



KWAZULU-NATAL PROVINCE
HEALTH
REPUBLIC OF SOUTH AFRICA

Quotation Advert

Opening Date: 01/04/2025

Closing Date: 08/04/2025

Closing Time: 11:00

INSTITUTION DETAILS

Institution Name: KwaMashu CHC

Province: KwaZulu-Natal

Department of entity: Department of Health

Division or section: Supply Chain Management

**Place where goods/
service is required:** KwaMashu CHC

Date Submitted: 01/04/2025

ITEM CATEGORY AND DETAILS

Quotation number: MAS :258/24-25

Item Category: Goods

Item Description: Fit and install water tanks

COMPULSORY BRIEFING SESSION / SITE VISIT

Select Type: Compulsory Site Meeting

Time 10h00

Date 03/04/2025

Venue KwaMashu CHC (New)

QUOTES CAN BE COLLECTED FROM: KZN Health Website

QUOTATION MUST BE DEPOSITED ON THE TENDER BOX SITUATED NEXT TO SECURITY GATE KWAMASHU CHC NEW , BEFORE THE CLOSING DATE AND TIME OF TENDER

ENQUIRIES REGARDING ADVERT MAY BE DIRECTED TO:

Name: Miss N Mtshali

Email:

Contact number: 031 501 1723

Finance Manager Name: Mr BX Nyawo

Finance Manage signature:

PARTICULARS OF QUOTATION

YOU ARE HEREBY INVITED TO QUOTE FOR REQUIREMENTS AT: KCHC

FACSIMILE NUMBER: _____ E-MAIL ADDRESS: _____

PHYSICAL ADDRESS: P61 MKHIWANE ROAD

QUOTE NUMBER: ZNQ / MAS / 258 24 25 VALIDITY PERIOD: 90 DAYS

DATE ADVERTISED: 01/04/2025 CLOSING DATE: 08/04/2025 CLOSING TIME: 11:00

DESCRIPTION: FIT AND INSTALL WATER TANKS

CONTRACT PERIOD (IF APPLICABLE): _____

DEPOSITED IN THE QUOTE BOX SITUATED AT (STREET ADDRESS):
P61 MKHIWANE ROAD

ENQUIRIES REGARDING THE QUOTE MAY BE DIRECTED TO:

CONTACT PERSON: N MTSHALI TELEPHONE NUMBER: 031 501 1723

E-MAIL ADDRESS: _____

ENQUIRIES REGARDING TECHNICAL INFORMATION MAY BE DIRECTED TO:

CONTACT PERSON: _____ TELEPHONE NUMBER: _____

E-MAIL ADDRESS: _____

Bidders should ensure that quotes are delivered timeously to the correct address. If the quote is late, it will not be accepted for consideration.

The quote box is open from 08:00 to 15:30.

QUOTATIONS MUST BE SUBMITTED ON THE OFFICIAL FORMS – (NOT TO BE RETYPED)

THIS QUOTE IS SUBJECT TO THE PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT AND THE PREFERENTIAL PROCUREMENT REGULATIONS, 2022, THE GENERAL CONDITIONS OF CONTRACT (GCC) AND, IF APPLICABLE, ANY OTHER SPECIAL CONDITIONS OF CONTRACT.

**THE FOLLOWING PARTICULARS OF BIDDER MUST BE FURNISHED
(FAILURE TO DO SO MAY RESULT IN YOUR QUOTE BEING DISQUALIFIED)**

NAME OF BIDDER: _____

E-MAIL ADDRESS: _____

POSTAL ADDRESS: _____

STREET ADDRESS: _____

TELEPHONE NUMBER: _____ FACSIMILE NUMBER: _____

CELLPHONE NUMBER: _____ SARS PIN: _____

VAT REGISTRATION NUMBER (if VAT vendor): _____

CENTRAL SUPPLIER DATABASE REGISTRATION (CSD) NO.

M A A A

UNIQUE REGISTRATION REFERENCE:

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

**OFFICIAL PRICE PAGE FOR QUOTATIONS UP TO R1 000 000**

DESCRIPTION: FIT AND INSTALL WATER TANKS

THE BELOW PREFERENCE POINTS WILL BE ALLOCATED IN COMPLIANCE WITH THE DEPARTMENTAL PREFERENCE PROCUREMENT POLICY (KNOWN AS SCM PPP):	POINTS ALLOCATED
RDP Goal: Full points allocated to promote enterprises located in a specific region for work to be done or services to be rendered in that Region	20

DOES THIS OFFER COMPLY WITH THE SPECIFICATION? YES / NO
IS THE PRICE FIRM? YES / NO
DOES THE ARTICLE CONFORM TO THE S.A.N.S. / S.A.B.S. SPECIFICATION? YES / NO
STATE DELIVERY PERIOD (E.G. 3 DAYS, 1 WEEK)
NAME OF BIDDER: _____ SIGNATURE OF BIDDER: _____
(By signing this document, I hereby agree to all terms and conditions)
CAPACITY UNDER WHICH THIS QUOTE IS SIGNED: _____ DATE: _____



CLARITY ON DECLARATION OF INTEREST SBD 4 (a)

BIDDER NAME	
LEGISLATION ON DISCLOSURE OF INTEREST	
<p>The Public Service Act 103 of 1994 indicates in section 30(1) that "No employee shall perform or engage himself or herself to perform remunerative work outside his or her employment in the relevant department, except with the written permission of the executive authority of the department."</p> <p>Furthermore, in terms of the Public Service Regulations paragraph 13(c), "An employee shall not conduct business with any organ of state or be a director of a public or private company conducting business with an organ of state, unless such employee is in an official capacity a director of a company listed in schedule 2 and 3 of the Public Finance Management Act"</p> <p>Treasury Regulations 16A8.4 further indicates that "If a supply chain management official or other role player, or any close family member, partner or associate of such official or other role player, has any private or business interest in any contract to be awarded, that official or other role player must-(a) disclose that interest; and (b) withdraw from participating in any manner whatsoever in the process relating to that contract."</p>	
CLARITY ON HOW TO DISCLOSE	
<p>Clause 2.2 of the Bidders Disclosure (SBD4), require the bidder to disclose a relationship with any person employed by the entire KZN Department of Health, even if that person is not employed by the procuring institution. The Department may use other Computer Assisted Techniques to verify possible interest, should you be found to have failed to disclose correctly, your bid/quotation will be treated as a false declaration, treated as non-responsive and disqualified.</p> <p>For example, if the tender is advertised or invited by Addington Hospital, yet the person with interest is employed by Manguzi Hospital, as long as that official is employed by the Department of Health, the bidder is required to disclose interest. Therefore the question is, do you, or any person connected with the bidder, have a relationship with any person who is employed by the KZN Department of Health? If so, please furnish particulars on Bidders Disclosure (SBD4) section 2.2.1, as attached below,</p>	

I read the above clarity on disclosure of interest and I commit to disclose as directed, should I fail to disclose correctly, I am aware of the consequences, which may include disqualification of my offer.

BIDDER SURNAME AND INITIALS

SIGNATURE

DATE

BIDDER'S DISCLOSURE

1 PURPOSE OF THE FORM

Any person (natural or juristic) may make an offer or offers in terms of this invitation to bid. In line with the principles of transparency, accountability, impartiality, and ethics as enshrined in the Constitution of the Republic of South Africa and further expressed in various pieces of legislation, it is required for the bidder to make this declaration in respect of the details required hereunder.

Where a person/s are listed in the Register for Tender Defaulters and / or the List of Restricted Suppliers, that person will automatically be disqualified from the bid process.

2 BIDDER'S DECLARATION

2.1. Is the bidder, or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest¹ in the enterprise, employed by the state? **YES / NO**

2.1.1. If so, furnish particulars of the names, individual identity numbers, and, if applicable, state employee numbers of sole proprietor/ directors / trustees / shareholders / members/ partners or any person having a controlling interest in the enterprise, in table below.

FULL NAME	IDENTITY NUMBER	NAME OF STATE INSTITUTION

2.2. Do you, or any person connected with the bidder, have a relationship with any person who is employed by the procuring institution?² **YES / NO**

2.2.1. If so, furnish particulars: _____

2.3. Does the bidder or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest in the enterprise have any interest in any other related enterprise whether or not they are bidding for this contract? **YES / NO**

2.3.1. If so, furnish particulars: _____

3 DECLARATION

I, the undersigned, (name) _____ in submitting the accompanying bid, do hereby make the following statements that I certify to be true and complete in every respect:

- 3.1. I have read and I understand the contents of this disclosure;
- 3.2. I understand that the accompanying bid will be disqualified if this disclosure is found not to be true and complete in every respect;
- 3.3. The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However, communication between partners in a joint venture or consortium³ will not be construed as collusive bidding.
- 3.4. In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications, prices, including methods, factors or formulas used to calculate prices, market allocation, the intention or decision to submit or not to submit the bid, bidding with the intention not to win the bid and conditions or delivery particulars of the products or services to which this bid invitation relates.
- 3.5. The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.
- 3.6. There have been no consultations, communications, agreements or arrangements made by the bidder with any official of the procuring institution in relation to this procurement process prior to and during the bidding process except to provide clarification on the bid submitted where so required by the institution; and the bidder was not involved in the drafting of the specifications or terms of reference for this bid.
- 3.7. I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

I CERTIFY THAT THE INFORMATION FURNISHED IN PARAGRAPHS 1, 2 and 3 ABOVE IS CORRECT.

I ACCEPT THAT THE STATE MAY REJECT THE BID OR ACT AGAINST ME IN TERMS OF PARAGRAPH 6 OF PFMA SCM INSTRUCTION 03 OF 2021/22 ON PREVENTING AND COMBATING ABUSE IN THE SUPPLY CHAIN MANAGEMENT SYSTEM SHOULD THIS DECLARATION PROVE TO BE FALSE.

NAME OF BIDDER	SIGNATURE	POSITION	DATE
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¹ The power, by one person or a group of persons holding the majority of the equity of an enterprise, alternatively, the person/s having the deciding vote or power to influence or to direct the course and decisions of the enterprise.

² "Procuring Institution" refers to all institutions under the Accounting Officer of the Department of Health.

³ Joint venture or Consortium means an association of persons for the purpose of combining their expertise, property, capital, efforts, skill and knowledge in an activity for the execution of a contract.

GENERAL CONDITIONS OF CONTRACT

NOTES

The purpose of this document is to:

- (i) Draw special attention to certain general conditions applicable to government bids, contracts and orders; and
- (ii) To ensure that clients be familiar with regard to the rights and obligations of all parties involved in doing business with government.

In this document words in the singular also mean in the plural and vice versa and words in the masculine also mean in the feminine and neuter.

- The General Conditions of Contract will form part of all bid/quotation documents and may not be amended.
- Special Conditions of Contract (SCC) relevant to a specific bid, should be compiled separately for every bid (if applicable) and will supplement the General Conditions of Contract. Whenever there is a conflict, the provisions in the SCC shall prevail.

1. Definitions

The following terms shall be interpreted as indicated:

- 1.1. "Closing time" means the date and hour specified in the bidding documents for the receipt of bids.
- 1.2. "Contract" means the written agreement entered into between the purchaser and the supplier, as recorded in the contract form signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein.
- 1.3. "Contract price" means the price payable to the supplier under the contract for the full and proper performance of his contractual obligations.
- 1.4. "Corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value to influence the action of a public official in the procurement process or in contract execution.
- 1.5. "Countervailing duties" are imposed in cases where an enterprise abroad is subsidized by its government and encouraged to market its products internationally.
- 1.6. "Country of 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 recognized new product results that is substantially different in basic characteristics or in purpose or utility from its components.
- 1.7. "Day" means calendar day.
- 1.8. "Delivery" means delivery in compliance of the conditions of the contract or order.
- 1.9. "Delivery ex stock" means immediate delivery directly from stock actually on hand.
- 1.10. "Delivery into consignees store or to his site" means delivered and unloaded in the specified store or depot or on the specified site in compliance with the conditions of the contract or order, the supplier bearing all risks and charges involved until the supplies are so delivered and a valid receipt is obtained.
- 1.11. "Dumping" occurs when a private enterprise abroad markets its goods on own initiative in the RSA at lower prices than that of the country of origin and which have the potential to harm the local industries in the RSA.
- 1.12. "Force majeure" means an event beyond the control of the supplier and not involving the supplier's fault or negligence and not foreseeable. Such events may include, but is not restricted to, acts of the purchaser in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes.
- 1.13. "Fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of any bidder, and includes collusive practice among bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the bidder of the benefits of free and open competition.
- 1.14. "GCC" means the General Conditions of Contract.
- 1.15. "Goods" means all of the equipment, machinery, and/or other materials that the supplier is required to supply to the purchaser under the contract.
- 1.16. "Imported content" means that portion of the bidding price represented by the cost of components, parts or materials which have been or are still to be imported (whether by the supplier or his subcontractors) and which costs are inclusive of the costs abroad, plus freight and other direct importation costs such as landing costs, dock dues, import duty, sales duty or other similar tax or duty at the South African place of entry as well as transportation and handling charges to the factory in the Republic where the supplies covered by the bid will be manufactured.
- 1.17. "Local content" means that portion of the bidding price which is not included in the imported content provided that local manufacture does take place.
- 1.18. "Manufacture" means the production of products in a factory using labour, materials, components and machinery and includes other related value-adding activities.
- 1.19. "Order" means an official written order issued for the supply of goods or works or the rendering of a service.
- 1.20. "Project site," where applicable, means the place indicated in bidding documents.
- 1.21. "Purchaser" means the organization purchasing the goods.
- 1.22. "Republic" means the Republic of South Africa.
- 1.23. "SCC" means the Special Conditions of Contract.
- 1.24. "Services" means those functional services ancillary to the supply of the goods, such as transportation and any other incidental services, such as installation, commissioning, provision of technical assistance, training, catering, gardening, security, maintenance and other such obligations of the supplier covered under the contract.
- 1.25. "Written" or "in writing" means handwritten in ink or any form of electronic or mechanical writing.

2. Application

- 2.1. These general conditions are applicable to all bids, contracts and orders including bids for functional and professional services, sales, hiring, letting and the granting or acquiring of rights, but excluding immovable property, unless otherwise indicated in the bidding documents.
- 2.2. Where applicable, special conditions of contract are also laid down to cover specific supplies, services or works.
- 2.3. Where such special conditions of contract are in conflict with these general conditions, the special conditions shall apply.

3. General

- 3.1. Unless otherwise indicated in the bidding documents, the purchaser shall not be liable for any expense incurred in the preparation and submission of a bid. Where applicable a non-refundable fee for documents may be charged.
- 3.2. With certain exceptions, invitations to bid are only published in the Government Tender Bulletin. The Government Tender Bulletin may be obtained directly from the Government Printer, Private Bag X85, Pretoria 0001, or accessed electronically from www.treasury.gov.za



4. Standards

- 4.1. The goods supplied shall conform to the standards mentioned in the bidding documents and specifications.

5. Use of contract documents and information; inspection.

- 5.1. The supplier shall not, without the purchaser's prior written consent, disclose the contract, or any provision thereof, or any specification, plan, drawing, pattern, sample, or information furnished by or on behalf of the purchaser in connection therewith, to any person other than a person employed by the supplier in the performance of the contract. Disclosure to any such employed person shall be made in confidence and shall extend only so far as may be necessary for purposes of such performance.
- 5.2. The supplier shall not, without the purchaser's prior written consent, make use of any document or information mentioned in GCC clause 5.1 except for purposes of performing the contract.
- 5.3. Any document, other than the contract itself mentioned in GCC clause 5.1 shall remain the property of the purchaser and shall be returned (all copies) to the purchaser on completion of the supplier's performance under the contract if so required by the purchaser.
- 5.4. The supplier shall permit the purchaser to inspect the supplier's records relating to the performance of the supplier and to have them audited by auditors appointed by the purchaser, if so required by the purchaser.

