

GA-SEGONYANA LOCAL MUNICIPALITY



Tender No. 12/2022-23

REFURBISHMENT OF TOWN HALL AND OFFICES: GASEGONYANA LOCAL MUNICIPALITY

VOLUME 1: CONTRACT DOCUMENT

November 2022

TENDER SUBMITTED BY:

Name of Company:

Address:

Telephone No:

Tender Amount (Incl. VAT):

Issued by:

Gasegonyana Local Municipality
Private Bag X1522
Kuruman
8460
Contact No. (053) 712 9300
Attention: Mr. T. Mulaudzi

Compiled by:

RMD ATELIER
24 Andesiet Ave
Reviera Park
Mafikeng
2745
Contact No. 064 407 5677
tshidiso@rabiconsulting.co.za

Enquiries: Mr. T. Rabi
CLOSING DATE: 09 December 2022



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PORTION 1: TENDER

Part T1 Tendering Procedures

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2
November 2022



Tender No: 12/2022-23
Project Name: Refurbishment of Town Hall and Offices at Ga-Segonyana Local Municipality

TENDER PROCEDURES

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Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2
November 2022



GA-SEGONYANA LOCAL MUNICIPALITY

Private Bag X1522

Kuruman

8460

www.ga-segonyana.gov.za

T1.1 Tender Notice and Invitation to Bid

Tender No: 12/2022-23

Project Name: Refurbishment of Town Hall and Offices at Ga-Segonyana Local Municipality

INVITATION TO BID

BID NO	BID DESCRIPTION	CIDB GRADING/ FUNCTIONALITY CRITERIONS	CONTACT PERSON	CLOSING DATE, TIME AND VENUE	PREFERENCE POINTS
12/2020-23	Refurbishment of Town Hall and Offices at Ga-Segonyana Local Municipality	CIDB Grading: 7GB Functionality Experience – 50 Points Resources – 30 Points LED – 20 Points Minimum threshold – 70 points	Mr. T. Mulaudzi 053 712 9384 B. Sechogela 053 712 9344	09 December 2022 12H00 Municipal Board Room	80/20

Bids marked with reference number on the outside of the sealed envelope must be placed in the Bid Box of **Ga-Segonyana Local Municipality** on or before the closing date as indicated above.

COMPULSORY BRIEFING WILL BE HELD AS FOLLOWS:

Date : 11th November 2022
Venue : Municipal Council Chambers
Time : 10H00

Bid Documents are obtainable from the **10th November 2022** for a non-refundable fee of **R2, 000.00** per document at the **Cashiers Office**, Cnr Voortrekker and School Street, **Kuruman**, 8460 **OR** can be downloaded free of charge at www.etenders.gov.za and/ or www.ga-segonyana.gov.za

Bids will be evaluated based on the Preferential Procurement Policy Framework Act 5 (PPPFA) of 2000 and the municipal's Supply Chain Management Policy. **Bids must be accompanied by a valid TAX COMPLIANCE STATUS (TCS with pin). Bidders must be registered on the Central Supplier Database (CSD) for Government.**

For B-BBEE Points Bidders must attach an **ORIGINAL OR CERTIFIED B-BBEE** Status level Contribution Certificate authorised by **SANAS, IRBA** or a **Sworn Affidavit** ((Commission of Oath). CSD certificate **WILL NOT** be used for the purpose of evaluating preference points. **MFMA Circular 81.**

M. M. TSATSIMPE (MUNICIPAL MANAGER)

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



Ga-Segonyana Local Municipality

TENDER NO: 12/2020-21

REFURBISHMENT OF TOWN HALL AND OFFICES AT GA-SEGONYANA LOCAL MUNICIPALITY

TENDER DATA

The conditions of tender are the Standard Conditions of Tender as contained in Annex F of the Construction Industry Development Board's Board Notice 12 of 2009 (contained in Government Gazette No. 31823 of 30 January 2009), bound into section T1.3.

The Standard Conditions of Tender makes several references to the tender data. The tender data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the standard conditions of tender.

Each item of data given below is cross-referenced to the clause in the Standard Conditions of Tender to which it mainly applies.

Clause	Addition or Variation to Standard Conditions of Tender
1.1	The Employer is Ga-Segonyana Local Municipality.
1.2	The tender documents issued by the employer comprise one volume.
1.3	Replace the 2 nd paragraph of the clause with the following: These Conditions of Tender, the Tender Data, List of Returnable Documents and Returnable Schedules which are required for tender evaluation purposes, shall form part of the Contract arising from the invitation to tender.
1.4	The Employer's agent is (also known as the Engineer):
2.1	Only those tenderers who are registered with the CIDB at the time of closing of tenders, in a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered for a 7GB or higher class of construction work, are eligible to have their tenders evaluated. Joint ventures are eligible to submit tenders provided that:

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



Clause	Addition or Variation to Standard Conditions of Tender
	<ol style="list-style-type: none">every member of the joint venture is registered with the CIDB;the lead partner has a contractor grading designation of contractor grading designation 7GB or higher class of construction work; andthe combined contractor grading designation calculated in accordance with the Construction Industry Development Regulations is equal to or higher than a contractor grading designation determined in accordance with the sum tendered for a 7GB or higher class of construction work.
2.2	<p>Add the following to the clause:</p> <p>Accept that the Employer will not compensate the tenderer for any costs incurred in attending interviews in the office of the employer or the employer's agent (if required).</p>
2.7	<p>An official clarification meeting and site visit will be held as follows:</p> <p>Location : Ga-Segonyana Local Municipality, Corner Voortrekker and School Street, Kuruman, 8460</p> <p>Date : 11 November 2022</p> <p>Time : 10H00</p> <p>Confirmation of attendance will be recorded, on site, in the Site Inspection Certificate included in Section T2.2 of the Document.</p> <p>Tender documents will not be made available at the site visit or clarification meeting. Detail relating to the collection of tender documents is indicated in the Tender Notice and Invitation to Tender (Section T1.1 of the document)</p>
2.10.5	<p>Add the following to the clause:</p> <p>A digital copy of the Schedule of Rates can be obtained from the Client's agent at the office of the Engineer upon sufficient notice.</p>
2.11	<p>Add the following to the clause:</p> <p>To correct errors made, draw a line through the incorrect entry and write the correct entry above in black ink and place the full signatures of the authorised signatories next to the correct entry.</p>
2.12.1	<p>Add the following to the clause:</p> <p>All alternative tender offers shall be referred to in Section T2.2.1 – Alterations to Tender.</p>
2.12.2	<p>Should the Tenderer wish to offer alternative designs and/or construction materials, he shall include with this Tender full details thereof, including a complete Schedule of Rates,</p>

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



Clause	Addition or Variation to Standard Conditions of Tender
	<p>formal design calculations, and full details of all alternative components proposed to be included in the Works. Refer also to the Contract Data in this regard.</p> <p>Failure to properly comply with this clause, thereby preventing the Employer and/or the Engineer to properly assess the full implications of the alternative tender, is likely to disqualify the alternative offered from further consideration.</p> <p>No submission by the Contractor after award for additional payment or time for completion of Works relating to the alternative offer will be considered, the tendered rates submitted shall be considered to reflect the full and final cost implications of the alternative offer.</p>
2.13	<p>Add the following to the clause:</p> <p>No claim will be entertained for faults in the tender price resulting from any discrepancies, omissions or indistinct figures.</p>
2.13.2	<p>Replace the contents of the clause with the following:</p> <p>Each tenderer is required to return the complete set of documents as listed in the tender data with all the required information supplied and completed in all respects.</p>
2.13.3	No copies of the tender offer are required.
2.13.4	<p>Add the following to the clause:</p> <p>Only authorised signatories may sign the original and all copies of the tender offer where required in terms of 2.13.3.</p>
2.13.5	<p>The Employer's address for delivery of tender offers and identification details to be shown on each tender offer package are:</p> <p>Tender box location : Ga-Segonyana Local Municipality Physical address : Corner Voortrekker and School street, 8460 Identification details : Tender No: 12/2022-23 - Refurbishment of Town Hall and Offices at Ga-Segonyana Local Municipality</p> <p>The name and address of the tender shall be entered on the back of the envelope.</p>
2.13.6	A two-envelope procedure will not be followed.
2.13.9	<p>Add the following to the clause:</p> <p>Accept that all conditions, which are printed or written upon any stationary used by the Tenderer for the purpose of or in connection with the submission of a tender offer for this</p>

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



Clause	Addition or Variation to Standard Conditions of Tender
	Contract, which are in conflict with the conditions laid down in this document shall be waived, renounced and abandoned.
2.14	<p>Add the following to the clause:</p> <p>The Tenderer is required to enter information in the following sections of the document:</p> <p>Section T2.2 : Returnable Schedules</p> <p>Section C1.1 : Form of Offer and Acceptance</p> <p>Section C1.2 : Contract Data (Part 2)</p> <p>Section C2.2 : Schedule of Rates</p> <p>The above sections shall be signed by the Tenderer (and witnesses where required). Individual pages should only be initialled by the successful Tenderer and by the witnesses after acceptance by the Employer of the Tender Offer.</p> <p>The Tenderer shall complete and sign the Form of Offer prior to the submission of a Tender Offer.</p> <p>The Schedule of Deviations (if applicable) shall be signed by the successful Tenderer after acceptance by the Employer of the Tender Offer.</p> <p>Accept that failure on the part of the Tenderer to submit any one of the Returnable Documents listed in clause 2.23 within the period stipulated, shall be just cause for the Employer to consider the tender offer as being regarded as non-responsive.</p> <p>Accept that the Employer shall in the evaluation of tender offers take due account of the Tenderer's past performance in the execution of similar engineering works of comparable magnitude, and the degree to which he possesses the necessary technical, financial and other resources to enable him to complete the Works successfully within the contract period. Satisfy the Employer and the Engineer as to his ability to perform and complete the Works timeously, safely and with satisfactory quality, and furnish details in section T2.2.2 of contracts of a similar nature and magnitude which they have successfully executed in the past.</p> <p>Accept that the Employer is restricted in accordance with clause 4.(4) of the Construction Regulations, 2003, to only appoint a contractor whom he is satisfied has the necessary competencies and resources to carry out the work safely. Accept that submitting inferior and inadequate information relating to health and safety (as required in clause 2.23) shall be regarded as justifiable and compelling reasons not to accept the Tender Offer of the Tenderer scoring the highest number of tender evaluation points.</p>
2.15.1	The closing time and location for the submission of tender offers are:

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



Clause	Addition or Variation to Standard Conditions of Tender
	<p>Time : 12h00 on 09 December 2022,</p> <p>Location : Boardroom of Ga-Segonyana Local Municipality Corner Voortrekker and School Street, Kuruman, 8460</p>
2.16.1	The tender offer validity period is 90 days.
2.16.1	<p>Add the following to the clause:</p> <p>If the tender validity expires on a Saturday, Sunday or public holiday, the tender shall remain valid and open for acceptance until the closure of business on the following working day.</p>
2.16.3	<p>Add the following new clause:</p> <p>Accept that should the Tenderer unilaterally withdraw his tender during this period, the Employer shall, without prejudice to any other rights he may have, be entitled to accept any less favourable tender for the Works from those received, or to call for fresh tenders, or to otherwise arrange for execution of the Works, and the Tenderer shall pay on demand any additional expense incurred by the Employer on account of the adoption of the said courses, as well as either the difference in cost between the tender withdrawn (as corrected in terms of clause 3.9 of the Conditions of Tender) and any less favourable tender accepted by the Employer, or the difference between the tender withdrawn (as corrected) and the cost of execution of the Works by the Employer as well as any other amounts the Employer may have to pay to have the Works completed.</p>
2.18.1	<p>Add the following to the clause:</p> <p>Accept that if requested, the Tenderer shall within 7 days of the date upon which he is requested to do so, submit a full report from his banker as to his financial standing. The Employer may, in its discretion, and subject to the provisions of Section 4(1)(d) of the State Tender Board Act 86 of 1968, condone any failure to comply with the foregoing condition.</p> <p>Accept that the Employer or his agent, reserves the right to approach the Tenderer's banker or guarantor(s) as indicated in the tender document, or the bankers of each of the individual members of any joint venture that is constituted for purposes of this Contract, with a view to ascertaining whether the required guarantee will be furnished, and for purposes of ascertaining the financial strength of the Tenderer or of the individual member of such venture.</p>
2.22	Return all retained tender documents prior to the closing time for the submission of Tender Offers.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



Clause	Addition or Variation to Standard Conditions of Tender
2.23	<p>The following certificates / information are to be provided with the tender offer or within three days of receipt of the Employer's or his Agent's written request to submit same:</p> <ul style="list-style-type: none">a. CIDB registration certificate in the grading designation stipulated in clause 2.1 above,b. Original valid Tax Clearance Certificate issued by South Africa Revenue Services. In terms of Joint Ventures, original valid tax clearance certificates must be submitted by each joint venture partner.c. Certified copy of a Workmen's Compensation Certificate, Act 4 of 2002,d. Certified copy of Certificate of Incorporation (if tenderer is a Company),e. Certified copy of Founding Statement (if tenderer is a Closed Corporation),f. Certified copy of Partnership Agreement (if tenderer is a Partnership),g. Certified copy of Identity Document (if tenderer is a One-man concern),h. Joint Venture Agreement (if tenderer is a Joint Venture),
3.1	<p>Replace the contents of the clause with the following:</p> <p>Respond, to a request for clarification received in accordance with clause 2.8, within 7 days prior to the closing time stated in clause 2.15 and notify all tenderers who drew procurement documents.</p>
3.4	<p>Tenders will be opened immediately after the closing time for tenders, at the same venue.</p>
3.5	<p>A two-envelope procedure will not be followed.</p>
3.8.1	<p>Add the following to the clause:</p> <p>Failure on the part of the Tenderer to submit any one of the returnable documents or certificates listed in clause 2.23 within the period stipulated shall be just cause for the Employer to consider the tender offer as being non-responsive.</p>
3.9.1	<p>Replace the contents of the clause with the following:</p> <p>Check responsive tender offers for arithmetical errors, correcting them in the following manner:</p> <ul style="list-style-type: none">a) If a Schedule of Rates (or schedule of quantities or schedule of rates) applies and there is an error in the line item total resulting from the product of the unit rate and the quantity, the unit rate shall govern and the line item total shall be corrected.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



Clause	Addition or Variation to Standard Conditions of Tender
	<p>b) Where there is an error in the total of the prices, either as a result of other corrections required by this checking process or in the tenderer's addition of prices, the corrected total of the prices shall govern.</p> <p>c) Where there is a discrepancy between the amount indicated in the Tenderer's tender offer and the corrected amount obtained after completing the above steps, the corrected amount shall govern.</p>
3.11.1	<p>Method 2 will be used to evaluate all responsive tender offers, where the value for W_1 is:</p> <p>90 where the financial value inclusive of VAT of all responsive tenders received have a value in excess of R50 000 000; or</p> <p>80 where the financial value inclusive of VAT of one or more responsive tender offers equals or is less than R50 000 000.</p>
3.11.6	The financial offer will be scored in terms of formula 2 option 1 of the Standard Conditions of Tender (Section T1.3 of the document).
3.11.7	<p>Add the following new clause: Scoring preference</p> <p>Up to $(100-W_1)$ tender evaluation points (W_p) will be awarded to tenderers who complete the preferencing schedule (bound into Section T2.2) and who are found to be eligible for the preference claimed. Refer to the Employer's Preferential Procurement Policy appended to this section as Annexure A.</p>
3.12	<p>Replace the contents of the clause with the following:</p> <p>If requested by any Tenderer, submit for the Tenderers' information the policies or certificates of insurance (or both) which the conditions of contract identified in the Contract Data require the Employer to provide.</p>
3.13.1	A Tender offer will only be accepted on condition that such acceptance is not prohibited in terms of clause 44 of the Municipal Supply Chain Management Regulations published in terms of the Municipal Finance Management Act, 2003.
3.14	<p>Replace the contents of the clause with the following:</p> <p>Notice of non-acceptance of tender will not be sent to individual unsuccessful tenderers. Particulars of the accepted tender can be obtained from the Engineer.</p>
3.18	The successful tenderer shall receive one copy of the signed contract.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



FUNCTIONALITY:

EVALUATION OF TENDER OFFERS

Prequalification / Quality Criteria

Tenderers will be assessed based on the prequalification criteria as set out in the table below. Tenderers scoring less than 60% will be considered non-responsive.

Tenderers shall fill in the relevant information on the Prequalification / Quality Criteria Schedules in Part T2 and this information shall be used to award points for functionality on the following basis per category:

No .	Quality Criteria – Tender Rating Matrix	A	B	C
		Tenderer rating (Score1-5)	Weighting	Tenders Score(%) = (AxB)/5
1	5 or more similar projects greater than R20m construction value successfully completed in last 10years(As proof, attach the letter of appointment and the completion certificates OR practical completion certificates for projects that reached practical completion prior to the advertisement of this tender).	5	50	
Company work experience as per FormD1	4 similar projects greater than R20m construction value successfully completed in last 10years(As proof, attach the letter of appointment and the completion certificates OR practical completion certificates for projects that reached practical completion prior to the advertisement of this tender).	4		
	3 similar projects greater than R20m construction value successfully completed in last 10years(As proof, attach the letter of appointment and the completion certificates OR practical completion certificates for projects that reached practical completion prior to the advertisement of this tender).	3		
	2 similar projects greater than R20m construction value successfully completed in last 10years(As proof, attach the letter of appointment and the completion certificates OR practical completion certificates for projects that reached practical completion prior to the advertisement of this tender).	2		
	1 similar projects greater than R20m construction value successfully completed in last 10years(As proof, attach the letter of appointment and the completion certificates OR practical completion certificates for projects that reached practical completion prior to the advertisement of this tender).	1		

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



No.	Quality Criteria – Tender Rating Matrix		A	B	C
			Tenderer rating (Score1-5)	Weighting	Tenders Score(%) = (A x B)/5
2	FormA8(Attach Bank Rating Certificate as proof)	The bank certificate with the original bank stamp and signature. A – rating	5	10	
		The bank certificate with the original bank stamp and signature. B – rating	4		
		The bank certificate with the original bank stamp and signature. C – rating	3		
		The bank certificate with the original bank stamp and signature. D – rating	2		
		The bank certificate with the original bank stamp and signature. E and F rating	1		
3	No Year Experience of Key Project Personnel as perFormD3	Combined relevant experience of Key Project Personnel of over 15 years (CV and qualification to be attached as proof)	5	20	
		Combined relevant experience of Key Project Personnel of over 10 years (CV and qualification to be attached as proof)	4		
		Combined relevant experience of Key Project Personnel of over 5 years (CV and qualification to be attached as proof)	3		
		Combined relevant experience of Key Project Personnel of over 3 years (CV and qualification to be attached as proof)	2		
		Combined relevant experience of Key Project Personnel of over 1 years (CV and qualification to be attached as proof)	1		
4	Local Economic Development (Locality)	Ga-Segonyana Local Municipality	5	20	
		Within Northern Cape	3		
		Outside Northern Cape	1		
TOTAL SCORE(%)					

1

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



GA-SEGONYANA LOCAL MUNICIPALITY

SUPPLY CHAIN MANAGEMENT POLICY

Council resolves in terms of section 111 of the Local Government Municipal Finance Management Act (No. 56 of 2003), to adopt the following proposal as the Supply Chain Management Policy of the municipality.

MUNICIPAL SUPPLY CHAIN MANAGEMENT POLICY

LOCAL GOVERNMENT: MUNICIPAL FINANCE MANAGEMENT ACT, 2003

DATE OF ADOPTION

.....

Council resolves in terms of Sec 111 of the Local Government Municipal Finance Management Act (No.56 of 2003), to adopt the following proposal as the Supply Chain Management Policy of the Municipality.

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1. DEFINITIONS

In this Policy, unless the context otherwise indicates, a word or expression to which a meaning has been assigned in the Act has the same meaning as in the Act, and –

“Municipality” means the Ga-Segonyana Local Municipality.

“Municipal entity” has the meaning assigned to it by Section 1 of the Municipal systems Act, 2000.

“Other applicable legislation” means any other legislation applicable to municipal supply chain management, including -

- the Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000);
- the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003); and
- the Construction Industry Development Board Act, 2000 (Act No.38 of 2000);

“In the service of the state” means to be -

- a) a member of -
 - i. any municipal council;
 - ii. any provincial legislature; or
 - iii. the National Assembly or the National Council of Provinces;
- b) a member of the board of directors of any municipal entity;
- c) an official of any municipality or municipal entity;
- d) an employee of any national or provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No of 1999);
- e) a member of the accounting authority of any national or provincial public entity; or
- f) an employee of Parliament or a provincial legislature;

“Sole Provider”-means a provider of specialized or exclusive goods/services who has a sole distribution / patent /manufacturing rights and copy rights.

“Senior manager” means an executive director appointed in terms of section 56 of the Municipal Systems Act, 2000 or an acting executive director appointed by the Accounting Officer.

“The Act” means the Local Government: Municipal Finance Management Act, 2003 (Act No. 56 of 2003);

“All applicable taxes” includes value-added tax, pay as you earn, income tax, unemployment insurance fund contributions and skills development levies;

“The regulations” means the Local Government: Municipal Finance Management Act, 2003, Municipal Supply Chain Management Regulations published by Government Notice 10684 of 2017;

“B-BBEE” – means broad based black economic empowerment as defined in section 1 of the Broad-Based Black Economic Empowerment Act;

“B-BBEE STATUS LEVEL OF CONTRIBUTOR – means the B-BBEE status of an entity in terms of a code of good practice on black economic empowerment issued in terms of section 9(1) of the Broad Based Black Economic Empowerment Act; “Black People”; has the meaning assigned to it in section 1 of the Broad Based Black Economic Empowerment Act;

Black Designated Groups – has the meaning assigned to it in the codes of good practice issued in terms of section 9(1) of the Broad Based Black Economic Empowerment Act;

Broad Based Black Economic Empowerment Act – means the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003)

Co-Operative – means a co-operative registered in terms of section 7 of the Co-operatives ACT, 2005 (Act No. 14 of 2005);

Designated Group means –

- a) black designated groups;
 - i. black people;
 - ii. women;
 - iii. people with disabilities, or
 - iv. small enterprises, as defined in section 1 of the National Small Enterprise Act, (Act No. 102 of 1996);

“Designated Sector” – means a sector, sub-sector or industry or product designated in terms of regulation 8(1) (a)

“EME” means and exempted of the micro enterprise in terms of a code of good practice on black economic empowerment issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act;

“Functionality” – means the ability of a tenderer to provide goods or services in accordance with specifications as set out in the tender documents;

“Military Veteran” – has the meaning assigned to it in section 1 of the Military Veterans Act, 2011 (Act No. 18 of 2011);

“National Treasury” has the meaning assigned to it in section 1 of the Public Finance Management Act, 1999 (Act No. 1 of 1999);

“People with Disabilities” - has the meaning assigned to it in section 1 of the Employment Equity Act, 1998 (Act No. 55 of 1998);

“Price” – includes all applicable taxes less all unconditional discounts,

“Proof of B-BBEE Status Level of Contributor” – means –

- a) the B-BBEE status level certificate issued by an authorised body or person;
- b) a sworn affidavit as prescribed by the B-BBEE Codes of Good Practice, or
- c) any other requirement prescribed in terms of the Broad-Based Black Economic Empowerment Act;

“QSE” – means a qualifying small business enterprise in terms of code of good practice on black economic empowerment issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act;

“Rural Area” - means

- a) a sparsely populated area in which people farm or depend on natural resources, including villages and small towns that are dispersed through the area; or
- b) an area including a large settlement which depends on migratory labour and remittances and government social grants for survival, and may have a traditional land tenure system.

“Stipulated Minimum Threshold” – means the minimum threshold stipulated in terms of regulation 8 (1) (b);

“Township” – means an urban living area that any time from the late 19th century until 27 April 1994, was reserved for black people, including areas developed for historically disadvantaged individuals post 27 April 1994;

“Treasury” – has the meaning assigned to it in section 1 of the Public Finance Management Act, 1999 (Act No. 1 of 1999); and

“Youth” – has the meaning assigned to it in section 1 of the National Youth Development Agency Act, 2008 (Act No. 54 of 2008)

“Accredited” means goods / services that are officially recognized, are generally accepted or having a guaranteed quality.

“Competitive bid” means a bid in terms of a competitive bidding process;

“Competitive bidding process” means a competitive bidding process referred to in paragraph 14 (1) (d) of this Policy;

“Accounting officer” means the Accounting Officer referred to in section 60 of the Municipal Finance Management Act, No. 56 of 2003, in relation to a municipal entity, means the official referred to in section 93, and includes a person acting as the accounting officer.

“Accredited Agent” means a provider who is authorized to deliver certain goods / services and can be trading in a specific area; however, an accredited agent is not a sole provider.

“Emergency procurement” emergency cases are cases where immediate action is necessary in order to avoid dangerous or risky situation (life threatening) or misery such as floods or fires.

“Exceptional / urgent cases” exceptional cases are cases where early delivery is of critical importance and the invitation of competitive bids is either impossible or impractical. However, a lack of proper planning should not be constituted as an urgent case subject to the approval of the Accounting Officer. The nature of the urgency and the details of the justifiable procurement must be recorded and the AO to approve.

“Final award”, in relation to bids or quotations submitted for a contract, means bids or quotations submitted for a contract, means the final decision on which-bid or quote to accept;

“Written or verbal quotations” means quotations referred to in paragraph 14 (1)(b) of this Policy

“Formal written price quotation” means quotations referred to in paragraph 14 (1) (c) of this Policy;

“Fruitless and wasteful expenditure”- is defined in section 1 of the MFMA as follows: expenditure made in vain and would have been avoided had reasonable care been exercised;

“Irregular expenditure”- as contemplated in MFMA section 32 and refers to the;

- Municipal Finance Management Act, Act56 of 2003, and its regulations
- Municipal Systems Act, Act 32 of 2000, and its regulations
- Public Office-Bearers Act, Act20 of 1998, and its regulations; and
- The municipality’s supply chain management policy, and any by-laws giving effect to that policy.

“Long term contract” means a contract with a duration period exceeding one year;

“List of accredited prospective providers” means the list of accredited prospective providers which the municipality must keep in terms of paragraph 16 of this policy;

“Central Supplier Database (CSD)”- is a single database to serve as the source of all supplier information for all spheres of government. The purpose of centralising government’s supplier database is to reduce duplication of effort and cost for both supplier and government while enabling electronic procurement processes.

“e-Tender Publication Portal” - facilitates all government institutions to publish their tenders, corrigendum and award notices on a single platform. This portal gives FREE access to public sector tender opportunities in South Africa.

“Transversal contract” means a contract arranged for more than one Dept/Mun or for more than one level of government e.g. National and Provincial Government.

“Treasury guidelines” means any guidelines on supply chain management issued by the Minister in terms of section 168 of the Act;

“Unauthorized expenditure” - means any expenditure incurred by a municipality otherwise than in accordance with section 15 or 11 [3] of MFMA and includes-

- a) overspending of the total amount appropriated in the municipality’s approved budget;
- b) overspending of the total amount appropriated for a vote in the approved budget;
- c) expenditure from a vote unrelated to the department or functional area covered by the

vote;

- d) expenditure of money appropriated for a specific purpose, otherwise than for that specific purpose;
- e) spending of an allocation referred to in paragraph [b], [c] or [d] of the definition of “allocation” otherwise than in accordance with any conditions of the allocation; or
- f) a grant by the municipality otherwise than in accordance with the MFMA.

CHAPTER 1
IMPLEMENTATION OF SUPPLY CHAIN MANAGEMENT POLICY

2. SUPPLY CHAIN MANAGEMENT POLICY

2.1. All officials and other role players in the supply chain management system of the municipality must implement this Policy in a way that

- a) gives effect to -
 - i. section 217 of the Constitution; and
 - ii. Part 1 of Chapter 11 and other applicable provisions of the Act;
- b) is fair, equitable, transparent, competitive and cost effective;
- c) complies with -
 - i. the Regulations; and
 - ii. any minimum norms and standards that may be prescribed in terms of section 168 of the Act;
- d) is consistent with other applicable legislation;
 - Broad Based Black Economic Empowerment Act [B-BBEEA];
 - Corruption Act, 1998 – anti-corruption measures and practices;
 - Competition Law and Regulations;
 - Promotion of Administrative Justice Act, 2000;
 - National Archives of South Africa Act, 1996;
 - National Small Business Act;
 - Construction Industry Development Board Act, 2000 [Act no 38 of 2000].
 - **Preferential Procurement Policy Framework Act**
- e) does not undermine the objective for uniformity in supply chain management systems between organs of state in all spheres; and
- f) is consistent with national economic policy concerning the promotion of investments and doing business with the public sector.

2.2. The municipal entity must, in addition to complying with subparagraph (1), apply this Policy, to the extent determined by the parent municipality, in a way that and that is consistent with the supply chain management policy of the municipality.

2.3. This Policy applies when the municipality-

- a) procures goods or services;
- b) disposes goods no longer needed;
- c) selects contractors to provide assistance in the provision of municipal services otherwise than in circumstances where Chapter 8 of the Municipal Systems Act

applies; or

- d) selects external mechanisms referred to in section 80 (1) (b) of the Municipal Systems Act for the provision of municipal services in circumstances contemplated in section 83 of that Act.

2.4. This Policy, except where provided otherwise, does not apply in respect of the procurement of goods and services contemplated in section 110(2) of the Act, including

- a) water from the Department of Water Affairs or a public entity, another municipality or a municipal entity; and
- b) electricity from Eskom or another public entity, another municipality or a municipal entity.

3. AMENDMENT OF THE SUPPLY CHAIN MANAGEMENT POLICY

3.1. The accounting officer must -

- a) at least annually review the implementation of this Policy; and
- b) when the accounting officer considers it necessary, submit proposals for the amendment of this Policy to the council.

3.2. If the accounting officer submits proposed amendments to the council that differs from the model policy issued by the National Treasury, the accounting officer must -

- a) ensure that such proposed amendments comply with the Regulations; and
- b) report any deviation from the model policy to the National Treasury and the relevant provincial treasury.

3.3. When amending this supply chain management policy, the need for uniformity in supply chain practices, procedures and forms between organs of state in all spheres, particularly to promote accessibility of supply chain management systems for small businesses must be taken into account.

