II 1000V safety certified**; Measures AC/DC Voltage (up to 600V), AC/DC Current (up to 10A fused), Resistance (up to 40MΩ), Capacitance, Diode, and Acoustic continuity; Wrapped in shock-absorbing rubber holster; Includes silicone test leads.	**Mandatory high-category safety rating** to prevent catastrophic tool failure or arc-flash injury during student mistakes.	
3	**Desktop Computer for Auto-CAD**	Intel Core i7 or AMD Ryzen 7 (Min 8 cores, ≥ 3.0 GHz); 32GB DDR5 RAM; 1TB NVMe M.2 SSD; Dedicated workstation GPU (NVIDIA RTX or AMD Radeon Pro with min 8GB VRAM); 24" Full HD IPS anti-glare monitor; Windows 11 Pro 64-bit; **Includes individual 650VA Line-Interactive UPS with built-in AVR**.	**Individual UPS bundled pricing is mandatory** to protect motherboards and prevent student data loss during ESCOM load shedding.	
4	**3-Phase Transformer**	Double-wound, air-cooled educational lab transformer; 1.0 kVA to 2.0 kVA rating; Primary: 400V AC Delta (Δ); Secondary: 230V/400V AC Star (Y) with accessible neutral; Upright panel with 4mm shrouded safety	Transparent inspection window lets students see inner windings safely. Shrouded safety sockets prevent finger shocks.	

		sockets; Integrated phase fuses and thermal trip.		
5	**Single-Phase Transformer**	Multi-tap educational isolation transformer; 500VA to 1000VA rating; Inputs/Outputs configurable for 230V / 115V / 48V / 24V / 12V AC at 50Hz; Enclosed benchtop unit with integrated input fuse and carry handle.	Safe voltage step-down source for introductory student bench wiring experiments.	
6	**3-Phase Motor**	Industrial Squirrel Cage Induction Motor; 0.75 kW to 1.5 kW (1.0 HP to 2.0 HP); 400V AC, 3-Phase, 50Hz; Star/Delta configurable terminal box; Standard IEC frame with keyed output shaft; IP55 dust/splash rating.	Rugged industrial build designed to handle repetitive student reversing and star-delta starting exercises.	
7	**Single-Phase Motor**	Capacitor-Start, Capacitor-Run industrial induction motor; 0.37 kW to 0.75 kW (0.5 HP to 1.0 HP); 230V AC Single-Phase, 50Hz; Built-in manual reset thermal overload protection switch.	Standard workshop bench utility motor for single-phase control wiring practice.	
8	**Insulation Resistant Tester (Megger)**	Selectable DC testing voltages: 250V, 500V, 1000V, and 2500V; Insulation measurement range up to 100 GΩ; Measures AC/DC voltage up to 600V; Audible continuity tester; **CAT IV 600V safety certified**; Auto-discharge circuit function.	Vital tool for testing power transmission and distribution lines; auto-discharge safely releases lingering capacitive charge.	
9	**Wooden Poles - Electrical Poles**	Straight-grain Eucalyptus (Saligna/Grandis) timber poles; Full-length pressure impregnation treated with Creosote or CCA	Treated strictly to international standards to resist severe termite rot and tropical weathering on the	

		(Copper Chrome Arsenate); Overall length: 9.0 Meters; Min top diameter: 140mm; Base diameter: 200mm+.	outdoor training field.	
10	**Aluminium Conductors**	All Aluminium Conductor (AAC) or Aluminium Conductor Steel Reinforced (ACSR) overhead line; 50 mm² cross-sectional area (code name "Wasp" or equivalent standard cross-section); multi-strand design.	Sized to standard low-voltage line dimensions used nationally by ESCOM for easy practical training relevance.	
11	**Plumb Bob**	400g to 500g solid brass or polished steel body; Hexagonal or teardrop shape with replaceable screw-cap point; Includes 10 meters of braided nylon cord.	Used for verifying absolute vertical alignment when training students on electrical pole installations.	
12	**Clamp On Meter**	True-RMS AC Digital Clamp Meter; Minimum 30mm jaw opening capacity; Measures AC current from 0.1A up to 400A/600A without breaking circuit; Measures AC/DC voltage and resistance; **CAT III 600V certified**.	Allows safe non-contact current measurements on live overhead distribution wires or main switchboards.	
13	**Safety Belt**	Full-body fall arrest lineman harness with integrated heavy padded positioning tool belt; 1 dorsal D-ring (fall arrest), 2 lateral side D-rings (positioning); Includes adjustable core-mantle rope lanyard with steel snap-hooks; EN 361/358 compliant.	**Mandatory PPE item** to secure students while practicing overhead climbing tasks on the wooden poles.	
14	**Insulating Gloves**	**Class 0 High-Voltage Rubber Insulating Gloves**; Max certified working voltage of	Leather over-gloves are mandatory to protect the fragile	

		1000V AC (tested to 5000V AC); Anatomically shaped natural dielectric rubber; **Supplied with heavy leather outer protective over-gloves**.	rubber dielectric lining from structural tears or punctures.	
15	**Climbers**	Adjustable steel wood-pole climbing gaffs/spikes; High-tensile alloy steel shank with contoured, padded calf cuffs; Heavy-duty double-riveted leather/neoprene secure straps; Hardened tool-steel replaceable spikes.	Heavy-duty lineman hardware to enable students to scale wooden utility poles during distribution training.	
16	**Come Along**	Parallel-jaw aluminium/steel wire conductor pulling grip; Sized to cleanly grip aluminium strands from 5mm to 15mm outside diameter without stripping wire face; Safe working load: 1000kg to 1500kg.	Used for tensioning overhead aluminum conductors safely without damaging structural wires.	
17	**Shackle Insulator**	High-grade wet-process glazed porcelain or UV-stabilized polymer; Low-voltage rating (up to 1kV); **Supplied complete with galvanized D-iron mounting brackets, bolts, and split pins**.	Standard overhead dead-end assembly lining for low-voltage residential drop training.	
18	**Pin Insulator**	Glazed porcelain or composite polymer insulator; Rated for low-to-medium voltage line distribution (1kV to 11kV); **Supplied with heavy-duty galvanized steel mounting pin shank**.	Used on pole crossarms to train students on straight-line overhead network distributions.	
19	**Stay Insulator**	Egg/Stay type glazed porcelain insulator;	Essential component used	

		Sized for high-tensile stay wires; High mechanical tensile strength to support pole anchor bracing lines.	to train students on installing guy wires to balance mechanical pole tension.	
20	**Spring Benders (20mm)**	Internal conduit bending spring; Designed for 20mm outer-diameter PVC conduit piping; High-tensile square-profile spring steel wire with zinc-plated anti-rust finish; Fitted with an integrated end pull-ring.	Allows students to bend PVC conduit pipes cleanly during wall installations without kinking or collapsing the pipe walls.	
21	**Set of Electrical Screwdriver (Terminal Flat)**	**1000V Fully Insulated handle and blade shaft sleeve; VDE and GS safety certified**; Chrome-Vanadium-Molybdenum tempered steel; Compliant with **DIN - ISO 2380-2**; Blade tips matching **DIN - ISO 2380-1 Form A** precision ground.	**1000V VDE certification is non-negotiable** to shield students from accidental electrocution during live panel calibrations.	
22	**Set of Electrical Screwdriver (Terminal Star)**	**1000V Fully Insulated handle and shaft sleeve; VDE and GS safety certified**; Chrome-Vanadium-Molybdenum core; Star tip profiles matching standard Phillips (PH1, PH2) and Posidrive (PZ1, PZ2) tip standards.	Companion set to Item 22, explicitly insulated for terminal control panel screws and breaker housing adjustments.	
23	**Set of Electrical Screwdriver (Giant Flat & Star)**	Heavy-duty large-scale insulated cabinet screwdrivers; **1000V VDE/GS certified**; Large flat slotted tips (6.5mm–8.0mm) and large star tips (PH3/PZ3); 100mm to 150mm insulated shaft lengths.	Intended for high-torque assembly framing inside main distribution boards and machine terminal box fittings.	

24	**Electrician Hacksaw**	Low-profile or mini-hacksaw frame assembly designed for tight-space workspace enclosures; Supplied fitted with 250mm/300mm Bi-Metal, 24 TPI (Teeth Per Inch) flexible shatter-proof cutting blades.	Tailored for clean, burr-free cutting of PVC trunking, plastic conduit pipes, and light copper grounding bars.	
25	**Pliers**	Heavy-duty industrial combination pliers; **1000V VDE/GS certified injected comfort handles with protective slip guards**; Drop-forged high-grade tool steel;	Induction-hardened cutting edges. | Standard high-insulation hand tools for bending, gripping, and cutting copper conductor wires safely	
26	**General Pliers**	Duplicate pool item matching Item 26; **1000V VDE/GS insulation certified** with integrated protective thumb slips; Hardened jaw steel optimized for stripping and twisting cable wire strands.	Ensures ample student tool quantities across large classroom benches while maintaining rigid safety baselines	
27	**Side Cutter**	Diagonal cutting pliers; **1000V VDE/GS fully insulated handles** with high-leverage offset rivet; Induction-hardened offset cutting edges optimized for clean flush-cutting of copper wire up to 4mm.	Designed for clean, flat cutting of wires inside tight junction boxes without leaving dangerous protruding wire points.	
28	**Fishing Tape**	**30 Meters in length**; Flexible, non-conductive, non-corrosive premium polyester or fiberglass core wire profile; **Housed inside a non-conductive impact-resistant plastic payout casing** with thumb lock	**Non-conductive casing and wire are mandatory** to ensure safety if students pull draw wires through conduits near active panels.	

29	**Striper (Wire Stripper**	Automatic self-adjusting mechanical wire stripper or adjustable screw-stop stripping pliers; Capacity to cleanly strip single/multi-strand insulation from 0.2mm² up to 6.0mm² wires without nicking copper	Prevents students from scoring or weakening internal copper conductor strands during cable termination preparation	

Basic Tools for Electrical Installation and Electronics

ITEM NO.	TECHNICAL SPECIFICATIONS OF ITEMS REQUIRED INCLUDING APPLICABLE STANDARDS		COMPLIANCE OF SPECIFICATIONS OFFERED
30	Digital Multi Meter	• Voltage max 12 – 1000 Volts • Removable rubber holster with integral lead holder •Resistance Max 32.6 Kilo Ohms • Auto ranging reading/peak hold, bar graph • Overload indication • Low battery indicator tilt stand and hanger. • Single pole phase testing • Safety rating Cat III 600V and Cat II 1000V	
31	Screw drivers Set of 6 piece of flat head	• Head marked • 1000V Fully insulation including the blade • Hanging hole • Ergonomic grip handle • Vanadium, molybdenum tempered steel •Compliant with DIN – ISO 2380-2	
		• Blade tip according to DIN–ISO 2380- 1 Form A •Precision made blade tip	
32	Engineers' pliers Straight	• Compliant with ISO 5746 • For flat and round grip • Chrome Vanadium Cr59V3 • Chrome plated • 200 mm • 1000 V fully insulated handles	

33	Long nose plier	• Compliant with ISO 5746 • For flat and round grip • Chrome Vanadium Cr59V3 • Chrome plated • 200 mm • 1000 V fully insulated handles • Long flat jaws and gripping surfaces	
34	Side Cutter	• Compliant with ISO 5746 • For flat and round grip • Chrome Vanadium Cr59V3 • Oil hardened Chrome plated • 200 mm • 1000 V fully insulated handles • Cutting edges inductively hardened	
35	Spring bender	• ½" bender • ¾" bender • Noncorrosive • Nonconductive • 30 m in length steel • Housed in a non- conductive casing	
36	Fishing tape		
37	Chasing hammer	• 500 g, by weight •Wooden Handle •Teethed edge	
38	Adjustable Hacksaw complete with blade	• Compliant with BS 1919 • Die Cast D styled handle • Tubular chrome coated frame • Wing nut blade Tensioning • For 250 mm (10") and 300 mm (12") hacksaw blades. • Shatterproof HSS blades • 24 teeth per inch	
39	Ball pein Hammer	• Drop forged • Striking faces induction hardened and precision ground • Blue epoxy powder coated • Hard wooden handle • 375 mm length handle • 0.840 kilograms weight	

40	Steel Tape Measure	· Length 5m Reverse printed blades, nylon coated to last longer · Plastic cased · Double sided marked blade • With a sliding magnetic hook and belt clip	
41	Electric soldering iron	• 70W, 240V and 3 wire cable	
42	Solder sucker	• Single handed • Temperature resistant • Can be placed directly onto the solder • Anti- static body • Nozzle size 3 mm OD, 1.5 mm ID and 20 mm length • Heat resistant tip • aluminum housing • 195 mm length • Plastic with rubber seals	
43	Chisel	• 2-3/4 " blade width • one-piece forged handle and blade of strong alloy • Corrosion resistant black finish • 203.2 overall length • 0.5 Kgs by weight • With protective rubber shield	
44	Cold chisel	• chrome vanadium air hardened steel • blade width of 10 mm x200mm • Multi- coating of impact • Octagonal grip shank	
45	Spirit Level	• 100cm in length • Yellow powder coated with metric Graduation. 100 cm long Level Standard anti slip end caps	
46	Screw Driver tester	• 3 mm Flat end tip • Nickel plated Iron • 1000V insulated body • 100 - 500 V Neon Lamp	
47	Combination spanner 6 -22 mm (26 piece set)	• Compliant with ISO 3318 and ISO 7738 • Cr31V3 •Chromium plated • In a pouch	

48	Neon voltage tester	• 90 –250V • AC/DC with pocket clip • 5-inch lead probe	
49	Toolbox empty, with Steel Padlock and keys	• 5 Compartments • Smooth and easy opening • Maximum access to the bottom tray • Lockable phosphate and powder coated • Length 550 mm • Width 248 mm • Height 220 mm	

LOT 3(B): ELECTRICAL INSTALLATION – THAMBANI CSDC

ITEM NO.	TECHNICAL SPECIFICATIONS OF ITEMS REQUIRED INCLUDING APPLICABLE STANDARDS			COMPLIANCE OF SPECIFICATIONS OFFERED
1	**Solar System Simulating Equipment**	Mobile/benchtop station; Includes physical monocrystalline PV module, programmable MPPT charge controller, pure sine wave inverter (230V 50Hz), deep-cycle solar battery bank; Artificial software-controlled solar irradiance array (Halogen/LED); USB/Ethernet data logger for real-time tracking on PC.	Allows safe, fault-programmable student training on off-grid and grid-tied solar setups entirely indoors.	
2	**Electrical multi-meter**	Digital Multi-meter (DMM); **CAT III 600V / CAT II 1000V safety certified**; Measures AC/DC Voltage (up to 600V), AC/DC Current (up to 10A fused), Resistance (up to 40MΩ), Capacitance, Diode, and Acoustic continuity; Wrapped in shock-absorbing rubber holster; Includes silicone test leads.	**Mandatory high-category safety rating** to prevent catastrophic tool failure or arc-flash injury during student mistakes.	
3	**Desktop Computer for Auto-CAD**	Intel Core i7 or AMD Ryzen 7 (Min 8 cores, ≥ 3.0 GHz); 32GB DDR5 RAM; 1TB NVMe M.2 SSD;	**Individual UPS bundled pricing is mandatory** to	