6. Patent rights

- 6.1. The supplier shall indemnify the purchaser against all third-party claims of infringement of patent, trademark, or industrial design rights arising from use of the goods or any part thereof by the purchaser.

7. Performance security

- 7.1. Within thirty (30) days of receipt of the notification of contract award, the successful bidder shall furnish to the purchaser the performance security of the amount specified in SCC.
- 7.2. The proceeds of the performance security shall be payable to the purchaser as compensation for any loss resulting from the supplier's failure to complete his obligations under the contract.
- 7.3. The performance security shall be denominated in the currency of the contract, or in a freely convertible currency acceptable to the purchaser and shall be in one of the following forms:
- (a) a bank guarantee or an irrevocable letter of credit issued by a reputable bank located in the purchaser's country or abroad, acceptable to the purchaser, in the form provided in the bidding documents or another form acceptable to the purchaser; or
 - (b) a cashier's or certified cheque
- 7.4. The performance security will be discharged by the purchaser 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 otherwise specified in SCC.

8. Inspections, tests and analyses

- 8.1. All pre-bidding testing will be for the account of the bidder.
- 8.2. If it is a bid condition that supplies to be produced or services to be rendered should at any stage during production or execution or on completion be subject to inspection, the premises of the bidder or contractor shall be open, at all reasonable hours, for inspection by a representative of the Department or an organization acting on behalf of the Department.
- 8.3. If there are no inspection requirements indicated in the bidding documents and no mention is made in the contract, but during the contract period it is decided that inspections shall be carried out, the purchaser shall itself make the necessary arrangements, including payment arrangements with the testing authority concerned.
- 8.4. If the inspections, tests and analyses referred to in clauses 8.2 and 8.3 show the supplies to be in accordance with the contract requirements, the cost of the inspections, tests and analyses shall be defrayed by the purchaser.
- 8.5. Where the supplies or services referred to in clauses 8.2 and 8.3 do not comply with the contract requirements, irrespective of whether such supplies or services are accepted or not, the cost in connection with these inspections, tests or analyses shall be defrayed by the supplier.
- 8.6. Supplies and services which are referred to in clauses 8.2 and 8.3 and which do not comply with the contract requirements may be rejected.
- 8.7. Any contract supplies may on or after delivery be inspected, tested or analyzed and may be rejected if found not to comply with the requirements of the contract. Such rejected supplies shall be held at the cost and risk of the supplier who shall, when called upon, remove them immediately at his own cost and forthwith substitute them with supplies which do comply with the requirements of the contract. Failing such removal the rejected supplies shall be returned at the suppliers cost and risk. Should the supplier fail to provide the substitute supplies forthwith, the purchaser may, without giving the supplier further opportunity to substitute the rejected supplies, purchase such supplies as may be necessary at the expense of the supplier.
- 8.8. The provisions of clauses 8.4 to 8.7 shall not prejudice the right of the purchaser to cancel the contract on account of a breach of the conditions thereof, or to act in terms of Clause 23 of GCC.

9. Packing

- 9.1. 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. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit, 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.
- 9.2. 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 SCC, and in any subsequent instructions ordered by the purchaser.

10. Delivery and documents

- 10.1. Delivery of the goods shall be made by the supplier in accordance with the terms specified in the contract. The details of shipping and/or other documents to be furnished by the supplier are specified in SCC.
- 10.2. Documents to be submitted by the supplier are specified in SCC.

11. Insurance

- 11.1. The goods supplied under the contract shall be fully insured in a freely convertible currency against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery in the manner specified in the SCC.

12. Transportation

- 12.1. Should a price other than an all-inclusive delivered price be required, this shall be specified in the SCC.

13. Incidental services

- 13.1. The supplier may be required to provide any or all of the following services, including additional services, if any, specified in SCC:
- (a) performance or supervision of on-site assembly and/or commissioning of the supplied goods;
 - (b) furnishing of tools required for assembly and/or maintenance of the supplied goods;
 - (c) furnishing of a detailed operations and maintenance manual for each appropriate unit of the supplied goods;
 - (d) performance or supervision or maintenance and/or repair of the supplied goods, for a period of time agreed by the parties, provided that this service shall not relieve the supplier of any warranty obligations under this contract; and
 - (e) training of the purchaser's personnel, at the supplier's plant and/or on-site, in assembly, start-up, operation, maintenance, and/or repair of the
- 13.2. Prices charged by the supplier for incidental services, if not included in the contract price for the goods, 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.

14. Spare parts

- As specified in SCC, the supplier may be required to provide any or all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the supplier:
- 14.1.
- (a) such spare parts as the purchaser may elect to purchase from the supplier, provided that this election shall not relieve the supplier of any warranty obligations under the contract; and
 - (b) in the event of termination of production of the spare parts:
 - (i) Advance notification to the purchaser of the pending termination, in sufficient time to permit the purchaser to procure needed requirements; and
 - (ii) following such termination, furnishing at no cost to the purchaser, the blueprints, drawings, and specifications of the spare parts, if requested.

15. Warranty

- 15.1. The supplier warrants that the goods supplied under the contract are new, unused, of the most recent or current models, and that they incorporate all recent improvements in design and materials unless provided otherwise in the contract. The supplier further warrants that all goods supplied under this contract shall have no defect, arising from design, materials, or workmanship (except when the design and/or material is required by the purchaser's specifications) or from any act or omission of the supplier, that may develop under normal use of the supplied goods in the conditions prevailing in the country of final destination.
- 15.2. This 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 contract, or for eighteen (18) months after the date of shipment from the port or place of loading in the source country, whichever period concludes earlier, unless specified otherwise in SCC.
- 15.3. The purchaser shall promptly notify the supplier in writing of any claims arising under this warranty.
- 15.4. Upon receipt of such notice, the supplier shall, within the period specified in SCC and with all reasonable speed, repair or replace the defective goods or parts thereof, without costs to the purchaser.
- 15.5. If the supplier, having been notified, fails to remedy the defect(s) within the period specified in SCC, the purchaser may proceed to take such remedial action as may be necessary, at the supplier's risk and expense and without prejudice to any other rights which the purchaser may have against the supplier under the contract.

16. Payment

- 16.1. The method and conditions of payment to be made to the supplier under this contract shall be specified in SCC.
- 16.2. The supplier shall furnish the purchaser with an invoice accompanied by a copy of the delivery note and upon fulfillment of other obligations stipulated in the contract.
- 16.3. Payments shall be made promptly by the purchaser, but in no case later than thirty (30) days after submission of an invoice or claim by the supplier.
- 16.4. Payment will be made in Rand unless otherwise stipulated in SCC.

17. Prices

- 17.1. Prices charged by the supplier for goods delivered and services performed under the contract shall not vary from the prices quoted by the supplier in his bid, with the exception of any price adjustments authorized in SCC or in the purchaser's request for bid validity extension, as the case may be.

18. Contract amendments

- 18.1. No variation in or modification of the terms of the contract shall be made except by written amendment signed by the parties concerned.

19. Assignment

- 19.1. The supplier shall not assign, in whole or in part, its obligations to perform under the contract, except with the purchaser's prior written consent.

20. Subcontracts

- 20.1. The supplier shall notify the purchaser in writing of all subcontracts awarded under this contract if not already specified in the bid. Such notification, in the original bid or later, shall not relieve the supplier from any liability or obligation under the contract.

21. Delays in the supplier's performance

- 21.1. Delivery of the goods and performance of services shall be made by the supplier in accordance with the time schedule prescribed by the purchaser in the contract.
- 21.2. If at any time during performance of the contract, the supplier or its subcontractor(s) should encounter conditions impeding timely delivery of the goods and performance of services, the supplier shall promptly notify the purchaser in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the supplier's notice, the purchaser shall evaluate the situation and may at his discretion extend the supplier's time for performance, with or without the imposition of penalties, in which case the extension shall be ratified by the parties by amendment of contract.
- 21.3. No provision in a contract shall be deemed to prohibit the obtaining of supplies or services from a national department, provincial department, or a local authority.
- 21.4. The right is reserved to procure outside of the contract small quantities or to have minor essential services executed if an emergency arises, the supplier's point of supply is not situated at or near the place where the supplies are required, or the supplier's services are not readily available.



- 21.5. Except as provided under GCC Clause 25, a delay by the supplier in the performance of its delivery obligations shall render the supplier liable to the imposition of penalties, pursuant to GCC Clause 22, unless an extension of time is agreed upon pursuant to GCC Clause 21.2 without the application of penalties.
- 21.6. Upon any delay beyond the delivery period in the case of a supplies contract, the purchaser shall, without canceling the contract, be entitled to purchase supplies of a similar quality and up to the same quantity in substitution of the goods not supplied in conformity with the contract and to return any goods delivered later at the supplier's expense and risk, or to cancel the contract and buy such goods as may be required to complete the contract and without prejudice to his other rights, be entitled to claim damages from the supplier.
- 22. Penalties**
- 22.1. Subject to GCC Clause 25, if the supplier fails to deliver any or all of the goods or to perform the services within the period(s) specified in the contract, the purchaser shall, without prejudice to its other remedies under the contract, deduct from the contract price, as a penalty, a sum calculated on the delivered price of the delayed goods or unperformed services using the current prime interest rate calculated for each day of the delay until actual delivery or performance. The purchaser may also consider termination of the contract pursuant to GCC Clause 23.
- 23. Termination for default**
- 23.1. The purchaser, without prejudice to any other remedy for breach of contract, by written notice of default sent to the supplier, may terminate this contract in whole or in part:
- (a) if the supplier fails to deliver any or all of the goods within the period(s) specified in the contract, or within any extension thereof granted by the purchaser pursuant to GCC Clause 21.2;
 - (b) if the Supplier fails to perform any other obligation(s) under the contract; or
 - (c) if the supplier, in the judgment of the purchaser, has engaged in corrupt or fraudulent practices in competing for or in executing the contract.
- 23.2. In the event the purchaser terminates the contract in whole or in part, the purchaser may procure, upon such terms and in such manner as it deems appropriate, goods, works or services similar to those undelivered, and the supplier shall be liable to the purchaser for any excess costs for such similar goods, works or services. However, the supplier shall continue performance of the contract to the extent not terminated.
- 23.3. Where the purchaser terminates the contract in whole or in part, the purchaser may decide to impose a restriction penalty on the supplier by prohibiting such supplier from doing business with the public sector for a period not exceeding 10 years.
- 23.4. If a purchaser intends imposing a restriction on a supplier or any person associated with the supplier, the supplier will be allowed a time period of not more than fourteen (14) days to provide reasons why the envisaged restriction should not be imposed. Should the supplier fail to respond within the stipulated fourteen (14) days the purchaser may regard the intended penalty as not objected against and may impose it on the supplier.
- 23.5. Any restriction imposed on any person by the Accounting Officer / Authority will, at the discretion of the Accounting Officer / Authority, also be applicable to any other enterprise or any partner, manager, director or other person who wholly or partly exercises or exercised or may exercise control over the enterprise of the first-mentioned person, and with which enterprise or person the first-mentioned person, is or was in the opinion of the Accounting Officer / Authority actively associated.
- 23.6. If a restriction is imposed, the purchaser must, within five (5) working days of such imposition, furnish the National Treasury, with the following information:
- (i) the name and address of the supplier and / or person restricted by the purchaser;
 - (ii) the date of commencement of the restriction
 - (iii) the period of restriction; and
 - (iv) the reasons for the restriction.
- These details will be loaded in the National Treasury's central database of suppliers or persons prohibited from doing business with the public sector.
- 23.7. If a court of law convicts a person of an offence as contemplated in sections 12 or 13 of the Prevention and Combating of Corrupt Activities Act, No. 12 of 2004, the court may also rule that such person's name be endorsed on the Register for Tender Defaulters. When a person's name has been endorsed on the Register, the person will be prohibited from doing business with the public sector for a period not less than five years and not more than 10 years. The National Treasury is empowered to determine the period of restriction and each case will be dealt with on its own merits. According to section 32 of the Act the Register must be open to the public. The Register can be perused on the National Treasury website.
- 24. Anti-dumping and countervailing duties and rights**
- 24.1. When, after the date of bid, provisional payments are required, or antidumping or countervailing duties are imposed, or the amount of a provisional payment or anti-dumping or countervailing right is increased in respect of any dumped or subsidized import, the State is not liable for any amount so required or imposed, or for the amount of any such increase. When, after the said date, such a provisional payment is no longer required or any such anti-dumping or countervailing right is abolished, or where the amount of such provisional payment or any such right is reduced, any such favourable difference shall on demand be paid forthwith by the contractor to the State or the State may deduct such amounts from moneys (if any) which may otherwise be due to the contractor in regard to supplies or services which he delivered or rendered, or is to deliver or render in terms of the contract or any other contract or any other amount which may be due to him.
- 25. Force Majeure**
- 25.1. Notwithstanding the provisions of GCC Clauses 22 and 23, the supplier shall not be liable for forfeiture of its performance security, damages, or termination for default if and to the extent that his delay in performance or other failure to perform his obligations under the contract is the result of an event of force majeure.
- 25.2. If a force majeure situation arises, the supplier shall promptly notify the purchaser in writing of such condition and the cause thereof. Unless otherwise directed by the purchaser 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.
- 26. Termination for Insolvency**
- 26.1. The purchaser may at any time terminate the contract by giving written notice to the supplier if the supplier becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the supplier, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the purchaser.
- 27. Settlement of Disputes**
- 27.1. If any dispute or difference of any kind whatsoever arises between the purchaser and the supplier in connection with or arising out of the contract, the parties shall make every effort to resolve amicably such dispute or difference by mutual consultation.