4. DELEGATION OF SUPPLY CHAIN MANAGEMENT POWERS AND DUTIES

4.1. The council hereby delegates all powers and duties to the accounting officer which are necessary to enable the accounting officer-

- a) to discharge the supply chain management responsibilities conferred on accounting officers in terms of -
 - i. Chapter 8 or 10 of the Act; and
 - ii. this Policy;

- b) to maximise administrative and operational efficiency in the implementation of this Policy;
 - c) to enforce reasonable cost-effective measures for the prevention of fraud, corruption, favouritism and unfair and irregular practices in the implementation of this Policy; and
 - d) to comply with his or her responsibilities in terms of section 115 and other applicable provisions of the Act.
- 4.2. Sections 79 and 106 of the Act apply to the sub delegation of powers and duties delegated to an accounting officer in terms of subparagraph (1).
- 4.3. The accounting officer may not sub delegate any supply chain management powers or duties to a person who is not an official of the municipality or to a committee which is not exclusively composed of officials of the municipality.
- 4.4. This paragraph may not be read as permitting an official to whom the power to make final awards has been delegated, to make a final award in a competitive bidding process otherwise than through the committee system provided for in paragraph 28 of this Policy.

5. SUB DELEGATIONS

- 5.1. The accounting officer may in terms of section 79 or 106 of the Act sub delegate any supply chain management powers and duties, including those delegated to the accounting officer in terms of this Policy, but any such sub delegation must be consistent with subparagraph (2) of this paragraph and paragraph 4 of this Policy.
- 5.2. The power to make a final award -
- a) above R 10 million (VAT included) may not be sub delegated by the accounting officer;
 - b) above R2 million (VAT included), but not exceeding R10 million (VAT included), may be sub delegated but only to –
 - i. the chief financial officer;
 - ii. a senior manager; or
 - iii. a bid adjudication committee comprises of:
 - Chief Financial Officer
 - Head Infrastructure Services
 - Head Corporate Services
 - Head Community Services
 - c) not exceeding R2 million (VAT included) may be sub delegated but only to –

- i. the chief financial officer;
- ii. a senior manager;
- iii. a manager- directly accountable to the chief financial officer or a senior manager; or –
- iv. a bid adjudication committee comprises of:
 - Chief Financial Officer
 - Head Infrastructure Services
 - Head Corporate Services
 - Head Community Services

5.3. An official or bid adjudication committee to which the power to make final awards has been sub delegated in accordance with subparagraph (2) must within five days of the end of each month submit to the official referred to in subparagraph (4) a written report containing particulars of each final award made by such official or committee during that month, including-

- a) the amount of the award;
- b) the name of the person to whom the award was made; and
- c) the reason why the award was made to that person.

5.4. A written report referred to in subparagraph (3) must be submitted

- a) to the accounting officer, in the case of an award by -
 - i. the chief financial officer;
 - ii. a senior manager; or
 - iii. a bid adjudication committee of which the chief financial officer or a senior manager is a member; or
- b) to the chief financial officer or the senior manager responsible for the relevant bid; in the case of an award by-
 - i. a manager referred to in subparagraph (2)(c)(iii); or
 - ii. a bid adjudication committee of which the chief financial officer or a senior manager is not a member.

5.5. Subparagraphs (3) and (4) of this policy do not apply to procurements out of petty cash.

5.6. This paragraph may not be interpreted as permitting an official to whom the power to make final awards has been sub delegated, to make a final award in a competitive bidding process otherwise than through the committee system provided for in paragraph 28 of this Policy.

5.7. No supply chain management decision-making powers may be delegated to an

advisor or consultant.

6. OVERSIGHT ROLE OF COUNCIL

- 6.1. The council reserves its right to maintain oversight over the implementation of this Policy.
- 6.2. For the purposes of such oversight the accounting officer must –
 - a)
 - i. within 30 days of the end of each financial year, submit a report on the implementation of this Policy and the supply chain management policy to the council of the municipality.
 - ii. whenever there are serious and material problems in the implementation of this Policy, immediately submit a report to the council, who must then submit the report to the accounting officer of the municipality for submission to the council
- 6.3. The accounting officer must, within 10 days of the end of each quarter, submit a report on the implementation of the supply chain management policy to the mayor.
- 6.4. The reports must be made public in accordance with section 21A of the Municipal Systems Act.

7. SUPPLY CHAIN MANAGEMENT UNIT

- 7.1. A supply chain management unit is hereby established to implement this Policy.
- 7.2. The supply chain management unit operates under the direct supervision of the chief financial officer or an official to whom this duty has been delegated in terms of section 82 of the Act.

8. TRAINING OF SUPPLY CHAIN MANAGEMENT OFFICIALS

- 8.1. The training of officials involved in implementing this Policy should be in accordance with any Treasury guidelines on supply chain management training.

CHAPTER 2 SUPPLY CHAIN MANAGEMENT SYSTEM

9. FORMAT OF SUPPLY CHAIN MANAGEMENT SYSTEMS

9.1. This Policy provides systems for -

- i. demand management;
- ii. acquisition management;
- iii. logistics management;
- iv. disposal management;
- v. risk management; and
- vi. performance management.
- vii. asset management
- viii. Contract Management

PART 1: DEMAND MANAGEMENT

10. SYSTEM OF DEMAND MANAGEMENT

10.1. The accounting officer must establish and implement an appropriate demand management system in order to ensure that the resources required by the municipality support its operational commitments and its strategic goal outlined in the Integrated Development Plan

10.2. The demand management system must -

- a) include timely planning and management processes to ensure that all goods and services required by the municipality are quantified, budgeted for and timely and effectively delivered at the right locations and at the critical delivery dates, and are of the appropriate quality and quantity at a fair cost;
- b) take into account any benefits of economies of scale that may be derived in the case of acquisitions of a repetitive nature; and
- c) provide for the compilation of the required specifications to ensure that its needs are met.
- d) to undertake appropriate industry analysis and research to ensure that innovations and technological benefits are maximized.
- e) The municipality must compile a Procurement Plan containing all planned

procurement for the financial year in respect of the procurement of goods, services and infrastructure projects which exceed R 200 000 [all applicable taxes included] per case as described in the Supply Chain Management Guide for Accounting Officers. The procurement plan must be finalized on the **01 July** every year. The relevant information should preferably be furnished in the format contained in the MFMA Circular 62 (Annexure A and B).

11. FRAMEWORK FOR INFRASTRUCTURE PROCUREMENT

The framework for infrastructure procurement outlines the minimum infrastructure procurement policy requirements for municipal planning and implementation.

The strategic direction set in the Integrated Development Plan (IDP) informs the framework for infrastructure procurement. For example, procurement strategies must be aligned to the municipality's developmental and internal transformation needs, as specified in the IDP.

11.1. Minimum Requirement for Infrastructure Procurement

- a). Infrastructure procurement must be undertaken in accordance with all applicable Infrastructure Procurement related legislation and this Framework.
- b). Infrastructure procurement must be implemented in accordance with the institutional Supply Chain Management System, which promotes differentiated procurement for infrastructure
- c). Infrastructure procurement must be implemented in accordance with the procurement gates prescribed in paragraph 11.
- d). The Accounting Officer must ensure that a budget is available for the duration of the project, in line with MFMA provisions for capital and operating budgets
- e). The Accounting Officer must ensure that cash flow management processes are in place to meet payment obligations within the time periods specified in the contract.
- f). Procurement gates provided in paragraph 11 of this policy must be used, as appropriate, to
 - i. Authorise commencement of activities that lead to the next control gate;
 - ii. Confirm conformity with requirements; and/or
 - iii. Provide information

- g). The authorisation to proceed to the next procurement gate must be given by a delegated person or body. The delegated person or body must be able to apply relevant built environment knowledge and skill to achieve the intended results required at the relevant procurement gate. The level of detail contained in the documentation on which a decision to proceed to the next procurement gate is made, must be sufficient to enable an informed decision.
- h). The Accounting Officer must develop and implement effective and efficient emergency procurement procedures, including relevant approval delegation, in compliance with relevant legislation.
- i). The Accounting Officer must develop and implement an effective and efficient infrastructure disposal policy in line with the Municipal Asset Transfer Regulations. The institution may consider disposal strategies aligned to their internal disposal policy, prior to proceeding with the procurement strategy
- j) The Accounting Officer must keep records of Procurement Gate Approvals, in a manual or electronic format, with the following minimum requirements:
 - i. Procurement gate;
 - ii. Delegated person/s or body;
 - iii. Date on which the approval request was received;
 - iv. Date on which the approval was actioned; and
 - v. Signature of the delegated person or body.
- k). All assets must be recorded in the municipal asset register as required by the GRAP standards.

11.2. Infrastructure Procurement Gates (PG1)

- a). Initiate a procurement process;

(See Annexure C: In order for the initiation to be completed, and the decision to proceed with procurement is effected; the Project Stage Deliverables for Stages 1 and 2 must be completed. In the case of Mega Projects (Projects in excess of R50 million) the Gateway Review requirements must be adhered to as stipulated within Annexure C)

11.2.1. Minimum Requirement for PG 1:

- i). Establish and clarify the procurement need, aligned to the municipality's development and transformation priorities specified in the IDP.
- ii). Determine a suitable title for the procurement, to be applied as the project description.
- iii). Prepare the broad scope of work for the procurement.
- iv). Perform market analysis
- v). Estimate the financial value of proposed procurement and contract for budgetary purposes, based on the broad scope of work.
- vi). Confirm the budget.
- vii). Compliance with section 33 of the MFMA with respect to community and stakeholder consultation

- b). PG 1 is complete when a designated person or body makes the decision to proceed/not to proceed, with the procurement of the infrastructure.

11.3. **Procurement Gate 2 for PG 2:**

- a). Approve procurement strategy to be adopted.

See Annexure C: In order for the procurement strategy to be adopted, and the decision to proceed with an approved procurement strategy; the Project Stage Deliverables for Stages 3 and 4 must be completed)

11.3.1. Minimum Requirement for PG 2:

- a). Develop a procurement strategy aligned to the institutional procurement strategy:
 - i). Establish contracting and pricing strategy comprising of an appropriate allocation of responsibilities and risks; and the methodology for contractor payments.
 - ii). Identify service required for works.
 - iii). Decide on contracting strategy
 - iv). Decide on pricing strategy
 - v). Decide on form of contract
 - vi). Establish opportunities for promoting preferential procurement in

compliance with legislative provisions and the Construction Sector Code

- b). PG 2 is complete when a delegated person or body approves the procurement strategy that is to be adopted.

11.4. Procurement Gate 3 (PG 3)

- a) Approve procurement documents.

11.4.1. Minimum requirements for PG 3

- b). Prepare procurement documents that are compatible with:
 - i). Approved procurement strategies.
 - ii). Project management design documentation.
- c). PG 3 is complete when the Bid Specification Committee approves the procurement document

11.5. Procurement Gate 4 (PG 4)

- a) Confirm that cash flow processes are in place to meet contractual obligations.

11.5.1. Minimum requirement for PG 4

11.5.1.1. Confirm that cash flow processes are in place to meet contractual obligations.

11.5.1.2. Establish control measures for settlement of payments within the time period specified in the contract.

- b). PG 4 is complete when a delegated person or body confirms in writing that cash flow processes are in place; and control measures are established for the procurement to take place.

PART 2: ACQUISITION MANAGEMENT

12. SYSTEM OF ACQUISITION MANAGEMENT

12.1. The accounting officer must implement the system of acquisition management set out in this Part in order to ensure -

- a) that goods and services are procured by the municipality in accordance with authorised processes only;
- b) that expenditure on goods and services is incurred in terms of an approved budget in terms of section 15 of the Act;
- c) that the threshold values for the different procurement processes are complied with;
- d) that bid documentation, evaluation and adjudication criteria, and general conditions of a contract, are as per National and Provincial prescripts.
- e) that the preference point system used in accordance with the Preferential Procurement Regulations 2017.
- f) that any Treasury guidelines on acquisition management are properly taken into account. Verification of bids in excess of R10 million
- g) Verification of bids in excess of R10 million:

Prior to advertisement:

Verification by the Chief Financial Officer

The senior manager responsible for a vote must submit to the Chief Financial Officer

- proof that budgetary provision exists for the procurement of the goods/services and / or infrastructure projects;
 - any ancillary budgetary implications related to the bid;
 - any multi -year budgetary implications;

Prior to the award of a bid

Contracts above the value of R 10 million [all applicable taxes included] may only be awarded to the preferred bidder after the Chief Financial Officer has verified in writing that budgetary provision exists for the acquisition of the goods, infrastructure projects and /or services and that it is consistent with the Integrated Development Plan.

- h) Publication of awards in respect of advertised competitive bids [above the threshold value of R 200 000]

The following information on the successful bids must be placed on the

municipal website:

- Contract numbers and description of goods, services or infrastructure projects;
- Names of the successful bidders and the B-BBEE level of contribution claimed;
- Brand names and dates for completion of contracts.

i) Functionality

Adhere to the revised guidelines when functionality is included as a criterion in the evaluation of bids [National Treasury note issued in September 2010].

- (i) Clear indication must be given in bid documents if bids will be evaluated on functionality.
- (ii) Evaluation criteria must be objective.
- (iii) The weight of each criterion, applicable values and the minimum qualifying score [for each bid on its own merit] must be indicated in the bid documents.
- (iv) Bidders failing to achieve the qualifying score for functionality must be disqualified.
- (v) Bidders achieving the minimum qualifying score must be evaluated further in terms of points for price and B-BBEE status level contribution
- (vi) Must be determined separately for each tender; and
- (vii) May not be so-
 - low that it may jeopardise the quality of the required goods and services; or
 - high that it is unreasonably restrictive.
- (viii) Points scored for functionality must be rounded off to the nearest two decimal places.

12.2. When procuring goods or services contemplated in section 110(2) of the Act must make public the fact that it procures such goods and services otherwise than through its supply chain management system, including -

- a) the kind of goods or services; and
- b) the name of the supplier.

13. FRAMEWORK FOR INFRASTRUCTURE PROCUREMENT

The framework for infrastructure procurement outlines the minimum infrastructure

procurement policy requirements for municipal planning and implementation. The strategic direction set in the Integrated Development Plan (IDP) informs the framework for infrastructure procurement. For example, procurement strategies must be aligned to the municipality's developmental and internal transformation needs, as specified in the IDP

13.1. Procurement Gate 5 (PG 5)

a). Solicit tender offers.

13.1.1. Minimum requirements for PG 5

- i). Invite contractors to submit tender offers.
- ii). Receive tender offers.
- iii). Record tender offers.
- iv). Safeguard tender offers.

b). PG 5 is complete when tender offers received are recorded and safeguarded by a delegated person from the SCM unit.

13.2. Procurement Gate 6 (PG 6)

a). Evaluate tender offers premised on undertakings and parameters established in procurement documents.

13.2.1. Minimum Requirement for PG 6:

- i). Determine whether tender offers are complete.
- ii). Determine whether tender offers are responsive.
- iii). Evaluate tender submissions.
- iv). Review minimum compliance requirements for each tender.
- v). Perform a risk analysis.
- vi). Prepare a report on tender offers received, and on their achievement of minimum compliance.

b). PG 6 is complete when the chairperson of the Bid Evaluation Committee approves the BEC report.

13.3. Procurement Gate 7 (PG 7)

a). Award the contract.

13.3.1. Minimum Requirement for PG 7:

- i). Bid adjudication committee review of the BEC evaluation report.
- ii). Bid Adjudication Committee makes an award.

- iii). Accounting Officer Approval of the tender process.
 - iv). Notify successful tenderer and unsuccessful tenderers of the outcome.
 - v). Sign contract document.
 - vi). Formally accept tender offer.
- b). PG 7 is complete when the Accounting Officer, or the Bid Adjudication Committee where delegated, confirms that the tenderer has provided evidence of complying with all requirements stated in the tender data and formally accepts the tender offer in writing, and issues the contractor with a signed copy of the contract

14. RANGE OF PROCUREMENT PROCESSES

14.1. Goods and services may only be procured by way of-

- a) petty cash purchases, up to a transaction value of R2 000 (VAT included);
- b) written or verbal quotations for procurements of a transaction value over R2 000 up to R10 000 (VAT included);
- c) formal written price quotations for procurements of a transaction value over R10 000 up to R200 000 (VAT included); and
- d) a competitive bidding process for-
 - (i) procurements above a transaction value of R200 000 (VAT) included; and
 - (ii) the procurement of long-term contracts.

14.2. The accounting officer may, in writing-

- a) lower, but not increase, the different threshold values specified in subparagraph (1); or
- b) direct that-
 - (i) written or verbal quotations be obtained for any specific procurement of a transaction value lower than R2 000 [all taxes included];
 - (ii) formal written price quotations be obtained for any specific procurement of a transaction value lower than R 10 000[all taxes included]; or
 - (iii) a competitive bidding process be followed for any specific procurement of a transaction value lower than R200 000 [all taxes included].

- 14.3. Goods or services may not deliberately be split into parts or items of a lesser value merely to avoid complying with the requirements of the policy. When determining transaction values, a requirement for goods or services consisting of different parts or items must as far as possible be treated and dealt with as a single transaction.

15. GENERAL PRECONDITIONS FOR CONSIDERATION OF WRITTEN QUOTATIONS OR BIDS

15.1. A written quotation or bid may not be considered unless the provider who submitted the quotation or bid -

- a) has furnished that provider's -
 - (i) full name;
 - (ii) identification number or company or other registration number; and
 - (iii) tax reference number and VAT registration number, if any;
 - (iv) registered on Central Supplier Database (CSD) with a tax compliant status;
 - (v) check in respect of the recommended bidder whether municipal rates and taxes and municipal service charges are not in arrears for more than three [3] months; or if the bidder lives in the rural area, he or she should get proof of residence from the chief of the village of the area
 - (vi) requirements for construction and engineering related bids should be awarded according to CIDB regulations;
 - (vii) The CIDB Act requires that all projects need to be registered with the CIDB;
 - (viii) Before an award is done to a contractor, the contractor's CIDB grading must be confirmed with the CIDB website;
 - (ix) The CIDB grading designation is as follows:

Grading designation	Less than or equal to
1	R 500 000
2	R 1 000 000
3	R 3 000 000
4	R 6 000 000
5	R 10 000 000
6	R 20 000 000
7	R 60 000 000

8	R 200 000 000
9	No Limit

- a) has authorised the municipality to obtain a tax clearance from the South African Revenue Services that the provider's tax matters are in order; and [the tax compliant status be verified on the Central Supplier Database (CSD)] and
- b) has indicated -
 - (i) whether he or she is in the service of the state, or has been in the service of the state in the previous twelve months;
 - (ii) if the provider is not a natural person, whether any of its directors, managers, principal shareholders or- stakeholder is in the service of the state, or has- been in the service of the state in the previous twelve months; or
 - (iii) whether a spouse, child or parent of the provider or of a director, manager, shareholder or stakeholder referred to in subparagraph (ii) is in the service of the state, or has been in the service of the state in the previous twelve months.

16. LISTS OF ACCREDITED PROSPECTIVE PROVIDERS

16.1. The accounting officer must -

- a) utilise the National Central Supplier Database (NCSD) to source accredited service providers of goods and services that must be used for procurements through written, verbal quotations, formal written price quotations and competitive bids; and
- b) invite prospective service providers of goods and services to apply for evaluation and listing as accredited prospective service providers for subcontracting purposes; and
- c) disallow the listing of any prospective provider whose name appears on the National Treasury's database as a person prohibited from doing business with the public sector.
- d) Suppliers may update their CSD status continuously;
- e) CSD is compiled per commodity and per type of service.

17. PETTY CASH PURCHASES

17.1. The conditions for the procurement of goods by means of petty cash purchases referred to in paragraph 14 (1) (a) of this Policy, are as follows –

- a) council determine the terms on which a manager may delegate responsibility for petty cash to an official reporting to the manager;
- b) council determine the maximum number of petty cash purchases or the maximum amounts per month for each manager;
- c) council determine any types of expenditure from petty cash purchases that are excluded, where this is considered necessary; and
- d) a monthly reconciliation report from each manager must be provided to the chief financial officer, including –
 - (i) the total amount of petty cash purchases for that month; and
 - (ii) receipts and appropriate documents for each purchase.

18. WRITTEN OR VERBAL QUOTATIONS

18.1. The conditions for the procurement of goods or services through written or verbal quotations are as follows:

- a) Quotations must be obtained from at least three different providers preferably from, but not limited to, providers whose names are listed on the CSD.
- b) quotations must be approved on a rotation basis.
- c) to the extent feasible, providers must be requested to submit such quotations in writing
- d) if it is not possible to obtain at least three quotations, the reasons must be recorded and reported quarterly to the accounting officer or another official designated by the accounting officer;
- e) the accounting officer must record the names of the potential providers requested to provide such quotations with their quoted prices; and
- f) if a quotation was submitted verbally, the order may be placed only against written confirmation by the selected provider:
- g) The municipality will investigate and utilize various other options to advertise bids/quotations viz. community boards, the library, public buildings, police station, etc. This is to ensure that the municipality tried to obtain at least three quotations.
- h) In cases where there are only a few suppliers for certain goods e.g., vehicle repairs, fuel outlets, etc. the municipality will then use these suppliers on a rotation basis. This practice will only be utilized in exceptional cases. As soon

as more suppliers become available, such goods / services will be provided via the normal SCM quotations.

19. FORMAL WRITTEN PRICE QUOTATIONS -

19.1. The conditions for the procurement of goods or services through formal written price quotations, are as follows:

- a) quotations must be obtained in writing from at least three different providers whose names are listed on Central Supplier Database
- b) if it is not possible to obtain at least three quotations, the reasons must be recorded and approved by the chief financial officer or an official designated by the chief financial officer, and
- c) the accounting officer must record the names of the potential providers and their written quotations.

19.2. A designated official referred to in subparagraph (1) (c) must within three days of the end of each month report to the chief financial officer on any approvals given during that month by that official in terms of that subparagraph.

20. PROCEDURES FOR PROCURING GOODS OR SERVICES THROUGH WRITTEN OR VERBAL QUOTATIONS AND FORMAL WRITTEN PRICE QUOTATIONS

20.1. The procedure for the procurement of goods or services through written or verbal quotations or formal written price quotations, is as follows:

- a) the accounting officer must promote ongoing competition amongst providers by inviting providers to submit quotations on a rotation basis.
- b) all requirements in excess of R30 000 (VAT included) that are to be procured by means of formal written price quotations must, in addition to the requirements of paragraph 19, be advertised for at least seven days on the website and an official notice board of the municipality;
- c) offers received must be evaluated on a comparative basis taking into account unconditional discounts;
- d) the accounting officer or chief financial officer must on a monthly basis be notified in writing of all written or verbal quotations and formal written price quotations accepted by an official acting in terms of a sub delegation;
- e) offers below R30 000 (VAT included) must be awarded based on compliance to specifications and conditions of contract, ability and capability to deliver the

goods and services and lowest price;

- f) acceptable offers, which are subject to the preference points system (PPPFA and PPR 2017), must be awarded to the bidder who's offer is according to specifications, has the ability to deliver and is compliant with all the other requirements and scored the highest points.
- g) Minimum requirements for proper record keeping must be complied with.

21. COMPETITIVE BIDS

21.1. Goods or services above a transaction value of R200 000 (VAT included) and long-term contracts may only be procured through a competitive bidding process, subject to paragraph 12 (2) and 15 of this Policy.

21.2. No requirement for goods or services above an estimated transaction value of R200 000 (VAT included), may deliberately be split into parts or items of lesser value merely for the sake of procuring the goods or services otherwise than through a competitive bidding process.

21.3. The 80/20 or 90/10 principle is applicable; 80/90 points for price and 20/10 points for B- BBEE status level verification certificates. The 20/10 points will be standard as follows;

B-BBEE Status Level of Contributor	Number of points [80/20]	Number of points [90/10]
1	20	10
2	18	9
3	14	6
4	12	5
5	8	4
6	6	3
7	4	2
8	2	1
Non-compliant Contributor	0	0

21.4. The points scored for price must be added to the points scored for B-BBEE status level of contribution to obtain the bidder's total points scored out of 100. A bid must not be disqualified from the bidding process if the bidder does not submit a certificate substantiating the B-BBEE status level of contribution or is a non-compliant

contributor. Such a bidder will score 0 out of a maximum of 10 or 20 points for B-BBEE status.

- 21.5. The 80/20-point system is applicable from R30 000 [all taxes included] up to R50 million [all taxes included]
- 21.6. The 90/10-point system is applicable to bids invited exceeding R 50 million [all taxes included]
- 21.7. The specification committee will make proposals if functionality points need to be used and the evaluation committee will approve a variation in the point system for a specific bid.
- 21.8. For construction procurements the CIDB Act and Regulations are to be used for quotations/ bids.

22. PROCESS FOR COMPETITIVE BIDDING

- 22.1. The procedures for the following stages of a competitive bidding process are as follows:
 - a) Compilation of bidding documentation as detailed in paragraph 23;
 - b) Public invitation of bids as detailed in paragraph 24;
 - c) Site meetings or briefing sessions as detailed in paragraph 24;
 - d) Handling of bids submitted in response to public invitation as detailed in paragraph 25;
 - e) Evaluation of bids as detailed in paragraph 30;
 - f) Award of contracts as detailed in paragraph 31;
 - g) Administration of contracts
 - (i) After approval of a bid, the accounting officer and the bidder must enter into a written agreement.
 - h) Sub-contracting
 - (i) A person awarded a contract may only enter into a subcontracting arrangement with the approval of the organ of state.
 - (ii) A person awarded a contract in relation to a designated sector, may not subcontract in such a manner that the local production and content of the overall value of the contract is reduced to below the stipulated minimum threshold.
 - (iii) A person awarded a contract may not submit more than 25% of the value of the contract to any other enterprise that does not have an equal or higher B-BBEE status level of contributor than the person

concerned unless the contract is subcontracted to an EME that has the capability and ability to execute the subcontract.

22.2. Subcontracting as condition of tender

- a) If feasible to subcontract for a contract above R30 million, an organ of state must apply subcontracting to advance designated groups.
- b) If an organ of state applies subcontracting as contemplated in sub regulation (1) the organ of state must advertise the tender with a specific tendering condition that the successful tenderer must subcontract a minimum of 30% of the value of the contract to-
 - (i) an EME or QSE which is at least 51% Black Owned;
 - (ii) an EME or QSE which is at least 51% owned black owned by black youth;
 - (iii) an EME or QSE which is at least 51% Black Women Owned;
 - (iv) an EME or QSE which is at least 51% owned by black people with disabilities;
 - (v) an EME or QSE which is 51% owned by black people living in rural or underdeveloped areas and / or townships;
 - (vi) a Cooperative which is at least 51% owned by black people;
 - (vii) an EME or QSE which is at least 51% owned by black people who are military veterans;
 - (viii) The organ of state must make available the list of all suppliers registered on a database approved by national treasury to provide the required goods or services in respect of the applicable designated groups mentioned in sub-regulation (2) from which the tenderer must select a supplier.

22.3. Local production and content

22.3.1. The Department of Trade and Industry may, in consultation with the National Treasury -

- a) designate a sector, sub-sector or industry or product in accordance with national development and industrial policies for local production and content, where only locally produced services or goods or locally manufactured goods meet the stipulated minimum threshold for local production and content, taking into account economic and other relevant factors; and
- b) stipulate a minimum threshold for local production and content.

22.3.2. An organ of state must, in the case of a designated sector, advertise the invitation to tender with a specific condition that only locally produced goods or locally manufactured goods, meeting the stipulated minimum threshold for local production and content, will be considered.

22.3.3. The National Treasury must inform organs of state of any designation made in terms of regulation 8(1) through a circular,

22.3.4. a). If there is no designated sector, an organ of state may include, as a specific condition of the tender, that only locally produced services or goods or locally manufactured goods with a stipulated minimum threshold for local production and content, will be considered.

b). The threshold referred to in paragraph (a) must be in accordance with the standards determined by the Department of Trade and Industry in consultation with the National Treasury.

22.3.5. A tender that fails to meet the minimum stipulated threshold for local production and content is an unacceptable tender.

22.3.6. Local Content also applicable when requesting quotations.

22.4. Evaluation of bids that scored equal points

- i. In the event that two or more bids have scored equal total, the successful bid must be the one that scored the highest points for B-BBEE.
- ii. If two or more bids have equal points, including equal preference points for BBBEE, the successful bid must be the one scoring the highest points for functionality, if functionality is part of the evaluation process.
- iii. In the event that two or more bids are equal in all respects, the award must be decided by drawing lots.

22.5. Cancellation and re-invitation of bids

- (i) Addition of sub-regulation related to cancellation of tender due to material irregularities.
- (ii) Also, in addition of a provision that an organ of state may cancel a tender for the second time, only with the approval of the relevant treasury.

22.6. Awarding of contracts

A contract must be awarded to the bidder who scored the highest total number of points in terms of the preference point system. In exceptional circumstances a contract may, on reasonable and justifiable grounds be awarded to a bidder that did

not score the highest number of points. The reasons for such a decision must be approved and recorded for audit purposes and must be defensible in a court of law.

22.7. Sale and letting of assets

- i. The Preferential Procurement Regulations, 2017, are not applicable to the sale and letting of assets.
- ii. In instances where assets are sold or leased, by means of a bidding process, the bid must be awarded to the bidder with the highest price

22.8. Proper record keeping

- (i) Original legal copies of written contracts agreements should be kept in a secure place for reference purposes.