		Dedicated workstation GPU (NVIDIA RTX or AMD Radeon Pro with min 8GB VRAM); 24" Full HD IPS anti-glare monitor; Windows 11 Pro 64-bit; **Includes individual 650VA Line-Interactive UPS with built-in AVR**.	protect motherboards and prevent student data loss during ESCOM load shedding.	
4	**3-Phase Transformer**	Double-wound, air-cooled educational lab transformer; 1.0 kVA to 2.0 kVA rating; Primary: 400V AC Delta (Δ); Secondary: 230V/400V AC Star (Y) with accessible neutral; Upright panel with 4mm shrouded safety sockets; Integrated phase fuses and thermal trip.	Transparent inspection window lets students see inner windings safely. Shrouded safety sockets prevent finger shocks.	
5	**Single-Phase Transformer**	Multi-tap educational isolation transformer; 500VA to 1000VA rating; Inputs/Outputs configurable for 230V / 115V / 48V / 24V / 12V AC at 50Hz; Enclosed benchtop unit with integrated input fuse and carry handle.	Safe voltage step-down source for introductory student bench wiring experiments.	
6	**3-Phase Motor**	Industrial Squirrel Cage Induction Motor; 0.75 kW to 1.5 kW (1.0 HP to 2.0 HP); 400V AC, 3-Phase, 50Hz; Star/Delta configurable terminal box; Standard IEC frame with keyed output shaft; IP55 dust/splash rating.	Rugged industrial build designed to handle repetitive student reversing and star-delta starting exercises.	
7	**Single-Phase Motor**	Capacitor-Start, Capacitor-Run industrial induction motor; 0.37 kW to 0.75 kW (0.5 HP to 1.0 HP); 230V AC Single-Phase, 50Hz; Built-in manual reset thermal overload protection switch.	Standard workshop bench utility motor for single-phase control wiring practice.	
8	**Insulation Resistant Tester (Megger)**	Selectable DC testing voltages: 250V, 500V, 1000V, and 2500V; Insulation measurement range up to 100 GΩ;	Vital tool for testing power transmission and distribution lines; auto-	

		Measures AC/DC voltage up to 600V; Audible continuity tester; **CAT IV 600V safety certified**; Auto-discharge circuit function.	discharge safely releases lingering capacitive charge.	
9	**Wooden Poles - Electrical Poles**	Straight-grain Eucalyptus (Saligna/Grandis) timber poles; Full-length pressure impregnation treated with Creosote or CCA (Copper Chrome Arsenate); Overall length: 9.0 Meters; Min top diameter: 140mm; Base diameter: 200mm+.	Treated strictly to international standards to resist severe termite rot and tropical weathering on the outdoor training field.	
10	**Aluminium Conductors**	All Aluminium Conductor (AAC) or Aluminium Conductor Steel Reinforced (ACSR) overhead line; 50 mm^2 cross-sectional area (code name "Wasp" or equivalent standard cross-section); multi-strand design.	Sized to standard low-voltage line dimensions used nationally by ESCOM for easy practical training relevance.	
11	**Plumb Bob**	400g to 500g solid brass or polished steel body; Hexagonal or teardrop shape with replaceable screw-cap point; Includes 10 meters of braided nylon cord.	Used for verifying absolute vertical alignment when training students on electrical pole installations.	
12	**Clamp On Meter**	True-RMS AC Digital Clamp Meter; Minimum 30mm jaw opening capacity; Measures AC current from 0.1A up to 400A/600A without breaking circuit; Measures AC/DC voltage and resistance; **CAT III 600V certified**.	Allows safe non-contact current measurements on live overhead distribution wires or main switchboards.	
13	**Safety Belt**	Full-body fall arrest lineman harness with integrated heavy padded positioning tool belt; 1 dorsal D-ring (fall arrest), 2 lateral side D-rings (positioning); Includes adjustable core-mantle rope lanyard with steel snap-hooks; EN 361/358 compliant.	**Mandatory PPE item** to secure students while practicing overhead climbing tasks on the wooden poles.	

14	**Insulating Gloves**	**Class 0 High-Voltage Rubber Insulating Gloves**; Max certified working voltage of **1000V AC** (tested to 5000V AC); Anatomically shaped natural dielectric rubber; **Supplied with heavy leather outer protective over-gloves**.	Leather over-gloves are mandatory to protect the fragile rubber dielectric lining from structural tears or punctures.	
15	**Climbers**	Adjustable steel wood-pole climbing gaffs/spikes; High-tensile alloy steel shank with contoured, padded calf cuffs; Heavy-duty double-riveted leather/neoprene secure straps; Hardened tool-steel replaceable spikes.	Heavy-duty lineman hardware to enable students to scale wooden utility poles during distribution training.	
16	**Come Along**	Parallel jaw aluminium/steel wire conductor pulling grip; Sized to cleanly grip aluminium strands from 5mm to 15mm outside diameter without stripping wire face; Safe working load: 1000kg to 1500kg.	Used for tensioning overhead aluminium conductors safely without damaging structural wires.	
17	**Shackle Insulator**	High-grade wet-process glazed porcelain or UV-stabilized polymer; Low-voltage rating (up to 1kV); **Supplied complete with galvanized D-iron mounting brackets, bolts, and split pins**.	Standard overhead dead-end assembly lining for low-voltage residential drop training.	
18	**Pin Insulator**	Glazed porcelain or composite polymer insulator; Rated for low-to-medium voltage line distribution (1kV to 11kV); **Supplied with heavy-duty galvanized steel mounting pin shank**.	Used on pole crossarms to train students on straight-line overhead network distributions.	
19	**Stay Insulator**	Egg/Stay type glazed porcelain insulator; Sized for high-tensile stay wires; High mechanical tensile strength to support pole anchor bracing lines.	Essential component used to train students on installing guy wires to balance mechanical pole tension.	

20	**Spring Benders (20mm)**	Internal conduit bending spring; Designed for 20mm outer-diameter PVC conduit piping; High-tensile square-profile spring steel wire with zinc-plated anti-rust finish; Fitted with an integrated end pull-ring.	Allows students to bend PVC conduit pipes cleanly during wall installations without kinking or collapsing the pipe walls.	
21	**Set of Electrical Screwdriver (Terminal Flat)**	**1000V Fully Insulated handle and blade shaft sleeve; VDE and GS safety certified**; Chrome-Vanadium-Molybdenum tempered steel; Compliant with **DIN - ISO 2380-2**; Blade tips matching **DIN - ISO 2380-1 Form A** precision ground.	**1000V VDE certification is non-negotiable** to shield students from accidental electrocution during live panel calibrations.	
22	**Set of Electrical Screwdriver (Terminal Star)**	**1000V Fully Insulated handle and shaft sleeve; VDE and GS safety certified**; Chrome-Vanadium-Molybdenum core; Star tip profiles matching standard Phillips (PH1, PH2) and Posidrive (PZ1, PZ2) tip standards.	Companion set to Item 22, explicitly insulated for terminal control panel screws and breaker housing adjustments.	
23	**Set of Electrical Screwdriver (Giant Flat & Star)**	Heavy-duty large-scale insulated cabinet screwdrivers; **1000V VDE/GS certified**; Large flat slotted tips (6.5mm–8.0mm) and large star tips (PH3/PZ3); 100mm to 150mm insulated shaft lengths.	Intended for high-torque assembly framing inside main distribution boards and machine terminal box fittings.	
24	**Electrician Hacksaw**	Low-profile or mini-hacksaw frame assembly designed for tight-space workspace enclosures; Supplied fitted with 250mm/300mm Bi-Metal, 24 TPI (Teeth Per Inch) flexible shatter-proof cutting blades.	Tailored for clean, burr-free cutting of PVC trunking, plastic conduit pipes, and light copper grounding bars.	
25	**Pliers**	Heavy-duty industrial combination pliers; **1000V VDE/GS certified injected comfort handles with protective slip guards**; Drop-forged high-grade tool steel;	Induction-hardened cutting edges. | Standard high-insulation hand tools for bending,	

			gripping, and cutting copper conductor wires safely	
26	**General Pliers**	Duplicate pool item matching Item 26; **1000V VDE/GS insulation certified** with integrated protective thumb slips; Hardened jaw steel optimized for stripping and twisting cable wire strands.	Ensures ample student tool quantities across large classroom benches while maintaining rigid safety baselines	
27	**Side Cutter**	Diagonal cutting pliers; **1000V VDE/GS fully insulated handles** with high-leverage offset rivet; Induction-hardened offset cutting edges optimized for clean flush-cutting of copper wire up to 4mm.	Designed for clean, flat cutting of wires inside tight junction boxes without leaving dangerous protruding wire points.	
28	**Fishing Tape**	**30 Meters in length**; Flexible, non-conductive, non-corrosive premium polyester or fiberglass core wire profile; **Housed inside a non-conductive impact-resistant plastic payout casing** with thumb lock	**Non-conductive casing and wire are mandatory** to ensure safety if students pull draw wires through conduits near active panels.	
29	**Striper (Wire Stripper**	Automatic self-adjusting mechanical wire stripper or adjustable screw-stop stripping pliers; Capacity to cleanly strip single/multi-strand insulation from 0.2mm² up to 6.0mm² wires without nicking copper	Prevents students from scoring or weakening internal copper conductor strands during cable termination preparation	

Basic Tools for Electrical Installation and Electronics

ITEM NO.	TECHNICAL SPECIFICATIONS OF ITEMS REQUIRED INCLUDING APPLICABLE STANDARDS	COMPLIANCE OF SPECIFICATIONS OFFERED

30	Digital Multi Meter	• Voltage max 12 – 1000 Volts • Removable rubber holster with integral lead holder •Resistance Max 32.6 Kilo Ohms • Auto ranging reading/peak hold, bar graph • Overload indication • Low battery indicator tilt stand and hanger. • Single pole phase testing • Safety rating Cat III 600V and Cat II 1000V	
31	Screw drivers Set of 6 piece of flat head	• Head marked • 1000V Fully insulation including the blade • Hanging hole • Ergonomic grip handle • Vanadium, molybdenum tempered steel •Compliant with DIN – ISO 2380- 2 • Blade tip according to DIN– ISO 2380- 1 Form A •Precision made blade tip	
32	Engineers pliers Straight	• Compliant with ISO 5746 • For flat and round grip • Chrome Vanadium Cr59V3 • Chrome plated • 200 mm • 1000 V fully insulated handles	
33	Long nose plier	• Compliant with ISO 5746 • For flat and round grip • Chrome Vanadium Cr59V3 • Chrome plated • 200 mm • 1000 V fully insulated handles • Long flat jaws and gripping surfaces	
34	Side Cutter	• Compliant with ISO 5746 • For flat and round grip • Chrome Vanadium Cr59V3 • Oil hardened Chrome plated • 200 mm • 1000 V fully insulated handles	

		• Cutting edges inductively hardened	
35	Spring bender	• ½" bender • ¾" bender	
36	Fishing tape	• Noncorrosive • Nonconductive • 30 m in length steel • Housed in a non-conductive casing	
37	Chasing hammer	• 500 g, by weight •Wooden Handle •Teethed edge	
38	Adjustable Hacksaw complete with blade	• Compliant with BS 1919 • Die Cast D styled handle • Tubular chrome coated frame • Wing nut blade Tensioning • For 250 mm (10") and 300 mm (12") hacksaw blades. • Shatterproof HSS blades • 24 teeth per inch	
39	Ball peen Hammer	• Drop forged • Striking faces induction hardened and precision ground • Blue epoxy powder coated • Hard Wood handle • 375 mm length handle • 0.840 kilograms weight	
40	Steel Tape Measure	· Length 5m Reverse-printed blades, nylon-coated to last longer · Plastic-cased · Double-sided marked blade • With a sliding magnetic hook and belt clip	
41	Electric soldering iron	• 70W, 240V and 3-wire cable	

42	Solder sacker	• Single-handed • Temperature resistant • Can be placed directly onto the solder • Anti- static body • Nozzle size 3 mm OD, 1.5 mm ID and 20 mm length • Heat-resistant tip • Aluminum housing • 195 mm length • Plastic with rubber seals	
43	Chisel	• 2-3/4 " blade width • One-piece forged handle and blade of strong alloy • Corrosion-resistant black finish • 203.2 overall length • 0.5 Kgs by weight • With protective rubber shield	
44	Cold chisel	• chrome vanadium air-hardened steel • Blade width of 10 mm x 200 mm • Multi- coating of impact • Octagonal grip shank	
45	Spirit Level	• 1000 mm in length • Yellow powder coated with metric Graduation. 1000mm long Level Standard anti slip end caps	
46	Screw Driver tester	• 3 mm Flat end tip • Nickel plated Iron • 1000V insulated body • 100 - 500 V Neon Lamp	
47	Combination spanner 6 -22 mm (26 piece set)	• Compliant with ISO 3318 and ISO 7738 • Cr31V3 •Chromium plated • In a pouch	
48	Neon voltage tester	• 90 –250V • AC/DC with pocket clip • 5-inch lead probe	

49	Toolbox empty, with Steel Padlock and keys	• 5 Compartments • Smooth and easy opening •Maximum access to the bottom tray • Lockable phosphate and powder coated • Length 550 mm • Width 248 mm • Height 220 mm	

LOT 4(A): TRAINING EQUIPMENT AND MACHINES - INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) - LUNJIKA CSDC

ITEM NO.	TECHNICAL SPECIFICATIONS OF ITEMS REQUIRED INCLUDING APPLICABLE STANDARDS		COMPLIANCE OF SPECIFICATIONS OFFERED
1	All in one Desktop Computers **i7/500GB SSD**	• **Processor (CPU):** Intel Core i7 13th Generation • **Storage:** 512GB SSD • **Memory (RAM):** 16GB • **Display:** 24-inch Full HD (1920 x 1080 resolution) • **Operating System:** Windows 11 • **Connectivity & Ports:** Built-in Wi-Fi, Bluetooth, integrated 1080p webcam, built-in stereo speakers, USB Type-C/Type-A ports, and an HDMI-out or HDMI-in port. • **Included Accessories:** keyboard and mouse.	
2	Laptop Computer	• **Processor:** Intel® Core™ i7 • **Display:** 15.6 inches	

		• **Memory (RAM):** 16 GB
		• **Storage:** 512 GB
		• **Operating System:** Windows 11
		• **Ports:**
		  ○ 1 x USB Type-C® 10Gbps
		  ○ 2 x USB Type-A 5Gbps signaling rate
		  ○ 1 x HDMI
		  ○ 1 x Headphone/microphone combo
		  ○ 1 x AC smart pin
		  ○ **Connectivity:** Wi-Fi and Bluetooth.	

3	Projector	• 3-Chip 3LCD Technology • **Native Resolution**: 1080p • **Brightness:** 2800 Lumens • **Dynamic Contrast Ratio**: Up to 35,000:1 • **Light Source& Life**: 200W UHE Lamp; 4,500 hours (Normal) / 7,500 hours (ECO) • **HDR Support**: HDR10 and HLG • **Lens Adjustments**: Vertical Lens Shift (±60%), Manual Focus, 1.62x Optical Zoom • **Audio**: Built in Speaker; Bluetooth audio out	
4	Air conditioner	Capacity: 15,000 BTUs High wall split unit: Yes Cooling/heating current: 6.0/7.8 Remote controlled: Yes	

		Accessories: Automatic voltage switcher (AVS) Installation: Yes Warranty: At least 12 months	
5	Heavy duty Printer and Photocopiers All in One Printer	• **Print and Copy Speed:** 40 ppm (pages per minute) for A4, and 21 ppm for A3. • **Functions:** Standard print, copy, and color scan. • **Resolution:** 1200 x 1200 dpi for printing; up to 600 x 600 dpi for scanning and copying. • **Monthly Duty Cycle:** Up to 165,000 pages per month. • **Paper Capacity:** Standard 1,100 sheets (two 500 sheets plus a 100-sheet multi-purpose tray). • **Paper Sizes:** Supports A5R up to A3 (Ledger). • **Memory and Storage:** Standard 2 GB RAM, with a standard 8 GB SSD / optional 320 GB HDD. • **Control Panel:** 9-inch color touchscreen display. • **Connectivity:** USB and Gigabit Ethernet.	
6	Router(1x150, 000)	• **Device Interfaces:** Four 10/100/1000 Gigabit Ethernet LAN ports, one Gigabit WAN port, and a USB 2.0 port. • **Wireless Speeds:** Up to 300 Mbps on the 2.4 GHz band and 867 Mbps on the 5 GHz band.	