- 27.2. If, after thirty (30) days, the parties have failed to resolve their dispute or difference by such mutual consultation, then either the purchaser or the supplier may give notice to the other party of his intention to commence with mediation. No mediation in respect of this matter may be commenced unless such notice is given to the other party.
- 27.3. Should it not be possible to settle a dispute by means of mediation, it may be settled in a South African court of law.
- 27.4. Mediation proceedings shall be conducted in accordance with the rules of procedure specified in the SCC.
- 27.5. Notwithstanding any reference to mediation and/or court proceedings herein,
(a) the parties shall continue to perform their respective obligations under the contract unless they otherwise agree; and
(b) the purchaser shall pay the supplier any monies due the supplier.
- 28. Limitation of liability**
- 28.1. Except in cases of criminal negligence or willful misconduct, and in the case of infringement pursuant to Clause 6;
(a) the supplier shall not be liable to the purchaser, 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 penalties and/or damages to the purchaser; and
(b) the aggregate liability of the supplier to the purchaser, 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.
- 29. Governing language**
- 29.1. The contract shall be written in English. All correspondence and other documents pertaining to the contract that is exchanged by the parties shall also be written in English.
- 30. Applicable law**
- 30.1. The contract shall be interpreted in accordance with South African laws, unless otherwise specified in SCC.
- 31. Notices**
- 31.1. Every written acceptance of a bid shall be posted to the supplier concerned by registered or certified mail and any other notice to him shall be posted by ordinary mail to the address furnished in his bid or to the address notified later by him in writing and such posting shall be deemed to be proper service of such notice
- 31.2. The time mentioned in the contract documents for performing any act after such aforesaid notice has been given, shall be reckoned from the date of posting of such notice.
- 32. Taxes and duties**
- 32.1. A foreign supplier shall be entirely responsible for all taxes, stamp duties, license fees, and other such levies imposed outside the purchaser's country.
- 32.2. A local supplier shall be entirely responsible for all taxes, duties, license fees, etc., incurred until delivery of the contracted goods to the purchaser.
- 32.3. No contract shall be concluded with any bidder whose tax matters are not in order. Prior to the award of a bid the Department must be in possession of a tax clearance certificate, submitted by the bidder. This certificate must be an original issued by the South African Revenue Services.
- 33. National Industrial Participation (NIP) Programme**
- 33.1. The NIP Programme administered by the Department of Trade and Industry shall be applicable to all contracts that are subject to the NIP obligation.
- 34. Prohibition of Restrictive practices**
- 34.1. In terms of section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, an agreement between, or concerted practice by, firms, or a decision by an association of firms, is prohibited if it is between parties in a horizontal relationship and if a bidder (s) is / are or a contractor(s) was / were involved in collusive bidding (or bid rigging).
- 34.2. If a bidder(s) or contractor(s), based on reasonable grounds or evidence obtained by the purchaser, has / have engaged in the restrictive practice referred to above, the purchaser may refer the matter to the Competition Commission for investigation and possible imposition of administrative penalties as contemplated in the Competition Act No. 89 of 1998.
- 34.3. If a bidder(s) or contractor(s), has / have been found guilty by the Competition Commission of the restrictive practice referred to above, the purchaser may, in addition and without prejudice to any other remedy provided for, invalidate the bid(s) for such item(s) offered, and / or terminate the contract in whole or part, and / or restrict the bidder(s) or contractor(s) from conducting business with the public sector for a period not exceeding ten (10) years and / or claim damages from the bidder(s) or contractor(s) concerned.



SPECIAL CONDITIONS OF CONTRACT

1. AMENDMENT OF CONTRACT

- 1.1. Any amendment to or renunciation of the provisions of the contract shall at all times be done in writing and shall be signed by both parties.

2. CHANGE OF ADDRESS

- 2.1. Bidders must advise the Department of Health (institution where the offer was submitted) should their address (domicilium citandi et executandi) details change from the time of bidding to the expiry of the contract.

3. GENERAL CONDITIONS ATTACHED TO THIS QUOTATION

- 3.1. The Department is under no obligation to accept the lowest or any quote.
- 3.2. The Department reserves the right to communicate in writing with vendors in cases where information is incomplete or where there are obscurities regarding technical aspects of the offer, to obtain confirmation of prices or preference claims in cases where it is evident that a typing, written, transfer or unit error has been made, to investigate the vendor's standing and ability to complete the supply/service satisfactorily.
- 3.3. **ALL DECISIONS TAKEN BY THE DEPARTMENT ARE FINAL, INCLUDING THE AWARD OR CANCELLATION OF THIS QUOTATION.**
- 3.4. The price quoted must include VAT (if VAT vendor).
- 3.5. Should a bidder become a VAT vendor after award or during the implementation of a contract, they may not request the VAT percentage from the Department as the service provider made an offer during the period they were not registered as a VAT vendor. The Department is only liable for any VAT from registered VAT vendors as originally stated on the quotation document.
- 3.6. The bidder must ensure the correctness & validity of the quotation:
- (i) that the price(s), rate(s) & preference quoted cover all for the work/item (s) & accept that any mistakes regarding the price (s) & calculations will be at the bidder's risk;
 - (ii) it is the responsibility of the bidder to confirm receipt of their quotation and to keep proof thereof.
- 3.7. The bidder must accept full responsibility for the proper execution & fulfilment of all obligations conditions devolving on under this agreement, as the Principal (s) liable for the due fulfilment of this contract.
- 3.8. This quotation will be evaluated based on the preferential procurement points system, specification, correctness of information and/or functionality criteria. All required documentation must be completed in full and submitted.
- 3.9. Offers must comply strictly with the specification.
- 3.10. Only offers that meet or are greater than the specification will be considered.
- 3.11. Late offers will not be considered.
- 3.12. Expired product/s will not be accepted. All products supplied must be valid for a minimum period of six months.
- 3.13. Used/ second-hand products will not be accepted.
- 3.14. A bidder not registered on the Central Suppliers Database or whose verification has failed will not be considered.
- 3.15. All delivery costs must be included in the quoted price for delivery at the prescribed destination.
- 3.16. Only firm prices will be accepted. Such prices must remain firm for the contract period. Non-firm prices (including rates of exchange variations) will not be considered.
- 3.17. In cases where different delivery points influence the pricing, a separate pricing schedule must be submitted for each delivery point.
- 3.18. In the event of a bidder having multiple quotes, only the cheapest according to specification will be considered.
- 3.19. Verification will be conducted to identify if bidders have multiple companies and are cover-quoting for this bid.
- 3.20. In such instances, the Department reserves the right to immediately disqualify such bidders as cover-quoting is an offence that represents both corruption and acquisition fraud.
- 3.21. Should there be a variation in price and such variation is above the order amount, the Department will reserve the right to place a new order.

4. NEGOTIATIONS

- 4.1. The Department reserves the right to negotiate with the shortlisted bidder/s prior or post award. The terms and conditions for negotiations will be communicated to the shortlisted bidder/s prior to invitation to negotiations. This will be done to ensure value for money and where the bidder/s price is deemed to be exorbitant, uneconomical or not market related.

5. SPECIAL INSTRUCTIONS AND NOTICES TO BIDDERS REGARDING THE COMPLETION OF THIS QUOTATION.

- 5.1. Unless inconsistent with or expressly indicated otherwise by the context, the singular shall include the plural and vice versa and with words importing the masculine gender shall include the feminine and the neuter.
- 5.2. Under no circumstances whatsoever may the quotation/bid forms be retyped or redrafted. Photocopies of the original bid documentation may be used, but an original signature must appear on such photocopies.
- 5.3. The bidder is advised to check the number of pages and to satisfy himself that none are missing or duplicated.
- 5.4. Quotations submitted must be complete in all respects. However, where it is identified that information in a bidder's response, which does not affect the preference points or price, is incomplete in any respect, the said supplier meets all specification requirements and scores the highest points in terms of preference points and price, the Department reserves the right to request the bidder to complete/ submit such information.
- 5.5. Any alteration made by the bidder must be initialled; failure to do so may render the response invalid.
- 5.6. Use of correcting fluid is prohibited and may render the response invalid.
- 5.7. Quotations will be opened in public as soon as practicable after the closing time of quotation.
- 5.8. Where practical, prices are made public at the time of opening quotations.
- 5.9. If it is desired to make more than one offer against any individual item, such offers should be given on a photocopy of the page in question. Clear indication thereof must be stated on the schedules attached.
- 5.10. The Department is under no obligation to pay suppliers in part for work done if the supplier can no longer for fulfil their obligation.

6. SPECIAL INSTRUCTIONS REGARDING HAND DELIVERED QUOTATIONS

- 6.1. Quotation shall be lodged at the address indicated not later than the closing time specified for their receipt, and in accordance with the directives in the quotation documents.



- 6.2. Each quotation shall be addressed in accordance with the directives in the quotation documents and shall be lodged in a separate sealed envelope, with the name and address of the bidder, the quotation number and closing date indicated on the envelope. The envelope shall not contain documents relating to any quotation other than that shown on the envelope. If this provision is not complied with, such quotations/bids may be rejected as being invalid.
- 6.3. All quotations received in sealed envelopes with the relevant quotation numbers on the envelopes are kept unopened in safe custody until the closing time of the quotation/bids. Where, however, a quotation is received open, it shall be sealed. If it is received without a quotation/bid number on the envelope, it shall be opened, the quotation number ascertained, the envelope sealed and the quotation number written on the envelope.
- 6.4. A specific box is provided for the receipt of quotations, and no quotation found in any other box or elsewhere subsequent to the closing date and time of quotation will be considered.
- 6.5. Quotation documents must not be included in packages containing samples. Such quotations may be rejected as being invalid.

7. SAMPLES

- 7.1. In the case of the quote document stipulating that samples are required, the supplier will be informed in due course when samples should be provided to the institution. (This decreases the time of safety and storage risk that may be incurred by the respective institution). The bidders sample will be retained if such bidder wins the contract.
- (i) If a company/s who has not won the quote requires their samples, they must advise the institution in writing of such.
- (ii) If samples are not collected within three months of close of quote the institution reserves the right to dispose of them at their discretion.
- 7.2. **Samples must be made available when requested in writing or if stipulated on the document.**
- If a Bidder fails to provide a sample of their product on offer for scrutiny against the set specification when requested, their offer will be rejected. All
- (i) testing will be for the account of the bidder.

8. COMPULSORY SITE INSPECTION / BRIEFING SESSION

- 8.1. Bidders who fail to attend the compulsory meeting will be disqualified from the evaluation process.

(i) The institution has determined that a compulsory site meeting will not take place.

(ii) Date: / / Time: : Place:

Institution Stamp:	Institution Site Inspection / briefing session Official:
	Full Name: _____
	Signature: _____
	Date: _____

9. STATEMENT OF SUPPLIES AND SERVICES

- 9.1. The contractor shall, when requested to do so, furnish particulars of supplies delivered or services executed. If he/she fails to do so, the Department may, without prejudice to any other rights which it may have, institute inquiries at the expense of the contractor to obtain the required particulars.

10. SUBMISSION AND COMPLETION OF SBD 6.1

- 10.1. Should a bidder wish to qualify for preference points they must complete a SBD 6.1 document. Failure by a bidder to provide all relevant information required, will result in such a bidder not being considered for preference point's allocation. The preferences applicable on the closing date will be utilized. Any changes after the closing date will not be considered for that particular quote.

11. TAX COMPLIANCE REQUIREMENTS

- 11.1. In the event that the tax compliance status has failed on CSD, it is the suppliers' responsibility to provide a SARS pin in order for the institution to validate the tax compliance status of the supplier.
- 11.2. In the event that the institution cannot validate the suppliers' tax clearance on SARS as well as the Central Suppliers Database, the quote will not be considered and passed over as non-compliant according to National Treasury Instruction Note 4 (a) 2016/17.

12. TAX INVOICE

- 12.1. A tax invoice shall be in the currency of the Republic of South Africa and shall contain the following particulars:
- (i) the name, address and registration number of the supplier;
- (ii) the name and address of the recipient;
- (iii) an individual serialized number and the date upon which the tax invoice
- (iv) a description and quantity or volume of the goods or services supplied;
- (v) the official department order number issued to the supplier;
- (vi) the value of the supply, the amount of tax charged;
- (vii) the words tax invoice in a prominent place.

13. PATENT RIGHTS

- 13.1. The supplier shall indemnify the KZN Department of Health (hereafter known as the purchaser) against all third-party claims of infringement of patent, trademark, or industrial design rights arising from use of the goods or any part thereof by the purchaser.

14. PENALTIES

- 14.1. If at any time during the contract period, the service provider is unable to perform in a timely manner, the service provider must notify the institution in writing/email of the cause of and the duration of the delay. Upon receipt of the notification, the institution should evaluate the circumstances and, if deemed necessary, the institution may extend the service provider's time for performance.



- 14.2. In the event of delayed performance that extends beyond the delivery period, the institution is entitled to purchase commodities of a similar quantity and quality as a substitution for the outstanding commodities, without terminating the contract, as well as return commodities delivered at a later stage at the service provider's expense.
- 14.3. Alternatively, the institution may elect to terminate the contract and procure the necessary commodities in order to complete the contract. In the event that the contract is terminated the institution may claim damages from the service provider in the form of a penalty. The service provider's performance should be captured on the service provider database in order to determine whether or not the service provider should be awarded any contracts in the future.
- 14.4. If the supplier fails to deliver any or all of the goods or to perform the services within the period(s) specified in the contract, the purchaser shall, without prejudice to its other remedies under the contract, deduct from the contract price, as a penalty, a sum calculated on the delivered price of the delayed goods or unperformed services using the current prime interest rate calculated for each day of the delay until actual delivery or performance.
- 15. TERMINATION FOR DEFAULT**
- 15.1. The purchaser, without prejudice to any other remedy for breach of contract, by written notice of default sent to the supplier, may terminate this contract in whole or in part:
- (i) if the supplier fails to deliver any or all of the goods within the period(s) specified in the contract,
 - (ii) if the supplier fails to perform any other obligation(s) under the contract; or
 - (iii) if the supplier, in the judgment of the purchaser, has engaged in corrupt or fraudulent practices in competing for or in executing the contract.
- 15.2. In the event the purchaser terminates the contract in whole or in part, the purchaser may procure, upon such terms and in such manner as it deems appropriate, goods, works or services similar to those undelivered, and the supplier shall be liable to the purchaser for any excess costs for such similar goods, works or services.
- 15.3. Where the purchaser terminates the contract in whole or in part, the purchaser may decide to impose a restriction penalty on the supplier by prohibiting such supplier from doing business with the public sector for a period not exceeding 10 years.
- 16. THE DEPARTMENT RESERVES THE RIGHT TO PASS OVER ANY QUOTATION WHICH FAILS TO COMPLY WITH THE ABOVE.**

PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2022

This preference form must form part of all tenders invited. It contains general information and serves as a claim form for preference points for specific goals.

NB: BEFORE COMPLETING THIS FORM, TENDERERS MUST STUDY THE GENERAL CONDITIONS, DEFINITIONS AND DIRECTIVES APPLICABLE IN RESPECT OF THE TENDER AND PREFERENTIAL PROCUREMENT REGULATIONS, 2022

1. GENERAL CONDITIONS

- 1.1. The following preference point systems are applicable to invitations to tender:
- the 80/20 system for requirements with a Rand value of up to R50 000 000 (all applicable taxes included); and
 - the 90/10 system for requirements with a Rand value above R50 000 000 (all applicable taxes included).
- 1.2. The applicable preference point system for this tender is the 80/20 preference point system.
- 1.3. Points for this tender (even in the case of a tender for income-generating contracts) shall be awarded for:
- (a) Price; and
 - (b) Specific Goals.
- 1.4. The maximum points for this tender are allocated as follows:

	POINTS
PRICE	80
SPECIFIC GOALS	20
Total points for Price and Specific Goals	100

- 1.5. Failure on the part of a tenderer to submit proof or documentation required in terms of this tender to claim points for specific goals with the tender, will be interpreted to mean that preference points for specific goals are not claimed.
- 1.6. The organ of state reserves the right to require of a tenderer, either before a tender is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the organ of state.

2. DEFINITIONS

- (a) "tender" means a written offer in the form determined by an organ of state in response to an invitation to provide goods or services through price quotations, competitive tendering process or any other method envisaged in legislation;
- (b) "price" means an amount of money tendered for goods or services, and includes all applicable taxes less all unconditional discounts;
- (c) "rand value" means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes;
- (d) "tender for income-generating contracts" means a written offer in the form determined by an organ of state in response to an invitation for the origination of income-generating contracts through any method envisaged in legislation that will result in a legal agreement between the organ of state and a third party that produces revenue for the organ of state, and includes, but is not limited to, leasing and disposal of assets and concession contracts, excluding direct sales and disposal of assets through public auctions; and
- (e) "the Act" means the Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000).

3. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

3.1. POINTS AWARDED FOR PRICE

3.1.1. THE 80/20 OR 90/10 PREFERENCE POINT SYSTEMS

A maximum of 80 or 90 points is allocated for price on the following basis:

80/20

$$Ps = 80 \left(1 - \frac{Pt - Pmin}{Pmin} \right)$$

OR

90/10

$$Ps = 90 \left(1 - \frac{Pt - Pmin}{Pmin} \right)$$

Where

- Ps = Points scored for price of tender under consideration
- Pt = Price of tender under consideration
- Pmin = Price of lowest acceptable tender

3.2. FORMULAE FOR DISPOSAL OR LEASING OF STATE ASSETS AND INCOME GENERATING PROCUREMENT

3.2.1. POINTS AWARDED FOR PRICE

A maximum of 80 or 90 points is allocated for price on the following basis:

80/20

$$Ps = 80 \left(1 + \frac{Pt - Pmax}{Pmax} \right)$$

OR

90/10

$$Ps = 90 \left(1 + \frac{Pt - Pmax}{Pmax} \right)$$

Where

- Ps = Points scored for price of tender under consideration
- Pt = Price of tender under consideration
- Pmax = Price of highest acceptable tender



4. POINTS AWARDED FOR SPECIFIC GOALS

- 4.1. In terms of Regulation 4(2); 5(2); 6(2) and 7(2) of the Preferential Procurement Regulations, preference points must be awarded for specific goals stated in the tender. For the purposes of this tender the tenderer will be allocated points based on the goals stated in table 1 below as may be supported by proof/ documentation stated in the conditions of this tender:
- 4.2. In cases where organs of state intend to use Regulation 3(2) of the Regulations, which states that, if it is unclear whether the 80/20 or 90/10 preference point system applies, an organ of state must, in the tender documents, stipulate in the case of—
- (a) an invitation for tender for income-generating contracts, that either the 80/20 or 90/10 preference point system will apply and that the highest acceptable tender will be used to determine the applicable preference point system; or
 - (b) any other invitation for tender, that either the 80/20 or 90/10 preference point system will apply and that the lowest acceptable tender will be used to determine the applicable preference point system,
- then the organ of state must indicate the points allocated for specific goals for both the 90/10 and 80/20 preference point system.

Table 1: Specific goals for the tender and points claimed are indicated per the table below.

Note to tenderers: The tenderer must indicate how they claim points for each preference point system.

The specific goal/s allocated points in terms of this tender	Number of points allocated (80/20 system)	Number of points claimed (80/20 system)
RDP Goal: Full points allocated to promote enterprises located in a specific region for work to be done or services to be rendered in that Region	20	

DECLARATION WITH REGARD TO COMPANY/FIRM

- 4.3. Name of company/firm: _____
- 4.4. Company registration number: _____
- 4.5. TYPE OF COMPANY/ FIRM [tick applicable box]
- ☐ Partnership/Joint Venture / Consortium
 - ☐ One-person business/sole propriety
 - ☐ Close corporation
 - ☐ Public Company
 - ☐ Personal Liability Company
 - ☐ (Pty) Limited
 - ☐ Non-Profit Company
 - ☐ State Owned Company
- 4.6. I, the undersigned, who is duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the specific goals as advised in the tender, qualifies the company/ firm for the preference(s) shown and I acknowledge that:
- i) The information furnished is true and correct;
 - ii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;
 - iii) In the event of a contract being awarded as a result of points claimed as shown in paragraphs 1.4 and 4.2, the contractor may be required to furnish documentary proof to the satisfaction of the organ of state that the claims are correct;
 - iv) If the specific goals have been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the organ of state may, in addition to any other remedy it may have –
 - (a) disqualify the person from the tendering process;
 - (b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;
 - (c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation;
 - (d) recommend that the tenderer or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted from obtaining business from any organ of state for a period not exceeding 10 years, after the audi alteram partem (hear the other side) rule has been applied; and
 - (e) forward the matter for criminal prosecution, if deemed necessary.

_____ SIGNATURE(S) OF TENDERER(S)	
SURNAME AND NAME:	_____
DATE:	_____
ADDRESS:	_____



EVALUATION CRITERIA:

The department will evaluate quotations received before the closing date and time using three (3) stages.

Stage 1: Administrative and Mandatory Compliance Requirements
Stage 2: Compliance with Specification
Stage 3: Price and Preference Points System (Specific Goals)

Stage 1: Administrative and Mandatory Compliance Requirements

Note: This relates to compulsory and Mandatory returnable documents which must be fully completed, signed, initialled and submitted as directed. The non-compliance on returnable documents will be treated as non-responsive: quotation will be disqualified, and will not proceed to next stage of evaluation.

No.	REQUIREMENTS	RETURNABLE DOCUMENTS STAGE1	FOR OFFICIAL USE ONLY	
			YES	NO
1.1	Particulars of Bidder Must be furnished	YES		
1.2	Full completion of Official Price Page	YES		
1.3	Bidder Disclosure SBD4 form must be completed in full and disclosed as stipulated	YES		
1.4	Full completion of Standard Quotation Document	YES		
1.5	Full completion of Preference Points Claim Form in terms of the Preferential Procurement Regulations 2022,SBD 6.1	YES		
1.6	The bidder must be registered with CSD <ul style="list-style-type: none"> CSD-Tax Compliant CSD-Not restricted CSD-Directors not Government Employees 	YES		

Stage 2: Compliance with Specification

No.	REQUIREMENTS	Proof submitted	Points allocated	FOR OFFICIAL USE ONLY	
				YES	NO
2.1	CIDB certificate 1SO minimum	Proof of CIDB	20		
		No proof of CIDB	0		
2.2	Submit completion certificate in plumbing, purchase order number with clear scope description and order value	Within 3yrs	40		
		Older than 3years	20		
2.3	Submit proof of wireman's license	Proof Submitted	20		
2.4	Locality, Submit proof of address	Company offices within the District	20		
		Company offices outside the District but within KZN	10		

		No proof of offices in KZN	0		
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Stage 3: Price and Preference Points System (Specific Goals)

CATERGORY	POINTS
PRICE	80
SPECIFIC GOALS	20
Total Points for price and Goals must not exceed	100

Initial here: _____

-
- KINDLY RETURN ALL DOCUMENTATION WHEN REPLYING

SECTION J: SCOPE OF WORK

1.1. GENERAL

• SCOPE OF WORK

- Fit and install water tanks (Labour only)
- Fit and supply water tanks
- Connect to existing lines
- Install pumps (Labour only)
- And connect electricity
- Build platforms
- Connect back up water supply to the other part of Institution

SITE CLEARANCE: —The item given in the Bills of Quantities for site clearance shall be deemed to include the removal from the site, or burning if permitted by the Local Authority, of shrubs and trees with trunks under 200mm girth measured at 1m above ground level, hedges, bushes, other vegetation, rubbish and debris.

Holes left by roots are to be backfilled with earth and rammed.

EXCAVATIONS: — Rates for excavations are to include for forming and trimming to the correct levels, falls, slopes, curves, etc. for trimming sides, stepping, levelling and ramming bottoms, staging and disposing of the excavated material as described in the items. Rates for excavations to reduce levels over site are also to include for forming and trimming banks to the required batter. The Contractor is to allow in his rates for the bulking of excavated material.

The term "excavate", unless otherwise stated, shall mean excavate in "soft excavation" as defined below and for the purpose of classifying excavations the following will apply: —

a) Soft excavation: — shall be excavation in material that can be efficiently removed by a back-acting excavator of flywheel power approximately 0, 10 kW per millimetre of tined-bucket width without the assistance of pneumatic tools such as paving breakers, or that can be efficiently loaded without prior ripping or stockpiling by a rubber tired front-end loader of approximately 15t mass and a flywheel power of approximately 100 kW.

b) Intermediate excavation: — shall be excavation in material that requires a back-acting excavator of flywheel power exceeding 0,10kW per millimetre of tined-bucket width and the assistance of pneumatic tools prior to removal by equipment equivalent to that specified in (a) above.

c) Hard rock excavation: — shall be excavation in material that cannot be efficiently removed without blasting or without wedging and splitting prior to removal.

d) Class A Boulder excavation: — shall be excavation in material containing more than 40% by volume of boulders of size between 0.03m³ and 20m³ in a matrix of softer material or smaller boulders.

Excavation of solid boulders or lumps of size exceeding 20m³ will be classed as hard rock excavation.
(2) Excavation of fissured or fractured rock will not be classed as boulder excavation but as hard rock or intermediate excavation according to the nature of the material.

e) Class B Boulder excavation: — shall be excavation of boulders only in a material containing 40% or less by volume of boulders of size between 0.03m³ and 20m³ in a matrix of softer material or smaller boulders.

Those boulders requiring individual drilling and blasting in order to be loaded by a back-acting excavator as specified in (a) above, or by a track type front-end loader, will each be separately measured as Class B boulder excavation.
The excavation of the rest of the material will be classed as soft or intermediate excavation according to the nature of the material.
Method of Classifying: —The Contractor may use any method he chooses to excavate any class of material but his chosen method of excavation shall not determine the classification of the excavation. The Department will decide on the classification of the materials. The classification will be based on inspection of the material to be excavated and the criteria given in (a) to (e) above, as applicable. The decision of the Department shall be, subject to the relevant provisions of the contract, final and binding.
Should the Contractor consider that the excavation is other than "soft excavation" he must notify the Department immediately in order that an inspection be made and a decision arrived at by the Department as to the category of such excavation. Should the Contractor fail to give such notification, the excavation shall be deemed to be "soft excavation" and shall be measured and valued accordingly.
Blasting will only be permitted with the written authority of the Department, if and when permission is granted, it is to be executed only by persons holding the necessary Government Blasting Certificate and subject to all regulations imposed by the Department and/or Local Authority. In addition, the Contractor is to indemnify the Provincial Administration against all claims in respect of damage to persons and property resulting from such blasting operations.
Before commencing any excavations, the Contractor must satisfy himself as to the accuracy of any levels indicated on the drawings, as no claim will be entertained at a later date for any alleged inaccuracy in such levels.
Excavation shall be carried down to such depths as are necessary to obtain firm foundations, but before proceeding to greater depths than are shown on the drawings, the Department's approval must be obtained.
The Contractor will be responsible if he excavates wider or deeper than shown or required. If the excavations are deeper than shown or required such extra excavations are to be filled in with mass concrete at the Contractor's expense. If the excavations are wider than shown or required, any form-work or mass concrete filling required to the side of the concrete foundations is to be executed at the Contractor's expense and to the approval of the Department.
Depths of excavations as approved shall be checked and recorded by the a Departmental Official and the Contractor's Foreman before any concrete is laid or the excavations are otherwise covered or filled in.
Notwithstanding such approval, any excavations which become waterlogged or otherwise spoilt after approval, shall be cleaned out and reformed, at the Contractor's expense and to the satisfaction of the Department, before any concrete, etc. is laid.
WATER: — The Contractor shall keep all excavations free from water or mud by pumping, baling or otherwise.
WORKING SPACE: — The Contractor is to allow against the items of "excavate to provide working space" for excavating beyond the extent of the net excavations measured to provide the necessary working space for the carrying out of such work as is described in the items. Rates are to include, in addition to the extra excavation, for any additional risk of collapse so incurred and for filling back and compacting the excavated material.
No separate item for working space is provided or will be considered where the face of the measured excavation is 750mm or more away from the finished face of the structure. Separate items for working space for the building of brick foundation walls on ordinary concrete wall footings will not be considered.

In the case of column base and pile cap excavations, where the dimensions between the column face and the excavation face is less than 500mm, working space has been measured for the width of the column face from the commencing level of excavation to the top of the column base or pile cap only where the top of the column base or pile cap exceeds 1.5m below the commencing level of excavation.
RISK OF COLLAPSE: — The Contractor shall maintain all excavated faces affecting the safety of the works and workmen. He must either provide all necessary temporary planking, strutting or shoring to all vertical excavated faces or carry the risk of collapse of these faces with all its implications. He must assume full responsibility in this connection and must allow in his rates accordingly. In addition, all excavated faces exceeding 1.5m deep are to be maintained in accordance with Government Regulations.
Quantities reflect the total superficial areas of the vertical excavated faces and will be subject to variation only in so far as these areas may vary, notwithstanding whether any temporary supports are used or not.
FILLING, ETC.: — All backfilling and filling under floors and paving must be of selected material from the excavations, unless otherwise stated, returned and compacted in layers as later described and with the top surface dressed to the correct levels and grades, all to the approval of the Department. Under no circumstances will the Contractor be allowed to use clay, peat or other unsuitable material for filling.
Rates for all items of filling with material from the excavations are to include haulage not exceeding 100m from the perimeter of the excavations.
Any filling supplied by the Contractor is to be of suitable material approved by the Department.
COMPACTION OF FILLING ETC.: — All filling and backfilling is to be done in layers not exceeding 200mm thick before compaction, with the layers level to ensure uniform compaction. Each layer is to be thoroughly compacted over the whole of the area to a dry density not less than 90% of Mod. A.A.S.H.O. density. The surface of each compacted layer shall be uniform and tightly bonded. Care is to be taken that no damage is done to foundation walls, drains and other services.
The densities of compaction referred to are to be determined by tests carried out in accordance with A.S.T.M. Designation D 1557-58 and at an optimum moisture content of not more or less than 5% of the required Mod. A.A.S.H.O. The Contractor shall be responsible for having sufficient tests taken of the density of the compacted filling to ensure that the required compaction is being attained to the satisfaction of the Department. These tests are to be undertaken by an independent testing authority nominated by the Contractor to the approval of the Department. The costs of all tests in this connection shall be borne by the Contractor and shall be allowed for in his rates.
PROTECTION AGAINST SUBTERRANEAN WOOD-DESTROYING TERMITES: — Where protection against termites is to be provided: —
a) Remove vegetable matter
All dead roots and other vegetable matter likely to encourage termites must be removed from the ground under, against the building and from all filling material.
b) Treating the ground
The ground under surface beds, and below suspended wood floors, must be treated by the application of Soil Insecticides of Chlordane or Aldrin types complying with SANS Specifications 1165 and 1164 respectively, mixed with water and applied at the rate of not less than 5 litres of solution per square metre uniformly over the whole surface. The concentration of the solution must be strictly in accordance with the manufacturer's instructions and to the approval of the Department.
The Department reserves the right to take samples of the diluted solution, at any time, in order to test the concentration of the chemicals used.

Where the ground to be treated is of earth filling, the upper 50mm layer of filling must be levelled by raking, but must not be rammed until after the solution has been applied, and where of natural ground, it must be loosened to a depth of not less than 50mm and similarly levelled, in order to enable the solution to penetrate into the soil. After the solution has been applied and allowed to penetrate the surface, the soil must be well rammed and consolidated.

Before applying the solution to the ground under the floors, splay back earth for a depth and width of 75mm from the internal faces of walls enclosing the floors, against internal walls, sleeper piers, etc. and thoroughly saturate with the solution. After the solution has soaked into the earth, the splayed grooves must be filled with earth and consolidated.

The treated layer of soil under suspended wood floors must be protected with a 75mm thick layer of approved clean gravel, finished to an even surface.

The treated layer of soil under concrete surface beds must be protected with a 25mm thick layer of well-consolidated approved grit prior to laying the waterproofing membrane.

Great care must be taken when laying concrete surface beds, protective layers, etc. in order to avoid rupturing the treated layer of soil. Should the treated layer be ruptured at any point it must be made good and the area affected re-treated with the soil insecticide.