23. BID DOCUMENTATION FOR COMPETITIVE BIDS

23.1. The criteria to which bid documentation for a competitive bidding process must comply, must-

- a) take into account -
 - i. the general conditions of contract and any special conditions of contract, if specified;
 - ii. any Treasury guidelines on bid documentation; and
 - iii. the requirements of the Construction Industry Development Board, in the case of a bid relating to construction, upgrading or refurbishment of buildings or infrastructure;
- b) include the preference points system to be used, goals as contemplated in the Preferential Procurement Regulations and evaluation and adjudication criteria, including any criteria required by other applicable legislation;
- c) compel bidders to declare any conflict of interest they may have in the transaction for which the bid is submitted;
- d) if the value of the transaction is expected to exceed R 10 million (VAT included), require bidders to furnish-
 - (i) if the bidder is required by law to prepare annual financial statements for auditing, their audited annual financial statements-
 - aa). for the past three years; or
 - bb). since their establishment if established during the past three years;
 - (ii) a certificate signed by the bidder certifying that the bidder has no

undisputed commitments for municipal services towards a municipality or other service provider in respect of which payment is overdue for more than 30 days;

- (iii) particulars of any contracts awarded to the bidder by an organ of state during the past five years, including particulars of any material non-compliance or dispute concerning the execution of such contract;
 - (iv) a statement indicating whether any portion of the goods or services are expected to be sourced from outside the Republic, and, if so, what portion and whether any portion of payment from the municipality is expected to be transferred out of the Republic; and
- e) stipulate those disputes must be settled by means of mutual consultation, mediation (with or without legal representation), or, when unsuccessful, in a South African court of law.
- f) The Accounting Officer reserves the right to stipulate such a dispute to be settled utilizing a court of law preferably within the municipal boundaries or as close as possible to the municipal boundaries

24. PUBLIC INVITATION FOR COMPETITIVE BIDS

24.1. The procedure for the invitation of competitive bids, is as follows:

- a) Any invitation to prospective providers to submit bids must be by means of a public advertisement in newspapers commonly circulating locally, the website of the municipality or any other appropriate ways which include for;
 - (i) **GOODS AND SERVICES:**
Advertisement of Bids and the Publication of notices in respect of Awards Cancelled Bids, Verification and Extension of existing contracts on the e-Tender Publication Portal and Government Tender Bulletin; and
 - (ii) **WORKS AND INFRASTRUCTURE:**
Advertisement of Bids and the Publication of notices in respect of Awards, and cancellation of bids on the CIDB i-Tender.
- b) the information contained in a public advertisement, must include-
 - (i) the closure date for the submission of bids, which may not be less than 30 days in the case of transactions over R 10 million (VAT included), or which are of a long-term nature, or 14 days in any other case, from the date on which the advertisement is placed in a newspaper, subject to subparagraph (2) of this policy;

- (ii) a statement that bids may only be submitted on the bid documentation provided by the municipality or the bid document uploaded on the e-tender portal; and
 - (iii) date, time and venue of any proposed site meetings or briefing sessions;
- 24.2. The accounting officer may determine a closure date for the submission of bids on the grounds of urgency or emergency or any exceptional case where it is impractical or impossible to follow the official procurement process.
- 24.3. Bids submitted must be sealed.
- 24.4. Where bids are requested in electronic format, such bids must be supplemented by sealed hard copies.
- 24.5. If a municipality decides to apply pre-qualifying criteria to advance certain designated groups, that organ of state must advertise the tender with a specific tendering condition that only one or more of the following tenderers may respond –
 - 24.5.1. a tenderer having a stipulated minimum B-BBEE status level of contributor;
 - 24.5.2. an EME or QSE;
 - 24.5.3. a tenderer or subcontracting a minimum of 30% to –
 - (i) an EME or QSE which is at least 51% owned by black people,
 - (ii) an EME or QSE which is at least 51% owned black owned by black people who are youth.
 - (iii) and EME or QSE which is at least 51% owned by black people who are women;
 - (iv) an EME or QSE which is at least 51% owned by black people with disabilities;
 - (v) an EME which is 51% owned by black people living in rural or underdeveloped areas or townships;
 - (vi) a cooperative which is at least 51% owned by black people;
 - (vii) an EME or QSE which is at least owned by black people who are military veterans;
 - (viii) and EME or QSE

25. PROCEDURE FOR HANDLING, OPENING AND RECORDING OF BIDS

- 25.1. The procedures for the handling, opening and recording of bids, are as follows:
 - a) Bids-
 - (i) must be opened only in public;
 - (ii) must be opened at the same time and as soon as possible after the

- period for the submission of bids has expired; and
- (iii) received after the closing time should not be considered and returned unopened immediately.
- b) Any bidder or member of the public has the right to request that the names of the bidders who submitted bids in time must be read out and, if practical, also each bidder's total bidding price;
- c) No information, except the provisions in subparagraph (b), relating to the bid should be disclosed to bidders or other persons until the successful bidder is notified of the award; and
- d) The accounting officer must-
 - (i) record in a register all bids received in time;
 - (ii) make the register available for public inspection; and
 - (iii) publish the entries in the register and the bid results on the website.

26. NEGOTIATIONS WITH PREFERRED BIDDERS

26.1. The accounting officer may negotiate the final terms of a contract with bidders identified through a competitive bidding process as preferred bidders, provided that such negotiation -

- a) does not allow any preferred bidder a second or unfair opportunity;
- b) is not to the detriment of any other bidder; and
- c) does not lead to a higher price than the bid as submitted.
- d) upon approval to negotiate, the AO/AA must appoint a cross functional negotiation team, with one member appointed to be team leader.
- e) the negotiation team leader must ensure that all members of the negotiating team are clear on the negotiation strategy and desired outcomes.

26.2. Minutes of such negotiations must be kept for record purposes.

27. TWO-STAGE BIDDING PROCESS

27.1. A two-stage bidding process is allowed for -

- a) large complex projects;
- b) projects where it may be undesirable to prepare complete detailed technical specifications; or
- c) long term projects with a duration period exceeding three years.

27.2. In the first stage technical proposals on conceptual design or performance

specifications should be invited, subject to technical as well as commercial clarifications and adjustments.

27.3. In the second stage final technical proposals and priced bids should be invited.

28. COMMITTEE SYSTEM FOR COMPETITIVE BIDS

28.1. A committee system for competitive bids is hereby established, consisting of the following committees for each procurement or cluster of procurements as the accounting officer may determine:

- a) a bid specification committee;
- b) a bid evaluation committee; and
- c) a bid adjudication committee;

28.2. The accounting officer appoints the members of each committee, taking into account section 117 of the Act; and

28.3. A neutral or independent observer, appointed by the accounting officer, must attend or oversee a committee when this is appropriate for ensuring fairness and promoting transparency.

28.4. The committee system must be consistent with -

- a) paragraph 29, 30 and 31 of this Policy; and
- b) any other applicable legislation.

28.5. The accounting officer may apply the committee system to formal written price quotations.

29. BID SPECIFICATION COMMITTEES

29.1. A bid specification committee must compile the specifications for each procurement of goods or services by the municipality.

29.2. Specifications -

- a) must be drafted in an unbiased manner to allow all potential suppliers to offer their goods or services;
- b) must take account of any accepted standards such as those issued by Standards South Africa, the International Standards Organisation, or an authority accredited or recognised by the South African National Accreditation System with which the equipment or material or workmanship should comply;
- c) must, where possible, be described in terms of performance required rather

than in terms of descriptive characteristics for design;

- d) may not create trade barriers in contract requirements in the forms of specifications, plans, drawings, designs, testing and test methods, packaging, marking or labelling of conformity certification;
- e) may not make reference to any particular trade mark, name, patent, design, type, specific origin or producer unless there is no other sufficiently precise or intelligible way of describing the characteristics of the work, in which case such reference must be accompanied by the word "equivalent";
- f) must indicate each specific goal for which points may be awarded in terms of the points system set out in the Preferential Procurement Regulations 2001; and
- g) must be approved by the accounting officer prior to publication of the invitation for bids in terms of paragraph 24 of this Policy.

29.3. A bid specification committee must be composed of one or more officials of the municipality preferably the manager responsible for the function involved, and may, when appropriate, include external specialist advisors.

29.4. No person, advisor or corporate entity involved with the bid specification committee, or director of such a corporate entity, may bid for any resulting contracts.

30. BID EVALUATION COMMITTEES

30.1. A bid evaluation committee must-

- a) evaluate bids in accordance with -
 - (i) the specifications for a specific procurement; and
 - (ii) the points system set out in terms of paragraph 29(2)(f).
- b) evaluate each bidder's ability to execute the contract;
- c) check in respect of the recommended bidder whether municipal rates and taxes and municipal service charges are not in arrears, and;
- d) submit to the adjudication committee a report and recommendations regarding the award of the bid or any other related matter.

30.2. A bid evaluation committee must as far as possible be composed of-

- a) officials from departments requiring the goods or services; and
- b) at least one supply chain management practitioner of the municipality.

31. BID ADJUDICATION COMMITTEES

31.1. A bid adjudication committee must -

- a) consider the report and recommendations of the bid evaluation committee; and
- b) either-
 - (i) depending on its delegations, make a final award or a recommendation to the accounting officer to make the final award; or
 - (ii) make another recommendation to the accounting officer how to proceed with the relevant procurement.

31.2. A bid adjudication committee must consist of at least four senior managers of the municipality, which must include -

- (i) the chief financial officer or, if the chief financial officer is not available, another manager in the budget and treasury office reporting directly to the chief financial officer and designated by the chief financial officer; and
 - (ii) at least one senior supply chain management practitioner who is an official of the municipality; and
 - (iii) a technical expert in the relevant field who is an official, and who requests the goods /services must be co-opted any way. Outside technical experts can also be co-opted, they must leave the meeting after advice has been given. Only standing committee members can be involved in final deliberation and recommendations or final approval.
- a) Where the Bid Adjudication Committee is of the view that the tenderer is charging prices higher than the fair market price, the Bid Adjudication Committee may request for the AO/AA to subject the tender to price negotiations with the tenderers scoring the highest points (from first highest to third highest) before award is made.

31.3. The accounting officer must appoint the chairperson of the committee. If the chairperson is absent from a meeting, the members of the committee who are present must elect one of them to preside at the meeting.

31.4. Neither a member of a bid evaluation committee, nor an advisor or person assisting the evaluation committee, may be a member of a bid adjudication committee.

31.5.

- a) If the bid adjudication committee decides to award a bid other than the one recommended by the bid evaluation committee, the bid adjudication committee must prior to awarding the bid -

- (i) check in respect of the preferred bidder whether that bidder's municipal rates and taxes and municipal service charges are not in arrears, and;
 - (ii) notify the accounting officer.
 - b) The accounting officer may-
 - (i) after due consideration of the reasons for the deviation, ratify or reject the decision of the bid adjudication committee referred to in paragraph (a); and
 - (ii) if the decision of the bid adjudication committee is rejected, refer the decision of the adjudication committee back to that committee for reconsideration.
- 31.6. The accounting officer may at any stage of a bidding process, refer any recommendation made by the evaluation committee or the adjudication committee back to that committee for reconsideration of the recommendation.
- 31.7. The accounting officer must comply with section 114 of the Act within 10 working days
- 31.8. For the purposes of continuity and not to delay meetings the Accounting Officer may also appoint any official to temporarily replace members that are absent from meetings due to illness, leave, etc. The Accounting Officer may also decide whether or not such an official will have the same powers as committee members.

32. PROCUREMENT OF BANKING SERVICES

- 32.1. A contract for banking services-
- a) must be procured through competitive bids;
 - b) must be consistent with section 7 or 85 of the Act; and
 - c) may not be for a period of more than five years at a time.
- 32.2. The process for procuring a contract for banking services must commence at least nine months before the end of an existing contract.
- 32.3. The closure date for the submission of bids may not be less than 60 days from the date on which the advertisement is placed in a newspaper in terms of paragraph 24(1). Bids must be restricted to banks registered in terms of the Banks Act, 1990 (Act No. 94 of 1990):

33. PROCUREMENT OF IT RELATED GOODS OR SERVICES

- 33.1. The accounting officer may request the State Information Technology Agency (SITA) to assist with the acquisition of IT related goods or services through a

competitive bidding process.

- 33.2. Both parties must enter into a written agreement to regulate the services rendered by, and the payments to be made to, SITA.
- 33.3. The accounting officer must notify SITA together with a motivation of the IT needs if
 - a) the transaction value of IT related goods or services required in any financial year will exceed R50 million (VAT included); or
 - b) the transaction value of a contract to be procured whether for one or more years exceeds R50 million (VAT included).
- 33.4. If SITA comments on the submission and the municipality disagrees with such comments, the comments and the reasons for rejecting or not following such comments must be submitted to the council, the National Treasury, the relevant provincial treasury and the Auditor General.

34. PROCUREMENT OF GOODS AND SERVICES UNDER CONTRACTS SECURED BY OTHER ORGANS OF STATE

- 34.1. The accounting officer may procure goods or services under a contract secured by another organ of state, but only if -
 - a) the contract has been secured by that other organ of state by means of a competitive bidding process applicable to that organ of state;
 - b) there is no reason to believe that such contract was not validly procured;
 - c) there are demonstrable discounts or benefits to do so; and
 - d) that other organ of state and the provider have consented to such procurement in writing.
- 34.2. Subparagraphs (1)(c) and (d) do not apply if-
 - a) a municipal entity procures goods or services through a contract secured by its parent municipality; or
 - b) a municipality procures goods or services through a contract secured by a municipal entity of which it is the parent municipality.
- 34.3. The municipality will implement this procurement method using the guidelines provided in the Instruction Note 25/08/2020 and its implementation guide.

35. PROCUREMENT OF GOODS NECESSITATING SPECIAL SAFETY ARRANGEMENTS

- 35.1. The acquisition and storage of goods in bulk (other than water), which necessitate special safety arrangements, including gasses and fuel, should be avoided where ever possible.

- 35.2. Where the storage of goods in- bulk is justified, such justification must be based on sound reasons, including the total cost of ownership, cost advantages and environmental impact and must be approved by the accounting officer.

36. PROUDLY SA CAMPAIGN

- 36.1. The municipality supports the Proudly SA Campaign to the extent that, all things being equal, preference is given to procuring local goods and services from:
- Firstly - suppliers and businesses within the municipality or district;
 - Secondly - suppliers and businesses within the relevant province;
 - Thirdly - suppliers and businesses within the Republic.

37. APPOINTMENT OF CONSULTANTS

- 37.1. The accounting officer may procure consulting services provided that any Treasury guidelines in respect of consulting services are taken into account when such procurements are made.
- 37.2. Consultancy services must be procured through competitive bids if
- a) the value of the contract exceeds R200 000 (VAT included); or
 - b) the duration period of the contract exceeds one year.
- 37.3. In addition to any requirements prescribed by this policy for competitive bids, bidders must furnish particulars of -
- a) all consultancy services provided to an organ of state in the last five years; and
 - b) any similar consultancy services provided to an organ of state in the last five years.
- 37.4. The accounting officer must ensure that copyright in any document produced, and the patent rights or ownership in any plant, machinery, thing, system or process designed or devised, by a consultant in the course of the consultancy service is vested in the municipality.

38. DEVIATION FROM, AND RATIFICATION OF MINOR BREACHES OF, PROCUREMENT PROCESSES

- 38.1. The accounting officer may -
- a) dispense with the official procurement processes established by this Policy and to procure any required goods or services through any convenient process, which may include direct negotiations, but only –
 - (i) in an emergency;

- (ii) if such goods or services are produced or available from a single provider only;
 - (iii) for the acquisition of special works of art or historical objects where specifications are difficult to compile;
 - (iv) acquisition of animals for zoos and/or nature and game reserves; or
 - (v) in any other exceptional case where it is impractical or impossible to follow the official procurement processes; and
 - b) ratify any minor breaches of the procurement processes by an official or committee acting in terms of delegated powers or duties which are purely of a technical nature.
- 38.2. The accounting officer must record the reasons for any deviations in terms of subparagraphs (1)(a) and (b) of this policy and report them to the next meeting of the council and include as a note to the annual financial statements.
- 38.3. Subparagraph (2) does not apply to the procurement of goods and services contemplated in paragraph 12 (2) of this policy.
- 38.4. Management of expansion or variation of orders against the original contract
- (i) Contracts may be expanded or varied by not more than 20% for construction related goods, services and /or infrastructure projects and 15% for all other goods and/or services of the original value of the contract. Furthermore, anything beyond the above-mentioned thresholds must be reported to council. Any expansion or variation in excess of these thresholds must be dealt with in terms of the provisions of Section 116 (3) of the MFMA which will be regarded as an amendment of the contract.
 - (ii) The contents of this paragraph are not applicable to transversal contracts, facilitated by the relevant treasuries on behalf of municipalities and specific term contracts. The latter refers to orders placed as and when commodities are required and at the time of awarding contracts, the required quantities were unknown.

39. UNSOLICITED BIDS

- 39.1. In accordance with section 113 of the Act there is no obligation to consider unsolicited bids received outside a normal bidding process.
- 39.2. The accounting officer may decide in terms of section 113(2) of the Act to consider an unsolicited bid, only if-

- a) the product or service offered in terms of the bid is a demonstrably or proven unique innovative concept;
 - b) the product or service will be exceptionally beneficial to, or have exceptional cost advantages;
 - c) the person who made the bid is the sole provider of the product or service; and
 - d) the reasons for not going through the normal bidding processes are found to be sound by the accounting officer.
- 39.3. If the accounting officer decides to consider an unsolicited bid that complies with subparagraph (2) of this policy, the decision must be made public in accordance with section 21A of the Municipal Systems Act, together with -
- a) its reasons as to why the bid should not be open to other competitors;
 - b) an explanation of the potential benefits if the unsolicited bid were accepted; and
 - c) an invitation to the public or other potential suppliers to submit their comments within 30 days of the notice.
- 39.4. The accounting officer must submit all written comments received pursuant to subparagraph (3), including any responses from the unsolicited bidder, to the National Treasury and the relevant provincial treasury for comment.
- 39.5. The adjudication committee must consider the unsolicited bid and may award the bid or make a recommendation to the accounting officer, depending on its delegations.
- 39.6. A meeting of the adjudication committee to consider an unsolicited bid must be open to the public.
- 39.7. When considering the matter, the adjudication committee must take into account -
- a) any comments submitted by the public; and
 - b) any written comments and recommendations of the National Treasury or the relevant provincial treasury.
- 39.8. If any recommendations of the National Treasury or Provincial Treasury are rejected or not followed, the accounting officer must submit to the Auditor General, the relevant provincial treasury and the National Treasury the reasons for rejecting or not following those recommendations.
- 39.9. Such submission must be made within seven days after the decision on the award of the unsolicited bid is taken, but no contract committing the municipality to the bid may be entered into or signed within 30 days of the submission.

40. COMBATING OF ABUSE OF SUPPLY CHAIN MANAGEMENT SYSTEM

40.1. The accounting officer must-

- a) take all reasonable steps to prevent abuse of the supply chain management system;
- b) investigate any allegations against an official or other role player of fraud, corruption, favouritism, unfair or irregular practices or failure to comply with this Policy, and when justified -
 - (i) take appropriate steps against such official or other role player; or
 - (ii) report any alleged criminal conduct to the South African Police Service;
- c) check the National Treasury's database prior to awarding any contract to ensure that no recommended bidder, or any of its directors, is listed as a person prohibited from doing business with the public sector;
- d) reject any bid from a bidder-
 - (i) if any municipal rates and taxes or municipal service charges owed by that bidder or any of its directors to the municipality or to any other municipality, are in arrears for more than three months; or
 - (ii) who during the last five years has failed to perform satisfactorily on a previous contract with the municipality or any other organ of state after written notice was given to that bidder that performance was unsatisfactory;
- e) reject a recommendation for the award of a contract if the recommended bidder, or any of its directors, has committed a corrupt or fraudulent act in competing for the particular contract;
- f) cancel a contract awarded to a person if -
 - (i) the person committed any corrupt or fraudulent act during the bidding process or the execution of the contract; or
 - (ii) an official or other role player committed any corrupt or fraudulent act during the bidding process or the execution of the contract that benefited that person; and
- g) reject the bid of any bidder if that bidder or any of its directors -
 - (i) has abused the supply chain management system of the municipality or has committed any improper conduct in relation to such system;
 - (ii) has been convicted for fraud or corruption during the past five years;
 - (iii) has willfully neglected, reneged on or failed to comply with any government, municipal or other public sector contract during the past

five years; or

- (iv) has been listed in the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004).

40.2. The accounting officer must inform the National Treasury and relevant provincial treasury in writing of any actions taken in terms of subparagraphs (1)(b)(ii), (e) or (f) of this policy.

40.3. The accounting officer [who may delegate the task to the CFO] must, as part of complying with section 62[1][d] of the MFMA set up and maintain a register of Unauthorised, Irregular, Fruitless and Wasteful Expenditures. The aim with the register is also to serve as a tool for recording all unauthorised, irregular, fruitless and wasteful expenditures and for tracking progress in dealing with the consequences flowing from such expenditures until all the issues that gave rise to the expenditures are properly resolved in accordance with the legal framework. Please also consult National Treasury MFMA Circular 68 dated 10 May 2013 in this regard.

40.4. REMEDIES

The regulation has been enhanced to include sub-regulations related to:

- (i) Giving tenderer an opportunity to make a submission;
- (ii) Informing the relevant treasury in writing of any actions taken against the tenderer;
- (iii) The responsibilities of the treasury after receiving documents from the organ of state concerned.

PART 3: LOGISTICS, DISPOSAL, RISK AND PERFORMANCE MANAGEMENT

41. LOGISTICS MANAGEMENT

41.1. The accounting officer must establish and implement an effective system of logistics management, which must include -

- a) the monitoring of spending patterns on types or classes of goods and services incorporating, where practical, the coding of items to ensure that each item has a unique number;
- b) the setting of inventory levels that includes minimum and maximum levels and lead times wherever goods are placed in stock;

- c) the placing of manual or electronic orders for all acquisitions other than those from petty cash;
- d) before payment is approved, certification by the responsible officer that the goods and services are received or rendered on time and is in accordance with the order, the general conditions of contract and specifications where applicable and that the price charged is as quoted in terms of a contract; .
- e) appropriate standards of internal control and warehouse management to ensure that goods placed in stores are secure and only used for the purpose for which they were purchased;
- f) regular checking to ensure that all assets including official vehicles are properly managed, appropriately maintained and only used for official purposes; and
- g) monitoring and review of the supply vendor performance to ensure compliance with specifications and contract conditions for particular goods or services.
- h) the maintenance and administration of term contracts is co-managed with acquisition management for general goods / services.

42. DISPOSAL MANAGEMENT

42.1. The criteria for the disposal or letting of assets, including unserviceable, redundant or obsolete assets, subject to sections 14 and 90 of the Act, are to be determined by council.

42.2. Assets may be disposed of by –

- (i) transferring the asset to another organ of state in terms of a provision of the Act enabling the transfer of assets;
- (ii) transferring the asset to another organ of state at market related value or, when appropriate, free of charge;
- (iii) selling the asset; or

42.3. The accounting officer must stipulate that -

- (i) immovable property is sold only at market related prices except when the public interest or the plight of the poor demands otherwise;
- (ii) movable assets are sold either by way of written price quotations, a competitive bidding process, auction or at market related prices, whichever is the most advantageous;
- (iii) in the case of free disposal of computer equipment, the provincial department of education must first be approached to indicate withing

30 days whether any of the local schools are interested in the equipment; and

- (iv) in the case of disposal of firearms, the National Conventional Arms Control Committee has approved any sale or donation of firearms to any person or institution within or outside the Republic;

provide that -

- a). immovable property is let at market related rates except when the public interest or the plight of the poor demands otherwise;
- b). all fees, charges, rates, tariffs, scales of fees or other charges relating to the letting of immovable property are annually reviewed;
- (v). where assets are traded in for other assets, the highest possible trade-in price is negotiated.

43. RISK MANAGEMENT

43.1. The criteria for the identification, consideration and avoidance of potential risks in the supply chain management system, are to be determined by council

43.2. Risk management must include -

- a) the identification of risks on a case-by-case basis;
- b) the allocation of risks to the party best suited to manage such risks;
- c) acceptance of the cost of the risk where the cost of transferring the risk is greater than that of retaining it;
- d) the management of risks in a pro-active manner and the provision of adequate cover for residual risks; and
- e) the assignment of relative risks to the contracting parties through clear and unambiguous contract documentation.

44. PERFORMANCE MANAGEMENT

44.1. The accounting officer must establish and implement an internal monitoring system in order to determine, on the basis of a retrospective analysis, whether the authorised supply chain management processes were followed and whether the objectives of this Policy were achieved.

PART 4: OTHER MATTERS

45. PROHIBITION ON AWARDS TO PERSONS WHOSE TAX MATTERS ARE NOT IN ORDER

- 45.1. No award above R 15 000 [all taxes included], may be made in terms of this Policy to a person whose tax matters have not been declared by the South African Revenue Service to be in order.
- 45.2. Before making an award to a person the accounting officer must first check with SARS whether that person's tax matters are in order.
- 45.3. If SARS does not respond within 7 days such person's tax matters may for purposes of subparagraph (1) be presumed to be in order.

46. PROHIBITION ON AWARDS TO PERSONS IN THE SERVICE OF THE STATE

- 46.1. Irrespective of the procurement process followed, no award may be made to a person in terms of this Policy -
 - a) who is in the service of the state;
 - b) if that person is not a natural person, of which any director, manager, principal shareholder or stakeholder is a person in the service of the state; or
 - c) a person who is an advisor or consultant contracted with the municipality.

47. AWARDS TO CLOSE FAMILY MEMBERS OF PERSONS IN THE SERVICE OF THE STATE

- 47.1. The accounting officer must ensure that the notes to the annual financial statements disclose particulars of any award of more than R2000 to a person who is a spouse, child or parent of a person in the service of the state, or has been in the service of the state in the previous twelve months, including -
 - a) the name of that person;
 - b) the capacity in which that person is in the service of the state; and
 - c) the amount of the award.

48. ETHICAL STANDARDS

- 48.1. A code of ethical standards as set out in subparagraph (2) is hereby established for officials and other role players in the supply chain management system of the municipality in order to promote -
 - a) mutual trust and respect; and
 - b) an environment where business can be conducted with integrity and in a fair and reasonable manner.

Note:

It is recommended that the municipality or municipal entity adopt the 'National Treasury's code of conduct for supply chain management practitioners and other role players involved in supply chain management'. When adopted, such code of conduct becomes binding on all officials and other role players involved in the implementation of the supply chain management policy of the municipality or municipal entity. A copy of the National Treasury code of conduct is available on the website www.treasury.gov.za/mfma located under "legislation". This code of conduct must be adopted by council or board of directors to become binding.

48.2. An official or other role player involved in the implementation of this Policy -

- a) must treat all providers and potential providers equitably;
- b) may not use his or her position for private gain or to improperly benefit another person;
- c) may not accept any reward, gift, favour, hospitality or other benefit directly" or indirectly, including to any close family member, partner or associate of that person, of a value more than R350;
- d) notwithstanding subparagraph (2) (c), must declare to the accounting officer details of any reward, gift, favour, hospitality or other benefit promised, offered or granted to that person or to any close family member, partner or associate of that person;
- e) must declare to the accounting officer details of any private or business interest which that person, or any close family member, partner or associate, may have in any proposed procurement or disposal process of, or in any award of a contract by, the municipality;
- f) must immediately withdraw from participating in any manner whatsoever in a procurement or disposal process or in the award of a contract in which that person, or any close family member, partner or associate, has any private or business interest;
- g) must be scrupulous in his or her use of property belonging to municipality;
- h) must assist the accounting officer in combating fraud, corruption, favouritism and unfair and irregular practices in the supply chain management system; and
- i) must report to the accounting officer any alleged irregular conduct in the supply chain management system which that person may become aware of, including
 -
 - (i) any alleged fraud, corruption, favoritism or unfair conduct;
 - (ii) any alleged contravention of paragraph 49(1) of this Policy; or

(iii) any alleged breach of this code of ethical standards.

48.3. Declarations in terms of subparagraphs (2)(d) and (e) -

- a) must be recorded in a register which the accounting officer must keep for this purpose;
- b) by the accounting officer must be made to the council of the municipality who must ensure that such declarations are recorded in the register.

48.4. The National Treasury's code of conduct must also be taken into account by supply chain management practitioners and other role players involved in supply chain management.

48.5. A breach of the code of ethics must be dealt with as follows -

- a) in the case of an employee, in terms of the disciplinary procedures of the municipality envisaged in section 67(1)(h) of the Municipal Systems Act;
- b) in the case a role player who is not an employee, through other appropriate means in recognition of the severity of the breach.
- c) In all cases, financial misconduct must be dealt with in terms of chapter 15 of the Act.

49. INDUCEMENTS, REWARDS, GIFTS AND FAVOURS TO MUNICIPALITIES, OFFICIALS AND OTHER ROLE PLAYERS

49.1. No person who is a provider or prospective provider of goods or services, or a recipient or prospective recipient of goods disposed or to be disposed of may either directly or through a representative or intermediary promise, offer or grant-

- a) any inducement or reward to the municipality for or in connection with the award-of a contract; or
- b) any reward, gift, favour or hospitality to -
 - (i) any official; or
 - (ii) any other role player involved in the implementation of this Policy.

49.2. The accounting officer must promptly report any alleged contravention of subparagraph (1) to the National Treasury for considering whether the offending person, and any representative or intermediary through which such person is alleged to have acted, should be listed in the National Treasury's database of persons prohibited from doing business with the public sector.

49.3. Subparagraph (1) does not apply to gifts less than R350 in value.

50. SPONSORSHIPS

50.1. The accounting officer must promptly disclose to the National Treasury and the

relevant provincial treasury any sponsorship promised, offered or granted, whether directly or through a representative or intermediary, by any person who is -

- a) a provider or prospective provider of goods or services; or
- b) a recipient or prospective recipient of goods disposed or to be disposed.

51. OBJECTIONS AND COMPLAINTS

51.1. Persons aggrieved by decisions or actions taken in the implementation of this supply chain management system, may lodge within 14 days of the decision or action, a written objection or complaint against the decision or action.

52. RESOLUTION OF DISPUTES, OBJECTIONS, COMPLAINTS AND QUERIES

52.1. The accounting officer must appoint an independent and impartial person, not directly involved in the supply chain management processes -

- a) to assist in the resolution of disputes between the municipality and other persons regarding
 - (i) any decisions or actions taken in the implementation of the supply chain management system; or
 - (ii) any matter arising from a contract awarded in the course of the supply chain management system; or
- b) to deal with objections, complaints or queries regarding any such decisions or actions or any matters arising from such contract.

52.2. The accounting officer, or another official designated by the accounting officer, is responsible for assisting the appointed person to perform his or her functions effectively.

52.3. The person appointed must ~

- a) strive to resolve promptly all disputes, objections, complaints or queries received; and
- b) submit monthly reports to the accounting officer on all disputes, objections, complaints or queries received, attended to or resolved.

52.4. A dispute, objection, complaint or query may be referred to the relevant provincial treasury if -

- a) the dispute, objection, complaint or query is not resolved within 60 days; or
- b) no response is forthcoming within 60 days.

52.5. If the provincial treasury does not or cannot resolve the matter, the dispute, objection, complaint or query may be referred to the National Treasury for resolution.

52.6. This paragraph must not be read as affecting a person's rights to approach a court

at any time.

53. CONTRACTS PROVIDING FOR COMPENSATION BASED ON TURNOVER-

53.1. If a service provider acts on behalf of municipality to provide any service or act as a collector of fees, service charges or taxes and the compensation payable to the service provider is fixed as an agreed percentage of turnover for the service or the amount collected, the contract between the service provider and the municipality must stipulate -

- a) a cap on the compensation payable to the service provider; and
- b) that such compensation must be performance based.

54. PROCUREMENT CONTROL MEASURES UNDER COVID

54.1. During the national state of disaster accounting officers must consider the impact any supply chain disruptions may have on finance management operations and develop control measures to address such.