		• **Wireless Standards:** IEEE 802.11ac, 802.11n, 802.11g, and 802.11a compatible. • **Antennas:** External dual-band antennas for extended wireless coverage. • **Security:** WPA/WPA2 wireless encryption and a built-in firewall (NAT/SPI). • **Features:** Supports QoS (Quality of Service) for traffic prioritization and WPS (Wi-Fi Protected Setup) for fast device connection	
7	**Network Switches**	• 24-Port or 48-Port Gigabit Ethernet (10/100/1000 Mbps); Smart Managed Layer 2/3 capabilities; PoE+ (Power over Ethernet) support across all ports; Dual SFP/SFP+ uplink ports; 19-inch rack-mountable.	
8	**Modems / Routers**	• Industrial enterprise-grade dual-band 4G/5G LTE cellular routers and ADSL/Fibre broadband gateways; High-gain external antennas; Built-in firewall and secure VPN configuration protocols.	
9	**Wireless Access Points (WAPs)**	• Enterprise Wi-Fi 6 (802.11ax) dual-band standard; Ceiling or wall-mountable design; Power over Ethernet (PoE)	

		enabled; Centralized controller-based management capabilities.	
10	**Network Security Devices (Firewall)**	• Hardware-based Next-Generation Firewall (NGFW); Deep Packet Inspection (DPI); Web content filtering, intrusion prevention system (IPS), and 1-year automated security patch subscription license.	
11	**Multimedia Projectors**	• Native Resolution: Full HD (1920 x 1080p); Brightness: Minimum 3500 ANSI Lumens; Inputs: 2x HDMI, 1x VGA, USB; Long lamp life (min 10,000 hours eco-mode); Includes ceiling mounting bracket.	
12	**Instructional Laptops**	• Processor: Intel Core i5 or AMD Ryzen 5 (Current Generation); Memory: Minimum 8GB DDR4 RAM (16GB preferred for ICT/CAD); Storage: Minimum 512GB PCIe NVMe SSD; Display: 14" or 15.6" Anti-Glare FHD screen; OS: Windows 11 Pro; Reinforced carrying case.	

LOT 4(B): TRAINING EQUIPMENT AND MACHINES - INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) – THAMBANI CSDC

ITEM NO.	TECHNICAL SPECIFICATIONS OF ITEMS REQUIRED INCLUDING APPLICABLE STANDARDS		COMPLIANCE OF SPECIFICATIONS OFFERED
1	All in one Desktop Computers **i7/500GB SSD**	• **Processor (CPU):** Intel Core i7 13th Generation • **Storage:** 512GB SSD • **Memory (RAM):** 16GB • **Display:** 24-inch Full HD (1920 x 1080 resolution) • **Operating System:** Windows 11 • **Connectivity & Ports:** Built-in Wi-Fi, Bluetooth, integrated 1080p webcam, built-in stereo speakers, USB Type-C/Type-A ports, and an HDMI-out or HDMI-in port. **Included Accessories:** keyboard and mouse.	
2	Laptop Computer	• **Processor:** Intel® Core™ i7 • **Display:** 15.6 inches • **Memory (RAM):** 16 GB • **Storage:** 512 GB • **Operating System:** Windows 11 • **Ports:** o 1 x USB Type-C® 10Gbps o 2 x USB Type-A 5Gbps signaling rate o 1 x HDMI o 1 x Headphone/microphone combo	

		○ 1 x AC smart pin **Connectivity:** Wi-Fi and Bluetooth.	
3	Projector	• 3-Chip 3LCD Technology • **Native Resolution**: 1080p • **Brightness:** 2800 Lumens • **Dynamic Contrast Ratio**: Up to 35,000:1 • **Light Source & Life**: 200W UHE Lamp; 4,500 hours (Normal) / 7,500 hours (ECO) • **HDR Support**: HDR10 and HLG • **Lens Adjustments**: Vertical Lens Shift (±60%), Manual Focus, 1.62x Optical Zoom • **Audio**: Built in Speaker; Bluetooth audio out	
4	Air conditioner	Capacity: 15,000 BTUs High wall split unit: Yes Cooling/heating current: 6.0/7.8 Remote controlled: Yes Accessories: Automatic voltage switcher (AVS) Installation: Yes Warranty: At least 12 months	
5	Heavy-duty Printer and Photocopiers All-in-One Printer	• **Print and Copy Speed:** 40 ppm (pages per minute) for A4, and 21 ppm for A3. • **Functions:** Standard print, copy, and color scan. • **Resolution:** 1200 x 1200 dpi for printing; up to 600 x 600 dpi for scanning and copying. • **Monthly Duty Cycle:** Up to 165,000 pages per month. • **Paper Capacity:** Standard 1,100 sheets (two 500 sheet cassettes plus a 100-sheet multi-purpose tray). • **Paper Sizes:** Supports A5R up to A3 (Ledger). • **Memory and Storage:** Standard 2 GB RAM, with a standard 8 GB SSD / optional 320 GB HDD.	

		• **Control Panel:** 9-inch color touchscreen display. • **Connectivity:** USB and Gigabit Ethernet.	
6	Router(1x150, 000)	• **Device Interfaces:** Four 10/100/1000 Gigabit Ethernet LAN ports, one Gigabit WAN port, and a USB 2.0 port. • **Wireless Speeds:** Up to 300 Mbps on the 2.4 GHz band and 867 Mbps on the 5 GHz band. • **Wireless Standards:** IEEE 802.11ac, 802.11n, 802.11g, and 802.11a compatible. • **Antennas:** External dual-band antennas for extended wireless coverage. • **Security:** WPA/WPA2 wireless encryption and a built-in firewall (NAT/SPI). • **Features:** Supports QoS (Quality of Service) for traffic prioritization and WPS (Wi-Fi Protected Setup) for fast device connection	
7	**Network Switches**	• 24-Port or 48-Port Gigabit Ethernet (10/100/1000 Mbps); Smart Managed Layer 2/3 capabilities; PoE+ (Power over Ethernet) support across all ports; Dual SFP/SFP+ uplink ports; 19-inch rack-mountable.	
8	**Modems / Routers**	• Industrial enterprise-grade dual-band 4G/5G LTE cellular routers and ADSL/Fibre broadband gateways; High-gain external antennas; Built-in firewall and secure VPN configuration protocols.	

9	**Wireless Access Points (WAPs)**	• Enterprise Wi-Fi 6 (802.11ax) dual-band standard; Ceiling or wall-mountable design; Power over Ethernet (PoE) enabled; Centralized controller-based management capabilities.	
10	**Network Security Devices (Firewall)**	• Hardware-based Next-Generation Firewall (NGFW); Deep Packet Inspection (DPI); Web content filtering, intrusion prevention system (IPS), and 1-year automated security patch subscription license.	
11	**Multimedia Projectors**	• Native Resolution: Full HD (1920 x 1080p); Brightness: Minimum 3500 ANSI Lumens; Inputs: 2x HDMI, 1x VGA, USB; Long lamp life (min 10,000 hours eco-mode); Includes ceiling mounting bracket.	
12	**Instructional Laptops**	• Processor: Intel Core i5 or AMD Ryzen 5 (Current Generation); Memory: Minimum 8GB DDR4 RAM (16GB preferred for ICT/CAD); Storage: Minimum 512GB PCIe NVMe SSD; Display: 14" or 15.6" Anti-Glare FHD screen; OS: Windows 11 Pro; Reinforced carrying case.	

LOT 4(C): TRAINING EQUIPMENT AND MACHINES - INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) – MGAYI CTC

ITEM NO.	TECHNICAL SPECIFICATIONS OF ITEMS REQUIRED INCLUDING APPLICABLE STANDARDS		COMPLIANCE OF SPECIFICATIONS OFFERED
1	All-in-one Desktop Computers **i7/500GB SSD**	• **Processor (CPU):** Intel Core i7 13th Generation • **Storage:** 512GB SSD • **Memory (RAM):** 16GB • **Display:** 24-inch Full HD (1920 x 1080 resolution) • **Operating System:** Windows 11 • **Connectivity & Ports:** Built-in Wi-Fi, Bluetooth, integrated 1080p webcam, built-in stereo speakers, USB Type-C/Type-A ports, and an HDMI-out or HDMI-in port. • **Included Accessories:** keyboard and mouse.	
2	Laptop Computer	• **Processor:** Intel® Core™ i7 • **Display:** 15.6 inches • **Memory (RAM):** 16 GB • **Storage:** 512 GB • **Operating System:** Windows 11 • **Ports:** o 1 x USB Type-C® 10Gbps o 2 x USB Type-A 5Gbps signaling rate o 1 x HDMI o 1 x Headphone/microphone combo	

		○ 1 x AC smart pin ○ **Connectivity:** Wi-Fi and Bluetooth.	
3	Projector	• 3-Chip 3LCD Technology • **Native Resolution**: 1080p • **Brightness:** 2800 Lumens • **Dynamic Contrast Ratio**: Up to 35,000:1 • **Light Source & Life**: 200W UHE Lamp; 4,500 hours (Normal) / 7,500 hours (ECO) • **HDR Support**: HDR10 and HLG • **Lens Adjustments**: Vertical Lens Shift (±60%), Manual Focus, 1.62x Optical Zoom • **Audio**: Built in Speaker; Bluetooth audio out.	
4	Air conditioner	Capacity: 15,000 BTUs High wall split unit: Yes Cooling/heating current: 6.0/7.8 Remote controlled: Yes Accessories: Automatic voltage switcher (AVS) Installation: Yes Warranty: At least 12 months	
5	Heavy-duty Printer and Photocopiers All-in-One Printer	• **Print and Copy Speed:** 40 ppm (pages per minute) for A4, and 21 ppm for A3. • **Functions:** Standard print, copy, and color scan. • **Resolution:** 1200 x 1200 dpi for printing; up to 600 x 600 dpi for scanning and copying. • **Monthly Duty Cycle:** Up to 165,000 pages per month. • **Paper Capacity:** Standard 1,100 sheets (two 500 sheets plus a 100-sheet multi-purpose tray). • **Paper Sizes:** Supports A5R up to A3 (Ledger). • **Memory and Storage:** Standard 2 GB RAM, with a standard 8 GB SSD / optional 320 GB HDD. • **Control Panel:** 9-inch color touchscreen display.	

		• **Connectivity:** USB and Gigabit Ethernet.	
6	Router(1x150, 000)	• **Device Interfaces:** Four 10/100/1000 Gigabit Ethernet LAN ports, one Gigabit WAN port, and a USB 2.0 port. • **Wireless Speeds:** Up to 300 Mbps on the 2.4 GHz band and 867 Mbps on the 5 GHz band. • **Wireless Standards:** IEEE 802.11ac, 802.11n, 802.11g, and 802.11a compatible. • **Antennas:** External dual-band antennas for extended wireless coverage. • **Security:** WPA/WPA2 wireless encryption and a built-in firewall (NAT/SPI). • **Features:** Supports QoS (Quality of Service) for traffic prioritization and WPS (Wi-Fi Protected Setup) for fast device connection	
7	**Network Switches**	• 24-Port or 48-Port Gigabit Ethernet (10/100/1000 Mbps); Smart Managed Layer 2/3 capabilities; PoE+ (Power over Ethernet) support across all ports; Dual SFP/SFP+ uplink ports; 19-inch rack-mountable.	
8	**Modems / Routers**	• Industrial enterprise-grade dual-band 4G/5G LTE cellular routers and ADSL/Fibre broadband gateways; High-gain external antennas; Built-in firewall and secure VPN configuration protocols.	
9	**Wireless Access Points (WAPs)**	• Enterprise Wi-Fi 6 (802.11ax) dual-band standard; Ceiling or wall-mountable design; Power over Ethernet (PoE) enabled;	

		Centralized controller-based management capabilities.	
10	**Network Security Devices (Firewall)**	• Hardware-based Next-Generation Firewall (NGFW); Deep Packet Inspection (DPI); Web content filtering, intrusion prevention system (IPS), and 1-year automated security patch subscription license.	
11	**Multimedia Projectors**	• Native Resolution: Full HD (1920 x 1080p); Brightness: Minimum 3500 ANSI Lumens; Inputs: 2x HDMI, 1x VGA, USB; Long lamp life (min 10,000 hours eco-mode); Includes ceiling mounting bracket.	
12	**Instructional Laptops**	• Processor: Intel Core i5 or AMD Ryzen 5 (Current Generation); Memory: Minimum 8GB DDR4 RAM (16GB preferred for ICT/CAD); Storage: Minimum 512GB PCIe NVMe SSD; Display: 14" or 15.6" Anti-Glare FHD screen; OS: Windows 11 Pro; Reinforced carrying case.	

LOT 5 (A): BRICKLAYING TRAINING EQUIPMENT AND MACHINES – LUNJIKA CSDC

ITEM NO.	TECHNICAL SPECIFICATIONS OF ITEMS REQUIRED INCLUDING APPLICABLE STANDARDS			COMPLIANCE OF SPECIFICATIONS OFFERED
1	**Brick/ Block Making Machine (Heavy Duty)**	**Type:** Manual-hydraulic or mechanical drop-vibration mobile egg-layer block machine; **Capacity:** 4 to 6 drops per cycle (approx. 2000–3000 blocks per 8-hour shift); **Molds Included:** Standard Malawi size moulds (6-inch/150mm and 9-inch/230mm	**Diesel engine option strongly recommended** to allow students to continue block production during ESCOM load-shedding hours. Built with extra-thick	

		blocks); **Power:** Optional 5.5HP electric motor (400V, 3-Phase, 50Hz) or 6HP standalone diesel engine package.	abrasive-resistant steel plate moulds to handle coarse local river sands.	
2	**Brick Cutting Machine (Heavy Duty)**	**Blade Capacity:** 350mm to 400mm diamond rim segment blade; **Max Cutting Depth:** 125mm to 150mm; **Power:** 2.2kW to 3.0kW industrial motor (230V Single-Phase or 400V 3-Phase, 50Hz); **Table Setup:** Heavy-duty sliding roller table with precision guide rails and an integrated water-feed splash guard.	**Mandatory integrated high-volume water pump** for continuous wet cutting to completely suppress silica dust in the student breathing zone. Magnetic switch with No-Volt Release (NVR) prevents dangerous blade auto-restart.	
3	**Tile Cutting Machine (Heavy Duty)**	**Type:** Industrial manual rail cutter or overhead-rail wet tile saw (dual preference for site work); **Max Cut Length:** 800mm to 1200mm (suitable for large format porcelain/ceramic tiles); **Breaking Force:** Minimum 800kg manual breaking mechanism; **Construction:** Heavy-duty rigid aluminium alloy base with dual chrome-plated steel guide rails and tungsten carbide scoring wheel.	Features a laser cutting-guide line (battery-operated) and an anti-slipping extended rubber surface to help beginners achieve accurate, straight cuts without wasting tiles.	
4	**Terrazzo Grinding & Polishing Machine**	**Working Width:** 400mm to 500mm grinding path width; **Power Input:** 4.0kW to 5.5kW heavy industrial induction motor, 400V AC, 3-Phase, 50Hz; **Disc Setup:** Multi-head planetary or counter-rotating disc plates accepting standard diamond or abrasive stone segments; **Features:** Adjustable handle height, integrated water tank	Motor enclosure must be rated to **IP55 minimum** to protect internal electrical coils from wet cement slurry and fine stone dust splashes.	