Contractors are advised that:

a. Special precautions must be taken to protect the workmen whilst using the soil insecticide.

b. The treatment of filling or ground under floors shall be done as soon as practicable, so that treatment may dry out before the floors are laid.

c. The treatment of the ground must be carried out under the supervision of the Department.

d. The soil insecticide to be delivered to the site in sealed drums clearly labelled or stamped with the name of the product.

e. In addition to the foregoing the application of the soil insecticide to be carried out in accordance with SANS Code of Practice 0124 — the application of Certain Soil Insecticides for the Protection of Buildings.

f. The protective layers of gravel or grit have been measured separately.

RE-USE OF EXCAVATED MATERIAL: — Material of any kind that may be discovered on the site during the excavation shall remain the property of the Administration. Such material may, if approved, be used for aggregate. Material so used shall be valued and the value deducted from the Contract Sum.

DEMOLITIONS: — The Contractor is referred to the preambles for "Alterations" insofar as they apply and the following: —

The demolition of existing buildings is to be done in a practical and safe manner, under the continuous supervision of a competent Foreman. Rates for the demolition of existing buildings are to include for breaking up and removing all external screen walls, steps and ramps, surface water channels, rainwater sumps, gulleys, etc. and grubbing up and removing all foundation walls and footings, disconnecting and removing all services to a point not less than 1m beyond the perimeter of the buildings, plugging off ends of all remaining pipes, and for filling in all holes with clean earth and ramming up to ground level. All movable fittings and furniture, fire extinguishers and electrical and other equipment in the buildings to be demolished are to remain the property of and will be removed by the Administration prior to the commencement of the demolition.

<p>Before commencing the demolitions, the Contractor shall comply with any Local Authority regulations in force in respect of rodent extermination, etc. and he shall obtain the required Clearance Certificate. Items to cover the cost of obtaining the certificate and the fumigation, etc. of the buildings to be demolished have been provided elsewhere in the Bills of Quantities, and the fumigation is to be carried out by a firm specialising in this type of work. The fumigation of the buildings to be demolished shall only be carried out if called for by the Local Authorities and if not required the value of the relevant items in the Bills of Quantities will be deducted from the Contract Sum.</p>
<p>After handing over the site to the Contractor, the risk of any loss or damage to the buildings to be demolished and the materials therein, caused by theft, vandalism, etc. shall be the responsibility of the Contractor and he shall take such precautions as he deems necessary against such loss or damage.</p>
<p>GRASS PLANTING AND TURFING: — Is to be "Cape Kweek" or "Umgeni" grass scientifically known as <i>Cynodon dactylon</i> or other local fine grass approved by the Department. In areas where fine grass does not grow readily, Kikuyu grass <i>Pennisetum clandestinum</i> may be substituted. The areas must be identified and the approval of the Department obtained before Kikuyu grass is to be planted.</p>
<p>Grass Planting To Level Areas: — The areas to receive grass are to be weeded and raked free of stones and other superfluous matter and all depressions left by the earthworks plant are to be filled in with approved topsoil. The planting of grass is to be carried out in continuous root planting in rows 200mm apart. The method of planting called "sprigging" may be used as an alternative.</p>
<p>Immediately after completion of each strip or square, the area thus grassed is to be thoroughly watered and lightly rolled. Any drifting or piling up of the top soil due to wind or any other cause must be prevented as far as possible and should such piling up of soil against newly planted grass occur the soil must immediately be raked level and lightly rolled.</p>
<p>Turfing: — Banks are to be carefully trimmed to an even surface and weeded and raked free of stones, etc. and all depressions filled in with approved topsoil as before described. Turfing of banks is to be carried out with 25mm thick maximum 500mm x 1000mm weed-free grass sods, of grass as before described, and as approved by the Department. The grass sods are to be set in position in horizontal rows to broken bond and closely fitted together and tamped flat with a timber pummel, a maximum of two sods in every square metre of area covered being staked to the bank to maintain position, with and including one sharpened wood or bamboo skewer 250mm long and with all cavities between sods filled in with approved top soil and the whole area lightly top soil dressed on completion.</p>
<p>Established Lawn: — The use of established lawn in pieces size approximately 500mm x 1000mm x 25mm thick in lieu of grass sods on banks will be permitted provided that the established lawn is supplied and laid by a firm experienced in this type of work and to the approval of the Department. The fitting, tamping, staking and top dressing must all be as described for turfing, except that one piece per square metre is required to be staked as described.</p>
<p>Fertilizer: — An approved fertilizer of the following types— Type 2:3:2 for grass planted levelled areas and Type 3:2:1 for turfed or established lawn covered banks is to be supplied and applied by the Contractor at the rate of 400 kg per hectare. In the case of grass planted levelled areas the fertilizer is to be applied either before or after grass planting and in the case of turfed or established lawn covered banks the fertilizer is to be applied after the sods or pieces have been laid.</p>
<p>The fertilizer above described is to in addition to any fertilizer which may have been specified to be applied during either the operation of scarifying and grading the area to be grassed or the re-spreading of top soil.</p>

A sample of the existing topsoil or the topsoil to be re-spread is to be sent to an approved fertilizer manufacturer for testing and advice on the acid or alkaline content of the soil. The cost of this test is to be borne by the Contractor if this is not provided free by the fertilizer manufacturer.					
The requisite quantities of limestone ammonium nitrate for acidic soil or ammonium sulphate for alkaline soil as determined by the soil test will be supplied to the Contractor by the Department and the cost thereof is to be included in a Provisional Sum elsewhere in the Bills of Quantities. The application of this treatment is to be undertaken by the Contractor and his rates for grassing, etc. must include for same.					
Weed killer: — "Weed Master or Turf Master" or other approved weed killer is to be applied to the entire grassed or turfed areas at a rate of 4 litres mixed with 200 litres of water per hectare, this being equivalent to 40-45 millilitres mixed with 5 litres of water per fifty square metres. The solution is to be sprayed on with a suitable spraying apparatus to achieve an even distribution. Six to eight weeks later, the operation is to be repeated. The application of weed killer is not to take place during wet weather. Weather conditions should be such as to allow a minimum of two hours or absorption before the likelihood of rain.					
Watering and Rolling: — The entire turfed area is to be kept clear of weeds, lightly rolled and thoroughly watered throughout the period of the Contract and or at least three months from the time of acceptance of the grounds or until the grassing or turfing is well established if that is sooner, all to the satisfaction of the Department.					
In the absence of rain, the initial watering of grassed or turfed areas is to be carried out as follows: —					
Grass planted levelled areas: - at least twice a week.					
Established lawn areas: - at least once a week.					
Turfed areas: - at least once a day for the first ten to fourteen days, thereafter at least once a week.					
The Contractor must allow in his rates for providing and removing at completion all necessary temporary water piping complete with fittings, sprinklers, hoses, etc. as required for the proper watering of the grassed or turfed areas of the plateaux and banks.					
Cutting of Grass: — The Contractor must commence mowing as soon as possible once turfed areas have become established and undertake regular mowing at approximately one-week intervals up to the date of final delivery, except that, during the maintenance period, the mowing of the plateaux will be undertaken by the Institution.					
Note: — All stages of grass planting and turfing are to be supervised on a full time basis by a competent person with the necessary experience and knowledge.					
It shall be the responsibility of the Contractor to advise the Department when the following operations are to be carried out in order that his representative may be present: —					
a) the application of fertilizer					
b) the application of weed killer.					
Should the Contractor fail to do so, the Department shall have the right to instruct the Contractor to repeat the operation at his own expense.					

WATERPROOFING					

GENERAL: — All measurements are nett — no allowance being made for laps in sheet materials or for waste in cutting.
WORKMANSHIP: — All work is to be carried out to the approval of the Department by skilled and qualified workmen and in accordance with the methods prescribed in SANS Code of Practice 021 for waterproofing of buildings.
All work is to be executed in accordance with the instructions issued by the manufacturer of the material being used. Roof coverings and linings are to be laid to the falls, cross falls, etc. provided in the screeds or other surfaces to which they are to be applied.
Surfaces to be waterproofed are to be dry and cleaned of all dust, chips, etc. immediately prior to the commencement of this work and are to be free of any contaminating substances or projections that may damage the waterproofing materials being used.
POLYETHYLENE SHEETING: — is to comply with SANS Specification 952 and bear the SANS mark. The sheeting is to be laid with a minimum lap of 150mm, unless otherwise specified, at angles and junctions with laps sealed in accordance with the manufacturer's instructions.
MASTIC ASPHALT ROOFING: — is to conform to SANS Specification 297 and is to be laid hot in two or three layers, as stated, with each layer of minimum 4mm thickness and laid to break joint with the underlying layer by not less than 150mm.
Prior to the commencement of any work, the specialists who lay the mastic asphalt roofing are to satisfy themselves as to the acceptability of the surfaces upon which the mastic asphalt is to be laid, as the said specialists will be held fully responsible therefore.
Mastic asphalt to surfaces not exceeding 10-degree slope is to be laid in two layers on and including one layer of approved reinforced waterproof building paper lapped 75mm at all edges. Rates are to include for all cutting and waste on building paper.
Mastic asphalt to surfaces exceeding 10 and not exceeding 20 slope is to be laid in two layers on surfaces which have been hacked, grooved or scoured to provide an adequate key. Rates are to include for the necessary preparation of the surfaces.
Mastic asphalt to vertical surfaces and surfaces exceeding 20-degree slope is to be laid in three layers on and including any necessary expanded metal lathing securely fixed to the surfaces to prevent creeping. Where vertical surfaces do not exceed 300mm in height the surfaces to receive mastic asphalt may alternatively be prime coated with a latex based bitumen emulsion primer prior to the application of the mastic asphalt.
Anile fillets to all internal angles are to be run in one operation.
Finishing coats of bituminous-based aluminium paint on mastic asphalt roofing have been measured separately.
FLEXIBLE GLASS-FIBRE REINFORCED POLYESTER WATERPROOFING: — shall be of the type specified, or other approved, supplied and laid in-situ by a specialist sub-contractor, all to the approval of the Department and shall carry a written 10 (ten) year guarantee.
The waterproofing applied in-situ shall consist of one layer of three-ply bituminous felt underlay bonded to the substrate and covered with flexible glass-fibre reinforced polyester waterproofing comprising a chopped strand glass-fibre mat having a minimum mass of 450g / m ² , impregnated with flexible unsaturated polyester resin and finished with two coats of abrasion-resistant flexible unsaturated polyester surface coating which shall not show any sign of the glass-fibre reinforcement. The total mass of the waterproofing (excluding the bituminous felt underlay) shall be not less than 1.8kg / m ² .
Chopped strand glass-fibre mat reinforcement is to comply with the requirements of SANS Specification 419.

All unsaturated polyester resins are to be suitable for their intended use and comply with SANS Specification 713 and are to be ultra-violet ray stabilised.
All flexible glass-fibre reinforced polyester waterproofing is to be finished to approved opaque colours (excluding red or orange tints), is to be properly cured, and is to be free from porosity, blisters, cracks, surface crazing or other defects which may affect its appearance or its performance, with the surface colours consistent throughout.
Samples of flexible glass-fibre reinforced polyester waterproofing are to be submitted to and approved by the Department and all work executed is to be equal to the approved samples.
EXPANSION JOINT SEALANTS: — Polysulphide sealants, where specified, are to be approved polysulphide sealants complying with SANS Specification 110 Type 2, well compacted into joint.
Rates are to include for priming joints where recommended by the manufacturer of the sealant being used with a suitable and approved primer.
All work is to be executed by the manufacturer of the material, or other specialist firm, all in accordance with the manufacturer's instructions.
RATES: — for all roofing and linings are to include for cleaning and preparing the surfaces to be waterproofed as before described, for protecting from damage and cleaning down, flood-testing if required and handing over in an acceptable and guaranteed watertight condition at completion.
Rates for sheet waterproofing materials are to include for all dressing, bending, narrow widths, angles, intersections, cutting and waste and where applicable for the extra material required for lapping and for sealing laps as described.
Rates for roofing described as laid on "flat" roofs are to include for laying to slopes not exceeding 100mm from the horizontal.

CONCRETE, FORMWORK AND REINFORCEMENT

GENERAL: — This specification applies to concrete work formed into its final shape and position in-situ.				
All concrete and formwork shall be carried out in accordance with SANS Specification 1200 G — Concrete (Structural) (a copy of which the Contractor will be required to keep on the site so that it can be referred to at all times during the Contract), with the following amplifications and amendments: —				
INTERPRETATIONS: — Clauses 2.1 and 2.2 of SANS Specification 1200G refer. This preamble, together with any other supplementary preambles appearing in these Bills of Quantities shall be deemed to be the project specification and are the "Portion 2" referred to in Clause 2.2.				
DEFINITIONS: — Clause 2.3 of SANS Specification 1200 G refers. All references to the Engineer shall be deemed to mean the Department.				
MATERIALS				
Cement: —unless otherwise specified, shall be one or more of the following and shall, in each case, comply with the requirements of the relevant standard specification: —				
Portland cement and rapid-hardening cement to SANS 471 Specification				
Portland blast-furnace cement to SANS Specification 626.				
Portland cement 15 to SANS Specification 831.				
Nevertheless, no cement other than ordinary Portland cement shall be used without the approval of the Department. Cement containing more than 15% blast-furnace slag will not be permitted in columns or in members less than 50mm thick.				

In addition (for the abovementioned items) where Ordinary Portland cement is used, blast-furnace slag (from separate containers) must not be added in any proportion whatsoever.	
No mixing of two different types of cement in the same batch will be allowed, and unless otherwise approved by the Department, the same brand and type shall be used in all exposed concrete.	
Lumpy cement, broken sacks and sweepings shall not be used.	
Cement supplied in sacks shall be used in the order in which it was delivered and shall not be kept in storage for longer than six (6) weeks without the approval of the Department.	
Water: — Shall be clean and free from injurious amounts of acids, alkalis, sugar, organic matter and other substances that could impair the strength or durability of the concrete. If so required by the Department, the suitability of the water shall be proved by tests carried out by an approved laboratory.	
Aggregates: — Unless otherwise specified both the coarse aggregate (stone) and the fine aggregate (sand) shall comply with the requirements of SANS Specification 1083. The Contractor is to prove compliance by means of either a certificate from the supplier or by grading analysis tests.	
Admixtures: — i.e. materials other than cement, aggregate and water shall not be used in the concrete mix without the approval of the Department. The onus for proof of satisfaction to the Department for any admixture proposed shall be with Contractor.	
Reinforcement: — for concrete shall be as specified and shall, in each case, comply with one of the following: —	
a	Type A hot rolled mild steel bars of plain round cross section to SANS Specification 920
b	Type C Class 2 hot rolled high yield stress Grade 1 deformed bars to SANS Specification 920
c	Type D Grade 1 cold worked deformed bars to SANS Specification 920.
d	Welded steel fabric to SANS Specification 1024 manufactured from plain hard-drawn mild steel wire.
A sample reinforcing rod, approximately 600mm long, may be taken from each consignment of rods of similar diameter, for testing. If any sample is found unsatisfactory the whole consignment of rods from which the sample was taken will be rejected.	
No substitution of the bars specified shall be made without the prior approval of the Department.	
REINFORCEMENT	
Bending: — Reinforcing bars shall be cut and bent according to the dimensions shown on the working drawings and in accordance with SANS Specification 82.	
Except as allowed for below, all bars shall be bent cold and bending shall be done slowly, a steady even pressure being used without jerk or impact.	
If approved by the Department, hot bending of bars of diameter at least 32mm shall be permitted, provided that the bars do not depend for their strength on cold working. When hot bending is approved, the bars shall be heated slowly to a cherry red heat (not above 840 C°) and after bending shall be allowed to cool slowly in air. Quenching with water shall not be permitted.	
Fixing: — All steel reinforcement, at the time of placing of the concrete, must be free from loose rust, scale, oil and other agents which will reduce the bond between the steel and the concrete or initiate corrosion of the reinforcement. Reinforcement exposed to sea spray shall be washed down, and the formwork drained, just prior to concreting.	