54.2. When accounting officers consider invoking provisions in contracts related to “force majeure” for suppliers, legal advice must be sought on a case-by-case basis and accounting officers must guard against the risk of possible fruitless and wasteful expenditure due to payments made for services not rendered or goods not supplied.

54.3. Internal controls within the supply chain management (SCM) environment must be reviewed in terms of administrative controls and delegations to ensure required authorisations are done by relevant officials.

54.4. Internal control measures must be established to consider and approve any COVID-19 related procurement in the municipality or municipal entity. Prior to generating an order in relation to COVID-19 related procurement, the document must be referred to any other relevant function within the municipality or municipal entity to conduct checks to prevent any possible irregular expenditure.

54.5. Emergency requirements may be addressed through the emergency procurement provisions as stipulated in SCM Regulations and MFMA Circulars — Preventing and Combatting Abuse in the SCM System and reiterated further in the National Treasury Circulars.

54.6. MFMA Circulars on Preventing and Combating Abuse in the Supply Chain Management System states that accounting officers must only deviate from inviting competitive bids in cases of emergency and sole supplier status. These deviations

do not require the approval of the relevant treasuries. It is understood that emergency procurement may occur when there is a serious and unexpected situation that poses an immediate risk to health, life, property or environment which calls on a municipality or municipal entity to action and there is insufficient time to invite competitive bids.

54.7. The emergency procurement provisions provide for accounting officers to procure the required goods or services by other means, such as price quotations or negotiations, in terms of SCM Regulations. The reasons must be recorded and approved by the accounting officer or his/her delegate.

54.8. Section 114 of the MFMA and council policies require accounting officers to report within 10 working days to the relevant treasury and the Auditor-General all cases where goods and services were procured from bidders other than the one recommended. The report must include the description of the goods or services, the name/s of the supplier/s, the amount/s involved and the reasons for dispensing with the prescribed competitive bidding process.

54.9. The principles of fairness, equity, transparency, competitiveness and cost-effectiveness must be maintained. Emergency procurement must be limited to goods, services and works that addresses the programme of preventing the spread of the COVID-19 virus.

55. CIRCULARS

EFFECTIVE YEAR	DESCRIPTION	CIRCULAR NO
01 July 2021	Local Government Framework for Infrastructure Delivery and Procurement Management	106
18 July 2016	E-Tender Portal	83
November 2016	Cost Containment Measures	82
18 March 2016	Central Supplier Database	81
26 Oct 2015	Model SCM Policy for infrastructure Procurement and Delivery Management	77
13 May 2014	Systems of Delegations	73
22 May 2013	SCM on Local Production and Content	69
10 May 2013	Unauthorised, Irregular, Fruitless and Wasteful Expenditure	68

20 Aug 2012	SCM Enhancing Compliance and Accountability	62
03 Sep 2010	Supply Chain Management – Amended Guidelines on Functionality for Evaluation of Bids	53
30 July 2010	Supply Chain Management – Prohibition of Restrictive Practices	52
17 March 2008	Supply Chain Management – Checking the prohibition status of recommended bidders	46
25 May 2007	Supply Chain Management – Restriction of Suppliers	43
20 Oct 2006	Supply Chain Management Implementation Checklist	40
28 June 2006	Supply Chain Management Issues	34
27 March 2006	Supply Chain Management Issues	33
31 Jan 2006	Supply Chain Management Issues	29
03 Oct 2005	Supply Chain Management Guide and Bid Documents	25
20 April 2005	Supply Chain Management Training	16
25 Aug 2005	Model Policy Supply Chain Management	22

56. GUIDELINES

1.	Supply Chain Management: A Guide for Accounting Officers of Municipalities and Municipal Entities
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57. COMMENCEMENT

57.1. This Policy takes effect on **01 July 2022**.



T2.1 List of Returnable Documents

The tenderer must complete the following returnable schedules:

Notes to tenderer:

1. Returnable schedules have been separated into the following categories:
 - Forms, certificates and schedules for completion by the tenderer for use in the quantitative and qualitative evaluation of the tender (Forms A-F)
 - A list of other returnable documents for completion by the tenderer and which will subsequently be incorporated into the contract (Section C1: Agreement and Contract data)
2. Failure to fully complete all the relevant returnable documents may render such a tender offer unresponsive.
3. Tenderers shall note that their signature appended to each returnable form represents a declaration that they vouch for the accuracy and correctness of the information provided.
4. Notwithstanding any check or audit conducted by or on behalf of the Employer, the information provided in the returnable documents is accepted in good faith and as justification for entering into a contract with a tenderer. If subsequently any information is found to be incorrect such discovery shall be taken as wilful misrepresentation by that tenderer to induce the contract. In such event the Employer has the discretionary right under sub-clause 9.2 of the general conditions of to terminate the contract.
5. Should a tenderer wish to offer a different period of completion than that required by the Employer, it shall be submitted as an alternative tender.
6. If more than one alternative tender is submitted, each one shall be numbered and submitted on a separate copy of form C1.1 Form of Offer, completed and signed, and accompanied by the prescribed priced Pricing Schedule and supporting documents.
7. A retention money guarantee will be considered for acceptance in lieu of cash deductions provided that the tenderer submits his proposal as an alternative tender indicating the discount he proposes to give.
8. These forms must be completed in black ink and any alterations made prior to tender closure countersigned by an authorised signatory.

TENDERERS ARE INSTRUCTED TO COMPLETE ALL THE SCHEDULES ATTACHED HEREIN. FAILURE TO COMPLETE ANY OF THE SCHEDULES MAY RESULT IN AUTOMATIC DISQUALIFICATION OF THE TENDER AS THE TENDER WILL BE CONSIDERED NOT RESPONSIVE. IF THE SCHEDULE IS NOT APPLICABLE TENDERERS ARE INSTRUCTED TO INDICATE NOT APPLICABLE AND SIGN THE SCHEDULE

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



T2.2 Returnable Schedules

FORM A1: CERTIFICATE OF ATTENDANCE AT SITE VISIT AND

CLARIFICATION MEETING	2
FORM A2: CERTIFICATE OF AUTHORITY FOR SIGNATORY	4
FORM A3: COMPULSORY DECLARATION	5
FORM A4: SCHEDULE OF VARIATIONS OR DEVIATIONS BY TENDERER.....	9
FORM A5: SCHEDULE/RECORD OF ADDENDA TO TENDER DOCUMENTS	10
FORM A7: DETAILS OF INSURANCE COVER.....	11
FORM A8: TENDERER'S BANK DETAILS AND CREDIT RATING FROM BANK.....	12
FORM A9: CERTIFICATE OF TENDERER'S LITIGATION HISTORY.....	13
FORM A10: SCHEDULE OF CURRENT COMMITMENTS	14
FORM A11: CERTIFICATE OF COMPLIANCE WITH OCCUPATIONAL HEALTH AND SAFETY ACT, 1993 AND CONSTRUCTION REGULATIONS, 2014	16
FORM A12: CERTIFICATE OF REGISTRATION WITH CIDB	17
FORM A13: REGISTRATION ON NATIONAL TREASURY CENTRAL SUPPLIERS DATABASE.....	18
FORM A14: ORIGINAL CERTIFIED COPIES OF DIRECTORS / MEMBERS / TRUSTEES IDENTITY DOCUMENTS	18
FORM A15: COPIES OF COMPANY REGISTRATION DOCUMENTS.....	20
FORM B1: CONTRACTOR'S ESTABLISHMENT ON SITE	21
FORM C1: PREFERENCING SCHEDULE: BROAD-BASED BLACK ECONOMIC EMPOWERMENT STATUS	22
FORM C2: TENDERER'S DIRECT PARTICIPATION OF TARGETED LABOUR JOB CREATION	25
FORM C3: PREFERENTIAL PROCUREMENT: SUBCONTRACTING	27
FORM C4: JOINT VENTURE COMMITMENT	30

FORM A1: CERTIFICATE OF ATTENDANCE AT SITE VISIT AND CLARIFICATION MEETING

Notes to Tenderer:

1. Tenderers must attend the clarification meeting. And they must ensure that suitably qualified or experienced personnel attend the meeting.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

NOVEMBER 2022



- 2. Tenderers must ensure that those who attend the meeting on their behalf complete the official attendance register. Attendees must fill in the tenderers' names and contact details and they must sign the register. If they do not, the offers of the tenderers they represent at the meeting will be considered non-responsive.**

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



FORM A2: CERTIFICATE OF AUTHORITY FOR SIGNATORY

Notes to tenderer:

- 1. The signatory for the tenderer shall confirm his/her authority thereto by attaching on the tendering company's letterhead a duly signed and dated copy of the relevant resolution of the board of directors/partners.**
- 2. In the event that the tenderer is a joint venture, a certificate is required from each member of the joint venture clearly setting out:**
 - **authority for signatory,**
 - **undertaking to formally enter into a joint venture contract should an award be made to the joint venture,**
 - **name of designated lead member of the intended joint venture, as required by tender condition 4.13.2**
- 3. The resolution below is given as an example of an acceptable format for authorisation, but submission of this page with the example completed shall not be accepted as authorisation of the tenderer's signatory.**

By resolution of the board of directors passed at a meeting held on

Mr/Ms,
whose signature appears below, has been duly authorised to sign all documents in connection with the tender for

(insert project number and description)
he

and any contract which may arise therefrom on behalf of *(enter name of tenderer in block capitals)*

.....

SIGNED ON BEHALF OF THE COMPANY:.....

IN HIS/HER CAPACITY AS:

DATE:

SIGNATURE OF SIGNATORY:

WITNESS:
SIGNATURE SIGNATURE

.....
NAME (PRINT) NAME (PRINT)

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



ANNEXURE D

FORM A3: COMPULSORY DECLARATION

The following particulars must be furnished. In the case of a joint venture, separate declarations in respect of each partner must be completed and submitted.

Section 1: Enterprise details

Name of enterprise	
Contact person	
Email	
Telephone	
Cell	
Fax	
Physical address	
Postal address	

Section 2: Particulars of companies and close corporations

Company/Close Corporation registration number	
-----------------------------------------------	--

Section 3: SARS information

Tax reference number	
VAT registration number	(state <i>Not Registered</i> if not registered for VAT)

Section 4: CIDB registration number

CIDB Registration number (<i>if applicable</i>)	
---------------------------------------------------	--

Section 5: Particulars of principals

principal: means a natural person who is a partner in a partnership, a sole proprietor, a director of a company established in terms of the Companies Act of 2008 (Act No. 71 of 2008) or a member of a close corporation registered in terms of the Close Corporations Act, 1984, (Act No. 69 of 1984).

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Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



Full name of principal	Identity number	Personal tax reference number

Attach separate page if necessary.

Section 6: Record in the service of the state

Indicate, by marking the relevant boxes with a cross, if any principal is currently or has been within the last 12 months in the service of any of the following:

- | | |
|-------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> a member of any municipal council | <input type="checkbox"/> an employee of any department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act of 1999 (Act No. 1 of 1999) |
| <input type="checkbox"/> a member of any provincial legislature | <input type="checkbox"/> a member of an accounting authority of any national or provincial public entity |
| <input type="checkbox"/> a member of the National Assembly or the National Council of Provinces | <input type="checkbox"/> an employee of Parliament or a provincial legislature |
| <input type="checkbox"/> a member of the board of directors of any municipal entity | |
| <input type="checkbox"/> an official of any municipality or municipal entity | |

If any of the above boxes are marked, disclose the following:

Name of principal	Name of institution, public office, board or organ of state and position held	Status of service (tick appropriate column)	
		Current	Within last 12 months

Insert separate page if necessary.

Section 7: Record of family member in the service of the state

family member: a person's spouse, whether in a marriage or in a customary union according to indigenous law,

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



domestic partner in a civil union, or child, parent, brother, sister, whether such a relationship results from birth, marriage or adoption

Indicate, by marking the relevant boxes with a cross, if any family member of a principal as defined in section 5 is currently or has within the last 12 months been in the service of any of the following:

- | | |
|-------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> a member of any municipal council | <input type="checkbox"/> an employee of any department, national or provincial public entity or constitutional institution with in the meaning of the Public Finance Management Act of 1999 (Act No. 1 of 1999) |
| <input type="checkbox"/> a member of any provincial legislature | <input type="checkbox"/> a member of an accounting authority of any national or provincial public entity |
| <input type="checkbox"/> a member of the National Assembly or the National Council of Provinces | <input type="checkbox"/> an employee of Parliament or a provincial legislature |
| <input type="checkbox"/> a member of the board of directors of any municipal entity | |
| <input type="checkbox"/> an official of any municipality or municipal entity | |

Name of family member	Name of institution, public office, board or organ of state and position held	Status of service (tick appropriate column)	
		Current	Within last 12 months

Insert separate page if necessary.

Section 8: Record of termination of previous contracts with an organ of state

Was any contract between the tendering entity, including any of its joint venture partners, terminated during the past five years for reasons other than the employer no longer requiring such works or the employer failing to make payment in terms of the contract?

- ☐ Yes ☐ No

If yes, provide particulars.

(insert separate page if necessary).

Section 9: Declaration

The undersigned, who warrants that he/she is duly authorised to do so on behalf of the tendering entity, confirms that the contents of this Declaration are within my personal knowledge, save where stated otherwise in an attachment hereto, and to the best of my belief is both true and correct, and that:

- i) neither the name of the tendering entity, nor any of its principals, appears on:
- a) the Register of Tender Defaulters established in terms of the Prevention and Combating of Corrupt

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



Activities Act of 2004 (Act No. 12 of 2004); or

- b) National Treasury's Database of Restricted Suppliers (see www.treasury.gov.za);
- ii) the tendering entity or any of its principals has not been convicted of fraud or corruption by a court of law (including a court outside of the Republic of South Africa) within the last five years;
 - iii) any principal who is presently employed by the state has the necessary permission to undertake remunerative work outside such employment (attach permission to this declaration);
 - iv) the tendering entity is not associated, linked or involved with any other tendering entities submitting tender offers;
 - v) the tendering entity has not engaged in any prohibited restrictive horizontal practices, including consultation, communication, agreement, or arrangement with any competing or potential tendering entity regarding prices, geographical areas in which goods and services will be rendered, approaches to determining prices or pricing parameters, intentions to submit a tender or not, the content of the submission (specification, timing, conditions of contract, etc.) or intention to not win a tender;
 - vi) the tendering entity has no other relationship with any of the tenderers or those responsible for compiling the scope of work that could cause or be interpreted as a conflict of interest;
 - vii) neither the tenderer nor any of its principals owes municipal rates and taxes or municipal service charges to any municipality or a municipal entity, and are not in arrears for more than three months;
 - viii) SARS may, on an on-going basis during the term of the contract, disclose the tenderer's tax compliance status to the Employer and, when called upon to do so, obtain the written consent of any subcontractors who are subcontracted to execute a portion of the contract that is entered into in excess of the threshold prescribed by National Treasury, for SARS to do likewise.

Signed: _____

Date: _____

Name: _____

Position: _____

Enterprise name: _____

NOTE 1: The Standard Conditions of Tender contained in SANS 10845-3 prohibits anticompetitive practices (clause 3.1) and requires that tenderers avoid conflicts of interest, only submit a tender offer if the tenderer or any of his principals is not under any restriction to do business with the Employer (4.1.1) and submit only one tender either as a single tendering entity or as a member in a joint venture (clause 4.13.1). Clause 5.7 also empowers the Employer to disqualify any tenderer who engages in fraudulent and corrupt practice. Clause 3.1 also requires tenderers to comply with all legal obligations.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



FORM A4: SCHEDULE OF VARIATIONS OR DEVIATIONS BY TENDERER

Notes to tenderer:

- 1. The postulated tender MUST be priced.**
- 2. When submitting an alternative tender (including an alternative contract period), the contents of notes 5 and 6 under "Notes to tenderer" under Part T2: Returnable Schedules, shall be followed.**
- 3. In addition, condition 4.12 of part T1.2: Tender Data, shall be followed when submitting an alternative/qualifying tender.**

Page	Description

SIGNED ON BEHALF OF TENDERER:

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



FORM A5: SCHEDULE/RECORD OF ADDENDA TO TENDER DOCUMENTS

We confirm that the following communications received from the Employer before the submission of this tender offer, amending the tender documents, have been taken into account in this tender offer:		
	Date	Title or Details
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

SIGNED ON BEHALF OF THE TENDERER:

--	--	--	--	--	--

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



FORM A7: DETAILS OF INSURANCE COVER

Note to tenderer:

In the event of the tenderer being a joint venture/consortium the details of the individual members must also be provided.

The tenderer shall provide the following details of this insurance cover:

- i) Name of Tenderer:
- ii) Period of Validity:
- iii) Value of Insurance:
- Insurance for Works and Construction Equipment
Company:
Value:
 - Insurance for Contractor's Personnel
Company:
Value:
 - General public liability
Company:
Value:
 - SASRIA
Company:
Value:

SIGNED ON BEHALF OF THE TENDERER:

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



FORM A8: TENDERER'S BANK DETAILS AND CREDIT RATING FROM BANK

Notes to tenderer:

- 1. The tenderer shall attach to this form a letter from the bank at which he declares he conducts his account. The contents of the bank's letter must state the credit rating that it, in addition to the information required below, accords to the tenderer for the business envisaged by this tender. Failure to provide the required letter with the tender submission may render the tenderer's offer unresponsive in terms of tender condition 5.8.**
- 2. The tenderer's banking details as they appear below shall be completed.**
- 3. In the event that the tenderer is a joint venture enterprise, details of all the members of the joint venture shall be similarly provided and attached to this form.**
- 4. The information as supplied will be used to calculate the tenderer's functionality score as per clause 5.11.9 of the tender data.**

The tenderer shall provide the following:

- i) Name of Account Holder:.....
- ii) Account Number:
- iii) Bank name:
- iv) Branch Number:
- v) Bank and branch contact details
.....

SIGNED ON BEHALF OF THE TENDERER:

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



FORM A9: CERTIFICATE OF TENDERER'S LITIGATION HISTORY

Note to tenderer:

The tenderer shall list below details of any litigation with which the tenderer (including its directors, shareholders or other senior members in previous companies) has been involved with any organ of state or state department within the last ten years. The details must include the year, the litigating parties, the subject matter of the dispute, the value of any award or estimated award if the litigation is current and in whose favour the award, if any, was made.

Failure to provide or disclose the following information will render the tenderer's offer non-responsive in terms of tender condition 5.8. Please visit www.saflii.org.za to evaluate your status.

Client	Other litigating party	Dispute	Award value	Date resolved

SIGNED ON BEHALF OF THE TENDERER:

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



FORM A10: SCHEDULE OF CURRENT COMMITMENTS

Notes to tenderer:

- 1. The tenderer shall list below all contracts currently under construction or awarded and about to commence and tenders for which offers have been submitted but awards not yet made.**
- 2. In the event of a joint venture enterprise, details of all the members of the joint venture shall similarly be attached to this form.**
- 3. The lists must be restricted to not more than 20 contracts and 20 tenders. If a tenderer's actual commitments or potential commitments are greater than 20 each, those listed should be in descending order of expected final contract value or sum tendered.**

TABLE 1 CONTRACTS AWARDED				
Client	Project	Expected total value of contract (incl. VAT)	Duration(Months)	Expected completion date

SIGNED ON BEHALF OF THE TENDERER:

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



TABLE 2 TENDERS NOT YET AWARDED				
Client	Project	Sum Tendered (incl. VAT)	Tendered Duration(M onths)	Expected commencement date

SIGNED ON BEHALF OF THE TENDERER:

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

NOVEMBER 2022



**FORM A11: CERTIFICATE OF COMPLIANCE WITH OCCUPATIONAL HEALTH AND
SAFETY ACT, 1993 AND CONSTRUCTION REGULATIONS, 2014**

Note to tenderer:

Discovery that the tenderer has failed to make proper disclosure may result in the Employer terminating a contract that flows from this tender on the ground that it has been rendered invalid by the tenderer's misrepresentation.

The tenderer shall attach to this Form evidence that he is registered and in good standing with a compensation insurer who is approved by Department of Labour in terms of section 80 of the Compensation for Injury and Disease Act (COIDA / COID Act (Act 130 of 1993)).

The tenderer is required to disclose, by also attaching documentary evidence to this form, all inspections, investigations and their outcomes conducted by the Department of Labour into the conduct of the tenderer at any time during the 36 months preceding the date of this tender.

SIGNED ON BEHALF OF THE TENDERER:

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



FORM A12: CERTIFICATE OF REGISTRATION WITH CIDB

The tenderer shall provide a printed copy of the Active Contractor's Listing off the CIDB website. (www.cidb.org.za).
In the case of a Joint Venture, a printed copy of the Active Contractor's Listing must be provided for each member of the Joint Venture.

Name of Contractor:

Contractor Grading Designation:

CIDB Contractor Registration Number:

SIGNED ON BEHALF OF THE TENDERER:

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



FORM A13: REGISTRATION ON NATIONAL TREASURY CENTRAL SUPPLIERS DATABASE.

The tenderer shall provide a printed copy of the Active Supplier Listing on the National Treasury Central Supplier Database. (www.treasury.gov.za). In the case of a joint venture (JV), the tenderer shall provide printed copies of the Active Supplier Listing on the National Treasury Central Supplier Database for each member of the JV. In the case of a Joint Venture, a printed copy of the Active Supplier Listing must be provided for each member of the Joint Venture.

Name of Contractor:

Central Supplier Database Supplier Number:

Supplier Commodity:

Delivery Location:

SIGNED ON BEHALF OF THE TENDERER:

**FORM A14: ORIGINAL CERTIFIED COPIES OF DIRECTORS / MEMBERS /
TRUSTEESIDENTITY DOCUMENTS**

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Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



The tenderer shall attach to this page **original certified** copies of the directors / members trustee's identity documents of the tendering entity.

In the case of joint ventures, the required documents shall be submitted for each member of the joint venture.

Failure to submit the required documentation in the prescribed format will render the tenderer's offer non-responsive in terms of tender condition 5.8.

SIGNED ON BEHALF OF THE TENDERER:

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



FORM A15: COPIES OF COMPANY REGISTRATION DOCUMENTS

The tenderer shall attach to this page copies of the registration documents of the tendering entity.

Any of the following documents for the tendering entity is sufficient:

- CK1: Founding Statement for a Close Corporation.
- CK2: Amended founding statement for a Close Corporation.
- CM1: Certificate of Incorporation for a company.
- CM2: Memorandum of Association for a company.
- CM9: Certificate of Change of name for a company.

Trust Deed and Letter of Authority to Act as Trustees certified by the High Court.

In the case of joint ventures, the required documents shall be submitted for each member of the joint venture.

Note:

The tenderer is to ensure that the documentation submitted meets the following criteria:

- The name of the active directors/members appears on the documents.
- The ID documents correspond with the names of active directors/members.

If the above criteria are not met the tenderers offer will be rendered non-responsive in terms of tender condition 5.8.

SIGNED ON BEHALF OF THE TENDERER:

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



FORM B1: CONTRACTOR'S ESTABLISHMENT ON SITE

The combined, extended total tendered for Item B13.01 (The Contractor's general obligations):

- a) Fixed obligations
- b) Value-related obligations
- c) Time-related obligations

shall not exceed a maximum of 15% of the tender sum (Excluding Contingencies, Escalation and VAT).

If the 15% maximum allowance are exceeded the tenderer's offer will be rendered non-responsive in terms of tender condition 5.8.

SIGNED ON BEHALF OF TENDERER:

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



FORM C1: PREFERENCING SCHEDULE: BROAD-BASED BLACK ECONOMIC EMPOWERMENT STATUS

Preamble

Section 10(b) of the Broad-Based Black Economic Empowerment Act of 2003 (Act No. 53 of 2003) states that “Every organ of state and public entity must take into account and, as far as is reasonably possible, apply any relevant code of good practice issued in terms of this Act in developing and implementing a preferential procurement policy.”

A number of codes of good practice have been issued in terms of Section 9(1) of the B-BBEE Act of 2003, including a generic code of good practice and various sector codes. The sector codes vary the metrics, weightings and targets used in the generic code of good practice to establish the overall performance of an entity and its B-BBEE status. The B-BBEE status needs to be assessed in accordance with the applicable code.

1 Conditions associated with the granting of preferences

Tenderers who claim a preference shall provide sufficient evidence of their B-BBEE status in accordance with the requirements of section 2 in respect of the applicable code as at the closing time for submissions, failing which their claims for preferences will be rejected.

2 Sufficient evidence of qualification

2.1 Exempted micro-enterprises

Sufficient evidence of qualification as an Exempted Micro-Enterprise is:

- (a) a registered auditor’s certificate or similar certificate issued by an accounting officer as contemplated in the Close Corporations Act of 1984 in respect of the entity’s last financial year, or a 12-month period which overlaps with its current financial year; or
- (b) a certificate issued by a verification agency and which is valid as at the closing date for submissions.

2.2 Enterprises other than micro-exempted enterprises

Sufficient evidence of B-BBEE status is an original or certified copy of the certificate issued by a verification agency accredited by the South African National Accreditation System (SANAS) and which is valid as at the closing date for submissions.

3 Tender preferences claimed

The scoring shall be as follows:

B-BBEE status determined in accordance with the preferencing schedule for Broad-Based Black Economic Empowerment	% Maximum points for preference
Form not completed or no-complaint contributor	0

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



B-BBEE status determined in accordance with the preferencing schedule for Broad-Based Black Economic Empowerment	% Maximum points for preference
Level 8 contributor	10
Level 7 contributor	20
Level 6 contributor	30
Level 5 contributor	40
Level 4 contributor	50
Level 3 contributor	80
Level 2 contributor	90
Level 1 contributor	100

4 Declaration

The tenderer declares that:

- (a) the tendering entity is a level contributor as stated in the submitted evidence of qualification as at the closing date for submissions
- (b) the tendering entity has been measured in terms of the following code (tick applicable box):
- ☐ Generic code of good practice
- ☐ Other – specify
-
-
- (c) the contents of the declarations made in terms of a) and b) above are within my personal knowledge and are to the best of my belief both true and correct

The undersigned, who warrants that he/she is duly authorised to do so on behalf of the tenderer, confirms that he/she understands the conditions under which such preferences are granted and confirms that the tenderer satisfies the conditions pertaining to the granting of tender preferences.

Signature:

Name:

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



Duly authorised to sign on behalf of:

Telephone:

Fax: Date:

Name of witness: Signature of witness:

Note:

- (1) Failure to complete the declaration will lead to the rejection of a claim for a preference.
- (2) Supporting documentation of the above-mentioned claim for a preference must be submitted with the tender submission to be eligible for a preference.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



**FORM C2: TENDERER'S DIRECT PARTICIPATION OF TARGETED LABOUR
JOB CREATION**

The Tenderer shall complete the table below reflecting the anticipated local labour force to be employed on this contract, including such local labour employed by subcontractors.

I/We hereby tender to participate in job creation through the employment of local labour by creating the following number of jobs using unskilled or semi-skilled labourers, recruited from the local community, who are South African Citizens or foreigners in possession of a work visa issued by the Department of Home Affairs (only one such foreigner may be employed on any project), including for a minimum allocation of 60% Women, 55% Youth and 2% Disabled:

A penalty shall be applied to any shortfall in the local labour content achieved, as set out in the Requirements of the Expanded Public Works Programme (EPWP) of the project specifications. The penalty shall not apply to shortfalls in the allocations to the individual target groups (i.e., Women/Youth/Disabled), only to shortfalls in the total local labour content achieved.

The undersigned, who warrants that he/she is duly authorized to do so on behalf of the Tenderer, confirms that he/she understands the conditions for such participation and confirms that the tender satisfies the conditions for participation in job creation through the employment of local labour.

Name:

Duly authorized to sign on behalf of:

SIGNATURE: DATE:

(Of person authorised to sign on behalf of the Tenderer)

The Contractor shall be required to participate in job creation (employment of local labour) by executing various portions of the Works using local labour (unskilled or semi-skilled), recruited from the local community, who are South African Citizens or foreigners in possession of a work visa issued by the Department of Home Affairs (only one such foreigner may be employed on any project). Proof of citizenship or work visa may be audited during the contract period.

The creation of one job shall mean the temporary employment, for any period of time, of one such unskilled or semi-skilled labourer from the local community.

The Tenderer shall note the requirements for Job Creation Reporting for EPWP as set out in the Requirements of the Expanded Public Works Programme (EPWP) of the project specifications.

--	--	--	--	--	--

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



The number of jobs to be created using such local labour is inclusive of the local labour employed to execute various portions of the Works by both the main Contractor and any subcontractors, including the small development subcontractors.

The number of jobs to be created using such local labour shall include for a minimum percentage allocation to the following individual targeted groups:

- 40% Women;
- 55% Youth; and
- 2% Disabled.

The minimum required content of such local labour for this project shall be calculated as follows:

$$\begin{aligned} & \text{Minimum required content of such local labour (\%)} \\ = & \frac{(100 \times \text{amount spent on wages for such local labour (excluding VAT)})}{(\text{total value of the project (excluding VAT)})} \end{aligned}$$

The minimum required content of such local labour for this project shall be 2,5FTE.
(Compiler to insert the target minimum percentage based on detailed calculations of the local labour component anticipated for each scheduled pay item, including the pay items contributing to the provisional sum associated with the construction Works carried out by Targeted Enterprise subcontractors appointed).

For purposes of completing the table on the next page containing the Tenderer's declaration with respect to participation in job creation using local labour, the total value of the project shall be the amount of the Tender Offer.

SIGNED ON BEHALF OF THE TENDERER:

--	--	--	--	--	--

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



FORM C3: PREFERENTIAL PROCUREMENT: SUBCONTRACTING

1. "The regulation states that if feasible to contract above R 30 million, an organ of state must apply subcontracting to advance designated groups".

2. Definitions

1.1 "EME" means an exempted micro enterprise in terms of a code of good practice on black economic empowerment issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act. An EME is an enterprise including a sole propriety with an annual total revenue of R10 million or less.