		(min 20L–30L), dust extraction port interface.		
5	**Concrete Mixer (Heavy Duty)**	**Batch Capacity:** 350 Liters to 400 Liters wet output batch (equivalent to a standard 1-bag or 2-bag batch mixture); **Drum Build:** Heavy-duty cast-iron ring gear with a reinforced thick steel plate mixing drum; **Power Source:** 6HP to 9HP air-cooled, single-cylinder diesel engine with a manual crank starter mechanism.	**Must be 100% independent of the electrical grid (Diesel Engine Powered)** to ensure large concrete pours (foundations/slabs) are never ruined halfway through due to sudden blackout schedules. Fitted with a heavy lockable steel engine cowl.	
6	**Dumpy Level (Heavy Duty)**	**Magnification:** 32x optical magnification minimum; **Accuracy:** ±1.0mm or better standard deviation per 1km double-run levelling; **Compensator:** Air-damped magnetic automatic compensator with a working range of ±15'; **Objective Aperture:** 36mm to 40mm; **Kit Includes:** Heavy-duty dome-head aluminium tripod, 5-meter telescopic leveling staff (E-graduation), plumb bob, and rugged hard-shell transit case.	High dust and water ingress protection (**IP66 rating required**). Optical lenses must feature anti-fungal coatings to survive storage in highly humid conditions without degrading visibility.	
7	**Poker Vibrator (Heavy Duty)**	**Drive Unit:** Standalone 5.5HP air-cooled petrol engine or 4HP diesel engine built into a heavy-duty protective tubular steel roll-cage frame; **Coupling Type:** Standard claw/dynapac quick-release coupling system; **Vibrator Needle:** Supplied with 2x 35mm diameter and 2x 50mm diameter poker needles, each fitted with a 6-meter heavy-duty flexible rubber drive shaft.	Portable mechanical system independent of the grid. Built with internal dual bearings and hardened steel heads to withstand prolonged student handling during foundation casting.	

8	**Shovels**	Heavy-gauge tempered high-carbon steel blades; Available in Round-Mouth and Square-Mouth profiles; Reinforced hardwood (Ash) or fiberglass Y-grip handles.		
9	**Picks (Pickaxes)**	Forged steel pick/mattock head weight: 5lb to 6lb; Shock-absorbing, non-slip composite fiberglass or premium hickory timber handle.		
10	**Hoes**	Mortar-mixing and agricultural pattern hoes; Forged steel blades (width 6–8 inches); Reinforced neck socket; Long straight solid hardwood timber handle.		
11	**Wheelbarrows**	Heavy-duty site construction wheelbarrows; Minimum 65L to 85L fluid capacity seamless steel tray (powder-coated/galvanized); Heavy-gauge tubular steel frame; Pneumatic rubber tire.		
12	**Scaffolding**	Heavy-duty welded tubular steel frame scaffolding components; Section size approx. 1.5m x 2.0m per bay; Includes diagonal cross-braces, adjustable base jacks, lock pins, and anti-slip walking boards.		

BRICKLAYING BASIC HAND TOOLS

ITEM NO.	TECHNICAL SPECIFICATIONS OF ITEMS REQUIRED INCLUDING APPLICABLE STANDARDS		COMPLIANCE OF SPECIFICATIONS OFFERED
13	Tape Measure	• Length 30m, • High tensile strength fiberglass blade • Dual scale (*metric and imperial*)	

		• Tape housed in high impact plastic case with flush winding handle and belt clip	
14	Tape Measure	• Length 5m, • Reverse printed blade, nylon coated to last longer • Double sided marked blade • With a sliding magnetic hook and belt clip • Plastic cased	
15	Builder's line	• Length 100m, • Made of acrylic twine	
16	Brick trowel	• Length 280 mm • Ground polished, hardened and tempered high carbon steel alloy blades • Tapered to the tip with high angle handles • Chromed ferrule to hold the tang firmly • Solid plastic handle	
17	Spirit level	• Length 1m, • Extruded aluminium body with powder coat finish. • Three factory set vials • Top marked with metric and imperial (inches) graduation • Have a V-groove	
18	Builders square	• Length 500mm x 400mm • Manufactured of ground polished, hardened and tempered high steel carbon alloy blade	
19	Pointing trowel	• Length 150 mm blade, plastic handle • Manufactured of ground polished, hardened and tempered high steel carbon alloy blade • With high angle handle • Chromed ferrule to hold the forged tang firmly	
20	Jointer round	• 10mm diameter, • plastic handle • Size 150 mm	
21	Wooden float	• Size 290 x 100 mm • Manufactured from plastic/wood	
22	Chasing hammer	• Length 250 mm • Wooden handle • Be suitable to dress brick and stonework prior to rendering	

		• Replaceable plain and comb style bits supplied separately • With fine grain, forged steel head, hardened and tempered with polished faces	
23	Claw hammer	• With fine grain, drop forged steel Head • Striking face induction hardened and precision • Blue epoxy powder coated head • With hardwood handle	
24	Mallet hammer (Set of 30)	• Face size: (42, 55, 280) mm • Length: (280, 315, 300) mm • Rubber head • Wooden handle	
25	Tile cutter	• Portable, • 450W- 240V electric motor • Designed to cut porcelain, glazed ceramic, slate, quarry, stone tiles • With rimmed diamond cutting blade • 450 cutting guide and 3.5 Litre capacity water reservoir • Safety features include blade guard, thermal overload protection.	
26	Shinning trowel	• Length 280 mm • Aluminium shank, single tang banana pattern • Six rivet construction cross ground • Hardened and tempered steel blade • Solid plastic handle	
27	Skirting trowel	• 75 X 230mm, • Hardened and tempered steel blade • Wooden handle	
28	Sliding bevel	• Length 230mm • Stainless steel blade • Rosewood stock with brace tips for greater wear resistance • With a brace screw to lock the sliding steel blade into position	
29	Bolster	• Length 300mm • High carbon tool frame	
30	Boat Level	• Length 300 mm	

		• Die cast aluminium frame with mild measuring face for accuracy • Vertical and horizontal vials to measure normally and upside down • To include leather belt pouch. With magnet	
31	Internal & External Trowels	• Length 150mm • Hardened and tempered steel blade • wooden handle	
32	Lime Brush	• length 300mm • Sisal Fillings, • Wooden handle	
33	Toolbox empty, with Steel Padlocks and with keys	• 5 Compartments • Smooth and easy opening • Maximum access to the bottom tray • Lockable phosphate and powder coated • Length 550 mm • Width 248 mm • Height 220 mm	

LOT 6 (A): TAILORING AND FASHION DESIGN EQUIPMENT AND MACHINES – LUNJIKA CSDC

ITEM NO.	TECHNICAL SPECIFICATIONS OF ITEMS REQUIRED INCLUDING APPLICABLE STANDARDS		COMPLIANCE OF SPECIFICATIONS OFFERED
1	Industrial straight machine	Sewing speed 4,000 to 5,500 stitches per minute, up to 5mm stitch length, DBx1 needle system and 5.5mm presser foot lift	
2	Industrial overlocking machine five thread	5,000 to 7,500 stitches per minute speed, automatic lubrication, energy saving motor type	
3	Embroidery machine big two heads	15 needles per head, 1,200 stitches per minute speed, 20 to 100 million stitches memory capacity	
4	Cutting table	Cutting table with drawers, standard height 90cm, 120cm to 320 length dimensions	

5	Heavy duty iron(industrial)	Power output 1,000 to 1,800 watts, weight 2.1 to 4kg	
6	Domestic treadle Sewing machine. 5-25 SPI (Stitch per Inch) Reverse feed machine Treadle stand with five drawer top that is sturdy Plastic carry case.	800 to 1,200 stitches per minute, stitch length 0mm to 4 mm or 6mm	
7	Dummy (dress form)	Built with high density foam, height adjustment 55 to 80 inches	
8	Steam iron	Stainless steel, voltage 220v-240v at 50-60Hz	
9	Embroidery small	St 20 to 30 inches dimensions, Stitch speed 1,000 to 1,200	
10	Buttonhole and button set	Single needle local stitch, sewing speed 3,000 to 4,200	
11	Flat bot chain stitch machine	5 threads, stich length 1.5mm to 3.6mm	
12	Industrial overlocking 5 thread	2 needle 5 thread safety stitch, needle system DCx27	

BASIC TOOLS FOR TAILORING FASHION AND DESIGN

ITEM NO.	TECHNICAL SPECIFICATIONS OF ITEMS REQUIRED INCLUDING APPLICABLE STANDARDS		COMPLIANCE OF SPECIFICATIONS OFFERED
13	Sewing machine (Domestic) Hand Operated	• 5-25 SPI (Stitch per Inch) • Reverse feed machine • Plastic carry case	
14	Tweezer	• Stainless steel • Length; 5 inches (125 mm)	
15	Tape Measure	• Length 2 meters • Thread reinforced nylon • Dual calibrated cm/inches	

16	Tailor's Fabric Scissors	• Stainless steel blades • Straight and curved blade tips • Length 240 - 250mm • Asymmetrical plastic handle design	
17	Paper scissors	• Stainless steel blades • All metal • Length 255 mm • Curved tips	
18	Oil can	• 150 ml capacity • Enamel finish • Heavy gauge steel casing • Seamless metal bodied • Positive force feed brass and valves	
19	Tailor's Thread cutting snips	• Lightweight plastic with finger hole for stability • Replaceable stainless-steel blades • Length 125 mm	
20	Tailors chalk (Box)	• Hard • Washable	
21	Screw drivers Set	• Flathead tip size 4 mm • Flathead tip size 5.5 mm • Cross head (Phillip) PH 1 • Blade tips according to DIN ISO 2380 – 1 form A • 3 Component Handles • Power grip with hanging hole • Positive fit joint of handle and blade for optimum transmission of force type of handled at the end of the tip • Molybdenum-Vanadium tempered steel	
22	Bobbin and Bobbin case	• Made of high steel grade • Reparable	
23	Apron	• Made of cotton, • Have two bands (neck and back)	
24	Cleaning brushes	• 50 mm, • Polyester Bristles • Wood Varnished Sash Handle • Brass color ferrule	
25	Grading ruler 1m, Steel	• Made of steel • Length 1 m	
26	Toolbox empty, with Steel Padlocks and with keys	• 5 Compartments • Smooth and easy opening • Maximum access to the bottom tray • Lockable phosphate and powder coated • Length 550 mm • Width 248 mm	

		• Height 220 mm	

LOT 6 (B): TAILORING AND FASHION DESIGN EQUIPMENT AND MACHINES – THAMBANI CSDC

ITEM NO.	TECHNICAL SPECIFICATIONS OF ITEMS REQUIRED INCLUDING APPLICABLE STANDARDS		COMPLIANCE OF SPECIFICATION OFFERED
1	Industrial straight machine	Sewing speed 4,000 to 5,500 stitches per minute, up to 5mm stitch length, DBx1 needle system and 5.5mm presser foot lift	
2	Industrial overlocking machine, five-thread	5,000 to 7,500 stitches per minute speed, automatic lubrication, energy-saving motor type	
3	Embroidery machine big two heads	15 needles per head, 1,200 stitches per minute speed, 20 to 100 million stitches memory capacity	
4	Cutting table	Cutting table with drawers, standard height 90cm, 120cm to 320 length dimensions	
5	Heavy duty iron(industrial)	Power output 1,000 to 1,800 watts, weight 2.1 to 4kg	
6	Domestic treadle Sewing machine. 5-25 SPI (Stitch per Inch) Reverse feed machine Treadle stand with five drawer top that is sturdy Plastic carry case.	800 to 1,200 stitches per minute, stitch length 0mm to 4 mm or 6mm	
7	Dummy (dress form)	Built with high density foam, height adjustment 55 to 80 inches	
8	Steam iron	Stainless steel, voltage 220v-240v at 50-60Hz	
9	Embroidery small	St 20 to 30 inches dimensions, Stitch speed 1,000 to 1,200	

10	Buttonhole and button set	Single needle local stitch, sewing speed 3,000 to 4,200	
11	Flat bot chain stitch machine	5 threads, stich length 1.5mm to 3.6mm	
12	Industrial overlocking 5 thread	2 needle 5 thread safety stitch, needle system DCx27	

BASIC TOOLS FOR TAILORING FASHION AND DESIGN

ITEM NO.	TECHNICAL SPECIFICATIONS OF ITEMS REQUIRED INCLUDING APPLICABLE STANDARDS		COMPLIANCE OF SPECIFICATIONS OFFERED
13	Sewing machine (Domestic) Hand Operated	• 5-25 SPI (Stitch per Inch) • Reverse feed machine • Plastic carry case	
14	Tweezer	• Stainless steel • Length; 5 inches (125 mm)	
15	Tape Measure	• Length 2 meters • Thread reinforced nylon • Dual calibrated cm/inches	
16	Tailor's Fabric Scissors	• Stainless steel blades • Straight and curved blade tips • Length 240 - 250mm • Asymmetrical plastic handle design	
17	Paper scissors	• Stainless steel blades • All metal • Length 255 mm • Curved tips	
18	Oil can	• 150 ml capacity • Enamel finish • Heavy gauge steel casing • Seamless metal bodied • Positive force feed brass and valves	
19	Tailor's Thread cutting snips	• Lightweight plastic with finger hole for stability • Replaceable stainless-steel blades • Length 125 mm	
20	Tailors chalk (Box)	• Hard • Washable	
21	Screw drivers Set	• Flathead tip size 4 mm • Flathead tip size 5.5 mm • Cross head (Phillip) PH 1	

		• Blade tips according to DIN ISO 2380 – 1 form A • 3 Component Handles • Power grip with hanging hole • Positive fit joint of handle and blade for optimum transmission of force type of handled at the end of the tip • Molybdenum-Vanadium tempered steel	
22	Bobbin and Bobbin case	• Made of high steel grade • Reparable	
23	Apron	• Made of cotton, • Have two bands (neck and back)	
24	Cleaning brushes	• 50 mm, • Polyester Bristles • Wood Varnished Sash Handle • Brass color ferrule	
25	Grading ruler 1m, Steel	• Made of steel • Length 1 m	
26	Toolbox empty, with Steel Padlocks and with keys	• 5 Compartments • Smooth and easy opening • Maximum access to the bottom tray • Lockable phosphate and powder coated • Length 550 mm • Width 248 mm • Height 220 mm	

LOT 6 (C): TAILORING AND FASHION DESIGN EQUIPMENT AND MACHINES – THAMBANI CSDC

ITEM NO.	TECHNICAL SPECIFICATIONS OF ITEMS REQUIRED INCLUDING APPLICABLE STANDARDS		COMPLIANCE OF SPECIFICATIONS OFFERED
1	Industrial straight machine	Sewing speed 4,000 to 5,500 stitches per minute, up to 5mm stitch length, DBx1 needle system and 5.5mm presser foot lift	
2	Industrial overlocking machine five thread	5,000 to 7,500 stitches per minute speed, automatic lubrication, energy saving motor type	
3	Embroidery machine big two heads	15 needles per head, 1,200 stitches per minute speed, 20 to 100 million stitches memory capacity	
4	Cutting table		