Reinforcement shall be positioned as shown on the working drawings or as directed by the Department and maintained in those positions within the tolerances given in the Specification for Tolerances. It shall be secured against displacement by tying at intersections with 1.6 or 1.25mm diameter annealed wire or by the use of suitable clips or, if permitted by the Department, by welding in accordance with SANS 1856. Welding will not be permitted on cold worked bars. Reinforcement shall be supported in its correct position by hangers, saddles or cover blocks and aligned by chairs and spacers all of approved design and material. Where such hangers, saddles, chairs or spacers are of steel, they will be detailed on the drawings or in bending schedules.

Cover: —The minimum cover of concrete over reinforcement, excluding any applied finish, shall be as shown on the working drawings, or as directed by the Department.

Cover shall be maintained by using cover blocks, which shall be made of small aggregate concrete, not mortar, using the same cement and aggregate type and ratio as the parent concrete. Alternatively, cover blocks may be of the plastic type provided that sufficient number are used to prevent their collapse, that they are of a colour compatible with that of concrete and that the prior approval of the Department is given. Metal cover blocks shall not be used.

If the concrete face has a Class F2 smooth finish or some other special finish as is described elsewhere, hemispherical or pyramid shaped concrete cover blocks shall be used unless otherwise specifically approved by the Department.

Splicing: — or joining of reinforcing bars shall be made only as and where shown on the working drawings or as otherwise approved. The length of the overlap in a splice shall be not less than that shown on the working drawings or forty-five times the diameter of the bar if not shown.

Protection of Exposed Bars: — If left exposed for future bonding of extensions to the works, reinforcement shall be protected from corrosion as specified by the Department.

Electric Current: — Reinforcement shall not be used as a means for conducting electric current unless there is conformity with the requirements of SANS Code of Practice 03.

Inspection of Reinforcement: — Reinforcement shall be subject to inspection by the Department after the Contractor is satisfied that it has been completely and correctly fixed. The amount of notice given by the Contractor to the Department before concreting commences that reinforcement is ready for his inspection shall be agreed between the Department and the Contractor at the commencement of the Contract.

FORM WORK

Design: — Formwork shall be so designed and constructed by the Contractor that the concrete can be properly placed and compacted and that the required shapes, finishes, positions, levels and dimensions shown on the working drawings are maintained, subject to the tolerances given in the Specification for Tolerances. Unless otherwise directed by the Department, all formwork to beams and slabs shall be evenly cambered, unless otherwise specified or shown on the drawings, to the mid-point of the span of the member at the rate of 2mm per metre of span, all to the approval of the Department and the full cross section of the member shall be maintained after placing of concrete.

The formwork and joints shall be capable of resisting the dead load and pressure of the wet concrete, effect of vibration equipment, wind forces and all other superimposed loads and forces it is necessary for it to carry.

Should it be necessary to support formwork off suspended or ground bearing slabs, the manner of execution of the support shall be agreed with the Department so that overstress of, or damage to, those members is prevented.

In structures having, in whole or part, two or more reinforced concrete floors, props to the approval of the Department shall be provided under the soffits of beams and slabs of any floor which is being used to support the formwork and new concrete of the floor above. These props shall not be removed until the formwork for the new concrete has been struck.
Wedges and clamps shall be used in preference to nails. Joints in forms shall be tight enough to prevent leakage of cement paste.
Finish: — The quality of the finished surface of the concrete shall be as shown on the working drawings or as otherwise specified, and the type of formwork used shall be adequate to provide such finishes.
Ties: — The type of ties used and their position shall be such that the finish required in terms of the clause "Finish" is achieved. Tie rods are preferable to wire ties and the forms shall not be secured to the reinforcement. No corrodible tie rod or wire tie shall be allowed within the depth of concrete cover, and in the case of water-retaining or tanked structures, no removable tie rod or wire shall pass right through the concrete member.
Preparation of Formwork: — Surfaces that are to be in contact with fresh (wet) concrete shall be so treated by coating with a non-staining mineral oil or other approved material, or, in the case of timber forms, by thoroughly wetting surfaces so as to ensure easy release and non-adhesion to formwork during stripping. If any substance other than water is used, every precaution shall be taken to avoid contamination of the reinforcement.
Re-use of Formwork: — Before re-use, all formwork shall be reconditioned, and all form surfaces that are to be in contact with the concrete shall be thoroughly cleaned without unduly damaging the surfaces of the formwork.
Openings: — Where necessary for the proper placing of the concrete, temporary openings for cleaning, inspection or placing purposes shall be provided, taking cognisance of the finishes specified.
Removal of Formwork: — Formwork shall not be removed before the concrete has attained sufficient strength to support its own mass and any loads that may be imposed on it. Except where the Contractor can prove by means of cube tests, at his own expense to the satisfaction of the Department that, because of its strength development characteristics the concrete has attained sufficient strength and that shorter periods are practicable, formwork shall not be removed within shorter periods than those given in Table A. The number of cube tests required shall be equal to the number required for testing at 28 days. Where full design loads are carried, no soffit forms and props may be removed until the full design strength is attained.
In structures having, in whole or part, two or more reinforced concrete floors, props to the approval of the Department shall be provided under the soffits of beams and slabs of any floor which is being used to support the formwork and concrete of the new floor above. These props shall not be removed until the formwork for the new concrete has been struck.
All formwork props shall have been removed from under beams and slabs before the commencement of construction of brickwork thereon, unless otherwise agreed with the Department. Formwork shall be removed carefully so that shock and damage to the concrete are avoided.
* Shorter periods may be used for sections of thickness 300mm or more.
+ In cool weather, stripping times shall be determined by interpolation between the periods specified for normal and cold weather.
CONCRETE QUALITY
General: — Concrete shall comply with the requirements for "Strength Concrete" as specified. The type of aggregate and cement, and their sources of supply, shall not be altered during the currency of the Contract without the prior written agreement of or instruction from the Department.

Strength Concrete: — The Contractor shall be responsible for the design of the concrete mix and for the proportions of its constituent materials, measured as described, necessary to produce concrete that complies with the requirements specified by the Department thus:-	
a	For each section of the work, the class of concrete and position on the Works, as shown on the drawings:
b	For each class of concrete:
i	the minimum compressive strength at 28 days as shown in Table B
ii	the maximum nominal size of coarse aggregate as shown in Table B
iii	the slump as shown in Table D
iv	the maximum cement/water ratios as shown in Table C.
At the earliest possible stage in the Contract, at least 35 (thirty-five) days before the first concrete is placed, or as otherwise agreed with the Department, the Contractor shall submit samples of the aggregates which he proposes to use on the works to the Department.	
The Contractor, under the supervision of the Department, shall prepare trial mixes using these same aggregates, to establish his ability to achieve the strengths specified, and satisfactory workability of the concrete. The Contractor shall provide all necessary equipment for, and carry out tests of moisture content of aggregates at the time of preparation of the trial mixes, tests of the slump of the mixes and at the same time cast not less than six standard cubes from each mix for compression tests.	
	The target strengths to be achieved under trial mix procedure shall exceed the specified minimum compressive strengths by a factor which is acceptable to the Department.
	The Contractor shall also, when required to do so, prove the concrete yield obtained per sack of cement by suitable measurement of batches after placing.
	No structural concrete work shall be poured until trial mix procedure has been properly followed and satisfactory 7 (seven) day compression strengths achieved. (Equivalent 28 (twenty-eight) day strength = $\frac{4}{3} \times 7 \text{ day strength} + 5 \text{ MPA}$).
	Thereafter, the materials, preparation of and method of manufacture of subsequent concrete shall conform accurately to those used in the trial mixes. If materials vary in the course of the Contract from the samples first submitted, the Contractor shall, on the instructions of the Department, repeat the trial mix procedure and vary the proportions to attain the specified qualities.
	The costs of preparation of trial mixes, with tests associated with them, shall be borne by the Contractor and must be allowed for in the pricing of the concrete.
	A valid concrete test result shall be the average obtained from the testing of three test cubes of concrete in accordance with SANS Method 863.
The Contractor shall be deemed to have satisfied himself, before tendering, of his ability to produce concrete of the required quality with available materials conforming to the specification, and mixed in the proportions on which his tendered rates are based. Any subsequent alterations of the mix proportions to meet these requirements shall be at the Contractors expense.	
If, in the opinion of the Department, the concrete proportions are likely to lead to excessive segregation, honeycombing, bleeding or shrinkage cracking, he shall have the right to order the Contractor to amend the proportions at the Contractors own cost.	
* In these cases the ratio will be based on the strength for the workability desired.	
Consistency and Workability: — Slump measurements taken in accordance with SANS Method 862 shall be within the limits given in Table D appropriate to the type of construction, or within such other limits as are laid down by the Department.	

The concrete shall be of such workability that it can readily be compacted into the corners of the formwork and around reinforcement without segregation of the materials or excessive "bleeding" of free water at the surface.

Ready-mixed Concrete: — This may be used subject to the approval of the Department. This approval may be withdrawn on 24 (twenty-four) hours notice to the Contractor if at any time if documents do not conform to the requirements of this Specification. Ready-mixed concrete shall also comply with the requirements of SANS Specification 878. Details of the mix ingredients and tests thereon, the mix designs and relevant tests shall be forwarded to the Department for his approval. Ready-mixed concrete shall be cast within 3 (three) hours of placing all the ingredients in the mixing plant. Ready-mixed concrete shall be subject to the same sampling and testing at the site as that mixed on site and only the results of these tests will be regarded as valid.

TRANSPORTATION AND PLACING

Transportation: — Unless agreed with the Department, concrete shall not be pumped into its final position.

The Contractor must provide suitable runways for the distribution of concrete to the various parts of the structure and these must be solidly constructed in such a manner so as to obviate the possibility of interference with the steel reinforcement.

Placing: — Unless otherwise agreed with the Department, the Contractor shall give the Department at least 24 (twenty-four) hours notice of his intention to place concrete. No concrete shall be placed without the prior approval of the Department and without a representative of the Department being present. Concrete shall be placed within one hour of the time of its discharge from the mixer. Concrete shall not be re-tempered by the addition of water or other material. The forms to be filled shall be clean internally. All excavations and other surfaces of an absorbent nature that are to come into contact with the concrete shall be dampened with water. There shall be no free-water on the surface against which concrete is to be placed. Wherever possible, the concrete shall be deposited directly into its final position to avoid segregation and displacement of reinforcement and other items that are to be embedded. Deposited concrete shall not be so worked (whether by means of vibrators or otherwise) as to cause it to flow laterally in such a way that segregation occurs. Where possible, the concrete shall be brought up in horizontal layers of compacted thickness not exceeding 450mm and heaping shall be avoided.

Where a chute is used to convey the concrete, its slope shall be such as will not cause segregation, and a suitable spout or baffles shall be provided for the discharge of the concrete. Concrete shall not be allowed to fall freely through a height of more than 3 m, unless otherwise approved. Concrete shall not be placed during periods of heavy or prolonged rainfall.

Compaction: — The concrete shall be fully compacted by approved means during and immediately after placing. It shall be thoroughly worked against the formwork and around reinforcement and other embedded fittings without displacing them.

The concrete shall be free of honeycombing and planes of weakness. Successive layers of the same lift shall be thoroughly worked together.

The method of compaction shall be as specified. Mechanical compaction shall be undertaken by means of high frequency immersion vibrators of minimum frequency of 6000 vibrations per minute and a maximum acceleration of 4 g when under load, being capable of visibly affecting concrete over a radius of at least 500mm. Vibrators shall be inserted at about 500mm centres and withdrawn slowly to close the hole formed by the vibrator.

Non-mechanical compaction shall be undertaken by means of spading, rodding or forking.

Over-compaction resulting in segregation, surface laitance or leakage (or any combination of these) shall not be allowed.	
Vibrators shall not be allowed to come within 30mm of the face of the formwork in the case of formed finishes, nor within 75mm of the face of the formwork in the case of special finishes.	
Construction Joints: — Concreting shall be carried out continuously up to the construction joints shown on the working drawings or as prior approved by the Department, except that if, because of an emergency (such as a breakdown of the mixing plant or the occurrence of unsuitable weather), concreting has to be interrupted a construction joint shall be formed at the place of stoppage in conformity with the detail shown on the drawings for construction joints generally and in the manner which will least impair the durability, appearance and proper functioning of the concrete. The Department shall approve the method adopted for forming the construction joints, one of the following methods being adopted, as relevant: —	
a) Construction joints when concrete is not more than 24h old: —The surface of the concrete shall be brushed with a steel wire brush before new mortar and concrete are placed as specified in (b) below.	
b) Construction joints when concrete is more than 24h but not more than 3 days old: — The surface of the concrete shall be sand-blasted or chipped with a light hammer, swept clean, and thoroughly wetted and covered with a 10mm thick layer of mortar composed of cement and sand mixed in the same ratio as the cement and sand in the concrete mixture. This mortar shall be freshly mixed and placed immediately before the new concrete is placed.	
c) Construction joints when concrete is more than 3 days old: — The procedure specified in (b) above shall be followed, except that the old surface shall be prepared and kept continuously wet for at least 24h before the mortar and new concrete are placed.	
d) Construction joints at tops of columns: — The procedure for brushing or cleaning specified in (a) or (b) above, as applicable, shall be followed before the steel reinforcement of the slab or floor to be cast on the columns is placed in position.	
Curing and protection: — Formwork shall be retained in position for the appropriate period given in the clause "Removal of Formwork" and shall be considered as providing adequate curing on those surfaces for that period. Should this curing period still be less than that specified, alternatively, should surfaces not be cured by forms then all such concrete shall immediately be protected from contamination and loss of moisture by one or more of the following methods: —	
a	ponding the exposed surfaces by means of water, except where atmospheric temperatures are low, i.e., less than 2°C,
b	covering the concrete with sand, or mats made of a moisture-retaining material, and keeping the covering continuously wet;
c	continuous spraying of the exposed surfaces with water;
d.	covering with a waterproof or plastic sheeting firmly anchored at the edges,
using a prior approved curing compound applied in accordance with the manufacturer's instructions, provided that in this case, the presence of the compound is not detrimental to subsequently applied finishes.	
Whatever method of curing is adopted, its application shall not cause staining, contamination, or marring of the surface of the concrete.	
The curing period shall be at least 5 days for concrete made with Portland cement, at least 2 days for that made with rapid-hardening Portland cement and at least 7 days if Portland blast-furnace cement is used. When atmospheric temperatures are below 5° C these minimum curing periods shall be extended by 72, 36 and 72 hours respectively.	

CONSTRUCTION DETAILS

Holes, Chases and Fixing Blocks: — No holes or chases other than those shown on the working drawings or approved by the Department shall be cut or otherwise formed in the concrete. No blocks for the attachment of fixtures shall be embedded in the concrete unless approved by the Department.

Pipes and Conduits: — No pipes or conduits other than those shown on the working drawings shall be embedded in the concrete without the approval of the Department. The clear space between any such pipes and the clear distance between such-a pipe and any reinforcement shall be at least 25mm or the maximum size of the coarse aggregate plus 5mm, whichever is greater. The amount of concrete cover over pipes and fittings shall be at least 25mm.