1.2 "QSE" means qualifying small business enterprise in terms of a code of good practice on black economic empowerment issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act. A QSE is an enterprise with an annual total revenue of between R10 million and R50 million

3. Tenders must be advertised with a condition that tenderers who fail to comply with this requirement would be disqualified. Sub-contracting conditions:

- i. In the case of construction and built environment sectors, nothing prevents bidders/ contractors/ suppliers to select sub-contractors from the CIDB database who are registered on the CSD for the purposes of compliance with the minimum 30% compulsory sub-contracting provisions.
- ii. Tenderers or contractors must submit proof of subcontracting arrangement between the main tenderer and the subcontractor. Proof of subcontracting arrangement may include a subcontracting agreement between main tenderer and the subcontractor.
- iii. The responsibility for inclusion of compulsory subcontracting clause in the tender rests with the institution.
- iv. The responsibility to sub-contract with competent and capable sub-contractor's rests with the main contractor/ supplier.
- v. The contract will be concluded between the main contractor and the institution, therefore, the main contractor and not the sub-contractor would be held liable for performance in terms of its contractual obligations.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

NOVEMBER 2022



- vi. Main contractors/ suppliers are discouraged from subcontracting with their subsidiary companies as this may be interpreted as subcontracting with themselves and / or using their subsidiaries for fronting. Where primary contractor subcontracts with a subsidiary this must be declared in tender documents.
- vii. **Tenders that do not meet subcontracting requirements are considered as being not acceptable tenders and must be disqualified and may not be considered for further evaluation or award.**
- viii. The report containing the list of potential subcontractors may be drawn by accessing the following link:
www.csd.gov.za
- ix. Where no tenderer meets sub-contracting criteria, institutions must cancel the tender and investigate reasons for tenderers failing to meet compulsory sub-contracting.
- x. The tenderer must indicate in the table below the EME/QSE subcontractors he proposes to use in order to obtain the minimum specified subcontracting percentage of 30%
4. The contractor upon award will submit to the employer's agent, sub-contracting strategy demonstrating how he intends attaining the 30% as prescribed

SCHEDULE ITEM NO	NAME OF EME/QSE	ITEM DESCRIPTION AS PER BOQ	VALUE (RANDS)
---------------------	-----------------	-----------------------------	------------------

Contractor

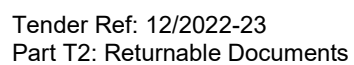
Witness 1

Witness 2

Employer

Witness 1

Witness 2



SIGNED ON BEHALF OF THE TENDERER:

Page 10

Witness 2



FORM C4: JOINT VENTURE COMMITMENT

Tenderers who are Joint Ventures shall complete this form.

The commitment and type of work to be performed by the joint venture partner(s) shall be entered into the chart below:

JOINT VENTURE COMPANY NAME(S)	VALUE OF WORK TO BE ASSIGNED (R VALUE)	NATURE OF WORK TO BE ASSIGNED	PROPORTION HOLDING IN JV AGREEMENT (%)

JOINT VENTURES SHALL ATTACH THEIR JOINT VENTURE AGREEMENT AND COMBINED BBB-EE CERTIFICATE TO THIS PAGE

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



FORM D1: SCHEDULE OF WORK EXPERIENCE

Note to tenderer:

The tenderer shall enter in the spaces provided below a complete list of the last ten civil-engineering contracts awarded to him. The tenderer shall attach to this form completion certificates OR practical completion certificates for those projects that have reached practical completion within 18 months prior to the advertisement of this tender. This information is deemed to be material to the award of the contract.

EMPLOYER (NAME, TEL NO & FAX NO)	CONSULTING ENGINEER (NAME, TEL NO & FAX NO)	NATURE OF WORK	VALUE OF WORK	YEAR COMPLETED

SIGNED ON BEHALF OF THE TENDERER:.....

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



FORM D2: SCHEDULE OF CONSTRUCTION EQUIPMENT

Note to tenderer: State with relevant symbol in the availability column.

The tenderer shall state below what construction equipment will be immediately available for this contract, what construction equipment will become available by virtue of outstanding orders, and what further construction equipment will be acquired or hired for the work should he be awarded the contract.

- a) CONSTRUCTION EQUIPMENT IMMEDIATELY AVAILABLE (I)
- b) CONSTRUCTION EQUIPMENT ON ORDER (O)
(State details of arrangements made, with delivery dates)
- c) CONSTRUCTION EQUIPMENT THAT WILL BE ACQUIRED OR HIRED (H)
(State details of delivery arrangements)

DESCRIPTION, SIZE, CAPACITY	NUMBER	AVAILABILITY

SIGNED ON BEHALF OF TENDERER:

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



FORM D3: SCHEDULE OF CONTRACTOR'S KEY PROJECT PERSONNEL

The tenderer shall state below what project personnel will be available for this contract and what additional personnel will be employed for the work should he be awarded the contract.

More than a single individual maybe proposed for a position, based on the size of the project and the required personnel.

No one person may play a role in more than one position in the contract.

Any additional supporting documentation to substantiate the proposed personnel should be attached to this page.

REFER TO SECTION 5.11.9 (PRE-QUALIFICATION CRITERIA) OF THE TENDER DATA FOR THE MINIMUM REQUIRED CONTRACTOR'S PERSONNEL

POSITION	NAME	QUALIFICATIONS (State the Institution, Qualification Obtained and Year Obtained)	NO. YEARS OF RELEVANT EXPERIENCE (Indicate the number of years of road building experience and key expertise)
CONTRACT MANAGER			
SITE AGENT			
SENIOR FOREMAN			
JUNIOR FOREMEN			
SAFETY OFFICER			
OTHER (Specify)			
OTHER (Specify)			
OTHER (Specify)			
OTHER (Specify)			

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



Please note that the personnel required on this tender shall remain valid for the duration of the project, approval from the department should be sourced for any change in personnel with similar or higher requirements. The requirements should be as stipulated on quality criteria, clause 5.11.9 of tender data.

Contractors shall employ in labour-intensive works only those supervisory and management staff that have completed the required Skills Programme in terms of **Appendix G** of the “Guidelines for the implementation of labour intensive infrastructure projects under the Expanded Public Works Programme (EPWP) Third Edition 2015”:

SIGNED ON BEHALF OF TENDERER:

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



FORM D4: SCHEDULE OF SPECIALIST SUBCONTRACTORS

Note to tenderer:

- 1. The tenderer shall list below the specialist items of work on this contract. Alternatives may be mentioned.**
- 2. The tenderer shall state whether he intends to carry out any specialised work himself.**

Acceptance of this tender shall not be construed as approval of all or any of the listed specialist subcontractors. Should any or all of the specialist subcontractors not be approved subsequent to the acceptance of the tender, it shall in no way invalidate this tender, and the tendered unit rates for the various items of work shall remain final and binding, even in the event of a subcontractor not listed below being approved by the Employer's Agent.

SPECIALISED ITEM	NAME OF SPECIALIST SUBCONTRACTOR

SIGNED ON BEHALF OF TENDERER:

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



FORM D5: INDICATIVE CONSTRUCTION PROGRAMME

Note to tenderer:

If a tenderer wishes to submit an alternative tender then this form, appropriately completed, shall be attached to the Pricing Schedule for the alternative proposal.

The tenderer shall attach a preliminary programme, reflecting the proposed sequence and tempo of execution of the various activities comprising the work for this contract. The programme shall be in accordance with the information provided in form D2: Schedule of construction equipment, form D6: Schedule of estimated monthly expenditure, and with all other aspects of the tender.

SIGNED ON BEHALF OF TENDERER:

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



FORM D6: SCHEDULE OF ESTIMATED MONTHLY EXPENDITURE

Note to tenderer:

If a tenderer wishes to submit an alternative tender then this form, appropriately completed, shall be attached to the Pricing Schedule for the alternative proposal.

The tenderer shall state his estimated value of the work to be completed every month, based on his preliminary programme and his tendered unit rates, in the tables below.

MONTH	VALUE	MONTH	VALUE
1	R.....	TOTAL b/f	R.....
2	R.....	11	R.....
3	R.....	12	R.....
4	R.....	13	R.....
5	R.....	14	R.....
6	R.....	15	R.....
7	R.....	16	R.....
8	R.....	17	R.....
9	R.....	18	R.....
10	R.....	19(FINAL, stipulate as per your contract duration)*	R.....
TOTAL c/f	R.....		
		TOTAL: R	

* Final payment at end of Defects Liability Period is for balance of retention and any other payments due.

SIGNED ON BEHALF OF TENDERER:

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



FORM D7: SWORN AFFIDAVIT

The tenderer shall attach to this Form a sworn affidavit by the Commissioner of Oath in which he declares that the information provided in Forms D1, D2 and D3 is true.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



FORM E1: QUALITY ASSURANCE

The tenderer shall attach to this Form sufficient details from his Quality Assurance Plan to indicate the processes and policies to be adopted to ensure that the required specifications of the works are achieved during construction.

The Quality Assurance Plan to be submitted to the Employer's Agent after award shall include that of any subcontractors (if applicable).

The minimum details to be given with this tender shall include (where applicable):

1. TESTING (WHICH TESTS, POINT/S OF TESTING, FREQUENCY)
2. MANUFACTURE, TRANSPORT, CONSTRUCTION
3. PERSONNEL EMPLOYED ON ALL ACTIVITIES AND QUALITY CONTROL
4. ANY OTHER MATTERS WHICH RELATE TO THE QUALITY ASSURANCE PLAN WHICH THE TENDERER CONSIDERS MAY BE OF ASSISTANCE IN TENDER ADJUDICATION

SIGNED ON BEHALF OF TENDERER:

--	--	--	--	--	--

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



SBD 8

FORM F1: DECLARATION OF BIDDERS PAST SUPPLY CHAIN MANAGEMENT PRACTICES

- 1 This Standard Bidding Document must form part of all bids invited.
- 2 It serves as a declaration to be used by institutions in ensuring that when goods and services are being procured, all reasonable steps are taken to combat the abuse of the supply chain management system.
- 3 The bid of any bidder may be disregarded if that bidder, or any of its directors have-
 - a. abused the institution's supply chain management system;
 - b. committed fraud or any other improper conduct in relation to such system; or
 - c. failed to perform on any previous contract.
- 4 **In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.**

Item	Question	Yes	No
4.1	Is the bidder or any of its directors listed on the National Treasury's Database of Restricted Suppliers as companies or persons prohibited from doing business with the public sector? (Companies or persons who are listed on this Database were informed in writing of this restriction by the Accounting Officer/Authority of the institution that imposed the restriction after the <i>audi alteram partem</i> rule was applied). The Database of Restricted Suppliers now resides on the National Treasury's website(www.treasury.gov.za) and can be accessed by clicking on its link at the bottom of the home page.	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.1.1	If so, furnish particulars		
4.2	Is the bidder or any of its directors listed on the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004)? The Register for Tender Defaulters can be accessed on the National Treasury's website (www.treasury.gov.za) by clicking on its link at the bottom of the home page.	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.2.1	If so, furnish particulars:		

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



Item	Question	Yes	No
4.3	Was the bidder or any of its directors convicted by a court of law (including a court outside of the Republic of South Africa) for fraud or corruption during the past five years?	<input type="checkbox"/>	<input type="checkbox"/>
4.3.1	If so, furnish particulars:		
4.4	Was any contract between the bidder and any organ of state terminated during the past five years on account of failure to perform on or comply with the contract?	<input type="checkbox"/>	<input type="checkbox"/>
4.4.1	If so, furnish particulars:		

CERTIFICATION

I, THE UNDERSIGNED (FULL NAME)
CERTIFY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM
IS TRUE AND CORRECT.

I ACCEPT THAT, IN ADDITION TO CANCELLATION OF A CONTRACT, ACTION
MAY BE TAKEN AGAINST ME SHOULD THIS DECLARATION PROVE TO BE FALSE.

Signature **Date**

Position **Name of Bidder**

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



SBD 9

FORM F2: CERTIFICATE OF INDEPENDENT BID DETERMINATION

- 1 This Standard Bidding Document (SBD) must form part of all bids¹ invited.
- 2 Section 4(1)(b)(iii) of the Competition Act No. 89 of 1998, as amended, prohibits an agreement between, or concerted practice by, firms, or a decision by an association of firms, if it is between parties in a horizontal relationship and if it involves collusive bidding (or bid rigging).² Collusive bidding is a *pe se* prohibition meaning that it cannot be justified under any grounds.
- 3 Treasury Regulation 16A9 prescribes that accounting officers and accounting authorities must take all reasonable steps to prevent abuse of the supply chain management system and authorizes accounting officers and accounting authorities to:
 - a. disregard the bid of any bidder if that bidder, or any of its directors have abused the institution's supply chain management system and or committed fraud or any other improper conduct in relation to such system.
 - b. cancel a contract awarded to a supplier of goods and services if the supplier committed any corrupt or fraudulent act during the bidding process or the execution of that contract.
- 4 This SBD serves as a certificate of declaration that would be used by institutions to ensure that, when bids are considered, reasonable steps are taken to prevent any form of bid-rigging.
- 5 In order to give effect to the above, the attached Certificate of Bid Determination (SBD 9) must be completed and submitted with the bid.

¹ Includes price quotations, advertised competitive bids, limited bids and proposals.

² Bid rigging (or collusive bidding) occurs when businesses, that would otherwise be expected to compete, secretly conspire to raise prices or lower the quality of goods and / or services for purchasers who wish to acquire goods and/or services through a bidding process. Bid rigging is, therefore, an agreement between competitors not to compete.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



SBD 9

CERTIFICATE OF INDEPENDENT BID DETERMINATION

I, the undersigned, in submitting the accompanying bid:

(Bid Number and Description)

in response to the invitation for the bid made by:

North West Department of Public Works and Roads

(Name of Institution)

do hereby make the following statements that I certify to be true and complete in every respect:

I certify, on behalf of: _____ that:
(Name of Bidder)

1. I have read, and I understand the contents of this Certificate;
2. I understand that the accompanying bid will be disqualified if this Certificate is found not to be true and complete in every respect;
3. I am authorized by the bidder to sign this Certificate, and to submit the accompanying bid, on behalf of the bidder;
4. Each person whose signature appears on the accompanying bid has been authorized by the bidder to determine the terms of, and to sign the bid, on behalf of the bidder;
5. For the purposes of this Certificate and the accompanying bid, I understand that the word "competitor" shall include any individual or organization, other than the bidder, whether or not affiliated with the bidder, who:
 - (a) has been requested to submit a bid in response to this bid invitation;
 - (b) could potentially submit a bid in response to this bid invitation, based on their qualifications, abilities or experience; and
 - (c) provides the same goods and services as the bidder and/or is in the same line of business as the bidder
6. 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.
7. In particular, without limiting the generality of paragraphs 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
 - (a) prices;
 - (b) geographical area where product or service will be rendered (market allocation);

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



- (c) methods, factors or formulas used to calculate prices;
- (d) the intention or decision to submit or not to submit, a bid;
- (e) the submission of a bid which does not meet the specifications and conditions of the bid; or
- (f) bidding with the intention not to win the bid.

SBD 9

8. In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the products or services to which this bid invitation relates.
9. 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.
10. 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.

Signature Date

Position Name of Bidder

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.**

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



FORM F3: CERTIFICATE OF TENDER COMPLIANCE

Note to tenderer: This form has been created as an aid to ensure a tenderer's compliance with the completion of the returnable forms and schedules and subsequent placement in the correct envelope.

FORM NO	FORM DESCRIPTION	TICK IF COMPLETED
A1	CERTIFICATE OF ATTENDANCE AT SITE VISIT AND CLARIFICATION MEETING	
A2	CERTIFICATE OF AUTHORITY FOR SIGNATORY	
A3	COMPULSORY DECLARATION	
A4	SCHEDULE OF VARIATIONS OR DEVIATIONS BY TENDERER	
A5	SCHEDULE OF ADDENDA TO TENDER DOCUMENTS	
A6	TAX COMPLIANCE	
A7	CERTIFICATE OF INSURANCE COVER	
A8	TENDERER'S BANK DETAILS	
A9	CERTIFICATE OF TENDER'S LITIGATION HISTORY	
A10	SCHEDULE OF CURRENT COMMITMENTS	
A11	CERTIFICATE OF COMPLIANCE WITH OCCUPATIONAL HEALTH AND SAFETY ACT, 1993 AND CONSTRUCTION REGULATIONS, 2014	
A12	CERTIFICATE OF REGISTRATION WITH CIDB	
A13	ORIGINAL CERTIFIED COPIES OF DIRECTORS / MEMBERS / TRUSTEES IDENTITY DOCUMENTS	
A14	COPIES OF COMPANY REGISTRATION DOCUMENTS	
B1	CONTRACTORS ESTABLISHMENT ON SITE	
B2	SCHEDULE OF SPECIAL MATERIALS	
C1	PREFERENCING SCHEDULE: BROAD-BASED BLACK ECONOMIC EMPOWERMENT STATUS	
C2	TENDERER'S DIRECT PARTICIPATION OF TARGETED LABOUR JOB CREATION	
C3	PREFERENTIAL PROCUREMENT: SUBCONTRACTING	
C4	JOINT VENTURE COMMITMENT	
C5	DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT FOR DESIGNATED SECTORS	
D1	SCHEDULE OF WORK EXPERIENCE	
D2	SCHEDULE OF CONSTRUCTION EQUIPMENT	
D3	SCHEDULE OF CONTRACTORS KEY PROJECT PERSONNEL	
D4	SCHEDULE OF SPECIALIST SUBCONTRACTORS	
D5	INDICATIVE CONSTRUCTION PROGRAMME	
D6	SCHEDULE OF ESTIMATED MONTHLY EXPENDITURE	
D7	SWORN AFFIDAVIT	
D8	INDICATIVE CONSTRUCTION PROGRAMME	
D9	SCHEDULE OF ESTIMATED MONTHLY EXPENDITURE	
E1	QUALITY ASSURANCE	
F1	SBD 8 DECLARATION OF BIDDERS PAST SUPPLY CHAIN MANAGEMENT PRACTICES	
F2	SBD 9 CERTIFICATE OF INDEPENDENT BID DETERMINATION	
F3	TENDER COMPLIANCE	

SIGNED ON BEHALF OF THE TENDERER:

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



**GA-SEGONYANA MUNICIPALITY
DECLARATION OF INTEREST**

SBD 4

1. No bid will be accepted from persons in the service of the state¹.
2. Any person, having a kinship with persons in the service of the state, including a blood relationship, may make an offer or offers in terms of this invitation to bid. In view of possible allegations of favouritism, should the resulting bid, or part thereof, be awarded to persons connected with or related to persons in service of the state, it is required that the bidder or their authorised representative declare their position in relation to the evaluating/adjudicating authority.
- 3 **In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.**

3.1 Full Name of bidder or his or her representative:.....

3.2 Identity Number:

3.3 Position occupied in the Company (director, trustee, shareholder²):.....

3.4 Company Registration Number:

3.5 Tax Reference Number:.....

3.6 VAT Registration Number:

3.7 The names of all directors / trustees / shareholders members, their individual identity numbers and state employee numbers must be indicated in paragraph 4 below.

3.8 Are you presently in the service of the state? **YES / NO**

3.8.1 If yes, furnish particulars.....

.....

¹MSCM Regulations: "in the service of the state" means to be –

(a) a member of –

- (i) any municipal council;
- (ii) any provincial legislature; or
- (iii) the national Assembly or the national Council of provinces;

(b) a member of the board of directors of any municipal entity;

(c) an official of any municipality or municipal entity;

(d) an employee of any national or provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No.1 of 1999);

(e) a member of the accounting authority of any national or provincial public entity; or

(f) an employee of Parliament or a provincial legislature.

² Shareholder" means a person who owns shares in the company and is actively involved in the management of the company or business and exercises control over the company.

3.9 Have you been in the service of the state for the past twelve months? **YES / NO**

3.9.1 If yes, furnish particulars.....

.....

3.10 Do you have any relationship (family, friend, other) with persons in the service of the state and who may be involved with the evaluation and or adjudication of this bid?.....

YES / NO

3.10.1 If yes, furnish particulars.

.....

.....

3.11 Are you, aware of any relationship (family, friend, other) between any other bidder and any persons in the service of the state who may be involved with the evaluation and or adjudication of this bid?

YES / NO

3.11.1 If yes, furnish particulars

.....

.....

3.12 Are any of the company's directors, trustees, managers, Principle shareholders or stakeholders in service of the state?

YES / NO

3.12.1. If yes, furnish particulars.

.....

.....

3.13 Are any spouse, child or parent of the company's directors trustees, managers, principle shareholders or stakeholders in service of the state?

YES / NO

3.13.1 If yes, furnish particulars.

.....

.....

3.14 Do you or any of the directors, trustees, managers, principle shareholders, or stakeholders of this company have any interest in any other related companies or business whether or not they are bidding for this contract.

YES / NO

3.14.1 If yes, furnish particulars:

.....

.....

4. Full details of directors / trustees / members / shareholders.

Full Name	Identity Number	State Employee Number

.....
Signature

.....
Date

.....
Capacity

.....
Name of Bidder



PORTION 1: CONTRACT

Part C1

AGREEMENTS AND CONTRACT DATA

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2
November 2022



**Tender No: 12/2022-223 Project Name: Refurbishment of Town Hall and Offices at Ga-Segonyana
Local Municipality**

AGREEMENTS AND CONTRACT DATA

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END OF SECTION

Contractor

Witness 1

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Employer

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November 2022



PORTION 1: CONTRACT

Part C1

AGREEMENTS AND CONTRACT DATA

Contractor

Witness 1

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Tender No: 12/2022-223 Project Name: Refurbishment of Town Hall and Offices at Ga-Segonyana Local Municipality

AGREEMENTS AND CONTRACT DATA

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Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



C1 : AGREEMENTS AND CONTRACT DATA

C1.1 FORM OF OFFER AND ACCEPTANCE

A. OFFER

The Employer, identified in the Acceptance signature block, has solicited offers to enter into a contract in respect of the following works:

Contract No: **12/2022-23** for the **REFURBISHMENT OF TOEN HALL AND OFFICES AT GA-SEGONYANA LOCAL MUNICIPALITY**

The Tenderer, identified in the Offer signature block below, has examined the documents listed in the Tender Data and addenda thereto as listed in the Tender Schedules, and by submitting this Offer has accepted the Conditions of Tender.

By the representative of the Tenderer, deemed to be duly authorized, signing this part of this Form of Offer and Acceptance, the Tenderer offers to perform all of the obligations and liabilities of the Contractor under the Contract including compliance with all its terms and conditions according to their true intent and meaning for an amount to be determined in accordance with the Conditions of Contract identified in the Contract Data.

The offered total of the prices inclusive of Value Added Tax is:

R _____ *(in*
words) _____

This Offer may be accepted by the Employer by signing the Acceptance part of this Form of Offer and Acceptance and returning one copy of this document to the Tenderer before the end of the period of validity stated in the Tender Data, whereupon the Tenderer becomes the party named as the Contractor in the Conditions of Contract identified in the Contract Data.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



Signature (of person authorized to sign the tender): _____

Name (of signatory in capitals): _____

Capacity (of signatory): _____

Name of Tenderer (organisation): _____

Address: _____

Telephone Number: _____

Fax Number: _____

Witness:

Signature: _____

Name (in capitals): _____

Date: _____

[Failure of a Tenderer to sign this form will invalidate the tender]

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



B. ACCEPTANCE

By signing this part of the Form of Offer and Acceptance, the Employer identified below accepts the Tenderer's Offer. In consideration thereof, the Employer shall pay the Contractor the amount due in accordance with the Conditions of Contract as set out in the General and Special Conditions of Contract, and identified in the Contract Data. Acceptance of the Tenderer's Offer shall form an agreement between the Employer and the Tenderer upon the terms and conditions contained in this Agreement and in the Contract that is the subject of this Agreement.

The terms of the contract are contained in

Part C1 Agreement, and Contract Data, (which include this Agreement)

Part C2 Pricing Data, including the Bill of Quantities

Part C3 Scope of Work

Part C4 Site Information

and the schedules, forms, drawings and documents or parts thereof, which may be incorporated by reference into Parts 1 to 4 above.

Deviations from and amendments to the documents listed in the Tender Data and any addenda thereto listed in the Tender Schedules as well as any changes to the terms of the Offer agreed by the Tenderer and the Employer during this process of offer and acceptance, are contained in the Schedule of Deviations attached to and forming part of this Agreement. No amendments to or deviations from said documents are valid unless contained in this Schedule, which must be duly signed by the authorised representatives of both parties.

The Tenderer shall deliver the Guarantee in terms of Clause 7 of the General Conditions of Contract 2004 within the period stated in the Contract Data, and he shall, immediately after receiving a completed copy of this Agreement, including the Schedule of Deviations (if any), contact the Employer's agent (whose details are given in the Contract Data) to arrange the delivery of any other bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the Conditions of Contract identified in the Contract Data, within 14 days of the date on which this Agreement comes into effect. Failure to fulfil any of these obligations in accordance with those terms shall constitute a repudiation of this Agreement.

Notwithstanding anything contained herein, this Agreement comes into effect on the date when the Tenderer receives one fully completed original copy of this document, including the Schedule of Deviations (if any). Unless the Tenderer (now Contractor) within five days of the date of such receipt notifies the Employer in writing of any reason why he cannot accept the contents of this Agreement, this Agreement shall constitute a binding contract between the parties.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



Signature: _____

Name (in
capitals): _____

Capacity: _____

Name of Employer
(organization): _____

Address: _____

Witness: Signature: _____ **Name:** _____

Date: _____

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



C. SCHEDULE OF DEVIATIONS

The extent of deviations from the tender documents issued by the Employer prior to the tender closing date is limited to those permitted in terms of the Tender Data and the Conditions of Tender.

A Tenderer's covering letter will not necessarily be included in the final contract document. Should any matter in such letter, which constitutes a deviation as aforesaid becomes the subject of agreements reached during the process of offer and acceptance; the outcome of such agreement shall be recorded here.

Any other matters arising from the process of offer and acceptance either as a confirmation, clarification or change to the tender documents and which it is agreed by the Parties becomes an obligation of the contract shall also be recorded here.

Any change or addition to the tender documents arising from the above agreements and recorded here shall also be incorporated into the final draft of the Contract.

1. **Subject:** _____
Details: _____

2. **Subject:** _____
Details: _____

3. **Subject:** _____
Details: _____

4. **Subject:** _____
Details: _____

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



By the duly authorised representatives signing this Schedule of Deviations, the Employer and the Tenderer agree to and accept the foregoing Schedule of Deviations as the only deviations from and amendments to the documents listed in the Tender Data and addenda thereto as listed in the Tender Schedules, as well as any confirmation, clarification or change to the terms of the offer agreed by the Tenderer and the Employer during this process of offer and acceptance.

It is expressly agreed that no other matter whether in writing, oral communication or implied during the period between the issue of the tender documents and the receipt by the Tenderer of a completed signed copy of this Agreement shall have any meaning or effect in the contract between the parties arising from this Agreement.

FOR THE TENDERER:

Signature: _____

Name: _____

Capacity: _____

Tenderer (*Name and address of* _____
_____)

Witness:

Signature: _____

Name: _____

Date: _____

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



FOR THE EMPLOYER:

Signature: _____

Name: _____

Capacity: _____

Employer (*Name and address of* _____
_____)

Witness:

Signature: _____

Name: _____

Date: _____

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



C1.2. CONTRACT DATA

C1.2.1 JBCC 2000 PRINCIPAL BUILDING AGREEMENT (Edition 5.0 of July 2007)

The Conditions of Contract are clauses 1 to 41 of the **JBCC** Series 2000 Principal Building Agreement (Edition 5.0 of July 2007) prepared by the Joint Building Contracts Committee.

Copies of these conditions of contract may be obtained through most regional office of the Association of South African Quantity Surveyors, Master Builders Association, South African Association of Consulting Engineers, South African Institute of Architects, Association of Construction Project Managers, Building Industries Federation South Africa, South African Property Owners Association or Specialist Engineering Contractors Committee.

CONTRACT VARIABLES

THE SCHEDULE

This **schedule** contains all variables referred to in this document and is divided into pre-tender and post-tender categories. The pre-tender category must be completed in full and included in the tender documents. Both the pre-tender and post-tender categories form part of these **Preliminaries**

Spaces requiring information must be filled in, shown as “not applicable” or deleted and not left blank. Where choices are offered, the non-applicable items are to be deleted. Where insufficient space is provided the information should be annexed hereto and cross-referenced to the applicable clause of the **schedule**. Key cross reference clauses are italicised in *[]* brackets

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



CONTRACTING AND OTHER PARTIES

Clause	Item and data
--------	---------------

1	The Employer is Ga-Segonyana Local Municipality
---	-------------------------------------------------

The address of the Employer is:
Corner Voortrekker and School Street
Kuruman
8460
Telephone: (057) 712 9300

2	The Principal Agent is RMD ATELIER
---	-------------------------------------------

Telephone: (072) 420 3621

Email: tebohom@rmdatelier.co.za

Address (physical): 24 Andesiet Ave.

Reviera Park

Mafikeng

2745

Address (postal): 24 Andesiet Ave.

Reviera Park

Mafikeng

2745

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



CONTRACT DETAILS

Works Description: Refurbishment of Town hall and Offices at Ga-Segonyana Local Municipality

Site Description: Corner Voortrekker and School Street; Kuruman; 8460

This agreement is for a government contract where there are specific options that are applicable to a **State** organ only *Yes*

Period for the commencement of the works after the contractor takes possession of site **Five (10) Days**

For the works **as a whole**. Intended date of practical completion and the penalty per calendar day **Twelve (12) Months** after contractual commencement date and penalty amount is **R3,500 (Three Thousand Five Hundred)** per calendar day

The provision of the following temporary services is required on the basis as indicated in the nominated options:

Water **Option A**

Electricity **Option A**

Telecom **Option A**

Ablution **Option A**

The **law** applicable to this **agreement** shall be that of the: *Republic of South Africa*

INSURANCES

Contract works insurance to be effected by: *Contractor:*
*For the value of the **R20mil***
With a deductible of not exceeding 5% of each and every claim

Supplementary insurance is required: *N/A*

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



Public liability insurance to be effected by: *Contractor: For the Sum of R 10 000 000-00*
With a deductible of not exceeding 5% of each and every claim

DOCUMENTS

Number of construction document copies to be supplied to the **contractor** free of charge:
(1) One Number of

Bills of Quantities/Lump sum document schedule of rates drawn up in accordance with:

“Standard System of Measuring Builders’ Work”

The contract value is to be adjusted using escalation adjustment indices: **No**

Where **JBCC CPAP** is to be used: *Base Month* **N/A**

Details of changes made to the provision of JBCC standard documentation: N/A

C1.3 Construction Guarantee

GUARANTOR DETAILS AND DEFINITIONS

Guarantor means

..

Physical address

..

.....

..

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



Guarantor's signatory 1 Capacity
.....

Guarantor's signatory 1 Capacity
.....

Employer means **GA-SEGONYANA LOCAL MUNICIPALITY**

Contractor means
..

Agent means **RMD ATELIER**

Works means Refurbishment of Town Hall and Offices at Ga-Segonyana Local
Municipality

Site means **Corner Voortrekker and School Street; Kuruman 8460**

Agreement means **the JBCC Series 2000 Principal Agreement**

Contract Sum i.e. the total of prices in the Form of Offer and Acceptance inclusive of VAT

Amount in figures R

Amount in words
(Rand)

Guaranteed Sum means the maximum aggregate amount of R
...