		Cutting table with drawers, standard height 90cm, 120cm to 320 length dimensions	
5	Heavy duty iron(industrial)	Power output 1,000 to 1,800 watts, weight 2.1 to 4kg	
6	Domestic treadle Sewing machine. 5-25 SPI (Stitch per Inch) Reverse feed machine Treadle stand with five drawer top that is sturdy Plastic carry case.	800 to 1,200 stitches per minute, stitch length 0mm to 4 mm or 6mm	
7	Dummy (dress form)	Built with high density foam, height adjustment 55 to 80 inches	
8	Steam iron	Stainless steel, voltage 220v-240v at 50-60Hz	
9	Embroidery small	St 20 to 30 inches dimensions, Stitch speed 1,000 to 1,200	
10	Buttonhole and button set	Single needle local stitch, sewing speed 3,000 to 4,200	
11	Flat bot chain stitch machine	5 threads, stich length 1.5mm to 3.6mm	
12	Industrial overlocking 5 thread	2 needle 5 thread safety stitch, needle system DCx27	

BASIC TOOLS FOR TAILORING FASHION AND DESIGN

ITEM NO.	TECHNICAL SPECIFICATIONS OF ITEMS REQUIRED INCLUDING APPLICABLE STANDARDS		COMPLIANCE OF SPECIFICATIONS OFFERED
13	Sewing machine (Domestic) Hand Operated	• 5-25 SPI (Stitch per Inch) • Reverse feed machine • Plastic carry case	
14	Tweezer	• Stainless steel • Length; 5 inches (125 mm)	

15	Tape Measure	• Length 2 meters • Thread reinforced nylon • Dual calibrated cm/inches	
16	Tailor's Fabric Scissors	• Stainless steel blades • Straight and curved blade tips • Length 240 - 250mm • Asymmetrical plastic handle design	
17	Paper scissors	• Stainless steel blades • All metal • Length 255 mm • Curved tips	
18	Oil can	• 150 ml capacity • Enamel finish • Heavy gauge steel casing • Seamless metal bodied • Positive force feed brass and valves	
19	Tailor's Thread cutting snips	• Lightweight plastic with finger hole for stability • Replaceable stainless-steel blades • Length 125 mm	
20	Tailors chalk (Box)	• Hard • Washable	
21	Screw drivers Set	• Flathead tip size 4 mm • Flathead tip size 5.5 mm • Cross head (Phillip) PH 1 • Blade tips according to DIN ISO 2380 – 1 form A • 3 Component Handles • Power grip with hanging hole • Positive fit joint of handle and blade for optimum transmission of force type of handled at the end of the tip • Molybdenum-Vanadium tempered steel	
22	Bobbin and Bobbin case	• Made of high steel grade • Reparable	
23	Apron	• Made of cotton, • Have two bands (neck and back)	
24	Cleaning brushes	• 50 mm, • Polyester Bristles • Wood Varnished Sash Handle • Brass color ferrule	
25	Grading ruler	• Made of steel	

	1m, Steel	• Length 1 m	
26	Toolbox empty, with Steel Padlocks and with keys	• 5 Compartments • Smooth and easy opening • Maximum access to the bottom tray • Lockable phosphate and powder coated • Length 550 mm • Width 248 mm • Height 220 mm	

LOT 7: TRAINING EQUIPMENT AND MACHINES FOR CARPENTRY AND JPOINERY – THAMBANI CSDC

ITEM NO.	TECHNICAL SPECIFICATIONS OF ITEMS REQUIRED INCLUDING APPLICABLE STANDARDS			COMPLIANCE OF SPECIFICATIONS OFFERED
1	**Thicknesser (Heavy Duty Industrial)**	Max planing width: 400mm–500mm; Max thicknessing depth: 4mm; Cutting block speed: 5000 RPM with 3 or 4 resharpenable HSS knives; Power: 3.7kW to 5.5kW induction motor, 400V, 3-Phase, 50Hz; Motorized or precision manual thickness height adjustment with mechanical/digital read-out; Fitted with anti-kickback fingers and segmented infeed rollers.	**400V 3-Phase ESCOM grid compliant**. Industrial magnetic switch with No-Volt Release (NVR) protection. Integrated dust collection hood interface (min 100mm).	

2	**Dimension Saw (Sliding Table Panel Saw)**	Sliding table length: 2500mm to 3200mm; Main blade diameter: 300mm to 350mm; Max cutting height: 80mm–100mm at 90°; Tilting range: 0° to 45°; Scoring blade included (diameter 120mm, powered by independent motor); Power: Main motor 4.0kW to 5.5kW, Scoring motor 0.75kW, 400V, 3-Phase, 50Hz.	Fitted with over-blade safety guard and riving knife. Heavy-duty magnetic starter with NVR protection to survive abrupt grid dropouts safely.	
3	**Spindle Moulder (Shaper Machine)**	Spindle diameter: 30mm; Spindle speeds: 4 speed settings (3000/4500/6000/9000 RPM); Max tooling diameter: 200mm; Vertical spindle stroke: 100mm–140mm; Table size: Min 800mm x 700mm; Power: 3.0kW to 4.0kW induction motor, 400V, 3-Phase, 50Hz.	Includes adjustable ring guard, curve-shaping guide, micro-adjustable fence plates, and dual mechanical emergency stop switches.	
4	**Router Machine (Heavy Duty Plunge Router)**	Collet capacity: 12mm (1/2") and 6mm/8mm sleeves; Power Input: 1600W to 2100W industrial motor; Variable Speed: 9000 to 22000 RPM with constant speed control under load; Plunge depth capacity: 0mm to 70mm with micro-fine depth adjustments.	Standard 230V single-phase plug. Features electronic soft-start to prevent power line overload trip-outs during frequent load shedding restarts.	
5	**Compressor (Refurbishment &**	Complete technical overhaul service for the non-functional institutional compressor: 1. Full pressure vessel certification/hydro-test. 2.	Refurbished system must be certified code-compliant and safely integrated	

	Maintenance Service)	Replacement of head gaskets, piston rings, and air/oil filters. 3. Procurement of new 400V 3-Phase or 230V 1-Phase matching induction motor (if burnt out). 4. Installation of new automatic pressure switch, unloader valve, safety relief valve, and calibrated pressure gauges.	with a star-delta or magnetic starter switch containing low-voltage release.	
6	**Circular Saw (Bosch Handheld Type - Spares Pool)**	Procurement of specialized spare parts and high-grade consumables to service the existing Bosch circular saw: 1. Replacement carbon brushes (OEM matching). 2. High-performance Bi-Metal saw blades (184mm or 235mm matching unit frame, 24-tooth for rip cuts and 40-tooth for cross-cuts, 20mm/30mm arbor). 3. Heavy-duty replacement power cable (min 3m, rubberized).	Ensures original machine safety is maintained. Replacement blades must match exact RPM limits of the operational tool frame.	
7	**Portable Power Plane**	Planing width: 82mm; Planing depth adjustment: 0mm to 2.5mm or 3.0mm; Rebating depth capacity: 0mm to 9mm; No-load speed: 16000 RPM; Power Input: 600W to 750W; Equipped with dual-blade cutter block holding tungsten carbide mini-planer blades.	230V Single-Phase, 50Hz. Ergonomic handle with safety lock-off button to prevent accidental trigger activation by trainees.	
8	**Belt Sander (Portable Industrial)**	Belt size: 76mm x 533mm or 100mm x 610mm; Belt speed: Variable from 250m/min to 450m/min; Power Input: 850W to	Labyrinth dust-sealed armature and switch housing to eliminate internal	

		1200W heavy-duty motor; Features: Auto-tracking belt system, flat top design for inverted bench-mounted operation, integrated dust bag or extraction adapter.	fire hazards caused by fine wood flour buildup inside live electric cells.	
9	**Router Plane (Hand Tool)**	Traditional precision hand router plane; Body material: Ductile cast iron; Base dimensions: ~200mm width; Fine screw-feed depth adjustment mechanism; Supplied with a set of 3 interchangeable tool-steel cutters (6mm, 12mm, and spear-point).	100% mechanical manual tool. Entirely independent of grid blackouts, allowing precision joint refinement training to continue anytime.	
10	**Drilling Machine (Heavy Duty Impact Bench Type)**	Chuck capacity: 13mm or 16mm heavy-duty keyed all-metal chuck; Speed control: Multi-speed pulley configuration or electronic variable speed; Column drill structure or industrial corded drill configuration with bench-mount stand attachment; Motor: 550W to 750W, 230V, Single-Phase, 50Hz.	Equipped with low-voltage magnetic switch panels (NVR) on bench variants, or auxiliary safety handles and mechanical slip clutches on handheld pool variants.	
11	**Jig Saw (Orbital Action Handheld)**	Power Input: 650W to 720W; No-load stroke rate: 800 to 2800 spm (variable speed dial); Stroke length: 26mm; Cutting capacity: Wood up to 90mm-135mm, Steel up to 10mm; 3-stage or 4-stage orbital action settings; Tool-less blade change system.	230V Single-Phase. Transparent plastic anti-splinter finger guard and integrated dust blower interface to keep the line-of-cut visible for	

			safe student training.	
12	**Heavy Fixed Sprayer (Paint Spray Station)**	Pressure-feed spray system outfit; Container capacity: 10 Liter to 20 Liter heavy gauge steel pressure paint pot; Spray gun: Industrial pressure-feed spray gun with 1.4mm, 1.8mm, and 2.0mm stainless steel nozzle setups; Fluid and air pressure regulators fitted with dual glass dials.	Pressure pot must feature an ASME/CE certified over-pressure safety relief valve. Requires dry air line integration from the main workshop air network.	
13	**Lathe Machine (Wood Lathe with Copy Attachment)**	Distance between centers: 1000mm to 1200mm; Swing over bed: 350mm to 400mm; Spindle speeds: 4 to 10 mechanical/pulley speeds ranging from 500 to 3000 RPM; Headstock spindle thread: M33 x 3.5 with MT2 taper; Power: 1.1kW to 1.5kW induction motor, 400V, 3-Phase, 50Hz.	Includes integrated mechanical copy attachment profile tracer for uniform student furniture leg replication. Magnetic safety switch with NVR.	
14	**Portable Sprayer (HVLP System)**	Type: Standalone turbine High Volume Low Pressure (HVLP) paint sprayer or gravity/suction feed gun kit; Cup capacity: 1000ml aluminum fluid canister; Nozzle kit size: 1.3mm and 1.5mm brass/stainless steel needles; Turbine motor (if standalone): 1200W, 230V Single-Phase, 50Hz; Includes flexible 6m air delivery hose.	Designed for highly efficient paint atomization with minimal overspray bounce-back, minimizing hazardous wood finish vapor exposure to trainees.	

15	**Portable Nail / Pin Gun (Pneumatic Brad Nailer)**	Type: Heavy duty pneumatic straight brad nailer / pin tacker; Fastener capacity range: 15mm to 50mm length (18-gauge brad nails / 23-gauge pins); Magazine capacity: Min 100 nails with quick side-loading rail mechanism; Working operating air pressure: 4.8 to 7.5 Bar (70-110 PSI).	Equipped with dual-action contact safety trip mechanism (nose trigger must be physically compressed against timber stock before the firing valve will release).	

BASIC TOOL FOR CARPENRTY AND JOINERY

ITEM NO.	TECHNICAL SPECIFICATIONS OF ITEMS REQUIRED INCLUDING APPLICABLE STANDARDS		COMPLIANCE OF SPECIFICATIONS OFFERED
1	Claw hammer	• With fine grain, drop forged steel Head • Striking face induction hardened and precision • Blue epoxy powder coated head • With hardwood handle	
2	Ball Pein hammer	• With fine grain, drop forged steel Head • Striking faces induction hardened and precision • Blue epoxy powder coated head • With hardwood handle	
3	Cross cut saw	• Length 600mm • Hardened and ground steel with glazed and polished blade	

		• Tensioned and fully sprung • In wallet and tooth guard	
4	Tenon Saw	• 250 mm, high grade steel blade • Hardened and ground steel with glazed and polished blade • Tensioned and fully sprung • Highly polished brass back and handle • In wallet and tooth guard	
5	Rip saw	• Length 600mm, • High-quality hardened steel blade • Solid plastic handle	
6	Jack plane No. 5	• High-performance carbon steel blade hardened and tampered • Fully adjustable frog for all tasks and timber types • Unbreakable polypropylene handle and knob shaped for comfort • Adjustable Cutter for the depth of cut alignment • Tight fitting spring steel cap iron for optimum shaving flow • Cast fine grey iron base for stability and ware resistance.	
7	Smoothing Plane No. 4,	• High-performance carbon steel blade, hardened and tempered • Fully adjustable frog for all tasks and timber types • Unbreakable polypropylene handle and knob shaped for comfort • Adjustable Cutter for the depth of cut alignment • Tight fitting spring steel cap iron for optimum shaving flow	

		• Cast fine grey iron base for stability and ware resistance.	
8	Brace Ratchet	• High Speed Steel • Chrome coated	
9	Wheel Brace	• Overall length 215 • Die cast body • Plastic handle with plastic grips and screw top for bit storage	
10	Drill bit set (7 bits)	• Solid single twist • Spur point and hexagonal shank.	
11	Tape Measure	• Length 5m, • Reverse printed blade, nylon coated to last longer • Plastic cased • Double sided marked blade • With a sliding magnetic hook and belt clip	
12	Mortice gauge	• Length 150 mm • Manufactured from rose wood • Has a pull slide • Has a brass adjustable screw and a brass plated head • Fitted with a single and double spur	
13	Combination Try Square	• Length 300mm • With spirit level • Die cast zinc alloy head with 300 mm rule • Spare lock and nut and mandrel for 300 mm • Spare scriber for 300 mm	
14	Chisel set (4)	• Sizes (6, 10, 13, 19) mm • With chrome vanadium alloy tips hardened, tempered ground and polished	

		• Handles with impact resistant end caps.	
15	Screw drivers set (7 pieces)	• Flathead tip size 4 mm • Flathead tip size 5.5 mm • Flathead tip size 5.5 mm • Cross head (Phillip) PH 1 • Blade tips according to DIN ISO 2380 – 1 form A • 3 Component Handles • Power grip with hanging hole • Positive fit joint of handle and blade for optimum transmission of force type of handled at the end of the tip • Molybdenum-Vanadium tempered steel	
16	Spoke shave	• Cast iron body • High-performance carbon steel blade, hardened and tempered • Rigid handles shaped for comfort	
17	Pincer Steel,	• Length 200 mm • Manufactured from chrome-vanadium steel with induction hardened ground and polished jaws • Bonded vinyl coated handles.	
18	File, (set)	• Length 255 mm, (flat, round, half round, three square), • Manufactured according to BS 498:1990 • With solid plastic grip handles	
19	Rasp set of 3	• Length 300 mm • flat, round, half round • With tough, enamelled alloy bodies • High carbon heat treated steel blades	

20	Oil stone	• Face (200 x 50 x 25) mm • Bench stone • Combination aluminium oxide	
21	Spirit level	• Length 1m, • Extruded aluminium body with powder coat finish. • Three factory set vials • Top marked with metric and imperial (inches) graduation • Have a V-groove	
22	G Clamp *(light duty)*	• Made of pressed steel • Welded steel frame • Chrome plated steel screw, handle and swivel shoes	
23	Sash Clamp	• Length 1,200 mm • SG du cast iron heads and slides • Bars manufactured from bright drawn steel • Made of reinforced steel	
24	Saw Set	• Made of steel body • Can be used for coarse and fine setting	
25	Toolbox empty, with Steel Padlocks and with keys	• 5 Compartments • Smooth and easy opening • Maximum access to the bottom tray • Lockable phosphate and powder coated • Length 550 mm • Width 248 mm • Height 220 mm	