Honeycombing and Other Defects: — After removal of the forms, if the concrete shows any defect in terms of the Specification for Finishes for that concrete, the Contractor shall, on the instructions of the Department, make good the defect at his own cost, by either removing and replacing the defective concrete, or by patching, all as approved by the Department and to the standard of finish required. No remedial work shall be carried out by the Contractor without the prior approval of the Department.

Building on Concrete Footings: — No structural load shall be imposed on concrete footings until at least three days after depositing the concrete in the case of mass concrete footings and after seven days in the case of reinforced concrete footings, or as may be directed by the Department.

RECORDS: —The Contractor shall maintain written records indicating: —

a	the date on which each section was concreted, the time taken to place the concrete, and the position of that section in the Works and its construction joints;
b	daily weather conditions with temperatures being recorded by maximum and minimum thermometers and
c	the nature of samples and dates on which they were taken. In the case of cubes these shall also state the identification marks, test results and age, minimum strength required and position of parent concrete.

TESTS

Compressive Strength: — During the time in which each class of concrete, having a specified 28 day compressive strength equal to or greater than 20 MPA, is being placed, samples of the concrete shall be taken from the point of deposit at the rate of at least one sample from each 5m³ of concrete placed in columns, and from each 30 m³ or part thereof of concrete placed elsewhere, but in either case, nevertheless at least once a week. A group of at least three 150mm test cubes shall be made from each sample for testing at 28 days age. If the Contractor plans to execute further work which relies on previously completed work for support but for which the results of 28 day tests are not available, he is to prove the strength of that concrete by taking and testing at 7 days age an equal number of test cubes to that which is to be tested at 28 days age, prior to the commencement of the planned further work.

The cost of the necessary extra test cubes and testing will be for the Contractor's account. Each group of test cubes shall be deemed to represent the whole of the concrete from which sample was taken and shall be identifiable with the concrete.

The Contractor shall provide, at his own expense, sufficient moulds to keep pace with the rate of concreting. He shall also perform all tasks in respect of compressive strength testing except the actual crushing.

If ready-mixed concrete is used, site testing as specified herein shall still be undertaken, and only the results of such site testing shall be considered in determining the acceptance or otherwise of the concrete.

Grading Analysis: — If so directed by the Department, a grading analysis shall be made for each 40m ³ of fine aggregate to be used and for each 75 m ³ of the coarse aggregate to be used. The analysis shall be made by the method given in SANS Specification 1083.	
	Determination of Consistency: — When the slump test is used to measure the consistency of the concrete mix, it shall be carried out by the method given in SANS Method 862 with samples taken in accordance with SANS Method 861.
Costs of Tests: — to concrete, trial mixes, cement, aggregates, water and reinforcing steel shall be borne by the Contractor. The Contractor shall also bear the costs of any other tests (including load tests), which are required as a result of failure on the part of the Contractor to meet the requirements of the Specification.	
An item against which the Contractor may allow for all costs in connection with tests on concrete cubes has been included elsewhere in these Bills of Quantities.	
Testing Authority: — The crushing of cubes and testing of other samples except in the case of the clause "Determination of Consistency" shall be undertaken by an independent Authority as approved by the Department. The Contractor shall arrange with the Authority that copies of the results of all tests are sent direct to the Department.	
ACCEPTANCE CRITERIA FOR STRENGTH OF CONCRETE: — Should any test result obtained from a set of three test cubes of concrete of a specific grade that have been made and tested as specified show that the strength is more than 3 MPA below the specified strength, the concrete represented by such results shall be deemed to have failed to meet the Specification. Should an examination carried out in terms of the clause "Procedure in the event of failure" satisfy the Department that the structural adequacy and durability of that part of the structure where the concrete concerned has been used, is not impaired, the concrete will be acceptable. The Contractor will however be required to review the mix design and any other factors influencing the quality to ensure that further concrete is acceptable.	
Where three or more consecutive valid test results (i.e., results of sets of three test cubes that have been made and tested as specified) become available, the following criteria shall apply: —	
a	The average of any three consecutive valid test results obtained on concrete of a specific grade must exceed the specified strength by at least 2 MPA.
b	If the criterion given in (a) above is not met but the average is at least equal to the specified strength, the concrete cast will be acceptable but the Contractor will be required to adjust the mix design and standard of control.
c	Should the average result be less than the specified strength, an examination must be carried out in terms of the clause "Procedure in the event of failure" on that part of the structure in which concrete represented by the result has been used.
Alternatively, should a concreting operation be of such size or the testing be of such frequency that thirty or more valid test results (i.e., results of sets of three test cubes that have been made and tested as specified) become available within three months, the Contractor may choose, subject to the approval of the Department, to have the results assessed statistically. In such a case, the average of all the test results of a specific trade of concrete at <i>any stage</i> must exceed the specified strength by at least 1,7 standard deviations, failing which the Contractor will be required to adjust the mix design to ensure compliance with this criterion.	
a	An assessment of the stress level in the structure concerned in relation to the test result obtained.
b	Non-destructive testing, subject to the availability of similar concrete of proven acceptable quality in comparable members in the same construction as a reference.
c	The testing of drilled cores in accordance with the relevant SANS Standard Methods.
d	Full scale load tests in accordance with Section 6 of SANS Code of Practice 0100: Part II.

Where load tests are, in the opinion of the Department, unsuitable or impracticable, and if an examination carried out in terms of the above does not show the concrete strength to be acceptable, or if a tested portion of the structure fails to pass the tests, the Contractor shall, on the instructions of the Department, replace or strengthen by approved means: —	
a	each portion that failed or contains concrete that failed, as relevant, and
b	any other portion, irrespective of strength, the functional purpose of which is affected by the portion or concrete referred to in (a) above.
NON-STRUCTURAL PRESCRIBED MIX CONCRETE: — Concrete for non-structural purposes shall be "Prescribed mix concrete" produced in accordance with the requirements indicated in the table below, and the Contractor is also referred to the foregoing Preambles insofar as they apply: —	
TABLE E – PRESCRIBED MIX CONCRETE FOR NON-STRUCTURAL PURPOSES	
Class of Concrete	
Estimated minimum compressive strength in MPA at 28 days	
	A: 1
	B - 15
	C - 20
Maximum nominal size of coarse aggregate in mm	
	A - 37,5
	B, C - 19,0
Proportion of constituents	
Cement	
	A,B,C - 1
Fine aggregate	
	A - 4
	B - 3
	C - 2.5
Coarse aggregate	
	A - 8
	B - 5
	C - 3.5
Cement and aggregates shall be mixed by volume and the contents of a 50 kg sack of cement shall be taken to be 0.033 m ³	
The cement / water ratios and the maximum and minimum slumps for concrete shall be as previously listed in Tables C and D.	
The Department shall have the right to vary the proportions of the constituents in any of the prescribed mixes as necessary to obtain the required compressive strength, optimum density and workability of the concrete. Any variation in the rates of the concrete will only be considered if the proportion of cement to the total volume of aggregate, in each case, is varied from that Specified.	
Notwithstanding any requirements previously described, the Department may permit certain items of non-structural concrete in small quantities to be mixed by hand.	
Where concrete is mixed by hand, the coarse aggregate shall be spread out on a timber, concrete or metal platform in a flat heap, the sand-then spread evenly over the heap, followed by the cement also spread evenly, and the whole thoroughly mixed by shovelling from the centre to the side to form a ring, then back to the centre and again to the side. Water shall then be poured into the ring and the materials mixed into it and then back into the ring, the remainder of the water then added slowly as materials are mixed into it. Mixing shall continue until the colour is uniform and the consistency the same throughout the pile.	

"NO-FINES" CONCRETE: — shall consist of one part of cement to eight parts of 19mm aggregate (1:8—19mm stone) with a water/cement ratio of approximately 0, 46. This water/cement ratio may be varied slightly to suit conditions on approval by the Department.

The quantity of water used shall be just sufficient to form a smooth grout, which shall completely coat every particle of aggregate, and also to ensure that the grout is just wet enough to form a small fillet at each point of contact between the stones. 'No-fines' concrete mixed with excessive water, which results in a thin grout which drops off the aggregate, will be rejected.

"No-fines" concrete shall be placed in its final position within 20 minutes of mixing and shall be placed in continuous horizontal layers. "No-fines" concrete shall be spade worked sufficiently to ensure that it fills the forms but vibrating, tampering or ramming will not be permitted.

BREEZE CONCRETE: — shall consists of one part cement to eight parts clean dry furnace ashes, the ashes being free from all coal or other foreign matter and graded up to particles which will pass a 26. 5mm ring from a minimum which passes a 4.75mm mesh. The finer materials from the screening to be first mixed with the cement into the mortar and the ashes added afterwards and thoroughly incorporated. The breeze concrete is to be mixed in batches not exceeding 0, 1 in 3 and each batch is to be immediately placed in position. The ashes for breeze concrete are to be obtained in an unscreened state and are to be kept dry so that sufficient fine material will be obtained from the screening to make the mortar.

FINISHES TO IN-SITU CONCRETE

Formed Finishes: — are the concrete surface finishes developed using formwork and whose standard of finish in each class shall be as described.

The Department shall be informed by the Contractor of any defect in terms of this Specification, and no remedial work shall be carried out by the Contractor without the prior approval of the Department. Any defect shall be made good at the Contractor's expense by either removing and replacing the defective concrete, or, in certain instances only, by patching, all as approved by the Department and to the standard of finish required.

Class F1 Ordinary Finish: — Formwork panels shall be of such quality that upon removal, the concrete is true and even, free from fins and recesses greater than 5mm size, honeycombing, large air holes and the like. Bolt holes shall be filled if so required by the Department.

Class F2 Smooth Finish: —This class of finish requires a high standard of concrete work, formwork and technique.

Concrete placed in any one structure to give this finish shall be made from cement and aggregates from the same source, and similarly, the grading of the aggregate shall be kept constant.

Formwork shall be metal or wrot timber in a new condition designed and constructed to suit the particular job in hand and with shutter bolts and joints between panes in a pattern approved by the Department. Joints between panels shall be watertight, but the use of sealing tape, which marks the concrete, shall not be permitted.

Construction joints shall be in the position and of the detail shown upon the working drawings. Should the Contractor wish to incorporate further construction joints or amend the position of those shown to suit his own requirements or technique, this may be allowed provided that all design considerations are met, that the prior approval of the Department is obtained and that any extra costs are borne by the Contractor. In the case of horizontal construction joints, the top edge of the concrete on the Class F2 smooth finish side is to be struck true and level with a trowel.

Special care shall be taken to ensure that forms are clean of all pieces of tying wire, nails and other debris at the time of concreting.	
The standard of finish shall be such that, upon removal of the formwork, no further treatment, other than treatment of bolt holes if required shall be found necessary to provide a straight, smooth and uniform finish of good quality and consistent colour and texture, free of all honeycombing and large air holes.	
UNFORMED FINISHES: — are those concrete surface finishes developed without the use of formwork -	
Class U1 Ordinary Finish: — Immediately after placing, the concrete shall be finished by screeding with the edge of a wooden board of straight and true line and working between guides set accurately to level. No mortar shall be added and noticeable surface irregularities caused by the displacement of coarse aggregate shall be made good by re-screeding after removing or tamping down the offending aggregate.	
Class U2 Wood Float Finish: — The concrete surface shall first be brought to the standard Class U1 ordinary finish and then floated with a wood float. Floating shall be started as soon as the screeded finish is stiffened sufficiently and the bleed water has evaporated or been removed and it shall be the minimum necessary to produce a surface free from screed marks and uniform in texture.	
Class U3 Steel Trowel Finish: — The concrete surface shall first be brought to the standard of Class U2 wood float finish with floating being continued until a small amount of mortar without excess water is brought to the surface and then when the floated surface has hardened sufficiently to prevent any more excess fine material from being drawn to the surface, troweling with a steel trowel. Troweling shall be performed with firm pressure such as will flatten the sandy texture of the floated surface and produce a dense uniform surface free from blemishes and trowel marks. Gradual surface irregularities shall not exceed 5mm over any 3m. The sprinkling of sand and/or neat cement on the surface to absorb excess moisture shall not be permitted.	
Class U4 Power Float Finish: — The concrete surface shall first be brought to the standard of Class U1 ordinary finish using wooden screeding boards or steel rollers. After evaporation or removal of all bleed water and immediately the concrete is stiff enough to support the machine the surface shall be closed with a mechanical power float and then finished with a mechanical power trowel. The texture of the finished surface shall be either non-slip or polished as shown on the drawings. Irregularities shall be of long wavelength not exceeding a curvature of 2mm in 600mm. Under no circumstances shall sand and/or neat cement be sprinkled over the surface either to absorb excess moisture or to fill surface blemishes or irregularities. Power floats and trowels shall be operated by skilled operators.	
TOLERANCES: — Clause 6 of SANS Specification 1200G refers. Unless otherwise agreed by the Department, 'Degree of Accuracy' shall apply to all concrete work and steel reinforcing.	
SUPERVISION: — The construction of all concrete work shall, at all times, be under the supervision of a competent person experienced in the production and placing of high-grade concrete. He shall personally supervise all work relating to the concrete construction and pay special regard to: —	
a	The quality, testing and mixing of materials.
b.	The finish, stability and cleanliness of formwork and excavations.
c	The cleanliness, correct positioning and maintenance in position of steel reinforcement.
d	The transporting, placing, compacting and curing of the concrete. The construction and stripping of formwork.
e.	The production of samples, test cubes, slump and other tests.
	GENERAL
Measurement and Payment: — The provisions of Clause 8 of SANS Specification 1200G will NOT apply and the system of measurement that is adopted in these Bills of Quantities is the only system of measurement that will be recognised in this Contract.	

No deductions have been made for pipes not exceeding 200mm internal diameter, reinforcement, conduits, structural steel, bolts and the like.
Rates for Concrete: — are to include for mixing, handling and depositing (by hoisting or lowering) in the forms. Rates for items of reinforced concrete are to include for thoroughly working and packing around the steel reinforcement. All reinforcement, except where otherwise described, has been measured separately.
Rates for concrete surface beds are to include for laying in suitable size panels not exceeding 20m ² or as may be directed. The Contractor is to allow in his pricing of the concrete for all construction joints.
Striking off and Curing: — of concrete slabs and surface beds has been measured separately. The rates for all other items of concrete including stairs and landings and concrete bindings, are, except where otherwise described, to include for all necessary striking off of surfaces and curing.
The rates for items of striking off and curing top surfaces of concrete shall, unless otherwise described, apply to level surfaces.
Where exposed sloping surfaces of concrete do not exceed the limits of pitches laid down for the measurement of back shuttering, the striking off and curing of the sloping top surfaces has been measured in the case of concrete slabs and surface beds, and in other-cases provision has been made for dressing the concrete surfaces to splay.
Where items of striking off and curing are described as to falls or ramps this shall include cross-falls, etc.
The rates for striking off and curing of surface beds formed in panels must also include for all necessary temporary formwork in forming the panels.
Rates for Formwork: — are to be for use and waste only (except where described as "permanent") and are to include for fitting together in the required forms, propping, strutting, shoring, wedging, plumbing and fixing to true angles and surfaces, cambering formwork to slabs and beams where required, preparation and treatment of surfaces as necessary to ensure easy release during stripping, reconditioning as necessary before re-use, providing necessary temporary openings for the purpose of cleaning, inspection and placing of concrete, and for all straight cutting, splayed edges, intersections, notching and narrow widths, including waste and properly fitting at intersections, maintaining in position for periods as directed and for striking and removing.
Rates for items of formwork to soffits of slabs and to sides and soffits of beams, lintels and the like are to include for horsing exceeding 1,5m and not exceeding 4,5m high unless otherwise stated in the items.
Rates for formwork to soffits of stairs and landings are to include for all necessary horsing.
Rates for Permanent Formwork: — are to include for leaving in all formwork, props, etc. as permanent formwork shall be regarded as not being recoverable.
Rates for Steel Fabric Reinforcement: — are to include for lapping the reinforcement at all edges, as specified, for all cutting and waste, notching, etc. bending where required, wiring together at laps and for maintaining in position during placing of concrete.
Rates for Steel Bar Reinforcement: — are to include for all cutting, bending, hooked ends, wiring together at passing points, hoisting or lowering to the required levels, fixing in accordance with the detail drawings, cover blocks and maintaining in position during placing of concrete. The mass of mild and high yield stress steel bars shall be based on the values shown in Table E1 of SANS Specification 920— Appendix E (with no allowance being made for rolling margin and waste).