Amount in words (Rand)

1 The Guarantor's liability shall be limited to the amount of the Guaranteed Sum as follows:

--	--	--	--	--	--

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



GUARANTOR'S LIABILITY	PERIOD OF LIABILITY
Maximum Guaranteed Sum (not exceeding 10 % of the contract sum) in the amount of: (Rands) (R)	From and including the date of issue of this Construction Guarantee and up to and including the date of the only practical completion certificate or the last practical completion certificate where there are sections, upon which this Construction Guarantee shall expire.

- 2** The Guarantor hereby acknowledges that:
- 2.1** Any reference in this Guarantee to the Agreement is made for the purpose of convenience and shall not be construed as any intention whatsoever to create an accessory obligation or any intention whatsoever to create a surety ship.
- 2.2** Its obligation under this Guarantee is restricted to the payment of money.
- 3** Subject to the Guarantor's maximum liability referred to in clauses 1, the Guarantor hereby undertakes to pay the Employer the sum certified upon receipt of the documents identified in sub-clauses 3.1 to 3.3:
- 3.1** A copy of a first written demand issued by the Employer to the Contractor stating that payment of a sum certified by the Principal Agent in an interim or final payment certificate has not been made in terms of the Agreement and failing such payment within seven (7) calendar days, the Employer intends to call upon the Guarantor to make payment in terms of sub-clause 3.2
- 3.2** A first written demand issued by the Employer to the Guarantor at the Guarantor's physical address with a copy to the Contractor stating that a period of seven (7) calendar days has elapsed since the first written demand in terms of sub-clause 4.1 and that the sum certified has still not been paid therefore the Employer calls up this Guarantee and demands payment of the sum certified from the Guarantor.
- 3.3** A copy of the said payment certificate, which entitles the Employer to receive payment in terms of the Agreement of the sum certified in clause 3.
- 4** Subject to the Guarantor's maximum liability referred to in clause 1, the Guarantor undertakes to pay the Employer the Guaranteed Sum or the full outstanding balance upon receipt of a first written demand from the Employer to the Guarantor at the Guarantor's physical address calling up this Guarantee stating that:

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



- 4.1** The Agreement has been cancelled due to the Contractor's default and that the Guarantee is called up in terms of clause 4. The demand shall enclose a copy of the notice of cancellation; or
- 4.2** A provisional sequestration or liquidation court order has been granted against the Contractor and that the Guarantee is called up in terms of clause 4. The demand shall enclose a copy of the court order.
- 5** It is recorded that the aggregate amount of payments required to be made by the Guarantor in terms of clauses 3 and 4 shall not exceed the Guarantor's maximum liability in terms of clause 1.
- 6** Where the Guarantor is a registered insurer and has made payment in terms of clause 4, the Employer shall upon the date of issue of the final payment certificate submit an expense account to the Guarantor showing how all monies received in terms of the Guarantee have been expended and shall refund to the Guarantor any resulting surplus. All monies refunded to the Guarantor in terms of this Guarantee shall bear interest at the prime overdraft rate of the Employer's bank compounded monthly and calculated from the date payment was made by the Guarantor to the Employer until the date of refund.
- 7** Payment by the Guarantor in terms of clause 3 or 4 shall be made within seven (7) calendar days upon receipt of the first written demand to the Guarantor.
- 8** The Employer shall have the absolute right to arrange his affairs with the Contractor in any manner which the Employer deems fit and the Guarantor shall not have the right to claim his release from this Guarantee on account of any conduct alleged to be prejudicial to the Guarantor
- 9** The Guarantor chooses the physical address as stated above for all purposes in connection herewith.
- 10** This Guarantee is neither negotiable nor transferable and shall expire in terms of clause 1, or payment in full of the Guaranteed Sum or on the Guarantee expiry date, whichever is the earlier, where after no claims will be considered by the Guarantor. The original of this Guarantee shall be returned to the Guarantor after it has expired
- 11** This Guarantee, with the required demand notices in terms of clauses 3 or 4, shall be regarded as a liquid document for the purpose of obtaining a court order.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



- 12** Where this Guarantee is issued in the Republic of South Africa the Guarantor hereby consents in terms of Section 45 of the Magistrate's Courts Act No 32 of 1944, as amended, to the jurisdiction of the Magistrate's Court of any district having jurisdiction in terms of Section 28 of the said Act, notwithstanding that the amount of the claim may exceed the jurisdiction of the Magistrate's Court.

Signed at Date
.....

Guarantor's
Signatory 1 Guarantor's
Signatory 2
.....

Identity number Identity number
.....

Witness 1 Witness 2
.....

Guarantor's seal or stamp

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



PORTION 2: CONTRACT

Part C2 PRICING DATA

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2
November 2022



Tender No: 12/2022-21
Project Name: Refurbishment of Town Hall and Offices at Ga-Segonyana Local Municipality

PRICING DATA

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END OF SECTION

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2
November 2022



C2.1 PRICING INSTRUCTIONS

- 1 The Bills of Quantities have been drawn up in accordance with the Standard System of Measuring Building Work (as amended) published and issued by the Association of South African Quantity Surveyors (Sixth Edition (Revised)), 1999. Where applicable the:
 - a) Civil engineering work has been drawn up in accordance with the provisions of the latest edition of SABS 1200 Standardized Specifications for Civil Engineering Works.
 - b) Mechanical work has been drawn up in accordance with the provisions of the Model Bills of Quantities for Refrigeration, Air-Conditioning and Ventilation Installations, published by the South African Association of Quantity Surveyors, July 1990).
 - c) electrical work has been drawn up in accordance with the provisions of the Model Bills of Quantities for Electrical Work, published by the South African Association of Quantity Surveyors, (July, 2005).
- 2 The agreement is based on the JBCC Series 2000 Principal Building Agreement, prepared by the Joint Building Contracts Committee, Edition 4.1, and March 2005. The additions, deletions and alterations to the JBCC Principal Building Agreement as well as the contract specific variables are as stated in the Contract Data. Only the headings and clause numbers for which allowance must be made in the Bills of Quantities are recited.
- 3 Preliminary and general requirements are based on the various parts of the JBCC Series 2000 Preliminaries as prepared by the Joint Building Contracts Committee, Edition 4.1, and March 2005. The additions, deletions and alterations to the various parts of the JBCC Series 2000 Preliminaries as well as the contract specific variables are as stated in the Specification Data in the Scope of Work. Only the headings and clause numbers for which allowance must be made in the Bills of Quantities are recited.
- 4 It will be assumed that prices included in the Bills of Quantities are based on Acts, Ordinances, Regulations, By-laws, International Standards and National Standards that were published 28 days before the closing date for tenders. (Refer to www.stanza.org.za or www.iso.org for information on standards).
- 5 The prices and rates in these Bills of Quantities are fully inclusive prices for the work described under the items. Such prices and rates cover all costs and expenses that may be required in and for the execution of the work described in accordance with the provisions of the Scope of Work, and shall cover the cost of all general risks, liabilities, and obligations set forth or implied in the Contract Data, as well as overhead charges and profit. These prices will be used as a basis for assessment of payment for additional work that may have to be carried out.
- 6 The drawings listed in the Scope of Works used for the setting up of these Bills of Quantities are kept by the quantity surveyor and can be viewed at any time during office hours up until the completion of the works.
- 7 Reference to any particular trademark, name, patent, design, type, specific origin or producer is purely to establish a standard for requirements. Products or articles of an equivalent standard may be substituted.
- 8 The rates contained in the Bills of Quantities will apply irrespective of the final quantities of the different classes and kinds of work actually executed.
- 9 Rates for work of similar description occurring in different sections of the Bills of Quantities shall be identical.
- 10 An item against which no price is entered will be considered to be covered by the other prices or rates in the Bills of Quantities. A single lump sum will apply should a number of items be grouped together for pricing purposes.
- 11 Where any item is not relevant to this specific contract, such item is marked N/A (signifying "not applicable")

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2
November 2022



- 12 The Contract Data and the standard form of contract referenced therein must be studied for the full extent and meaning of each and every clause set out in Section 1 (Preliminary and General) of the Bills of Quantities
- 13 The Bills of Quantities is not intended for the ordering of materials. Any ordering of materials, based on the Bills of Quantities, is at the Contractor's risk.
- 14 The amount of the Preliminary and General Section to be included in each monthly payment certificate shall be assessed as an amount prorated to the value of the work duly executed in the same ratio as the preliminaries bears to the total of prices excluding any contingency sum, the amount for the Preliminary and General Section and any amount in respect of contract price adjustment provided for in the contract.
- 15 Where the initial contract period is extended, the monthly charge shall be calculated on the basis as set out in 14 but taking into account the revised period for completing the works.
- 16 The amount or items of the Preliminary and General Section shall be adjusted to take account of the theoretical financial effect which changes in time or value (or both) have on this section. Such adjustments shall be based on adjustments in the following categories as recorded in the Bills of Quantities:
- a) an amount which is not to be varied, namely Fixed (F)
 - b) an amount which is to be varied in proportion to the contract value, namely Value Related (V); and
 - c) an amount which is to be varied in proportion to the contract period as compared to the initial construction period excluding revisions to the construction period for which no adjustment to the contractor is not entitled to in terms of the contract, namely Time Related (T).
- 17 Where no provision is made in the Bills of Quantities to indicate which of the three categories in 12 apply or where no selection is made, the adjustments shall be based on the following breakdown:
- a) 10 percent is Fixed;
 - b) 15 percent if Value Related
 - c) 75 percent is Time Related.
- 18 The adjustment of the Preliminary and General Section shall apply notwithstanding the actual employment of resources in the execution of the works. The contract value used for the adjustment of the Preliminary and General Section shall exclude any contingency sum, the amount for the Preliminary and General Section and any amount in respect of contract price adjustment provided for in the contract. Adjustments in respect of any staged or sectional completion shall be prorated to the value of each section.
- 19 All work is to be constructed using labour-intensive methods. The use of plant to provide such works, other than plant specifically provided for in the scope of works, is a variation order to the contract
- 20 Payment for items, which are designated to be constructed under labour-intensively, will not be made unless they are constructed using labour-intensive methods. Any unauthorized use of plant to carry out work which was to be done labour-intensively will not be condoned and any works so constructed will not be certified for payment.
- 21 The tenderer is to acquaint him as to the specific requirements of this tender as contained in additional clauses A1 to A2 to the JBCC Principal Agreement as incorporated in the Contract Data. These clauses may be priced under the relevant Preliminaries items in SECTION C: SPECIFIC PRELIMINARIES of the Preliminaries Bill. No claim will be entertained due to the failure of the tenderer to allow for these requirements

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2
November 2022



C2.2 PRICE SCHEDULE

NOTE 1: The tender will be evaluated and awarded as a whole or to one bidder.

NOTE 2: The quantities indicated on the Bill of Quantities are only approximate figures for evaluation purposes and Windybrow Theatre does not guarantee to purchase this or any quantity.

The undersigned, who warrants that he / she is duly authorised to do so on behalf of the enterprise, confirms that the contents of this schedule are within my personal knowledge and are to the best of my belief both true and correct.

Person Authorized to sign Tender:

FULL NAME (IN BLOCK LETTERS):

SIGNATURE:

DATE:

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2
November 2022



BILL OF QUANTITIES

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2
November 2022

Item No		Quantity	Rate	Amount
	<u>SECTION NO 1</u>			
	<u>BILL NO. 1</u>			
	<u>PRELIMINARIES</u>			
	<u>PRINCIPAL BUILDING AGREEMENT</u>			
	The agreement shall be the Principal Building Agreement prepared and published by the Joint Building Contracts Committee: Edition 4.1 Code 2101, March 2005. (The JBCC Series 2000 Principal Building Agreement).			
	<u>PRELIMINARIES</u>			
	The preliminaries shall be the Preliminaries prepared and published by the Joint Building Contracts Committee for use with the JBCC Principal Building Agreement: Code 2103, May 2005. (The JBCC Series 2000 Preliminaries).			
	<u>FULL INTENT AND MEANING OF CLAUSES</u>			
	Tenderers shall be deemed to have referred to the afore-mentioned documents for the full intent and meaning of each clause. These clauses are hereinafter referred to by the heading and clause number only.			
	Where standard clauses or alternatives are not applicable to this contract, such modifications, corrections or supplements as are necessary are given under each relevant clause heading or within the relevant schedule.			
	Where an item is not relevant to this specific contract, such item is marked "N/A" signifying "Not applicable".			
	Carried Forward		R	
	Section No. 1 Bill No. 1 PRELIMINARIES RMD ATELIER (PTY) LTD.			

<p style="text-align: right;">Brought Forward</p> <p><u>PREAMBLES FOR TRADES</u></p> <p>The Model Preambles for Trades (1999 edition) as published by the Association of South African Quantity Surveyors shall be deemed to be incorporated in these bills of quantities and no claims arising from brevity of description of items fully described in the said Model Preambles will be entertained</p> <p>Supplementary preambles are incorporated in these bills of quantities to satisfy the requirements of this project. Such supplementary preambles shall take precedence over the provisions of the said Model Preambles</p> <p>The contractor's prices for all items throughout these bills of quantities must take account of and include for all of the obligations, requirements and specifications given in the said Model Preambles and in any supplementary preambles</p> <p><u>PRICING OF CLAUSES</u></p> <p>Tenderers shall allow opposite each clause for any cost involved with complying with such clause. Any clauses left unpriced shall be deemed to be covered by rates and prices elsewhere incorporated throughout these bills of quantities.</p> <p><u>PAYMENT CATEGORIES</u></p> <p>Should 'Alternative A', as set out within Clause 10.3 of the JBCC 2000 Preliminaries, be used for the adjustment of preliminaries, then each item priced is to be allocated to one or more categories by the insertion of the letter "F", "V" or "T", as the case may be, against the price in the rate column. These letters shall indicate the relevant categories as follows:</p> <p>"F" - A fixed amount.</p> <p>"V" - A variable amount in proportion to the value</p> <p>"T" - An amount in proportion time</p> <p><u>SECTION A: PRINCIPAL BUILDING AGREEMENT</u></p> <p style="text-align: right;">Carried Forward</p> <p>Section No. 1 Bill No. 1 PRELIMINARIES RMD ATELIER (PTY) LTD.</p>	<p style="text-align: center;">R</p> <hr/> <p style="text-align: center;">R</p>
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Brought Forward			R	
	<u>DEFINITIONS</u>			
1	Definitions and interpretation	Clause 1.0		
	F:..... V:..... T:.....		Item	
	<u>OBJECTIVE AND PREPARATION</u>			
2	Offer, acceptance and performance	Clause 2.0		
	F:..... V:..... T:.....		Item	
3	Documents			
	Clause 3.1 is hereby deleted and no payment guarantee will thus be provided by the employer.			
	Clause 3.3 is hereby amended by deleting the words "..... within seven (7) calender days of having received a payment guarantee from the employer in terms of 3.1 "in the first sentence and substituting with".....within twenty-one (21) calendar days of written acceptance of the contractor's tender." The second sentence shall remain unchanged.			
	Clause 3.0			
	F:..... V:..... T:.....		Item	
Carried Forward			R	
Section No. 1 Bill No. 1 PRELIMINARIES RMD ATELIER (PTY) LTD.				

	Brought Forward			R	
4	<p>Design responsibility</p> <p>The following new subclause is hereby added to this clause:</p> <p>4.4 Notwithstanding the provisions of 4.2, the contractor shall ensure that every such nominated or selected subcontractor shall simultaneously with the signing of the relevant nominated or selected subcontract sign and deliver to the employer a Design Materials and Workmanship Warranty and Undertaking in favour of the employer or a Materials and Workmanship Undertaking strictly in accordance with the instructions or provisions contained in the tender documents for the nominated or selected subcontract works.</p> <p style="text-align: right;">Clause 4.0</p> <p>F:..... V:..... T:.....</p>		Item		
5	<p>Employer's agents</p> <p style="text-align: right;">Clause 5.0</p> <p>F:..... V:..... T:.....</p>		Item		
6	<p>Site representative</p> <p style="text-align: right;">Clause 6.0</p> <p>F:..... V:..... T:.....</p>		Item		
	Carried Forward			R	
	<p>Section No. 1</p> <p>Bill No. 1</p> <p>PRELIMINARIES</p> <p>RMD ATELIER (PTY) LTD.</p>				

	Brought Forward			R	
7	<p>Compliance with regulations</p> <p>The following new subclause is hereby added to this clause:</p> <p>Without limiting the generality of the provisions of clause 7.0 of the Agreement, the Contractor's attention is drawn to the provisions of the Construction Regulations, 2003 issued in terms of the Occupational Health and Safety Act, 1993 in which it is specifically stated that the Employer shall prepare a documented health and safety specification for the Works (copy of the relevant specification attached hereto) and that the Employer shall ensure that the Contractor has made provision for the cost of health and safety measures during the execution of the Works. The contractor shall price opposite this item for compliance with the act and the regulations and the provisions of the aforementioned health and safety specification.</p> <p style="text-align: right;">Clause 7.0</p> <p>F:..... V:..... T:.....</p>	Item			
8	<p>Works risk</p> <p style="text-align: right;">Clause 8.0</p> <p>F:..... V:..... T:.....</p>	Item			
9	<p>Indemnities</p> <p style="text-align: right;">Clause 9.0</p> <p>F:..... V:..... T:.....</p>	Item			
10	<p>Works insurances</p> <p style="text-align: right;">Clause 10.0</p> <p>F:..... V:..... T:.....</p>	Item			
	Carried Forward			R	
	<p>Section No. 1 Bill No. 1 PRELIMINARIES RMD ATELIER (PTY) LTD.</p>				

Refurbishment of Kuruman Town Hall And Gasegonyana Local Municipal Offices

	Brought Forward		R
11	Liability insurances Clause 11.0 F:..... V:..... T:.....	Item	
12	Effecting insurances Clause 12.0 F:..... V:..... T:.....	Item	
13	13.0 No Clause	Item	
14	Security Notwithstanding the provisions of sub-clause 14.1, the contractor shall submit with his tender a letter of intent from an accredited guarantor, undertaking to provide the selected JBCC construction guarantee to the Provision of Security format appended to these bills of quantities. The employer reserves the right to reject a construction guarantee if, in the opinion of the employer , the guarantor is not accredited. Clause 14.0 F:..... V:..... T:.....	Item	
	<u>EXECUTION</u>		
15	Preparation for and execution of the Works Clause 15.0 F:..... V:..... T:.....	Item	
	Carried Forward		R
	Section No. 1 Bill No. 1 PRELIMINARIES RMD ATELIER (PTY) LTD.		

Brought Forward			R	
16	<p>Access to the Works</p> <p>The contractor shall afford all reasonable access to other contractors and/or sub-contractors who may be employed by the client to execute other work whether in connection with the Contract Work or not.</p> <p>Clause 16.0</p> <p>F:..... V:..... T:.....</p>	Item		
17	<p>Contract instructions</p> <p>Clause 17.0</p> <p>F:..... V:..... T:.....</p>	Item		
18	<p>Setting out of the Works</p> <p>The Contractor shall notify the Principal Agent if any encroachments of adjoining foundations, buildings, structures, pavements, boundaries, etc. exist in order to make the necessary arrangements for the rectification of any such encroachments.</p> <p>Clause 18.0</p> <p>F:..... V:..... T:.....</p>	Item		
19	<p>Assignment</p> <p>Clause 19.0</p> <p>F:..... V:..... T:.....</p>	Item		
20	<p>Nominated Subcontractors</p> <p>Clause 20.0</p> <p>F:..... V:..... T:.....</p>	Item		
21	<p>Selected Subcontractors</p> <p>Clause 21.0</p> <p>F:..... V:..... T:.....</p>	Item		
Carried Forward			R	
<p>Section No. 1</p> <p>Bill No. 1</p> <p>PRELIMINARIES</p> <p>RMD ATELIER (PTY) LTD.</p>				

		Brought Forward		R	
22	Employer's Direct Contractors	Clause 22.0			
	F:..... V:..... T:.....		Item		
23	Contractor's Domestic Subcontractors	Clause 23.0			
	F:..... V:..... T:.....		Item		
	<u>COMPLETION</u>				
24	Practical completion	Clause 24.0			
	The contractor shall not receive any mark-up for overheads and profit on any omission of tenant installation work or tenant installation work by others. Claims of loss of profit shall not be entertained				
	F:..... V:..... T:.....		Item		
25	Clause 24.0 - Practical completion				
	<u>User note?</u>				
	<i>Insert the following where tenant installation work is to be executed by others</i>				
	The contractor shall not receive any mark-up for overheads and profit on any omission of tenant installation work or tenant installation work by others. Claims of loss of profit shall not be entertained				
	F:..... V:..... T:.....		Item		
26	Works completion	Clause 25.0			
	F:..... V:..... T:.....		Item		
		Carried Forward		R	
	Section No. 1 Bill No. 1 PRELIMINARIES RMD ATELIER (PTY) LTD.				

	Brought Forward			R	
27	Final completion Clause 26.0 F:..... V:..... T:.....	Item			
28	Latent defects liability period Clause 27.0 F:..... V:..... T:.....	Item			
29	Sectional completion Clause 28.0 F:..... V:..... T:.....	Item			
30	Revision of date for practical completion Subclause 29.1.1 is hereby deleted and substituted by the following: Exceptionally inclement whether, which shall only relate to weather with a degree of inclemency which is materially greater than or is materially beyond the average inclemency experienced in the past five years and /or recorded, in terms of available records or otherwise, at or for the area in which the site is situated, for the period(s) in question. Any revision of date of practical completion which may, in terms of this clause be allowed for exceptionally inclement weather, shall be related only to those periods of exceptionally inclement weather by which the average periods of time, during which exceptionally inclement weather is experienced and/or recorded in the area in which the site is situated, is exceeded. The contractor is therefore to make allowance for normal vagaries of the weather. Clause 29.0 F:..... V:..... T:.....	Item			
31	Penalty for non-completion Clause 30.0 F:..... V:..... T:.....	Item			
	Carried Forward			R	
	Section No. 1 Bill No. 1 PRELIMINARIES RMD ATELIER (PTY) LTD.				

Brought Forward		R	
<u>PAYMENT</u>			
32	<p>Interim payment to the contractor</p> <p>Notwithstanding this or any other clause, materials and goods stored off site shall not be included in the amount authorised for payment.</p> <p>Subclause 31.9 is hereby amended by the substitution of the words "seven (7) calendar days" in the first line by the words "twenty one (21) calendar days".</p> <p>Subclause 31.10 is hereby amended by the substitution of the words "practical completion" in the second and fourth lines by the words "final completion".</p> <p style="text-align: right;">Clause 31.0</p> <p>F:..... V:..... T:.....</p>		
		Item	
33	<p>Adjustment to the contract value</p> <p>Notwithstanding the provisions of subclause 32.13 or any other clause, all fluctuations in costs shall be for the account of the contractor. See also subclause 42.4.6</p> <p>Where prices are submitted by the contractor and/or sub-contractors during progress of the works in respect of contract and notwithstanding the fact that such prices may be used in an interim payment certificate, there is to be no presumption of acceptance. Should the Principal Agent wish to accept any such prices prior to the issue of the final certificate, it will be in writing.</p> <p style="text-align: right;">Clause 32.0</p> <p>F:..... V:..... T:.....</p>		
		Item	
34	<p>Recovery of expense and loss</p> <p style="text-align: right;">Clause 33.0</p> <p>F:..... V:..... T:.....</p>		
		Item	
Carried Forward		R	
<p>Section No. 1 Bill No. 1 PRELIMINARIES RMD ATELIER (PTY) LTD.</p>			

	Brought Forward		R
35	<p>Final account and final payment</p> <p>Subclause 34.11 is hereby amended by the substitution of the words "practical completion" in the third line by the words "final completion".</p> <p>The employer shall, however, pay interest to the contractor at the rate stipulated in clause 34.11 on any amounts payable to the contractor after final completion after the date of issue of the certificate of final completion but only for such period as the settlement of the final account is delayed by non-performance of the Principal Agent or the employer or his agents. In evaluating non-performance for purposes of this clause a reasonable time shall be allowed to the employer or his agents to respond to any matter brought to his/their attention and which may affect the settlement of the final account.</p> <p>Clause 34.0</p> <p>F:..... V:..... T:.....</p>	Item	
36	<p>Payment to other parties</p> <p>Clause 35.0</p> <p>F:..... V:..... T:.....</p>	Item	
	<u>CANCELLATION</u>		
37	<p>Cancellation by Employer - Contractor's default</p> <p>Clause 36.0</p> <p>F:..... V:..... T:.....</p>	Item	
38	<p>Cancellation by Employer - loss and damage</p> <p>Clause 37.0</p> <p>F:..... V:..... T:.....</p>	Item	
39	<p>Cancellation by Contractor - Employer's default</p> <p>Clause 38.0</p> <p>F:..... V:..... T:.....</p>	Item	
	Carried Forward		R
	<p>Section No. 1</p> <p>Bill No. 1</p> <p>PRELIMINARIES</p> <p>RMD ATELIER (PTY) LTD.</p>		

	Brought Forward		R
40	Cancellation - cessation of the Works <div style="text-align: right;">Clause 39.0</div> F:..... V:..... T:..... <u>DISPUTE</u>	Item	
41	Dispute settlement <div style="text-align: right;">Clause 40.0</div> F:..... V:..... T:..... <u>SUBSTITUTE PROVISIONS</u>	Item	
42	State clauses <div style="text-align: right;">Clause 41.0</div> <u>CONTRACT VARIABLES</u> <u>THE SCHEDULE</u>	Item	
43	42.0 Pre-tender information F:..... V:..... T:..... <u>42.1 CONTRACTING AND OTHER PARTIES</u> 42.1.1 Employer: Gasegonyana Local Municipality Postal address: Private Bag X1522, Kuruman, Code: 8460 Telephone: (053) 712 9300	Item	
	Carried Forward		R
Section No. 1 Bill No. 1 PRELIMINARIES RMD ATELIER (PTY) LTD.			

Brought Forward		R	
42.1.2			
P.A / P.M:	RMD ATELIER		
(5.1)			
Physical address:	24 ANDESIET DR. REVIERA PARK Mahikeng		
Code:	2745		
Tel:	072 420 3621		
Email:	tebohom@rmdatelier.co.za		
42.1.3	Agent (1):		
42.1.4	Agent (2):		
42.1.5	Agent (3):		
42.1.6	Agent (4):		
42.2	<u>CONTRACT DETAILS</u>		
42.2.1	Works description:		
	Refurbishment of Kuruman Town Hall and Municipal Offices: Gasegonyana Local Municipality - Phase 01		
42.2.2	Site description:		
	Site is at Mareetsane village, North West Province.		
42.2.3	Work or installations by direct contractors:		
(22.2)	Not Applicable		
Carried Forward		R	
Section No. 1			
Bill No. 1			
PRELIMINARIES			
RMD ATELIER (PTY) LTD.			

	Brought Forward		R
42.2.4 Specific options that are applicable to a State organ only			
(41.0) Where so:			
(1) Legislation applicable to the interest rate:			
As determined by the Minister of Justice in terms of Section 1(2) of the Prescribed Rate of Interest Act, 1975 (Act no. 55 of 1975) from time to time			
(2) Lateral support insurance to be effected by the Contractor :			Yes
and (3) Payment will be made for materials goods :			Yes
(4) Dispute resolution by litigation:			Yes
(5) Extended defects liability period applicable to the following elements:			N/A
42.2.5 Possession of the site is intended to be given on:			
(15.2.1) Date to be indicated after contract award			
42.2.6 Period for the commencement of the Works after the Contractor takes possession of the site			
(15.3) Five (5) working days			
	Carried Forward		R
Section No. 1 Bill No. 1 PRELIMINARIES RMD ATELIER (PTY) LTD.			

<p style="text-align: center;">Brought Forward</p> <p>42.2.7 For the works as a whole: NO</p> <p>(24.3.1) The date for practical completion and the penalty per calendar day.</p> <p>The programme and cashflow to be submitted within thirty calendar days after site handover will form part of the deliverable milestones. Failure to meet these shall be deemed to be in breach of contract. Should the contractor fail to submit both within this period, the Principal Agent and/or Quantity Surveyor shall impose both and the contractor shall have seven working days to counter such with an acceptable programme and cash-flows. Acceptability shall be solely decided by the Principal Agent and/or Quantity surveyor and/or Project Manager</p> <p>Date:</p> <p>Twelve Months</p> <p>Penalty: Phase One - R 1,600.00/Calendar day Phase Two - R 800.00/Calendar day</p> <p>42.2.8 For the works in sections:</p> <p>Yes</p> <p>Phase 1: Eight (8) months (New works) Phase 2: Four (4) months (Repairs)</p> <p>42.2.9 The law applicable to this Agreement shall be that of:</p> <p>(1.2) Republic of South Africa</p> <p>41.2.12 Payment for materials and goods on site shall be made</p> <p style="text-align: center;">YES</p> <p style="text-align: center;">Carried Forward</p> <p>Section No. 1 Bill No. 1 PRELIMINARIES RMD ATELIER (PTY) LTD.</p>	<p style="text-align: center;">R</p> <hr/> <p style="text-align: center;">R</p>
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	Brought Forward		R	
	41.2.13 The contract dispute resolution shall be arbitration			
	41.2.14 The arbitration rules shall be as recommended by Association of Arbitrators (SA)			
44	42.3 INSURANCES	Item		
	42.3.1 Contract Works insurance to be effected by:			
	(10.1, 10.2, 12.1)			
	Contractor			
	For the sum of: Equal to the Contract Sum plus 20%			
	With a deductible of: Equal to 0,1% of the above insured amount			
	42.3.2 Supplementary insurance is required:			
	(10.1, 10.2, 12.1			
	No			
	42.3.3 Public liability insurance to be effected by:			
	(11.1, 12.1)			
	Contractor			
	For the Sum of: R 5,000,000.00 (Five million rand only)			
	With a deductible of: 0.1% of the above insured amount			
	42.3.4 Support insurance to be effected by the employer			
	(11.1, 12.1)			
	Not Applicable			
	Carried Forward		R	
	Section No. 1 Bill No. 1 PRELIMINARIES RMD ATELIER (PTY) LTD.			