26	Portable sprayer (rechargeable)	**Power Source:** 18V to 20V Lithium-Ion rechargeable battery (interchangeable system preferred). **Battery Capacity:** 2.0 Ah to 4.0 Ah (provides ~15 to 30 minutes of continuous spraying per charge). **Motor Type:** Brushless motor (highly recommended for longevity and spark reduction around volatile carpentry finishes). **Technology:** HVLP (High-Volume Low-Pressure) to maximize transfer efficiency and minimize overspray in a student workshop. **Flow Rate:** Adjustable, up to 15–20 fluid ounces per minute (450–600 ml/min). **Max Viscosity:** 40 to 50 DIN-s (should include a viscosity testing cup for student training). **Cup Capacity:** 30 to 40 fluid ounces (900 ml to 1200 ml) plastic or aluminum container. **Nozzle Sizes Included:** 1.5mm to 1.8mm (for thin stains, sealers, and clear coats) and 2.5mm (for thicker latex or primers). **Spray Patterns:** 3-way adjustable air cap (Horizontal slot, Vertical slot, and Circular).	
27	Portable Nail/Pin Gun	Fastener Gauge: 23-Gauge (0.023 in / 0.58 mm thickness) Nail Length Range: **1/2" to 1-3/8" (12mm to 35mm)** minimum capacity Power Source: Cordless Battery (12V or 18V Lithium-Ion) Magazine Capacity: **100 to 120 Pins** minimum	

		Drive Mechanism: Nitrogen Air Spring / Sealed Gas Cylinder Tool Weight: **3.0 to 4.5 lbs (1.3 to 2.0 kg)** with battery installed	
28	Mallet Hammer	**Head Material**: Beech, Hickory, or White Oak **(Dense** Hardwood) **Head Weight:** 12 oz to 16 oz (approx. 340g to 450g) **Head Shape:** Rectangular / Angled Faces (Joiner's Style) **Handle Construction:** Tapered, Mortised (Removable) Handle	
29	**Theodolites**	Digital electronic engineering theodolite; Minimum 30x optical magnification; Dual-side illuminated digital LCD matrix display; Includes heavy-duty aluminium levelling tripod stand.	
30	**Plumb Bobs**	Precision-machined solid brass or nickel-plated steel body; Weight range: 16 oz to 32 oz; Hardened screw-top tip; Includes minimum 5-meter braided nylon suspension cord.	
31	**Dumpy Levels (Automatic)**	Optical automatic level; Minimum 32x magnification; Magnetic-damped automatic compensator; IP54 water/dust rating; Includes heavy aluminium tripod and 5m telescoping levelling staff.	

LOT 8: TOOLS FOR COSMETOLOGY (HAIRDRESSING AND BARBERING) – THAMBANI CSDC

ITEM NO.	TECHNICAL SPECIFICATIONS OF ITEMS REQUIRED INCLUDING APPLICABLE STANDARDS			COMPLIANCE OF SPECIFICATIONS OFFERED
1	**Mannequin, Male**	**Hair Type:** 100% genuine human hair (suitable for chemical processing, bleaching, colouring, perm training, and hot tool styling); **Facial Features: Full human hair beard and Mustache** (min 4–6 inches beard length for beard grooming and line-up training); **Hair Specs: Short hair lengths** (approx. 6–10 inches from crown), dark brown or black hair; rubberized dense PVC base layout.	Base must feature a universal plug-in socket hole underneath to fit standard adjustable table-clamp tripod stands.	
2	**Mannequin, Female**	**Hair Type:** 100% genuine human hair (grade AAA quality for heat up to 200°C, curling, straightener work, and chemical processing); **Hair Length: Long hair** (minimum 20 to 24 inches from crown); **Growth Pattern: Natural hand-implanted crown growth direction patterns** and realistic density distributions to mimic actual human scalp divisions accurately.	Must withstand repeated hot-tool application without melting. Fits standard desktop training clamps universally.	
3	**Hairbrush Set (Hard & Soft)**	**Composition per Set (2 Brushes):** 1. **Hard Bristled Brush:** Reinforced wild boar or stiff nylon bristles set in an ergonomic solid wood or rubberized chassis (ideal for distributing thick product and creating slick	Hand grips must feature non-slip textures to ensure steady student handling during wet	

		styles). 2. **Soft Bristled Brush:** Soft natural boar or flexible nylon bristles with protective rounded ball-tips (ideal for fine hair finishing and scalp comfort).	practical exams.	
4	**Comb Set (Teasing & Detangling)**	**Composition per Set (2 Combs):** 1. **Teasing/Tail Comb:** Fine-toothed layout with a stainless-steel pin tail or multi-length pin set for backcombing, precision parting, and sectioning. 2. **Detangling/Wide-Tooth Comb:** Broad, smooth-edged widely spaced teeth to gently separate wet or coarse coiled hair without snagging.	Crafted from professional-grade, high-heat carbon fibre composite that is **100% anti-static and chemical-resistant**.	
5	**Scissors and Shears Master Kit**	**Composition per Set (4 Specialized Professional Tools):** 1. **Straight Cutting Shear:** 5.5" to 6.0" length, ultra-sharp convex edge for general perimeter cutting and blunt work. 2. **Layering/Sliding Shear:** 6.5" to 7.0" long ergonomic crane handle design for long-hair slide cutting and layering transitions. 3. **Texturizing/Thinning Shear:** 28 to 32 teeth layout for blending texturizing weight and shaping seamless bangs. 4. **Grooming Shear:** Short 4.5" to 5.0" blunt-tip precision trimmer shear for clean necklines and close clipper-over-comb finish work. **Material:** Premium	Blades must be resharpen able. Handles must feature ergonomic offset thumb configurations to reduce repetitive student strain.	

		Japanese 440C Stainless Steel (Rockwell Hardness HRC 58-60) with adjustable tension clicks; supplied in a zipped storage pouch with finger inserts.		
6	**Blow Dryer (Durable Commercial)**	**Power:** 2000W to 2400W high-velocity AC motor (Professional long-life salon motor); **Electrical Input:** 230V AC, Single-Phase, 50Hz (Fitted with a standard fused Type G Malawi 3-pin plug); **Controls:** Minimum 3 heat settings, 2 speed settings, and an independent functional **Instant Cold Shot button**; **Accessories:** Removable rear filter cover for lint cleaning; supplied with 2 click-on concentrator nozzles.	Equipped with internal auto-reset thermal safety cut-off switches to prevent fire if a student accidentally blocks air intake.	
7	**Curling Iron (Durable Commercial)**	**Barrel Size:** Standard universal size (25mm to 32mm / 1-inch to 1.25-inch diameter barrel) with a heavy spring-loaded hair clamp; **Material:** Ceramic or Tourmaline-infused coating for uniform heat distribution; **Temperature Control:** Adjustable digital dial ranging from 120°C up to 210°C; **Electrical Input:** 230V Single-Phase, 50Hz with a **360-degree tangle-free heavy-duty salon swivel cord** (min 2.5m length).	Must include an integrated fold-out safety counter stand and an insulated cool-tip end to prevent facial or finger burns.	
8	**Hair Clipper (Professional Heavy Duty)**	**Motor:** High-torque electromagnetic or rotary motor running at \(\ge \) 6000 RPM;	Heavy-duty casing designed to withstand	

		Blades: High-carbon steel adjustable crunch blade or ceramic taper blade with an integrated adjustable taper lever (0.5mm to 1.2mm fade range); **Power:** Corded/Cordless dual operation capability (lithium-ion battery with min 90-min runtime, charging on standard 230V 50Hz); **Accessories Included:** Set of minimum 8 metal-reinforced premium attachment guide combs (#1–#8), blade oil, and cleaning brush.	accidental drops at the workstation. Must feature low vibration to minimize student hand fatigue.	
9	**Hair Trimmer (Detailing & Outlining)**	**Blades:** Ultra-thin, zero-gap adjustable T-blade structure for precision neck lines, crisp dry shaving, and artwork outlines; **Motor:** High-speed rotary motor; **Power System:** Built-in rechargeable Lithium battery or heavy-duty corded setup (230V, Single-Phase, 50Hz).	Fitted with corrosion-resistant stainless-steel blades to handle wet neck lines and frequent cleaning sprays.	
10	**Aprons (Soft Cloth, White)**	**Material:** Thick, tightly woven premium cotton-polyester or treated soft microfiber fabric in **solid white colour**; **Design Profile:** Full-coverage bib apron styling with adjustable neck loops and heavy-duty extra-long fabric back tie straps; **Properties:** Lightweight, bleach-resistant, and machine-washable.	Features dual deep reinforced front utility pockets to store combs, clips, and shears safely during active styling exercises.	
11	**A Mirror (Large Hanging Type)**	**Dimensions:** Minimum 500mm x 700mm overall viewing face size; **Glass Quality:** High-definition distortion-free silver mirror glass (min 4mm to 5mm thickness)	Backing face must feature anti-shatter safety film reinforcement to hold fragments	

		with a polished edge configuration; **Backing Frame:** Solid wood, rigid plastic, or metal protective backing chassis equipped with a **heavy-duty integrated central top metal hook or dual ring brackets for flush wall-hanging alignment**.	intact if accidentally struck.	
12	**Spray Bottle (Durable Medium)**	**Volume Capacity:** 300ml to 500ml liquid capacity (Medium volume profile); **Mechanism:** High-efficiency continuous ultra-fine mist trigger spray mechanism or adjustable brass/heavy plastic leak-proof nozzle pump; **Material:** Thick, impact-resistant PET or HDPE transparent/translucent plastic body.	Trigger spray pump assembly must be durable enough to handle continuous chemical sanitizers or water mixtures without leaking.	
13	**Gloves (Thin Plastic)**	**Material:** Disposable, thin, ultra-flexible Clear Polyethylene (PE) or Clear Vinyl material; **Size Mix:** Assorted carton delivery (Suggested: 10 Cartons Small, 15 Cartons Medium, 5 Cartons Large); **Packaging: 100 pieces per carton box (dispenser style)**; **Properties:** 100% Latex-free and powder-free to prevent student skin allergy irritation.	Formulated with embossed surface textures to provide reliable grip retention during wet shampooing and hair dye mixtures.	
14	**Master Toolbox (Empty with Padlock)**	**Internal Layout: 5-Compartment cantilever storage design with smooth and easy opening linkages** providing total visibility and maximum direct access to the bottom base tray when expanded;	Rugged all-steel layout ensures students can securely lock up their valuable toolkits (**Items 3, 4, 5, 8, 9**) inside	

		Dimensions: Length 550 mm × Width 248 mm × Height 220 mm (\(\pm \)5mm allowance); **Finish Treatment:** Chemically phosphate anti-rust bath followed by an industrial scratch-resistant powder-coated exterior finish; **Locking Security:** Rigid top double-handles locking together over a reinforced padlock hasp slot; **supplied complete with a heavy-duty Solid Steel Padlock and 3 matching brass keys per box**.	communal lockers.	
15	**Hair Dryers**	Salon-grade professional handheld blow dryers; Power: 2000W – 2400W; Heavy-duty AC collector motor; Variable heat/speed control; Cool-shot function; Styling concentrator nozzles included.		
16	**Hair Steamers**	Professional floor-standing mobile roller unit or wall-mount configuration; Built-in ozone generator; Digital countdown timer; Auto shut-off low-water sensor; Stainless steel heating core.		
17	**Sterilizers**	Salon-grade dual-action UV light cabinet or dry-heat autoclave instrument sterilizer; For metallic combs, shears, and clipper blades; Automatic timer; Safety door micro-interlock switch		
18	**Hair Tongs**	Professional ceramic/tourmaline barrel curling irons; Barrel sizes: 19mm – 32mm; Rapid heating with digital temperature control up to		

		210°C; 360° salon swivel cord		
19	**Trolleys**	Multi-tier (minimum 4 drawers) mobile salon utility workstation; Impact-resistant ABS plastic or powder-coated steel frame; 360° smooth-rolling, hair-resistant lockable casters		
20	**Multimedia Projectors**	Native Resolution: Full HD (1920 x 1080p); Brightness: Minimum 3500 ANSI Lumens; Inputs: 2x HDMI, 1x VGA, USB; Long lamp life (min 10,000 hours eco-mode); Includes ceiling mounting bracket		
21	**Instructional Laptops**	Processor: Intel Core i5 or AMD Ryzen 5 (Current Generation); Memory: Minimum 8GB DDR4 RAM (16GB preferred for ICT/CAD); Storage: Minimum 512GB PCIe NVMe SSD; Display: 14" or 15.6" Anti-Glare FHD screen; OS: Windows 11 Pro; Reinforced carrying case		

LOT 9: TRAINING EQUIPMENT AND MACHINES FOR PLUMBING – MGAYI CTC

ITEM NO.	TECHNICAL SPECIFICATIONS OF ITEMS REQUIRED INCLUDING APPLICABLE STANDARDS		COMPLIANCE OF SPECIFICATIONS OFFERED
1	PPR Welding machine (1xK300,000)	Procure PPR Welding machine	
2	Gas welding equipment (1xK200,000)	Procure gas welding equipment	

The specific conditions for the goods are attached and will form an integral part of any resulting contract.

DRAWINGS

Procurement Reference Number:

LIST OF RELATED DRAWINGS		
DRAWING NUMBER	**DRAWING NAME**	**PURPOSE**
N/A	N/A	N/A

SECTION 8 GENERAL CONDITIONS OF CONTRACT

1. DEFINITIONS

1.1 The following words and expressions shall have the meanings hereby assigned to them—

(a) "Contract" means the Agreement entered into between the Procuring and Disposing Entity and the Supplier, together with the Contract Documents referred to therein, including all attachments, appendices, and all documents incorporated by reference therein;

(b) "Contract Documents" means the documents listed in the Agreement, including any amendments thereto;

(c) "Contract Price" means the price payable to the Supplier as specified in the Agreement, subject to such additions and adjustments thereto or deductions therefrom, as may be made pursuant to the Contract;

(d) "Day" means calendar day;

(e) "Delivery" means the transfer of the Goods from the Supplier to the Procuring and Disposing Entity in accordance with the terms and conditions set forth in the Contract;

(f) Completion" means the fulfilment of the Related Services by the Supplier in accordance with the terms and conditions set forth in the Contract;

(g) "Eligible Countries" means the countries and territories eligible as listed in Section 5 of the Bidding Document;

(h) "ESH" means environmental, social (including sexual exploitation and abuse (SEA) and gender based violence (GBV)), health and safety;

(i) "GCC" means the General Conditions of Contract;

(j) "Goods" means all the commodities, raw materials, machinery and equipment, and/or other materials that the Supplier is required to supply to the Procuring and Disposing Entity under the Contract;

(k) "Procuring and Disposing Entity" means the entity purchasing the Goods and Related Services, as specified in the SCC;

(l) "Related Services" means the services incidental to the supply of the goods, such as insurance, installation, training and initial maintenance and other similar obligations of the Supplier under the Contract;

(m) "SCC" means the Special Conditions of Contract;

(n) "Subcontractor" means any natural person, private or government entity, or a combination of the above, including its legal successors or permitted assigns, to whom any part of the Goods to be supplied or execution of any part of the Related Services is subcontracted by the Supplier;

(o) "Supplier" means the natural person, private or government entity, or a combination of the above, whose Bid to perform the Contract has been accepted by the Procuring and Disposing Entity and is named as such in the Agreement, and includes the legal successors or permitted assigns of the Supplier; and

(p) "The Site," where applicable, means the place named in the SCC.