The mass of the binding wire required for fastening the reinforcement together is not included in the mass of the reinforcement. Provision for the cost of this wire shall be deemed to have been made by the Contractor in calculating the unit rate for the net mass (i.e. excluding the mass of binding wire) of the reinforcement.

BELOW GROUND WATER RETICULATION

Unplasticised polyvinyl chloride (UPVC) piping and fittings shall be of approved manufacture complying with SANS Specification 966. Pipes must be of the class specified and must be marked with the manufacturer's name, trade name or registered trademark, nominal diameter, class reference and the SANS mark. Pipes shall be laid and jointed in accordance with the manufacturer's instructions.

High density polyethylene (HDPE) piping shall be of approved manufacture complying with SANS Specification 533 and shall be of the class specified, laid and jointed in accordance with the manufacturer's instructions. Piping must be jointed with compression fittings with compression rings and coupling nuts.

High Density Polyethylene / Polypropylene / Multilayered piping shall be of approved manufacture, complying with SANS Specification 15875-1-2004 & 2/2003 & 1315, laid and jointed in accordance with the manufacturer's instructions.

Copper piping shall be of approved manufacture complying with SANS Specification 460 and shall be of Class 2. Pipes must be jointed with brass compression fittings with compression rings and coupling nuts complying with SANS Specification 1067 Part I Type 'A'. Copper piping must be bent, where required, with an approved bending machine.

ABOVE GROUND WATER SUPPLIES

Colour Coding Cold Water Supply the exposed piping for this non potable (recycled) water shall be colour banded Brilliant Green (B49) / Yellow Band(H10).

The other exposed piping for potable (drinkable) water shall be colour banded Brilliant Green (B49) / Blue Band(F29)

Galvanized mild steel piping for water supplies shall be medium quality screwed and socketed normalised welded mild steel pipe, galvanized inside and outside, and shall comply with SANS Specification 62.

Fittings to galvanized mild steel piping shall be steel pipe fittings complying with SANS Specification 62 or malleable cast iron fittings complying with SANS Specification 509.

Copper piping shall be of approved manufacture, complying with SANS Specification 460 and shall be of Class 2 – fixed and jointed in accordance with the manufacturer's instructions. Class 2 copper piping must be jointed with brass compression fittings with compression rings and coupling nuts complying with SANS Specification 1067 part I Type 'A'.

Polypropylene / Multilayered Piping shall be of approved manufacture, complying with SANS Specification 1315, laid and jointed in accordance with the manufacturer's instructions. This applies to hot and cold water supply within ceiling spaces also.

Stainless steel piping shall be of approved manufacture, complying with SANS Specification 4127 and shall be A.I.S.I. Type 304 L. Fittings to stainless steel piping not exceeding 50mm nominal bore shall be brass compression fittings with compression rings and coupling nuts.

Piping exceeding 50mm nominal bore shall be welded piping with 1.5mm wall thickness, unless otherwise stated, and of A.I.S.I. Type 316 stainless steel. Joints are to comprise approved A.I.S.I. Type 316 stainless steel pressed collars

welded to ends of pipes and fittings with loose galvanized mild steel slip-on flanges complete with galvanized mild steel bolts, nuts and washers, and neoprene gaskets. Fittings must be A.I.S.I. Type 316 stainless steel butt weld fittings.

Phosphoric acid based fluxes must be used for all welded joints which are to be argon arc TIG welded using Type 316 filler rods, with the welds treated with suitable pickling compound.

WATER TAPS AND VALVES: — Water taps, stopcocks, ball-o-cocks and wheel valves shall be of approved manufacture complying with SANS Specification 226.

Ball valves with brass valve and copper or plastic ball float shall be of approved manufacture complying with SANS Specification 1056. Plastic floats when supplied, must comply with SANS Specification 1006.

Full Bore Teflon Seated Ball Valve shall be of approved manufacture complying with SANS Specification 664. Valves shall be clockwise closing with non-rising, cap-fitted spindles and flanked connections and of the class specified.

Pressure reducing valves shall be of approved manufacture complying with SANS Specification 198.

FIXING OF WATER PIPES: — Galvanized mild steel water piping shall be fixed, unless otherwise described, to walls or ceilings with galvanized malleable iron holderbats (school board pattern), built into walls in 1:3 cement mortar. Pipes shall be fixed to timber work with galvanized mild steel pipe clips screwed on.

Copper and stainless steel water piping shall be fixed, unless otherwise described, to walls or ceilings with brass holderbats (school board pattern) built into walls in 1:3 cement mortar. Pipes shall be fixed to timber work with brass or copper pipe clips screwed on.

Polypropylene / Multilayered Piping - shall be fixed to walls according to manufacturers recommendations.

CONCRETE THRUST AND ANCHOR BLOCKS: — shall be of the sizes required and provided where directed to anchor the water pipelines against the thrust due to hydrostatic pressure. Concrete blocks shall be cast against the undisturbed face of the excavation. Backfilling behind the thrust face of the block will not be permitted.

TESTING OF WATER MAINS: — The whole of the water reticulation shall be subjected to a hydraulic test pressure 1.5 times the maximum working pressure of the pipeline. Testing of pipelines may only commence after the installation of all anchor blocks, valves and fittings have been completed. Testing shall be carried out between installed sluice valves whenever possible. Where this is not possible the ends of the pipes shall be sealed with end caps properly held in place with temporary props.

The tests shall be carried out on lengths not exceeding 300 metres.

The pipeline shall be filled from the lowest end in order to expel the air at the upper end through special taps or through service connections, stand pipes, etc. When full the line shall be allowed to stand for 24 hours and any further accumulated air shall be expelled. The full test pressure shall then be applied and maintained for one hour, during which time the line will be examined for any leaks, movement at anchors and other defects.

Any defective work is to be taken out and replaced at the Contractor's expense and the whole retested until found satisfactory.

The Contractor shall provide all necessary testing apparatus, temporary end caps, plugs, stoppers, special taps and any other materials that may be required, and all labour for carrying out the tests.

EXCAVATIONS FOR PIPE TRENCHES: — Excavations for pipe trenches, gulley traps, manholes, inspection chambers, valve, chamber, soakpits and septic tanks shall be to the depth and gradients shown on the drawings using sight rails and boning rods and shall include for taking precautions against collapse of sides of excavations, staging, pumping and baling to keep the excavations free from water or mud and for filling in and ramming.

The bottoms of pipe trenches are to be excavated to even falls. The barrel of the pipe, except where it is laid on a sand or concrete bed, must rest on solid ground and hand-holds of sufficient size must be cut under pipe joints to enable the jointing and filleting to be properly performed. Any excavations taken out deeper than required shall be made up to the correct grade with well rammed earth. In intermediate or hard rock excavation and where a bedding is not specified, the trench bottom must be excavated 100mm deeper than required for the grade and be backfilled with well rammed earth.

The Contractor is to notify the Department when the trenches are ready for inspection and approval. Any work put in hand before approval has been given shall, if so required, be replaced with new at the Contractor's expense.

Notwithstanding such approval of the trench bottoms, any excavations which become waterlogged or otherwise spoilt after approval, shall be cleaned out and reformed at the Contractor's expense and to the satisfaction of the Department before any piping or sand or concrete beds are laid.

Depths of excavations as approved shall be checked and recorded by a Departmental Official and the Contractor before excavations are filled in.

For the purpose of any measurement, whatever size may have been excavated, excavations are taken as follows: — Trenches not exceeding 0.75m deep shall be taken 0.5m wider than the internal diameter of the pipe. This width shall be increased by 75mm for each successive depth of 0.75m to a maximum of 1m wider than the internal diameter of the pipe.

BACKFILLING: — No trench shall be backfilled until the Department is satisfied that the works therein have been satisfactorily completed, tested and are ready for backfilling.

The backfilling around and 300mm above the pipe is to be of approved selected material, imported if necessary, free from rock or stone, carefully packed, watered and lightly rammed equally on either side of the pipe and then filled in above this level with suitable material from the excavations, watered and compacted in layers not exceeding 300mm thick with the top 300mm consolidated to dry density of not less than 95% MOD. A.A.S.H.O. density. Topsoil from the excavation is to be set aside and used in the final layer of backfilling.

Any disturbance of or damage to the pipes during backfilling must be made good by the contractor at his own expense.

All spoil from the excavations for trenches, etc. shall be deposited and levelled on site or carted away as directed. Any subsidence or depressions below the level of the adjacent ground shall be filled in, as and when necessary, until the end of the maintenance period.

SIZES OF PIPES: The diameters stated for galvanized mild steel piping, cast iron piping, vitrified clay piping and asbestos cement pressure piping (C.I.D.) are the nominal internal diameters. The diameters stated for all other pipes are nominal external diameters.

In the case of piping and fitting which are manufactured in imperial diameters, the size nearest the metric equivalent must be used.

RATES FOR PIPES: — Rates for all pipes, gutters, channels, etc. are to include for couplings in running lengths, joints, short lengths and cutting and fixing as required. Rates for mild -steel pipes shall include for all plain sockets and nipples. Where fittings have reduced ends or branches the fittings are described as "reduced" and the largest end

or branch has been stated. The Contractor may use equal fittings with reducers or bushings if he so desires, but no claim for extras in this connection will be entertained.

Rates for pipes fixed to walls, soffits of slabs, roof timbers, etc. are to include for all brackets, holderbats, pipe clips and approved extended hangers where pipes are required to be laid to falls and for plugging and screwing or for cutting and pinning or building in tails of holderbats.

Rates for piping are to include for cleaning down at completion, and in addition, the rate for stainless steel pining is to include for polishing exposed piping, all to the approval of the Department.

Scope	Unit	Qty	Rate	Cost
EARTHWORKS				
EXCAVATIONS, FILLING, ETC				
<u>Excavate in soft material, including wheeling not exceeding 50 m and dumping for re-use or removal later (re-use or removal elsewhere measured)</u>				
Excavate to reduce levels under solid floors not exceeding 2 m deep	m3	36		
<u>Extra over and base excavation in soft soil material for:</u>				
Intermediate material	m3	36		
<u>Cart away</u>				
Extra over all excavations for carting away excavated material to a dumping site to be located by the Contractor.	m3	12		
PROTECTION AGAINST TERMITES				
Apply Chlordane or Aldrin soil insecticides in strict accordance with manufacturers instruction and SABS 1165	m2	120		
<u>Base course constructed of filling supplied by the Contractor:</u>				
150mm Thick sub-base quality (G5) filling, stabilised with OPC and lime (elsewhere measured) and compacted to a minimum CBR of 70% at 95% Mod.AAHSTO density.	m3	18		
100mm Thick graded crushed stone (G2) base course, spread levelled and rolled and compacted to 98% Mod.AAHSTO density in roadways.	m3	18		

Gabion Baskets filled with 150 to 250 stone including v14 bidem backing				
2 x 1 x 1m	No	24		
Agricultural Drain				
500 x 500 mm trench covered with v14 bidem and 19 mm stone with perforated pipe	m	28		
CONCRETE WORK				
<u>VIBRATED REINFORCED CONCRETE</u>				
<u>25 Mpa/19mm Concrete:</u>				
Surface beds	m3	16		
<u>CONCRETE SUNDRIES</u>				
Wood float with class U1 finish top of concrete surface bed, etc.	m2	64		
<u>FORMWORK CLASS F1 (ORDINARY FINISH)</u>				
Note: Propping not exceeding 3,5m height above bearing level				
<u>To sides of:</u>				
Ground beams	m2	12		
<u>FENCING</u>				
<u>Straining Wire:</u>				
3.15mm Galvanised straining wire	m	200		
<u>Pre-stressed concrete 25 Mpa posts and stays size 75 x 75mm with four 5mm high tensile steel reinforcing rods:</u>				
Stay 1,8m long including epoxy grouting to vertical posts.				
Stay 3,00m long including epoxy grouting to vertical posts	No	10		
Intermediate post 2,4m high	No	11		
Corner post 2,4m high	No	4		

Gate post 2,4m high	No	2		
The following in 15 Mpa / 20mm concrete in bases:				
Unreinforced concrete ground beam 150 x 200mm with top finished flush with natural ground level, including excavations, carting away, formwork and 3,15mm galvanised wire loops cast into concrete at 500mm centres.	m	35		
<u>Gates:</u>				
Gates of hot dipped galvanised tubular steel covered with fencing to match the adjoining work laced to framing three meters wide opening 3000 mm wide x 2400 high	No	1		
<u>Barbed and razor wire:</u>				
900mm Diameter fully galvanised steel flat wrap razor tape fixed to 3.15mm galvanised straining wire.	m	40		
2,10m High consisting of 50 x 25 welded mesh 3,15 galvanised fencing fixed to staining wire and twice round poles	m	40		
EXTERNAL PLUMBING AND DRAINAGE				
PLUMBING AND DRAINAGE				
Notes:				
Material from excavations may, if approved by the Employer, be used as				
backfilling to trenches, manholes, etc but if not approved then the Contractor shall allow in his rates for approved filling from on-site spoil heaps.				
WATER SUPPLY				
<u>Taps, Valves, etc - Polished Brass:</u>				
40mm Fullway gate valve.	No	6		
50mm Fullway gate valve.	No	1		
Connections:				
Allow for the connecting of water supply to the existing mains, including all excavations, valves, stopcocks, chambers, etc.	No	2		

<u>HDPE Class 12 PN 12.5 pipes to SABS 2227 not exceeding 1m deep: (Allow for any remedial work excavations, backfilling, making good to brickwork, paving etc)</u>				
32mm Pipes laid in and including trenches.	m	100		
Extra over HDPE Compression fittings :				
32 elbows	No	30		
32 Tee	No	10		
Adaptor Male 32 mm	No	20		
40 mm to 32 mm reducing male coupler	No	4		
100 mm to 50 mm reducing male coupler	No	2		
Sundries:				
225 x 225mm Cast iron stopcock box set on and including 75mm thick Class C concrete base, excavation, etc.	No	1		
Brass non return valves				
32 mm	No	1		
54 mm	No	1		
100 mm	No	1		
Ball valve 32 mm	No	1		
32 mm Holder bats with threaded bar expoxied in wall or floor	No	5		
The pump needs to be disconnected and transported from Murchison Hospital and connected into new system	No	2		
<u>Electrical Work</u>				
Contractor must connect to nearest D/B and allow for excavation, chopping through walls and floors etc, back filling and making good to all trades and provide a COC with the necessary isolation switches, waterproof boxes etc.	Item	Item		