<p style="text-align: right;">Brought Forward</p> <p><u>42.4 DOCUMENTS</u></p> <p>42.4.1 Waiver of Contractor's lien or right of continuing possession is required: (3.3, 15.1.3, 31.16.2) Yes</p> <p>42.4.2 Construction document copies to be supplied to the Contractor free of charge: (3.7) Three (3)</p> <p>42.4.3 Bills of Quantities drawn up in accordance with: Standard System of Measuring Building Work 1999, Sixth Edition (Revised)</p> <p>42.4.4 On acceptance of the tender the bills of quantities document is to be submitted within working days: (15.1.1) Five (5)</p> <p>42.4.5 JBCC Engineering General Conditions are to be included in the contract documents: (3.4) No</p> <p>42.4.6 The contract value is to be adjusted using CPAP indices: (31.5.3) Yes</p> <p>42.4.7 Contract Period Twelve (12) Months including Builder's holidays</p> <p style="text-align: right;">Carried Forward</p> <p>Section No. 1 Bill No. 1 PRELIMINARIES RMD ATELIER (PTY) LTD.</p>	<p style="text-align: center;">R</p> <hr/> <p style="text-align: center;">R</p>
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Brought Forward		R	
<u>2.0 DOCUMENTS</u>			
46	<p>Checking of documents.</p> <p>The items in these bills of quantities are to be read and priced in conjunction with and the descriptions regarded as amplified by the Model Preambles for Trades as recommended and published by the Association of South African Quantity Surveyors, 1999 edition, and no claim arising from brevity of description of items fully described in the said Model Preambles for Trades will be entertained.</p> <p style="text-align: right;">Clause 2.1</p> <p>F:..... V:..... T:.....</p>	Item	
47	<p>Provisional bills of quantities.</p> <p>These bills of quantities shall <u>not</u> be used for ordering purposes.</p> <p style="text-align: right;">Clause 2.2</p> <p>F:..... V:..... T:.....</p>	Item	
48	<p>Availability of construction documentation.</p> <p>The budgetary allowances allocated for sub-contract amounts allocated for subsequent trades included in this document will be separately procured, based on multiple procurement of sub-contractors during construction period.</p> <p style="text-align: right;">Clause 2.3</p> <p>F:..... V:..... T:.....</p>	Item	
49	<p>Interests of agents.</p> <p style="text-align: right;">Clause 2.4</p> <p>F:..... V:..... T:.....</p>	Item	
Carried Forward		R	
<p>Section No. 1 Bill No. 1 PRELIMINARIES RMD ATELIER (PTY) LTD.</p>			

	Brought Forward		R
50	<p>Priced documents.</p> <p>Notwithstanding the provisions of this clause, the contractor shall deposit/submit the priced documents within the time as stated in A41.4.4 of the Schedule of Contract Variables.</p> <p>Rates (items)</p> <p>Where appropriate, rates for similar items in these bills of quantities should be the same.</p> <p>Prior to signing of the Principal Building Agreement the Principal Agent shall be at liberty to make such adjustments to individual rates, whether they are Subcontractor's rates or not, as will eliminate errors or discrepancies or which he considers to be imbalanced, unreasonable or unrealistic rates, without altering the tender sum.</p> <p style="text-align: right;">Clause 2.5</p> <p>F:..... V:..... T:.....</p>	Item	
51	<p>Tender submission</p> <p>This clause is amended by substituting "JBCC Form of Tender" with "Official Form of Tender:</p> <p style="text-align: right;">Clause 2.6</p> <p>F:..... V:..... T:.....</p> <p><u>3.0 THE SITE</u></p>	Item	
52	<p>Defined works area.</p> <p>The area of the works to be occupied by the contractor, any restriction on the area and the limit of access or exit will be pointed out to the contractor by the principal agent on handing over the site.</p> <p style="text-align: right;">Clause 3.1</p> <p>F:..... V:..... T:.....</p>	Item	
	Carried Forward		R
	<p>Section No. 1 Bill No. 1 PRELIMINARIES RMD ATELIER (PTY) LTD.</p>		

Brought Forward			R
53	Geotechnical investigation. Clause 3.2 F:..... V:..... T:.....	Item	
54	Inspection of the site. There will be a compulsory site inspection and briefing meeting as per the tender advertisement. Failure to attend will lead to disqualification of the tender. Clause 3.3 F:..... V:..... T:.....	Item	
55	Existing premises occupied Clause 3.4 F:..... V:..... T:.....	Item	
56	Previous work - dimensional accuracy Clause 3.5 F:..... V:..... T:.....	Item	
57	Previous work - defects Clause 3.6 F:..... V:..... T:.....	Item	
58	Services - known Clause 3.7 F:..... V:..... T:.....	Item	
59	Services - unknown Clause 3.8 F:..... V:..... T:.....	Item	
Carried Forward			R
Section No. 1 Bill No. 1 PRELIMINARIES RMD ATELIER (PTY) LTD.			

	Brought Forward		R	
60	Protection of trees Clause 3.9 F:..... V:..... T:.....	Item		
61	Articles of value Clause 3.10 F:..... V:..... T:.....	Item		
62	Inspection of adjoining properties Clause 3.11 F:..... V:..... T:.....	Item		
	<u>4.0 MANAGEMENT OF CONTRACT</u>			
63	Management of the Works The Contractor shall obtain all necessary particulars of Subcontractors' work timeously so that provision for recesses, chases, holes, etc. can be made Clause 4.1 F:..... V:..... T:.....	Item		
64	Programming for the Works Clause 4.2 F:..... V:..... T:.....	Item		
65	Progress meetings Caluse 4.3 F:..... V:..... T:.....	Item		
66	Technical meetings Clause 4.4 F:..... V:..... T:.....	Item		
	Carried Forward		R	
	Section No. 1 Bill No. 1 PRELIMINARIES RMD ATELIER (PTY) LTD.			

		Brought Forward			R
67	Labour and plant records	Clause 4.5			
	F:..... V:..... T:.....		Item		
	<u>5.0 SAMPLES AND SHOP DRAWINGS</u>				
68	Samples of materials	Caluse 5.1			
	F:..... V:..... T:.....		Item		
69	Workmanship samples	Clause 5.2			
	F:..... V:..... T:.....		Item		
70	Shop drawings	Clause 5.3			
	F:..... V:..... T:.....		Item		
71	Compliance with manufacturers' instructions	Clause 5.4			
	F:..... V:..... T:.....		Item		
	<u>6.0 TEMPORARY WORKS AND PLANT</u>				
72	Deposits and fees	Clause 6.1			
	F:..... V:..... T:.....		Item		
73	Enclosure of the works	Clause 6.2			
	F:..... V:..... T:.....		Item		
		Carried Forward			R
	Section No. 1 Bill No. 1 PRELIMINARIES RMD ATELIER (PTY) LTD.				

		Brought Forward			R	
74	Advertising	Clause 6.3				
	F:..... V:..... T:.....		Item			
75	Plant, equipment, sheds and offices	Clause 6.4				
	F:..... V:..... T:.....		Item			
76	Main noticeboard	Clause 6.5				
	F:..... V:..... T:.....		Item			
77	Subcontractors notice board	Clause 6.6				
	F:..... V:..... T:.....		Item			
	<u>7.0 TEMPORARY SERVICES</u>					
78	Location	Clause 7.1				
	F:..... V:..... T:.....		Item			
79	Water	Clause 7.2				
	F:..... V:..... T:.....		Item			
80	Electricity	Clause 7.3				
	F:..... V:..... T:.....		Item			
		Carried Forward			R	
	Section No. 1 Bill No. 1 PRELIMINARIES RMD ATELIER (PTY) LTD.					

		Brought Forward			R
81	Telecommunication equipment	Clause 7.4			
	F:..... V:..... T:.....		Item		
82	Ablution facilities	Clause 7.5			
	F:..... V:..... T:.....		Item		
	<u>8.0 PRIME COST AMOUNTS</u>				
83	Responsibility for prime cost amounts	Clause 8.1			
	F:..... V:..... T:.....		Item		
	<u>9.0 ATTENDANCE ON NOMINATED/SELECTED SUBCONTRACTORS</u>				
84	General attendance	Clause 9.1			
	F:..... V:..... T:.....		Item		
85	Special attendance.				
	The last three words contained within Clause 9.2, <i>ie.</i> "..... in the schedule", shall be deleted and replaced by "..... within the relevant item incorporated in these bills of quantities".	Clause 9.2			
	F:..... V:..... T:.....		Item		
86	Commissioning - Fuel, water and power	Clause 9.3			
	F:..... V:..... T:.....		Item		
		Carried Forward			R
	Section No. 1 Bill No. 1 PRELIMINARIES RMD ATELIER (PTY) LTD.				

Brought Forward		R
<u>10.0 FINANCIAL ASPECTS</u>		
87	Statutory taxes, duties and levies. Provision is made in the summary of these bills of quantities for inclusion of Value Added Tax (VAT) Clause 10.1 F:..... V:..... T:.....	Item
88	Payment of preliminaries Clause 10.2 F:..... V:..... T:.....	Item
89	Adjustment of preliminaries Should the contractor select Alternative B but fails to provide the information required prior to signing of the contract, the Principal Agent shall have the right to select either Alternative A or B for the adjustment of Preliminaries. If the Principal Agent selects Alternative B he shall be entitled to make assumptions at his discretion regarding the information which the contractor would normally have provided prior to the signing of the contract Clause 10.3 F:..... V:..... T:.....	Item
90	Payment certificate cash flow Clause 10.4 F:..... V:..... T:.....	Item
<u>11.0 GENERAL</u>		
91	Protection of the Works Clause 11.1 F:..... V:..... T:.....	Item
Carried Forward		R
Section No. 1 Bill No. 1 PRELIMINARIES RMD ATELIER (PTY) LTD.		

	Brought Forward			R	
92	Protection/isolation of existing/sectionally occupied Works Clause 11.2 F:..... V:..... T:.....	Item			
93	Site security. The contractor shall provide and maintain twenty-four hour site security and loss control systems all to the satisfaction of the principal agent. It is envisaged that these procedures will incorporate, inter alia, gate control for personnel and vehicles, individual entry permits, regular security patrols and the like. Clause 11.3 F:..... V:..... T:.....	Item			
94	Notice before covering work Clause 11.4 F:..... V:..... T:.....	Item			
95	Disturbance Clause 11.5 F:..... V:..... T:.....	Item			
96	Environmental disturbance Clause 11.6 F:..... V:..... T:.....	Item			
97	Works cleaning and clearing Clause 11.7 F:..... V:..... T:.....	Item			
	Carried Forward			R	
	Section No. 1 Bill No. 1 PRELIMINARIES RMD ATELIER (PTY) LTD.				

		Brought Forward			R
98	Vermin	Clause 11.8			
	F:..... V:..... T:.....		Item		
99	Overhand work	Clause 11.9			
	F:..... V:..... T:.....		Item		
100	Instruction manuals and guarantees	Clause 11.10			
	F:..... V:..... T:.....		Item		
101	As built information	Clause 11.11			
	F:..... V:..... T:.....		Item		
102	Tenant installations	Clause 11.12			
	F:..... V:..... T:.....		Item		
<u>Schedule of variables</u>					
Information necessary for elections and completion of those clauses contained in the schedule which are necessary for tender purposes is given hereunder. Where no information is given it shall mean that no specific requirements are expected or that the clause is not relevant to this specific contract					
10.1 - Water [clause 7.2]					
Option A (by contractor)		Yes			
Option B (by employer - free of charge)					
Option C (by employer - metered)					
		Carried Forward			R
Section No. 1 Bill No. 1 PRELIMINARIES RMD ATELIER (PTY) LTD.					

Brought Forward		R	
10.2 - Electricity [clause 7.3]			
Option A (by contractor)	Yes		
Option B (by employer - free of charge)			
Option C (by employer - metered)			
10.3 - Telecommunications [clause 7.4]			
Telephone	Yes		
Facsimile	Yes		
E-mail	Yes		
10.4 - Ablution facilities [clause 7.5]			
Option A (by contractor)	Yes		
Option B (by employer)			
10.5 - Protection of the works [clause 9.1]			
10.6 - Protection/isolation of existing/sectionally occupied works [clause 9.2] Protection/isolation is required	N/A		
10.7 - Disturbance [clause 9.5]			
10.8 - Environmental disturbance [clause 9.6]			
Carried Forward		R	
Section No. 1 Bill No. 1 PRELIMINARIES RMD ATELIER (PTY) LTD.			

	Brought Forward		R	
	<u>SECTION C: SPECIFIC PRELIMINARIES</u>			
103	<p>Non-Cession of Monies</p> <p>The Contractor shall not cede or assign his right or claims to any monies due to or to become due under this Contract.</p> <p>F:..... V:..... T:.....</p>	Item		
104	<p>Proprietary Branded Products</p> <p>The contractor shall take delivery of, handle, store, use, apply and/or fix all proprietary branded products in strict accordance with the manufacturer's instructions after construction with the manufacturer's authorised representative.</p> <p>F:..... V:..... T:.....</p>	Item		
105	<p>Site Instructions</p> <p>Site instructions issued on Site are to be recorded in triplicate in a site instruction book which is to be maintained on Site by the Contractor. It shall be the Contractors responsibility to ensure that copies of Site instructions are distributed to the relevant parties.</p> <p>F:..... V:..... T:.....</p>	Item		
	Carried Forward		R	
	<p>Section No. 1 Bill No. 1 PRELIMINARIES RMD ATELIER (PTY) LTD.</p>			

Brought Forward			R	
106	<p>Overtime</p> <p>Should overtime be required to be worked for any reason whatsoever, the costs of such overtime are to be borne by the contractor unless the Principal Agent has specifically authorised in writing, prior to the execution thereof, that costs for such overtime are to be borne by the Employer.</p> <p>F:..... V:..... T:.....</p>	Item		
107	<p>Drawings on Site</p> <p>The Contractor shall maintain on Site at all times, a complete set of the latest revisions of the working drawings issued by the Architect, the Engineer, and the Electrical Consultant.</p> <p>F:..... V:..... T:.....</p>	Item		
108	<p>Labour Record</p> <p>At the end of each week the contractor shall provide the Principal Agent with a written record, in schedule form, reflecting the number and description of tradesmen and labourers employed by him and all subcontractors on the works each day.</p> <p>F:..... V:..... T:.....</p>	Item		
Carried Forward			R	
<p>Section No. 1 Bill No. 1 PRELIMINARIES RMD ATELIER (PTY) LTD.</p>				

Brought Forward		R	
109	<p>Special Scaffolding</p> <p>No special scaffolding is measured as these Bills of Quantities are based on the sixth edition of the Standard System for Measuring Building Work. However, the Tenderer is advised to study the drawings as special scaffolding may be required in certain areas for use by himself and selected/nominated subcontractors and the contractor must establish or otherwise required by him or selected/nominated subcontractor including taking down and re-erecting as may be necessary and no claims whatsoever will be entertained.</p> <p>F:..... V:..... T:.....</p>	Item	
110	<p>Plant Record</p> <p>At the end of each week the contractor shall provide the Principal Agent with a written record, in schedule form, reflecting the number, type and capacity of all plant, excluding hand tools, currently used on the works.</p> <p>F:..... V:..... T:.....</p>	Item	
Carried Forward		R	
<p>Section No. 1 Bill No. 1 PRELIMINARIES RMD ATELIER (PTY) LTD.</p>			

	Brought Forward			R	
111	<p>Site Safety Requirement</p> <p>Comply with the Principal Agent's Site Health and Environmental Requirements - Refer Safety Requirements and Environmental Management Annexures.</p> <p>It is required of the contractor to thoroughly study the Health and Safety Specification that must be read together with and is deemed to be incorporated under this section of the bills of quantities.</p> <p>Provision for pricing of the Occupational Health and Safety Act, Construction Regulations and Health and Safety Specification is made under this clause and it is explicitly pointed out that all requirements of the aforementioned are deemed to be priced hereunder and no additional claims in this regard shall be entertained.</p> <p>F:..... V:..... T:.....</p>		Item		
112	<p>Unauthorised Persons/Workmen on Premises</p> <p>The Contractor shall at all times strictly exclude all unauthorized persons from the site and shall set up notice boards to that effect.</p> <p>F:..... V:..... T:.....</p>		Item		
	Carried Forward			R	
	<p>Section No. 1 Bill No. 1 PRELIMINARIES RMD ATELIER (PTY) LTD.</p>				

	Brought Forward			R	
113	<p>Guarantees and Maintenance Instructions/Manuals</p> <p>The Contractor shall obtain and hand over to the Principal Agent on Practical Completion, all relevant guarantees, any operating and maintenance manuals, data or instructions required by the Principal Agent or provided by the Manufacturers, Suppliers, or Sub-contractors.</p> <p>The Contractor shall ensure that all warranties and guarantees received are fully ceded to the Employer on Final Completion, failing which the release of the Construction Guarantee will be withheld until this is satisfactorily completed.</p> <p>F:..... V:..... T:.....</p>	Item			
	Carried Forward			R	
	<p>Section No. 1 Bill No. 1 PRELIMINARIES RMD ATELIER (PTY) LTD.</p>				

114	<p style="text-align: right;">Brought Forward</p> <p>Shop Drawings</p> <p>The term 'Shop Drawings' shall mean drawings, layout drawings, illustrations, schedules, performance charts, brochures, operating manuals, other data which are prepared by the Contractor or Sub-contractor, Manufacturer, Supplier or Distributor and which illustrate some portion of the work.</p> <p>The Contractor shall ensure that all shop drawings required for the work in terms of this Contract, all selected/nominated Sub-contracts and/or Architect's instructions, are prepared and submitted timeously in accordance with the following procedure:</p> <p>(a) Three prints of shop drawings of all fabricated work, working or setting out drawings, shop details and schedules shall be submitted to the Architect for approval. Such work shall not be carried out until such approval has been given.</p> <p>(b) Shop drawings shall be submitted to the Architect for approval at least two weeks prior to the date on which such approval is required in order to comply with the Contract Programme.</p> <p>(c) All submissions shall be prepared in accordance with the Contract Drawings and specifications and/or any Architect's instructions and any deviation shall be specifically highlighted in writing, with a detailed explanation of the reason for such deviation, together with any cost and/or time implication.</p> <p>Delays in approval of shop drawings due to non-compliance with drawings, specifications and/or Architect's instructions shall not constitute grounds for any claims for delays.</p> <p>F:..... V:..... T:.....</p> <p style="text-align: right;">Carried Forward</p> <p>Section No. 1 Bill No. 1 PRELIMINARIES RMD ATELIER (PTY) LTD.</p>	Item	R	
			R	

	Brought Forward			R	
115	<p>Location of Temporary Buildings and Temporary Services</p> <p>The Contractor shall provide all necessary temporary works, including temporary roads, tracks, crossings, hardstanding, and services, etc., required for his own Sub-contractors use during the construction and maintenance period.</p> <p>There is no guarantee given or implied that site conditions will be such that the Contractor will be able to erect such offices, stores and temporary accommodation within the site boundaries and it shall be the Contractors responsibility to adopt whatever measures he deems necessary in this regard and to obtain all necessary permission and pay all costs in connection therewith.</p> <p>F:..... V:..... T:.....</p>				
		Item			
116	<p>Removal and Making Good of Temporary Works, etc. on Completion</p> <p>The Contractor shall remove all temporary works, roads, services and the like used for this contract and shall make good to the entire satisfaction of the Architect any damages resulting therefrom.</p> <p>F:..... V:..... T:.....</p>				
		Item			
	Carried Forward			R	
	<p>Section No. 1 Bill No. 1 PRELIMINARIES RMD ATELIER (PTY) LTD.</p>				

	Brought Forward		R	
117	<p>Warranties</p> <p>Warranties shall be sought by the Principal Agent from all nominated or selected firms carrying out work or supplying goods.</p> <p>The Contractor shall obtain and hand over to the Principal Agent at practical completion, all relevant guarantees and maintenance instructions provided by the manufacturers, suppliers or sub-contractors, suitably filed together.</p> <p>F:..... V:..... T:.....</p>	Item		
118	<p>Indemnities</p> <p>Indemnities shall be sought by the Principal Agent from all Contractors and Sub-contractors undertaking any design responsibility.</p> <p>F:..... V:..... T:.....</p>	Item		
119	<p>Cost of Claims</p> <p>Costs incurred by the Contractor in the preparation of claims accepted by the Principal Agent shall be borne by the Contractor.</p> <p>F:..... V:..... T:.....</p>	Item		
	Carried Forward		R	
	<p>Section No. 1 Bill No. 1 PRELIMINARIES RMD ATELIER (PTY) LTD.</p>			

	Brought Forward		R	
120	Co-operation of contractor for cost management It is specifically agreed that the contractor accepts the obligation of assisting the principal agent in implementing proper cost management. The contractor will be advised by the principal agent of all cost management procedures which will be implemented to ensure that the final building cost does not exceed the budget. The principal agent undertakes to make available to the contractor all budgetary allowances and cost assessments/reports to enable the proper procedure to be implemented and the contractor shall attend all cost plan review and cost management meetings. The contractor undertakes to extend these procedures, as necessary, to all subcontractors F:.....V:.....T:.....	Item		
121	Overloading The Contractor shall take all necessary steps to ensure that no damage occurs due to overloading of any portion of the works. The Contractor shall submit details of his proposed loading, storage, plant, erection, etc., to the Principal Agent for their approval prior to proceeding with such loading, storing or erecting and shall comply with and pay for the Engineer's requirements in connection with the provision of temporary support work, etc. Any damage caused to the works by overloading shall be made good by the Contractor at his sole expense. F:..... V:..... T:.....	Item		
	Carried Forward		R	
	Section No. 1 Bill No. 1 PRELIMINARIES RMD ATELIER (PTY) LTD.			

Brought Forward		R	
122	<p>Commodities to be New</p> <p>All commodities, goods, articles or materials throughout the building are to be new except where re-use of existing is specified and are to be handled, stored, used and/or fixed with care to ensure that they are in perfect condition when incorporated into the works and thereafter properly protected so as to ensure that they are likewise in perfect condition when handed over at completion of the works.</p> <p>F:..... V:..... T:.....</p>	Item	
123	<p>Media Release</p> <p>All rights of publication of articles in the media, together with any advertising relating to, or in any way connected with this project shall vest in the Employer.</p> <p>The Contractor, together with his Sub-contractors shall not, without the written consent of the Employer, cause any statement or advertisement to be printed, screened or aired by the media.</p> <p>F:..... V:..... T:.....</p>	Item	
Carried to Final Summary		R	
<p>Section No. 1 Bill No. 1 PRELIMINARIES RMD ATELIER (PTY) LTD.</p>			

Item No		Quantity	Rate	Amount
	<u>SECTION NO. 2</u>			
	<u>BILL NO. 1</u>			
	<u>DEMOLITIONS, REMOVALS AND ALTERATIONS (Provisional)</u>			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>View site</u>			
	Before submitting his tender the contractor shall visit the site and satisfy himself as to the nature and extent of the work to be done and the value of the materials contained in the buildings or portions of the buildings to be demolished. No claim for any variations of the contract sum in respect of the nature and extent of the work or of inferior or damaged materials will be entertained			
	<u>Explosives</u>			
	No explosives whatsoever may be used for demolition purposes unless otherwise stated			
	<u>General</u>			
	A method statement on demolition shall be submitted to the Engineer by the Contractor for approval prior to the actual work being carried out.			
	The contractor shall carry out the whole of the works with as little mess and noise as possible and with a minimum of disturbance to the occupants. He shall provide proper protection and provide, erect and remove when directed, any temporary tarpaulins that may be necessary during the progress of the works, all to the satisfaction of the Engineer			
	Water supply pipes and other piping that may be encountered and found necessary to disconnect or cut, shall be effectually stopped off or grubbed up and removed, and any new connections that may be necessary shall be made with proper fittings, to the satisfaction of the Engineer			
	Carried Forward		R	
	Section No. 2 Bill No. 1 DEMOLITIONS, REMOVALS AND ALTERATIONS RMD ATELIER (PTY) LTD.			

<p>Brought Forward</p> <p>Doors, fanlights, fittings, frames, linings, etc which are to be re-used shall be thoroughly overhauled before refixing including taking off, easing and rehangng, cramping up, re-wedging as required and making good cramps, dowels, etc, and easing, oiling, adjusting and repairing ironmongery as necessary, replacing any glass damaged in removal or subsequently and stopping up all nail and screw holes with tinted plastic wood to match timber, unless otherwise described. Re-painting or re-varnishing is given separately</p> <p>Prices for taking out of doors, windows, etc shall include for removal of all beads, architraves, ironmongery, etc</p> <p>Prices for taking out and removing doors and frames shall include for removing door stops, cabin hooks, etc and making good floor and wall finishes to match existing</p> <p>With regard to building up of openings in existing walls, cement screeds and pavings, granolithic, tops of walls, etc, shall be levelled and prepared for raising of brickwork</p> <p>Making good of finishes shall include making good of the brick and concrete surfaces onto which the new finishes are applied, where necessary</p> <p>The contractor will be required to take all dimensions affecting the existing buildings on the site and he will be held solely responsible for the accuracy of all such dimensions where used in the manufacture of new items (doors, windows, fittings, etc)</p> <p><u>TEMPORARY BARRIERS, SCREENS, ETC.</u></p>	<p>R</p>	
<p>Carried Forward</p> <p>Section No. 2 Bill No. 1 DEMOLITIONS, REMOVALS AND ALTERATIONS RMD ATELIER (PTY) LTD.</p>	<p>R</p>	

**Refurbishment of Kuruman Town Hall And
Gasegonyana Local Municipal Offices**

Brought Forward			R	
	<u>Temporary barriers, screens, etc. including removals</u>			
1	Dust screen 2500mm high between concrete floor and suspended ceiling formed of suitable timber framing and polyethylene sheeting stapled on including corners, ends,	m	250	
	<u>Temporary hoarding fence around building to be constructed including erection and dismantling at contract completion</u>			
2	2400mm High diamond mesh fence with and including shade cloth covering on one side, including all corners, straining and support posts, droppers, straining wire, earthworks and necessary concrete bases, executed complete	m	100	
3	2400mm High x 3 000mm wide diamond mesh clad pedestrian gate, gate frame, straining and support posts, straining wire, bolts and lockset, earthworks and necessary concrete bases, executed complete	No	1	
	<u>REMOVAL OF EXISTING WORK</u>			
	<u>Breaking down and removing brickwork including finishes, etc.</u>			
4	Half brick walls	m2	150	
5	One brick walls	m2	150	
6	One and half brick walls	m2	350	
	<u>Carried Forward</u>			
	Section No. 2 Bill No. 1 DEMOLITIONS, REMOVALS AND ALTERATIONS RMD ATELIER (PTY) LTD.			

**Refurbishment of Kuruman Town Hall And
Gasegonyana Local Municipal Offices**

Brought Forward			R
<u>Taking out and removing doors, windows, etc from brickwork to be demolished</u>			
7	Steel door frame 813 x 2032mm high from one and half brick wall	No	29
8	Steel double door frame 1600 x 2032mm high from one and half brick walls	No	10
9	Steel window frame 1000 x 1800mm high	No	50
10	Steel window frame 400 x 600mm high	No	10
<u>Hacking up/off and removing granolithic, screeds, plaster from concrete or brickwork and preparing surfaces for screeds plaster, etc</u>			
11	Internal plaster from walls	m2	1,750
12	Internal plaster from soffits of slab	m2	250
<u>Hacking up/off and removing ceramic tile floor and wall finishes including removing mortar bed or backing and preparing concrete or brick surfaces for new screed, tile finishes</u>			
13	Floor tiles including skirting	m2	1,251
<u>PREPARATORY WORK TO EXISTING SURFACES</u>			
14	Cutting out joints of existing brickwork to receive plaster	m2	358
15	Hacking face of existing concrete columns, beams, etc to receive plaster	m2	75
<u>MAKING GOOD OF FINISHES ETC</u>			
Carried Forward			R
Section No. 2 Bill No. 1 DEMOLITIONS, REMOVALS AND ALTERATIONS RMD ATELIER (PTY) LTD.			

Refurbishment of Kuruman Town Hall And Gasegonyana Local Municipal Offices

Brought Forward			R
	<u>Brickwork crack stitch; comprising opening of the crack approximately 100mm on either side insert chicken mesh and re-plaster to make it good; type 1</u>		
16	Crack stitch; complete with 200mm wide x10mm thick dry pack above stitch	m	114
	<u>Making good cement screeds</u>		
17	30mm thick floors	m2	710
	<u>Making good internal cement plaster</u>		
18	Walls in patches	m2	650
	<u>Making good concrete columns</u>		
19	Columns	No	16
Carried to Final Summary			R
Section No. 2			
Bill No. 1			
DEMOLITIONS, REMOVALS AND ALTERATIONS			
RMD ATELIER (PTY) LTD.			

Item No		Quantity	Rate	Amount
	<u>SECTION 3</u>			
	<u>BILL NO 1</u>			
	<u>CONCRETE, FORMWORK AND REINFORCEMENT</u>			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Cost of tests</u>			
	<p>The costs of making, storing and testing of concrete test cubes as required under clause 7 "Tests" of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the architect. The testing shall be undertaken by an independent firm or institution nominated by the contractor and to the approval of the architect. (Test cubes are measured separately)</p> <p>Breeze concrete shall consist of twelve parts clean dry furnace ash, free from coal or other foreign matter, to one part cement (12:1), the ash graded up to particles which will pass a 16,5mm ring from a minimum which fails to pass a 4,75mm mesh. The finer materials from the screening are to be first mixed with the cement into a mortar and the ash added afterwards and thoroughly incorporated</p>			
	Carried Forward		R	
	<p>Section No. 3 Bill No. 1 CONCRETE, REINFORCEMENT, ETC. RMD ATELIER (PTY) LTD.</p>			

Brought Forward			R
<u>Formwork</u>			
Description of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before reuse			
The vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without damage and shall remain in position until the newly constructed work is able to support itself			
Formworks to soffits of solid slabs etc shall be deemed to be slabs not exceeding 250mm thick unless otherwise described			
Formwork to soffits of slabs, beams, etc shall be deemed to be propped up exceeding 1,5m and not exceeding 3,5m high unless otherwise described			
Formwork to sides of bases, pile caps, ground beams, etc will only be measured where it is prescribed by the engineer for design reasons. Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in "Earthworks"			
<u>REINFORCED CONCRETE</u>			
<u>25MPa/19mm concrete</u>			
1	Slab and Beams	m3	6
2	Staircase	m3	4
<u>TEST TUBES</u>			
3	Making and testing 150 x 150 x 150mm concrete strenght test cube (Provisional)	No	2
Carried Forward			R
Section No. 3 Bill No. 1 CONCRETE, REINFORCEMENT, ETC. RMD ATELIER (PTY) LTD.			