2. INTERPRETATION

2.1 In interpreting these General Conditions of Contract—
- *(a)* singular includes plural;
- *(b)* male also means female or neuter, and the other way around;
- *(c)* headings have no significance;
- *(d)* words have their normal meaning under the language of the Contract unless specifically defined; and
- *(e)* the Project Manager will provide instructions clarifying queries about these General Conditions of Contract.

2.2 If sectional completion is specified in the Special Conditions of Contract, references in the General Conditions of Contract to the Works, the Completion Date, and the Intended Completion Date apply to any Section of the Works (other than references to the Completion Date and Intended Completion Date for the whole of the Works).

2.3 The documents forming the Contract shall be interpreted in the following order of priority—
- *(a)* Agreement;
- *(b)* Notice of Award;
- *(c)* Contractor's Bid;
- *(d)* Special Conditions of Contract;
- *(e)* General Conditions of Contract;
- *(f)* Specifications;
- *(g)* Drawings;
- *(h)* Bill of Quantities or Activity Schedule; and
- *(i)* any other document listed in SCC as forming part of the Contract.

2.4 Subject to the order of precedence set forth in the Agreement, all documents forming the Contract (and all parts thereof) are intended to be correlative, complementary, and mutually explanatory.

3. CORRUPTION AND FRAUD

3.1 The Malawi Government requires that all Bidders comply with the legal framework on corrupt and fraudulent practices as outlined in Anti-Corruption legal framework.

3.2 In line with the existing anti-corruption law, regulations and policy, and as provided in this clause, Bidders, including its agents, sub-contractors, sub-consultants, service providers, suppliers, and personnel are subject to the signed Anti-Corruption Declaration in the Bidding documents as part of the qualification criteria

4. LANGUAGE

4.1 The Contract as well as all correspondence and documents relating to the Contract exchanged by the Supplier and the Procuring and Disposing Entity, shall be written in English.

4.2 Supporting documents and printed literature that are part of the Contract may be in another language provided they are accompanied by an accurate translation of the relevant passages into English, in which case, for purposes of interpretation of the Contract, this translation shall govern.

4.3 The Supplier shall bear all costs of translation to the governing language and all risks of the accuracy of such translation.

5. JOINT VENTURE, CONSORTIUM OR ASSOCIATION

If the Supplier is a joint venture, consortium, or association, all of the parties shall be jointly and severally liable to the Procuring and Disposing Entity for the fulfilment of the provisions of the Contract and shall designate one party to act as a leader with authority to bind the joint venture, consortium, or association. The composition or the constitution of the joint venture, consortium, or association shall not be altered without the prior consent of the Procuring and Disposing Entity.

6. ELIGIBILITY OF GOODS AND RELATED SERVICES

6.1 All Goods and Services supplied under the Contract shall have their origin in the countries and territories eligible under the rules and regulations of the Government of Malawi.

6.2 For purposes of this Clause, "origin" means the place where the Goods were mined, grown, or produced, or from which the Services are supplied. Goods are produced when, through manufacturing, processing, or substantial and major assembly of components, a commercially recognised new product results that is substantially different in basic characteristics or in purpose or utility from its components.

7. ENVIRONMENTAL AND SOCIO-ECONOMIC POLICIES

7.1 A Bidder shall ensure that it undertakes all required measures that would not expose the environment to any danger of degradation in the course of executing the contract. In addition, the goods, and related services shall not be a threat to the environment in any way. That is, the Bidder should commit that its operations comply with environmental protection, policies, laws and regulations applicable to both in Malawi and other countries as well as policies for the promotion of sustainable development.

7.2 A Bidder shall ensure that it complies with all policies, programs and interventions on restrictions on Sexual Exploitation / prohibition policies, laws and regulations applicable in Malawi and international conventions/ agreements on gender equality

7.3 The Bidder shall ensure that it undertakes its operations in compliance with all relevant policies, regulations, and laws both national and international that do not violate children's rights and Child Labour

8. NOTICES

8.1 Any notice given by one party to the other pursuant to the Contract shall be in writing to the address specified in the SCC. The term "in writing" means communicated in written form with proof of receipt.

8.2 A notice shall be effective when delivered or on the notice's effective date, whichever is later.

9. GOVERNING LAW

The Contract shall be governed by and interpreted in accordance with the laws of the Republic of Malawi.

10. SETTLEMENT OF DISPUTES

10.1 The Procuring and Disposing Entity and the Supplier shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with the Contract.

10.2 If the parties fail to resolve such a dispute or difference by mutual consultation within twenty-eight (28) days from the commencement of such consultation, either party may require that the dispute be referred for resolution to the formal mechanisms specified in the SCC.

11. SCOPE OF SUPPLY

11.1 Subject to the SCC, the Goods and Related Services to be supplied shall be as specified in the Statement of Requirements.

11.2 Unless otherwise stipulated in the Contract, the Supply shall include all such items not specifically mentioned in the Contract but that can be reasonably inferred from the Contract as being required for attaining Delivery and Completion of the Goods and Related Services as if such items were expressly mentioned in the Contract.

12. DELIVERY AND ACCEPTANCE

Subject to GCC -Clause 3.1, the Delivery of the Goods and Completion of the Related Services shall be in accordance with the Delivery and Completion Schedule specified in the Statement of Requirements. The details of shipping and other documents to be furnished by the Supplier are specified in the SCC. Once delivered goods are certified to be in the right quantity and quality, the Procuring and Disposing Entity shall issue an Acceptance Certificate.

13. SUPPLIER'S RESPONSIBILITIES

The Supplier shall supply all the Goods and Related Services included in the Scope of Supply in accordance with GCC Clause 13, and the Delivery and Completion Schedule, as per GCC Clause 14.

14. PROCURING AND DISPOSING ENTITY'S RESPONSIBILITIES

14.1 Whenever the supply of Goods and Related Services requires that the Supplier obtain permits, approvals, and import and other licenses from local public authorities, the Procuring and Disposing Entity shall, if so required by the Supplier, make its best effort to assist the Supplier in complying with such requirements in a timely and expeditious manner

14.2 The Procuring and Disposing Entity shall pay all costs involved in the performance of its responsibilities, in accordance with GCC Sub-Clause 16.1.

15. CONTRACT PRICE

15.1 The Contract Price shall be as specified in the Agreement subject to any additions and adjustments thereto, or deductions therefrom, as may be made pursuant to the Contract.

15.2 Prices charged by the Supplier for the Goods delivered and the Related Services performed under the Contract shall not vary from the prices quoted by the Supplier in its Bid, except price adjustments authorised in the SCC.

16. TERMS OF PAYMENT

16.1 The Contract Price shall be paid as specified in the SCC.

16.2 A Supplier's request for payment shall be made to the Procuring and Disposing Entity in writing, accompanied by invoices describing, as appropriate, the goods delivered and Related Services performed, and by the documents submitted pursuant to GCC Clause 14 and upon fulfilment of all the obligations stated in the Contract.

16.3 The Procuring and Disposing Entity shall make payments promptly, and in any case, no later than forty-five (45) days after submission of an invoice or request for payment by the Supplier, and the Procuring and Disposing Entity has accepted it.

16.4 The currency in which payments shall be made to the Supplier under this Contract shall be specified in SCC.

17. TAXES AND DUTIES

17.1 For goods supplied from outside the Republic of Malawi, the Supplier shall be entirely responsible for all taxes, stamp duties, license fees, and other such levies imposed outside the Republic of Malawi, except for those specified in SCC.

17.2 For goods supplied from within the Republic of Malawi, the Supplier shall be entirely responsible for all taxes, duties, license fees, etc., incurred until delivery of the contracted Goods to the Procuring and Disposing Entity.

18. PERFORMANCE SECURITY

18.1 The Supplier shall, within thirty (30) days of the notification of contract award, provide a performance security for the due performance of the Contract in the amount and currency specified in the SCC.

18.2 The proceeds of the performance security shall be payable to the Procuring and Disposing Entity as compensation for any loss resulting from the Supplier's failure to complete its obligations under the Contract.

18.3 The performance security shall be denominated in the currency of the Contract, or in a freely convertible currency acceptable to the Procuring and Disposing Entity, and shall be in one of the forms stipulated by the Procuring and Disposing Entity in the SCC, or in another form acceptable to the Procuring and Disposing Entity.

18.4 The performance security shall be discharged by the Procuring and Disposing Entity and returned to the Supplier not later than thirty (30) days following the date of completion of the Supplier's performance obligations under the Contract, including any warranty obligations, unless specified otherwise in the SCC.

19. COPYRIGHT

The copyright in all drawings, documents, and other materials containing data and information furnished to the Procuring and Disposing Entity by the Supplier herein shall remain vested in the Supplier, or, if they are furnished to the Procuring and Disposing Entity directly or through the Supplier by any

third party, including suppliers of materials, the copyright in such materials shall remain vested in such third party.

20. CONFIDENTIAL INFORMATION

20.1 The Procuring and Disposing Entity and the Supplier shall keep confidential and shall not, without the written consent of the other party , divulge to any third party any documents, data, or other information furnished directly or indirectly by the other party in connection with the Contract, whether such information has been furnished prior to, during or following completion or termination of the Contract. Notwithstanding the above, the Supplier may furnish to its Subcontractor such documents, data, and other information it receives from the Procuring and Disposing Entity to the extent required for the Subcontractor to perform its work under the Contract, in which event the Supplier shall obtain from the Subcontractor an undertaking of confidentiality similar to that imposed on the Supplier under this clause.

20.2 The Procuring and Disposing Entity shall not use such documents, data, and other information received from the Supplier for any purposes unrelated to the contract. Similarly, the Supplier shall not use such documents, data, and other information received from the Procuring and Disposing Entity for any purpose other than the design, procurement, or other work and services required for the performance of the Contract

20.3 The obligation of a party under GCC Sub-Clauses 20.1 and 20.2 above, however, shall not apply to information that—

(a) the Procuring and Disposing Entity or Supplier need to share with any other institutions participating in the financing of the Contract;

(b) now or hereafter enters the public domain through no fault of that party;

(c) can be proven to have been possessed by that party at the time of disclosure and which was not previously obtained, directly or indirectly, from the other party; or

(d) otherwise lawfully becomes available to that party from a third party that has no obligation of confidentiality

20.4 The above provisions of GCC Clause 20 shall not in any way modify any undertaking of confidentiality given by either of the parties hereto prior to the date of the Contract in respect of the Supply or any part thereof.

20.5 The provisions of GCC Clause 20 shall survive completion or termination, for whatever reason, of the Contract.

21. SUBCONTRACTING

21.1 Where the Supplier engages sub-contractors, such subcontracting shall in no event relieve the Supplier from any of its obligations, duties, responsibilities, or liability under the Contract.

21.2 Subcontracts shall comply with the provisions of GCC Clauses 3 and 7.

22. SPECIFICATIONS AND STANDARDS

22.1 Technical Specifications and Drawings

(a) The Supplier shall ensure that the Goods and Related Services comply with technical specifications and other provisions of the Contract; and

(b) The Goods and Related Services supplied under this Contract shall conform to the standards mentioned in the Statement of Requirements and, when no applicable standard is mentioned, the standard shall be equivalent or superior to the official standards whose application is appropriate to the goods' country of origin.

22.2 Wherever references are made in the Contract to codes and standards in accordance with which it shall be executed, the edition or the revised version of such codes and standards shall be those specified in the Statement of Requirements. During Contract execution, any changes in any such codes and standards shall be applied only after approval by the Procuring and Disposing Entity and shall be treated in accordance with GCC Clause 33

23. PACKING AND DOCUMENTS

23.1 The Supplier shall provide such packing of the goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in the Contract. During transit, the packing shall be sufficient to withstand, without limitation, rough handling and exposure to extreme temperatures, salt and precipitation, and open storage. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the goods' final destination and the absence of heavy handling facilities at all points in transit.

23.2 The packing, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the Contract, including additional requirements, if any, specified in the SCC, and in any other instructions ordered by the Procuring and Disposing Entity.

24. INSURANCE

Unless otherwise specified in the SCC, the Goods supplied under the Contract shall be fully insured, in a freely convertible currency from an eligible country, against loss or damage incidental to manufacture or acquisition, transportation, storage, and delivery, in accordance with the applicable Incoterms or in the manner specified in the SCC.

25. TRANSPORTATION

Unless otherwise specified in the SCC, responsibility for transportation of the Goods shall be in accordance with the Incoterms specified in the Statement of Requirements.

26. INSPECTIONS AND TESTS

26.1 The Supplier shall at its own expense and at no cost to the Procuring and Disposing Entity carry out all such tests/or inspections of the Goods and Related Services as are specified in the Statement of Requirements. The Supplier shall provide the Procuring and Disposing Entity with a report of the results of any such test and/or inspection.

26.2 The inspections and tests may be conducted on the premises of the Supplier or its Subcontractor, at point of delivery, or at the final destination of the goods, or in another place in the Republic of Malawi as specified in the SCC. Subject to GCC Sub-Clause 26.3, if conducted on the premises of the Supplier or its Subcontractor, all reasonable facilities and assistance, including access to drawings and production data, shall be furnished to the inspectors at no charge to the Procuring and Disposing Entity.

26.3 The Procuring and Disposing Entity or its designated representative shall be entitled to attend the tests or inspections referred to in GCC Sub-Clause 26.2, provided that the Procuring and Disposing Entity bear all of its own costs and expenses incurred in connection with such attendance including, but not limited to, all travelling and board and lodging expenses.

26.4 Whenever the Supplier is ready to carry out any such test and inspection, it shall give a reasonable advance notice, including the place and time, to the Procuring and Disposing Entity. The Supplier shall obtain from any relevant third party or manufacturer any necessary permission or consent to enable the Procuring and Disposing Entity or its designated representative to attend the test and/or inspection.

26.5 The Procuring and Disposing Entity may reject any Goods or any part thereof that fail to pass any test or inspection or do not conform to the specifications. The Supplier shall either rectify or replace such rejected Goods or parts thereof or make alterations necessary to meet the specifications at no cost to the Procuring and Disposing Entity, and shall repeat the test and/or inspection, at no cost to the Procuring and Disposing Entity.

26.6 The Supplier agrees that neither the execution of a test and/or inspection of the Goods or any part thereof, nor the attendance by the Procuring and Disposing Entity or its representative, nor the issue of any report pursuant to GCC Sub-Clause 27.2, shall release the Supplier from any warranties or other obligations under the Contract.

27. LIQUIDATED DAMAGES

Except as provided under GCC Clause 32, if the Supplier fails to deliver any or all of the Goods or perform the Related Services within the period specified in the Contract, the Procuring and Disposing Entity may without prejudice to all its other remedies under the Contract, deduct from the Contract Price, as liquidated damages, a sum equivalent to the percentage specified in the SCC of the Contract Price for each week or part thereof of delay until actual delivery or performance, up to a maximum deduction of the percentage specified in those SCC. Once the maximum is reached, the Procuring and Disposing Entity may terminate the Contract pursuant to GCC Clause 35.

28. WARRANTY

28.1 The Supplier warrants that all the Goods are new, unused, and of the most recent or current models, and that they incorporate all recent improvements in design and materials, unless provided otherwise in the Contract.

28.2 Subject to GCC Sub-Clause 23.1, the Supplier further warrants that the Goods shall be free from defects arising from any act or omission of the Supplier or arising from design, materials, and workmanship, under normal use in the conditions prevailing in Malawi.

28.3 Unless otherwise specified in the SCC, the warranty shall remain valid for twelve (12) months after the Goods, or any portion thereof as the case may be, have been delivered to and accepted at the final destination indicated in the SCC, or for eighteen (18) months after the date of shipment or loading in the country of origin, whichever period concludes earlier.

28.4 The Procuring and Disposing Entity shall give notice to the Supplier stating the nature of any such defects together with all available evidence thereof, promptly following the discovery thereof. The Procuring and Disposing Entity shall afford all reasonable opportunity for the Supplier to inspect such defects.

28.5 Upon receipt of such notice, the Supplier shall, within the period specified in the SCC, expeditiously repair or replace the defective Goods or parts thereof, at no cost to the Procuring and Disposing Entity.

28.6 If having been notified, the Supplier fails to remedy the defect within the period specified in the SCC, the Procuring and Disposing Entity may proceed to take within a reasonable period such remedial action as may be necessary, at the Supplier's risk and expense and without prejudice to any other rights which the Procuring and Disposing Entity may have against the Supplier under the Contract.

29. PATENT INDEMNITY

29.1 The Supplier shall, subject to the Procuring and Disposing Entity's compliance with GCC Sub-Clause 30.2, indemnify and hold harmless the Procuring and Disposing Entity and its employees and officers from and against any and all suits, actions or administrative proceedings, claims, demands, losses,

damages, costs, and expenses of any nature, including attorney's fees and expenses, which the Procuring and Disposing Entity may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright, or other intellectual property right registered or otherwise existing at the date of the Contract by reason of—

(a) the installation of the Goods by the Supplier or the use of the Goods in Malawi; and

(b) the sale in any country of the products produced by the Goods.

29.2 If any proceedings are brought or any claim is made against the Procuring and Disposing Entity arising out of the matters referred to in GCC Sub-Clause 30.1, the Procuring and Disposing Entity shall promptly give the Supplier a notice thereof, and the Supplier may at its own expense and in the Procuring and Disposing Entity's name conduct such proceedings or claim and any negotiations for the settlement of any such proceedings or claim.

29.3 The Procuring and Disposing Entity shall indemnify and hold harmless the Supplier and its employees, officers, and Subcontractors from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of any nature, including attorney's fees and expenses, which the Supplier may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright, or other intellectual property right registered or otherwise existing at the date of the Contract arising out of or in connection with any design, data, drawing, specification, or other documents or materials provided or designed by or on behalf of the Procuring and Disposing Entity.

30. LIMITATION OF LIABILITY

Except in cases of criminal negligence or wilful misconduct—

(a) the Supplier shall not be liable to the Procuring and Disposing Entity, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the Supplier to pay liquidated damages to the Procuring and Disposing Entity; and

(b) the aggregate liability of the Supplier to the Procuring and Disposing Entity, whether under the Contract, in tort or otherwise, shall not exceed the total Contract Price, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment, or to any obligation of the supplier to indemnify the Procuring and Disposing Entity with respect to patent infringement.

31. CHANGE IN LAWS

Unless otherwise specified in the Contract, if after the date of the Invitation to Bid, any law, regulation, ordinance, order or bylaw having the force of law

is enacted, promulgated, abrogated, or amended in the place of the Republic of Malawi where the Site is located (which shall be deemed to include any change in interpretation or application by the competent authorities) that subsequently affects the Delivery Date and/or the Contract Price, then such Delivery Date and/or Contract Price shall be correspondingly increased or decreased, to the extent that the Supplier has thereby been affected in the performance of any of its obligations under the Contract. Notwithstanding the foregoing, such additional or reduced cost shall not be separately paid or credited if the same has already been accounted for in the price adjustment provisions where applicable, in accordance with GCC Clause 15.

32. FORCE MAJEURE

32.1 The Supplier shall not be liable for forfeiture of its performance security, liquidated damages, or termination for default if and to the extent that its delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.

32.2 For purposes of this Clause, "Force Majeure" means an event or situation beyond the control of the Supplier that is not foreseeable, is unavoidable, and its origin is not due to negligence or lack of care on the part of the Supplier. Such events may include, but not be limited to, acts of the Procuring and Disposing Entity in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes.

32.3 If a Force Majeure situation arises, the Supplier shall promptly notify the Procuring and Disposing Entity in writing of such condition and the cause thereof. Unless otherwise directed by the Procuring and Disposing Entity in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

33. MODIFICATION ORDERS AND CONTRACT AMENDMENTS

33.1 The Procuring and Disposing Entity may at any time order the Supplier through notice in accordance with GCC Clause 8, to make changes within the general scope of the Contract in any one or more of the following—

(a) drawings, designs, or specifications, where Goods to be furnished under the Contract are to be specifically manufactured for the Procuring and Disposing Entity;

(b) the method of shipment or packing;

(c) the place of delivery; or

(d) the Related Services to be provided by the Supplier.

33.2 If any such change causes an increase or decrease in the cost of, or the time required for, the Supplier's performance of any provisions under the Contract, an equitable adjustment shall be made in the Contract Price or in the Delivery/Completion Schedule, or both, and the Contract shall accordingly be amended.

33.3 Any claims by the Supplier for adjustment under this Clause must be made within twenty-eight (28) days from the date of the Supplier's receipt of the Procuring and Disposing Entity's change order.

33.4 Prices to be charged by the Supplier for any Related Services that might be needed but which were not included in the Contract shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged to other parties by the Supplier for similar services.

34. EXTENSIONS OF TIME

34.1 If at any time during performance of the Contract, the Supplier or its subcontractors encounter conditions impeding timely delivery of the Goods or completion of Related Services pursuant to GCC Clause 14, the Supplier shall promptly notify the Procuring and Disposing Entity in writing of the delay, its likely duration, and its cause.

34.2 As soon as practicable after receipt of the Supplier's notice, the Procuring and Disposing Entity shall evaluate the situation and may at its discretion extend the Supplier's time for performance, in which case the extension shall be ratified by the parties by amendment of the Contract.

34.3 Except in case of Force Majeure, as provided under GCC Clause 32, a delay by the Supplier in the performance of its Delivery and Completion obligations shall render the Supplier liable to the imposition of liquidated damages pursuant to GCC Clause 27, unless an extension of time is agreed upon, pursuant to GCC Sub-Clause 34.1.

35. TERMINATION

35.1 Termination for Default—

(a) The Procuring and Disposing Entity, without prejudice to any other remedy for breach of Contract, by notice of default sent to the Supplier, may terminate the Contract in whole or in part—

(i) if the Supplier fails to deliver any or all of the Goods within the period specified in the Contract, or within any extension thereof granted by the Procuring and Disposing Entity pursuant to GCC Clause 34; or

(ii) if the Supplier fails to perform any other obligation under the Contract.

(b) In the event the Procuring and Disposing Entity terminates the Contract in whole or in part, pursuant to GCC Clause 35.1(a), the Procuring and Disposing Entity may procure, upon such terms and in such manner as it deems appropriate, Goods or Related Services

similar to those undelivered or not performed, and the Supplier shall be liable to the Procuring and Disposing Entity for any additional costs for such similar Goods or Related Services. However, the Supplier shall continue performance of the Contract to the extent not terminated; and

(c) If the Supplier, in the judgment of the Procuring and Disposing Entity has engaged in corrupt or fraudulent practices, as defined in GCC Clause 3, in competing for or in executing the Contract.

35.2 TERMINATION FOR INSOLVENCY

The Procuring and Disposing Entity may at any time terminate the Contract by giving notice to the Supplier if the Supplier becomes bankrupt or otherwise insolvent. In such event, termination will be without compensation to the Supplier, provided that such termination will not prejudice or affect any right of action or remedy that has accrued or will accrue thereafter to the Procuring and Disposing Entity.

35.3 TERMINATION FOR CONVENIENCE

(a) The Procuring and Disposing Entity, by notice sent to the Supplier, may terminate the Contract, in whole or in part, at any time for its convenience. The notice of termination shall specify that termination is for the Procuring and Disposing Entity's convenience, the extent to which performance of the Supplier under the Contract is terminated, and the date upon which such termination becomes effective; and

(b) The Goods that are complete and ready for shipment within twenty-eight (28) days after the Supplier's receipt of notice of termination shall be accepted by the Procuring and Disposing Entity at the Contract terms and prices. For the remaining Goods, the Procuring and Disposing Entity may elect:

(i) to have any portion completed and delivered at the Contract terms and prices; and/or

(ii) to cancel the remainder and pay to the Supplier an agreed amount for partially completed Goods and Related Services and for materials and parts previously procured by the Supplier.

36. ASSIGNMENT

Neither the Procuring and Disposing Entity nor the Supplier shall assign, in whole or in part, their obligations under this Contract, except with prior written consent of the other party.

SECTION 9. SPECIAL CONDITIONS OF CONTRACT

The following Special Conditions of Contract (SCC) shall supplement the General Conditions of Contract (GCC). Whenever there is a conflict, the provisions herein shall prevail over those in the GCC

GCC clause reference	Special Conditions
GCC 1.1(k)	The Procuring and Disposing Entity is: **TEVETA**
GCC 1.1 (p)	The Site is: Lunjika and Thambani Community Skills Development Centres, and **Mgayi Technical College**
GCC 4.1	The language of the Bid shall be: **English**
GCC 5.1	Parties to the Joint Venture shall be: **liable**
GCC 6.1	Goods and related services supplied under the Contract shall have:
GCC 8.1	For **notices**, the Procuring and Disposing Entity's address shall be: Attention: The Chairperson, Internal Procurement and Disposal Committee (IPDC) Street Address: Corner African Unity Road/Independence Drive Name of Building: **TEVETA House** Floor/ Room number: Ground Floor, PDU City: **Lilongwe** Postal Address / Post Code: **207213** Telephone: +265 888 890 938 Email address: **procurement@tevetamw.com** For **notices**, the Supplier's address shall be: Attention: Street Address: Name of Building: Floor/ Room number: City: Postal Address / Post Code: Telephone: Email address:

GCC clause reference	Special Conditions
GCC 9.1	The governing law shall be: Malawi Law
GCC 10.2	The formal mechanism for the resolution of disputes shall be: Arbitration
GCC 11.1	The scope of supply shall be defined in: Statement of Works
GCC 12.1	The shipping and other documents to be furnished by the Supplier are:
GCC 15.2	The price adjustment shall be: N/A
GCC 16.1	The terms of payment shall be: N/A
GCC 17.1	The Supplier shall be responsible for all import duties and taxes except for the following: N/A
GCC 17.2	The Supplier shall be responsible for all duties and taxes imposed by law in Malawi on the Goods except for the following: N/A
GCC 18.1	The amount of the Performance Security shall be: N/A
GCC 18.3	The types of acceptable Performance Securities are: N/A
GCC 18.4	Discharge of Performance Security shall take place: N/A
GCC 23.2	The packing, marking and documentation within and outside the packages shall be:
GCC 24.1	The insurance coverage shall be:
GCC 25	Responsibility for transportation of the Goods shall be: The Contractor (Supplier)
GCC 27.1	Liquidated damages shall be: ….05% % per week The maximum total percentage for liquidated damages shall be:
GCC 28.3	The period of validity of the Warranty shall be: 12 Months
GCC 28.5	The repair or replacement period will be: **7 days.**

SECTION 10. CONTRACT FORMS

AGREEMENT

THIS AGREEMENT made the day of , 20 , between ……. ……. of …….. (hereinafter called "the Procuring and Disposing Entity") the one part, and ……. of …… (hereinafter called the "Supplier"), of the other part:

WHEREAS, the Procuring and Disposing Entity—

(a) invited Bids for certain Goods and Related Services, viz., ……..; and

(b) has accepted a Bid by the Supplier for the supply of those Goods and Related Services in the sum of …… ……. (hereinafter the "Contract Price").

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Contract referred to.

2. The following documents shall be deemed to form and be read and construed as part of this Agreement, viz.:
   (a) the General Conditions of Contract;
   (b) the Special Conditions of Contract;
   (c) the Statement of Requirements;
   (d) the Bid Submission Sheet and the Price Schedules submitted by the Supplier; and
   (e) the Procuring and Disposing Entity's Notification to the Supplier of award of Contract.

3. In consideration of the payments to be made by the Procuring and Disposing Entity to the Supplier as indicated in this Agreement, the Supplier hereby covenants with the Procuring and Disposing Entity to provide the Goods and Related Services and to remedy defects therein in conformity in all respects with the provisions of the Contract.

4. The Procuring and Disposing Entity hereby covenants to pay the Supplier in consideration of the provision of the Goods and Related Services and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with the laws of ……. on the day, month and year indicated above.

for the Procuring and Disposing Entity

Name ……..…. …in the capacity of …….

Signature…….……

Witness ……..…..Signature…….

For and on behalf of the Supplier

Name …… in the capacity of …….

Signature……

Witness ……..

Signature …….

PERFORMANCE SECURITY

Date: ……

Procurement Reference Number: ……

To: ……

WHEREAS …… (hereinafter called the "Supplier") has undertaken, pursuant to Contract No. …… dated ……, …… 20 to supply …… (hereinafter called the "Contract").

AND WHEREAS it has been stipulated by you in the aforementioned Contract that the Supplier shall furnish you with a security …… issued by a reputable guarantor for the sum specified therein as security for compliance with the Supplier's performance obligations in accordance with the Contract.

AND WHEREAS the undersigned ……, legally domiciled in …… ……., (hereinafter called the "Guarantor"*)*, have agreed to give the Supplier a security:

THEREFORE, WE hereby affirm that we are Guarantors and responsible to you, on behalf of the Supplier, up to a total of …… and we undertake to pay you, upon your first written demand declaring the Supplier to be in default under the Contract, without cavil or argument, any sum or sums within the limits of ……. …… as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

This security is valid until the …… day of ……, 20…….

This guarantee is subject to the Uniform Rules for Demand Guarantees, ICC Publication No. 758, except that subparagraph (ii) of Sub-article 20(a) is hereby excluded.

Authorised By: [*to be completed by someone who has the power of attorney for the Bidder*]

Signature _____ Name: _____

Position: _____ Date: _____

Authorised for and on behalf of (Company name): *(DD/MM/YY)*

Company _____

Registered Address: _____

Note to Bidders: The Advance Payment Security should be on the letterhead of the issuing Bank and should be signed by a person with the proper authority to sign documents that are binding on the Bank.

ADVANCE PAYMENT SECURITY

Date: [*insert date (as day, month, and year) of Advance Payment Security*]

……../……../…….

Procurement Reference No.: [*insert Procurement Reference number*]

To: [*insert complete name of Client*]

In accordance with the payment provision included in the Contract, in relation to advance payments, [*insert complete name of Supplier*] (*hereinafter called the "Supplier"*) shall deposit with the Client a security consisting of [*indicate type of security*], to guarantee its proper and faithful performance of the obligations imposed by said Clause of the Contract, in the amount of [*insert currency and amount of guarantee in words and figures*].

We, the undersigned [*insert complete name of Guarantor], legally domiciled in [insert full address of Guarantor*] (*hereinafter the "Guarantor"*), as instructed by the Supplier, agree unconditionally and irrevocably to guarantee as primary obligor and not as surety merely, the payment to the Client on its first demand without whatsoever right of objection on our part and without its first claim to the Supplier, in the amount not exceeding [*insert currency and amount of guarantee in words and figures*].

This security shall remain valid and in full effect from the date of the advance payment received by the Supplier under the Contract until [*insert day and month*], [*insert year*].

This guarantee is subject to the Uniform Rules for Demand Guarantees, ICC Publication No. 758.

Name: [*insert complete name of person signing the Security*]
…….

In the capacity of [*insert legal capacity of person signing the Security*]

…….

Signed: [*signature of person whose name and capacity are shown above*]

…….

Duly authorised to sign the Security for and on behalf of: [*insert complete name of the Bank*]

Dated on _____ day of _____, _____ [*insert date of signing*]