Brought Forward			R
<u>CONCRETE SUNDRIES</u>			
<u>Finishing top surfaces of concrete smooth with a steel trowel</u>			
4	Surface beds, slabs, etc	m2	19
<u>ROUGH FORMWORK (DEGREE OF ACCURACY II)</u>			
<u>Rough formwork to sides</u>			
5	Edges, risers, ends and reveals not exceeding 300mm high or wide (Provisional)	m2	55
<u>SMOOTH FORMWORK (DEGREE OF ACCURACY II)</u>			
<u>Smooth formwork to soffits</u>			
6	Slab and beams	m	25
<u>MOVEMENT JOINTS ETC</u>			
<u>Expansion joints with bitumen impregnated softboard between vertical concrete and brick surfaces</u>			
7	15mm Joints exceeding 300mm high	m	60
<u>REINFORCEMENT (PROVISIONAL)</u>			
<u>High tensile steel reinforcement to structural concrete work</u>			
8	High tensile steel reinforcement in various sizes	t	4.00
9	1.6mm Welded mesh	m2	1,750
<u>G5 Earth filling obtained from comercial source compacted to 95% Mod AASHTO density</u>			
10	Under floors, steps, pavings, etc	m3	120
Carried Forward to Summary of Section No. 3			R
Section No. 3			
Bill No. 1			
CONCRETE, REINFORCEMENT, ETC.			
RMD ATELIER (PTY) LTD.			

Item No	Quantity	Rate	Amount
<u>SECTION 3</u>			
<u>BILL NO 3</u>			
<u>MASONRY</u>			
NOTE : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 116 for CPAP formula purposes			
<u>SUPPLEMENTARY PREAMBLES</u>			
<u>BRICKWORK</u>			
<u>Sizes in descriptions</u>			
Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick			
<u>Face bricks</u>			
Bricks shall be ordered timeously to obtain uniformity in size and colour			
<u>Pointing</u>			
Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc.			
<u>SUPERSTRUCTURE</u>			
<u>Brickwork of NFP bricks in class II mortar</u>			
1	Half brick walls in beamfilling	m2 210	
2	One brick walls	m2 655	
<u>BRICKWORK SUNDRIES</u>			
Carried Forward			R
Section No. 3 Bill No. 2 MASONRY RMD ATELIER (PTY) LTD.			

Refurbishment of Kuruman Town Hall And Gasegonyana Local Municipal Offices

Brought Forward			R
	<u>Brickwork reinforcement</u>		
3	150mm Wide reinforcement built in horizontally	m	350
	<u>Prestressed fabricated lintels</u>		
4	110 x 75mm Lintels in lengths not exceeding 3m	m	180
5	110 x 75mm exceeding 3m but not exceeding 4.5m Lintels	m	135
	<u>Galvanised hoop iron cramps, ties, etc</u>		
6	30 x 1,6mm Roof tie 1,5m long with one end fixed to timber and other end built into brickwork	No	400
	<u>Turning Pieces</u>		
7	110mm Wide turning piece to lintels etc.	m	85
8	220mm Wide turning piece to lintels etc	m	75
	<u>Bonding to existing</u>		
9	Cutting toothings and bonding new brickwork to existing	m2	85
	<u>Galvanised hoop iron cramps, ties, etc</u>		
10	30x1,6mm Roof tie 1500mm long with one end fixed to timber and other built into brickwork	No	145
	<u>FACE BRICKWORK</u>		
	<u>External face bricks (Prime Cost Amount R 7 000.00/1000) pointed with flush horizontal and vertical joints</u>		
11	Extra over brickwork for face brickwork	m2	560
	Carried Forward		R
Section No. 3 Bill No. 2 MASONRY RMD ATELIER (PTY) LTD.			

Brought Forward			R
	<u>Brick-on-edge header course copings, sills, etc of external face bricks (Prime Cost Amount R 5 000.00/1000) pointed with flush joints on all exposed faces</u>		
12	220mm Wide sill set sloping and slightly projecting	m	950
<p>Carried Forward to Summary of Section No. 3</p> <p>Section No. 3 Bill No. 2 MASONRY RMD ATELIER (PTY) LTD.</p>			R

[illegible]

Item No		Quantity	Rate	Amount
	<u>SECTION 3</u>			
	<u>BILL NO 4</u>			
	<u>ROOF COVERINGS ETC</u>			
	NOTE : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 124 for CPAP formula purposes			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Roof coverings</u>			
	The roof coverings shall be interlocking concealed-fix profile roll continuous lengths and cut to length by pneumatic cut-off process certified Z275 commercial quality galvanized steel. The profile shall be formed with three ribs at centres not exceeding 203mm and a cove exceeding 406mm. These will include a male and female rib. When interlocked, the minimum sheet depth shall be 48mm. Each sheet shall incorporate two stiffener ribs.			
	<u>PROFILED METAL SHEETING AND ACCESSORIES</u>			
	<u>0,6mm "Chromadeck" corrugated iron roof sheet steel in single lengths fixed to timber purlins and 0,6mm galvanised sheet steel accessories.</u>			
1	Roof covering with pitch not exceeding 25 degrees	m2	1,376	
	<u>ROOF AND WALL INSULATION</u>			
	<u>"Sisalation 410" housing grade glass fibre reinforced aluminium foil bonded insulation</u>			
2	Insulation laid taut over purlins (at approximately 1000mm centres) and fixed concurrent with roof covering including galvanised steel straining wires	m2	1,376	
	Carried Forward to Summary of Section No. 3		R	
	Section No. 3 Bill No. 4 ROOF COVERINGS RMD ATELIER (PTY) LTD.			

Item No		Quantity	Rate	Amount
	<u>SECTION 3</u>			
	<u>BILL NO 5</u>			
	<u>CARPENTRY AND JOINERY</u>			
	NOTE : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No.126 for CPAP formula purposes			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Particle board:</u>			
	Particle board shall comply with the following specifications:			
	a) SABS 1300 Particle board: exterior and flooring type			
	b) SABS 1301 Particle board: interior type			
	<u>Joinery:</u>			
	Descriptions of frames shall be deemed to include frames, transoms, mullions, rails, etc			
	Descriptions of hardwood joinery shall be deemed to include pelleting of bolt hole			
	<u>Fixing</u>			
	Items described as "nailed" shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete			
	<u>Decorative laminate finish:</u>			
	Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish			
	<u>ROOFS, ETC</u>			
	Carried Forward		R	
	Section No. 3 Bill No. 5 CARPENTRY AND JOINERY RMD ATELIER (PTY) LTD.			

	<p style="text-align: center;">Brought Forward</p> <p><u>Plate nailed timber roof truss construction</u></p> <p>The following is applicable in respect of roof trusses:</p> <p>Trusses are at maximum 1,10m centres</p> <p>Roof covering is galvanised "IBR" roof sheeting with "Globalcoat" finish on one side on 50 x 75mm purlins at 1,0m maximum centres.</p> <p>Ceilings are generally 6,4mm gypsum plasterboard on 38 x 38mm brandering.</p> <p>All timber to be sawn softwood in accordance with V4 or M4 as defined in SABS 563 or SABS 1245.</p> <p>Metal connector plates shall have a minimum yield strength of 228 MPa and a minimum ultimate tensile strength of 330 Mpa with hot-dip galvanised finish.</p> <p>All joints to be close fitted butt joints.</p> <p>Trusses shall be designed by a registered supplier of prefabricated trusses who shall issue an Engineers Certificate upon completion of the installation.</p> <p>The dimensions in the descriptions of the trusses are nominal and actual measurements are to be obtained on site before design or fabricaton commences.</p> <p>Tenderers must study the roof plan and sections as attached to the back of these bills of quantities (refer drawing No.'s COMP - 001 to 002) and must obtain prices from a qualified and registered roof truss supplier as no claims in this regard will be entertained.</p> <p><u>Sawn softwood</u></p>		R	
1	38 x 114mm Wall plates	m	150	
	<p style="text-align: center;">Carried Forward</p> <p>Section No. 3 Bill No. 5 CARPENTRY AND JOINERY RMD ATELIER (PTY) LTD.</p>		R	

**Refurbishment of Kuruman Town Hall And
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Brought Forward				R
2	Design, manufacture and delivered on site, plate nailed roof truss construction to offices, size 22 072 x 9 921mm overall on plan consisting of seventeen mono pitched trusses, each truss 9 921 x 1 335mm high overall with 800mm eaves overhang projecting both sides, including all necessary purlins, runners, bracing and cross bracing (wall plates elsewhere)	No	1	
3	Design, manufacture and delivered on site, plate nailed roof truss construction to offices, size 26 072 x 9 921mm overall on plan consisting of seventeen mono pitched trusses, each truss 9 921 x 1 335mm high overall with 800mm eaves overhang projecting both sides, including all necessary purlins, runners, bracing and cross bracing (wall plates elsewhere)	No	1	
<u>Sundries</u>				
4	Two coats creosote on sawn timbers	m2	165	
<u>EAVES , VERGES , ETC</u>				
<u>"Everite" pressed nutec-cement</u>				
5	12 x 225mm Fascias and barge boards including galvanised steel H-profile jointing strips	m	150	
<u>DOORS ETC</u>				
<u>40mm Thick semi-solid flush panel doors with commercial veneer both sides suitable for painting and hung to steel aluminium, timber frames</u>				
6	Door, size 813 x 2032mm high	No	29	
7	Door size 1660 x 2032mm high	No	4	
<u>Wrought hardwood flushback doors with sapele veneer hung to steel frames</u>				
8	44mm "TDM" Framed and ledged door 813 x 2 032mm high	No	2	
<u>SKIRTINGS</u>				
Carried Forward				R
Section No. 3 Bill No. 5 CARPENTRY AND JOINERY RMD ATELIER (PTY) LTD.				

Refurbishment of Kuruman Town Hall And Gasegonyana Local Municipal Offices

Brought Forward			R
<u>Wrought meranti</u>			
9	19 x 76mm Skirting including 19mm quadrant bead nailed	m	1,125
<u>JOINERY FITTINGS, ETC.</u>			
10	Budgetory allowance for Joinery fittings (Cupboards, Drawers, Shelves, etc.)	Item	
Carried Forward to Summary of Section No. 3			R
Section No. 3 Bill No. 5 CARPENTRY AND JOINERY RMD ATELIER (PTY) LTD.			

Item No		Quantity	Rate	Amount
	<u>SECTION 3</u>			
	<u>BILL NO 6</u>			
	<u>CEILINGS, PARTITIONS AND ACCESS FLOORING</u>			
	NOTE : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 129 for CPAP formula purposes			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Descriptions:</u>			
	Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins or shot pinned to brickwork or concrete			
	Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres, and where described as "bolted" the bolts have been given elsewhere			
	<u>CEILINGS ETC</u>			
	<u>NAILED UP CEILINGS</u>			
	<u>6,4mm "Rhino" gypsum plasterboard with H-type pressed steel jointing strips</u>			
1	Ceilings including 38 x 38mm sawn softwood bandering at 400mm centres	m2	150	
2	Extra over ceiling for 650 x 650mm trap door of 38 x 50mm wrought softwood rebated framing with one 38 x 50mm sawn softwood cross brander covered with ceiling board and fitted flush in opening	No	3	
	<u>"Rhino" gypsum plasterboard cornices</u>			
3	75mm Coved cornices	m	95	
	Carried Forward			
	Section No. 3 Bill No. 6 CEILINGS, PARTITIONS AND ACCESS FLOORING RMD ATELIER (PTY) LTD.			
			R	

Brought Forward				R
<u>SUSPENDED CEILINGS</u>				
<u>1200 x 600 x1 2,7mm "Fissured Vinyl Clad Gypsum Ce Board "acoustic panels fitted in and including "Rondo' standard faced exposed grid suspension system inclu main and cross tees, necessary hangers, grids, etc or approved</u>				
4	Ceilings including 38 x 38mm sawn softwood brandering at 400mm centres	m2	1,101	
<u>PARTITIONS</u>				
<u>Rhino-Drywall or equivalent partitioning shall comprise of steel studding formed of 63,5mm top and bottom tracks with vertical studs at maximum 600mm centres, friction fitted or pop-riveted to the top and bottom tracks with similar additional vertical studs as necessary at abutments, ends, etc. and covered as described with wall board screwed to studding with "Drywall" screws at maximum 220mm centres. Boards are to butt jointed and finished with "Rhino tape" and "Ready mix D" jointing compound all in accordance with the manufacturer's instructions. Intersections and abutments are measured separately and descriptions shall be deemed to include any additional studs, cornerbeads, jointing compound, tape, etc.</u>				
Note: Wall paper and/or paint and varnish finishes are measured elsewhere				
5	Partitioning 3000mm high with bottom and top tracks plugged	m2	750	
6	Extra over partition for door opening 813 x 2032mm high includi anodised aluminium door frame with one pair of 100mm nylon aluminium hinges for timber door (elsewhere)	No	8	
7	Ditto for double door opening 1610 x 2032mm high, ditto	m	3	
Carried Forward				R
Section No. 3 Bill No. 6 CEILINGS, PARTITIONS AND ACCESS FLOORING RMD ATELIER (PTY) LTD.				

**Refurbishment of Kuruman Town Hall And
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	Brought Forward			R	
8	Extra over partition for viewing panel size 1800x1200mm high includ anodised aluminium window frame with 6mm laminated glass glazing	No	6		
	<u>SKIRTINGS, ETC.</u>				
9	4 x 100mm High aluminium skirtings	m	135		
	<u>Anodised aluminium door frames</u>				
10	Anodised aluminium frame size overall 900x2100mm high fitted wi hinges for door size 813 x 2032mm high (door elsewhere measured)	m	8		
11	Anodised aluminium frame size overall 1500x2100mm high fitted hinges for door size 1420 x 2060mm high (door elsewhere measured)	No	3		
Carried Forward to Summary of Section No. 3				R	
Section No. 3					
Bill No. 6					
CEILINGS, PARTITIONS AND ACCESS FLOORING					
RMD ATELIER (PTY) LTD.					

**Refurbishment of Kuruman Town Hall And
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Item No			Quantity	Rate	Amount
	<u>SECTION 3</u>				
	<u>BILL NO. 7</u>				
	<u>FLOOR COVERINGS, PLASTICS AND LININGS ETC.</u>				
	NOTE : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 130 for CPAP formula purposes				
	<u>FLOOR COVERINGS</u>				
	<u>600 x 600 x 2,5mm "Porcelain" or other similar and approved</u>				
1	On floors	m2	1,251		
2	On skirtings	m	1,125		
	Carried Forward to Summary of Section No. 3				R
	Section No. 3 Bill No. 7 FLOOR COVERINGS RMD ATELIER (PTY) LTD.				

**Refurbishment of Kuruman Town Hall And
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Item No		Quantity	Rate	Amount
	<u>SECTION 3</u>			
	<u>BILL NO 8</u>			
	<u>IRONMONGERY</u>			
	NOTE : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 132 for CPAP formula purposes			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Finishes to ironmongery</u>			
	Where applicable finishes to ironmongery are indicated by suffixes in accordance with the following list: BS Satin bronze lacquered CH Chromium plated SC Satin chromium plated SE Silver enamelled GE Grey enamelled AS Anodised silver AB Anodised bronze AG Anodised gold ABL Anodised black PB Polished brass PL Polished and lacquered PT Epoxy coated SD Sanded NP Nickle plated			
	<u>HINGES, BOLTS, ETC.</u>			
	<u>Union or similar approved</u>			
1	37651LH Indicator bolt	No	3	
	<u>LOCKS</u>			
	Carried Forward		R	
	Section No. 3 Bill No. 8 IRONMONGERY RMD ATELIER (PTY) LTD.			

**Refurbishment of Kuruman Town Hall And
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Brought Forward			R	
	<u>Union or similar approved</u>			
2	four lever lockset and handles with chrome plated finish	No	12	
	<u>HANDLES</u>			
	<u>Union or similar approved</u>			
3	32 x 350mm Stainless steel straight back-to-back pull handles	No	8	
4	32 x 515mm Stainless steel straight back-to-back pull handles	No	4	
	<u>LETTERS, NAMEPLATES, ETC</u>			
5	60 x 3mm Thick perspex plate with two 40mm high engraved and painted numerals	No	15	
	<u>"Union"</u>			
6	"AL5022-E06" 150 x 150mm anodised aluminium plate with fire extinguisher symbol	No	2	
7	"AL5022-E10" 150 x 150mm anodised aluminium plate with male symbol	No	2	
8	"AL5022-E11" 150 x 150mm anodised aluminium plate with female symbol	No	2	
9	"AL5022-E14" 150 x 150mm anodised aluminium plate with paraplegic symbol	No	1	
10	"AL5022-E15" 150 x 150mm anodised aluminium plate with fire exit symbol	No	10	
	<u>"Nampak"</u>			
11	"TR2" lockable toilet roll holder plugged	No	4	
Carried Forward			R	
Section No. 3 Bill No. 8 IRONMONGERY RMD ATELIER (PTY) LTD.				

Refurbishment of Kuruman Town Hall And Gasegonyana Local Municipal Offices

Brought Forward			R
<u>"Chairman Industries"</u>			
12	32mm Type DL2 side grab rail plugged	No	1
13	32mm Type SR2 rear grab rail plugged	No	1
<u>SUNDRIES</u>			
<u>"Union"</u>			
14	"AL8730AS" door stop plugged	No	12
15	"AL8722AS" rubber tipped hat and coat hook	No	12
<u>PINNING BOARDS, WRITING BOARDS, PROJECTION SCREENS, ETC</u>			
<u>Vitrex or similar approved</u>			
16	12mm Thick pinning board 1500x1200mm high with 19mm quarter round and durable cloth covering, plugged to brick wall	No	15
17	White magnetic writing board 1800x1200mm high with and including rail plugged to wall	No	7
<u>DRAPES, BLINDS, ETC.</u>			
<u>Windovert Nickel HD 9184 or similar approved aluminium venetian blind, with 25x0,21mm thick slats 25x25mm high matching aluminium powder coated bottom tracks with stainless steel separator pins, and roller pins, blinds to be fitted inside reveal to lintel.</u>			
18	Blinds in suitable widths to suit window, size 2400 x 1200mm high	No	50
Carried Forward to Summary of Section No. 3			R
Section No. 3 Bill No. 8 IRONMONGERY RMD ATELIER (PTY) LTD.			

Item No		Quantity	Rate	Amount
	<u>SECTION 3</u>			
	<u>BILL NO 9</u>			
	<u>METALWORK</u>			
	NOTE : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 136 for CPAP formula purposes			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Descriptions</u>			
	Descriptions of bolts shall be deemed to include nuts and washers			
	Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete			
	Metalwork described as "holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described			
	<u>WELDED SCREENS, GATES, ETC</u>			
	<u>Steel gates and frames</u>			
1	Single gate and frame 965 x 2 067mm high overall, the outer frame of 45 x 45 x 3mm hollow section bolted to wall with and including eight 70mm M80 expansion bolts and the gate 813 x 2 032mm high of 40 x 60 x 2mm hollow section frame with two 40 x 6mm flat section horizontal rails filled in with 20mm diameter vertical rails at 110mm centres fitted with one and a half pairs of suitable pin hinges welded to hollow section steel frame, complete with and including 150mm barrelbolt and padlock	No	2	
	Carried Forward		R	
	Section No. 3 Bill No. 9 METALWORK RMD ATELIER (PTY) LTD.			

Brought Forward				R
2	Double gate and frame 1 660 x 2 067mm high overall, the outer frame of 45 x 45 x 3mm hollow section bolted to wall with and including eight 70mm M80 expansion bolts and the gate 813 x 2 032mm high of 40 x 60 x 2mm hollow section frame with two 40 x 6mm flat section horizontal rails filled in with 20mm diameter vertical rails at 110mm centres fitted with one and a half pairs of suitable pin hinges welded to hollow section steel frame, complete with and including 150mm barrelbolt and padlock	No	3	
<u>PREPAINTED PROPRIOTORY SECURITY SCREENS, GATES, ETC</u>				
<u>Screens and Gates</u>				
3	"Trellidor" or similar approved expandable security gate with and incl ironmongery, overall size 1000 x 2090mm high	No	2	
4	"Trellidor" or similar approved expandable security gate with and incl ironmongery, overall size 1500 x 2090mm high	No	4	
<u>PRESSED STEEL DOOR FRAMES</u>				
<u>1,2mm Double rebated frames suitable for one brick walls</u>				
5	Frame for door 813 x 2 032mm high	No	23	
<u>STEEL WINDOWS, DOORS, ETC</u>				
<u>Standard residential windows with type "B2" burglar bars to opening sashes</u>				
6	Window type E1, 533 x 654mm high	No	5	
<u>Standard residential windows with type "B2" burglar bars to opening sashes</u>				
7	Purpose made Window, 1000 x 2000mm high	No	50	
<u>STEEL STRONGROOM DOORS, VENTILATORS, ETC</u>				
Carried Forward				R
Section No. 3 Bill No. 9 METALWORK RMD ATELIER (PTY) LTD.				

Refurbishment of Kuruman Town Hall And Gasegonyana Local Municipal Offices

Brought Forward					
<u>"Mutual" Strongroom doors etc. suitable for 230mm walls fixed to brickwork or concrete</u>					
8	"DS1" Record room door and frame 870 x 1 865mm high overall with a mass of 130kg	No	1		
9	Universal strongroom doorstep	No	1		
<p>Carried Forward to Summary of Section No. 3</p> <p>Section No. 3 Bill No. 9 METALWORK RMD ATELIER (PTY) LTD.</p>					

Item No		Quantity	Rate	Amount
	<u>SECTION 3</u>			
	<u>BILL NO 10</u>			
	<u>STRUCTURAL STEELWORK</u>			
	NOTE:			
	For Preambles see the Model Preambles for Trades 2008 edition published by the Association of South African Quantity Surveyors			
	<u>THE FOLLOWING IN STAIRCASE</u>			
	<u>Structural Steel Staircase</u>			
1	Steel work comprising of "I section" beams, hollow section rafter platework, grating, connection plates, bolts, etc. in construction structural steel staircase	t	2.50	
	<u>Sundries</u>			
2	Dry pack grouting 25mm thick under steel base plate to top of column 400x300mm.	m	10	
	<u>PAINTWORK ETC. TO NEW WORK</u>			
	<u>ON STRUCTURAL STEEL</u>			
	<u>Apply one coat syncromate primer in accordance with SABS6791972 a apply one coat multi purpose under accordance with SABS681 and apply two coats of alk enamel in accordance with SABS 630 (colour to Arch approval)</u>			
3	On structural steel staircase	t	2.50	
	Carried Forward to Summary of Section No. 3		R	
	Section No. 3			
	Bill No. 10			
	STRUCTURAL STEELWORK			
	RMD ATELIER (PTY) LTD.			

Refurbishment of Kuruman Town Hall And Gasegonyana Local Municipal Offices

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Item No		Quantity	Rate	Amount
	<u>SECTION 3</u>			
	<u>BILL NO 11</u>			
	<u>TILING</u>			
	NOTE : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 144 for CPAP formula purposes.			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Descriptions</u>			
	Unless described as "fixed with adhesive to plaster (plaster elsewhere)" descriptions of tiling on brick or concrete walls, columns, etc shall be deemed to include 1:4 cement plaster backing and descriptions of tiling on concrete floors etc shall be deemed to include 1:3 plaster bedding			
	<u>WALL TILING</u>			
	<u>200 x 200 x 6mm "Cercisa Tinte Unite" White glazed ceramic tiles fixed with adhesive to plaster (plaster elsewhere)</u>			
1	On walls	m2	180	
2	On narrow widths	m2	95	
	<u>FLOOR TILING</u>			
	<u>300 x 300mm x 8mm Ceramic tiles (Prime Cost Amount R200.00/m2) fixed with adhesive to bedding (bedding elsewhere) and flush pointed with tinted waterproof jointing compound</u>			
3	On floors and landings	m2	250	
4	Skirting 75mm high	m	190	
	Carried Forward to Summary of Section No. 3		R	
	Section No. 3 Bill No. 12 TILING RMD ATELIER (PTY) LTD.			

Item No	Quantity	Rate	Amount
<u>SECTION 3</u>			
<u>BILL NO 12</u>			
<u>PLUMBING AND DRAINAGE (PROVISIONAL)</u>			
<u>SUPPLEMENTARY PREAMBLES</u>			
Specification of Materials and Methods to be used- PW371 fourth-edition October 1993			
<u>Method of measurement and Bills of Quantities</u>			
This section has been measured according to the Standard System of Measuring Building Work - (Sixth edition) and billed along the guidelines of A.S.A.Q.S. Model Bills of Quantities. Only measured items must be priced and no changes made by the tenderer will be recognised			
<u>Pricing</u>			
The tenderer must price each item in this section individually and no changes made by the tenderer shall be recognised			
Where inclusive items are measured and priced, the contractor must on request, supply full details of the components and prices making up the inclusive items. If the contractor does not supply such details and prices within fourteen days after having been requested to do so, the Quantity Surveyor will determine such at his own discretion			
<u>Materials and Methods</u>			
<u>uPVC pipes and fittings</u>			
Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings Soil, waste and vent pipes and fittings shall be solvent weld jointed			
Carried Forward		R	
Section No. 3 Bill No. 13 PLUMBING AND DRAINAGE RMD ATELIER (PTY) LTD.			

<p style="text-align: right;">Brought Forward</p> <p><u>uPVC pressure pipes and fittings</u></p> <p>Pipes for water supply shall be of the class stated Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings Pipes of 50mm diameter and greater shall have sockets and spigots with push in type integral rubber ring joints. Bends shall be uPVC and all other fittings shall be cast iron, all with similar pushing type joints</p> <p><u>Copper pipes</u></p> <p>Pipes shall be hard drawn and half hard pipes of the class stated. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half hard), class 2 (half hard) and class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti syphon pipes, capillary solder fittings and compression fittings shall be "Cobra Watertech" or similar approved type. Capillary solder fittings shall comply with ISO 2016. Only compression fittings shall be used in walls or in ground</p> <p><u>Reducing fittings</u></p> <p>Where fittings have reducing ends or branches they are described as "reducing". In the case of pipes with diameters not exceeding 60mm only the largest end or branch size is given. Should the contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained. In the case of pipes with diameters exceeding 60mm all sizes are given and no claim for extra bushes, reducers, etc will be entertained</p> <p><u>Wire gratings</u></p> <p>Descriptions of gutter outlets etc shall be deemed to include wire balloon gratings</p> <p><u>Exposed concrete surfaces</u></p> <p>Exposed surfaces of concrete stormwater channels, cover slabs, inspection eye marker slabs, gulley tops, cleaning eye tops, catchpits, inspection chambers, etc shall be finished smooth with plaster</p>		R	
<p style="text-align: right;">Carried Forward</p> <p>Section No. 3 Bill No. 13 PLUMBING AND DRAINAGE RMD ATELIER (PTY) LTD.</p>		R	

<p style="text-align: right;">Brought Forward</p> <p><u>Excavations</u></p> <p>No claim for rock excavation will be entertained unless the contractor has timeously notified the quantity surveyor thereof prior to backfilling "Soft rock" and "hard rock" shall be as defined in "Earthworks"</p> <p><u>Laying, backfilling, bedding, etc of pipes</u></p> <p>Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions</p> <p>Where no manufacturers' instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following: SABS 1200 L : Medium-pressure pipelines LD : Sewers LE : Stormwater drainage Pipe trenches etc shall be backfilled in accordance with clauses 3, 5.5, 5.6, 5.7 and 7 of SABS 1200 DB : Earthworks (Pipe trenches) Pipes shall be bedded in accordance with clauses 3.1 to 3.4.1, 5.1 to 5.3 and 7 of SABS 1200 LB : Bedding (Pipes). Unless otherwise described bedding of rigid pipes shall be class B bedding</p> <p><u>Flush pans</u></p> <p>Flush pans shall have straight or side outlets and "P" or "S" traps as necessary</p> <p><u>Stainless steel basins, sinks, wash troughs, urinals, etc</u></p> <p>Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable</p> <p><u>Waste unions</u></p> <p>Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings</p> <p><u>Valves, etc</u></p> <p>Descriptions of valves etc shall be deemed to include flanged or screwed connections to piping, reducers, supports etc</p>		R	
<p style="text-align: right;">Carried Forward</p> <p>Section No. 3 Bill No. 13 PLUMBING AND DRAINAGE RMD ATELIER (PTY) LTD.</p>		R	

Brought Forward			R
<u>RAINWATER DISPOSAL</u>			
<u>0,8 mm Galvanized sheet iron rainwater goods:</u>			
1	100 x 150 x 100 mm VHV galvanized sheet iron gutter fixed to falls on alloy brackets screwed to fascia, at not exceeding 750 mm centres.	m	150
2	Extra over 200 x 150mm eaves gutter for angle	No	15
3	Extra over 200 x 150mm eaves gutter for outlet for 125mm pipe	No	15
4	125 mm Diameter galvanized sheet iron seamless rainwater downpipe fixed to walls on alloy brackets at not exceeding 1500 mm centres.	m	80
5	Extra over 125mm diameter rainwater pipe for shoe	No	10
6	Extra over 125mm diameter rainwater pipe for bend	No	10
<u>SANITARY FITTINGS</u>			
7	"Hibiscus" code 7050 vitreous china basin with pedestal with two tapholes and concealed brackets (WHB2)	No	5
8	WC suite semi-close coupled "Daisy" code 774000 with seat and dual-flushing cistern code 710044	No	5
9	Steel No 704001 wall mounted action urinal cistern with top inlet FJ6 000 flush master with and including 2No No 8127 hanger brackets	No	2
<u>WASTE UNIONS, ETC</u>			
<u>"Cobra Watertech" or other equal approved</u>			
10	32 mm 301 CP waste union	No	3
<u>TRAPS, ETC</u>			
<u>uPVC</u>			
11	32mm Deep seal "P" or "S" trap	No	3
Carried Forward			R
Section No. 3 Bill No. 13 PLUMBING AND DRAINAGE RMD ATELIER (PTY) LTD.			

Refurbishment of Kuruman Town Hall And Gasegonyana Local Municipal Offices

Brought Forward			R
12	110 mm "P" trap with side outlet	No	1
<u>FIRE APPLIANCES ETC</u>			
<u>'Chubb'</u>			
13	9kg DCP fire extinguisher with brackets screwed and including varnished hardwood backboard plugged.	No	4
<u>TAPS,VALVES,ETC</u>			
<u>'Cobra Watertech:</u>			
14	15mm 121RB pillartap	No	2
15	Code 405597 SE2 two roll bathroom dispenser plugged	No	5
16	150 Litre"Megaflo" horizontal Floor/wall mounted electric water heater including geyser trays	No	1
<u>BATHROOM FITTINGS, ETC</u>			
<u>"Chairman Industries" or other equal approved</u>			
17	DL2 Stainless steel wall mounted side grab rail plugged (GB1L & R)	m	3
<u>SANITARY PLUMBING</u>			
18	Provide the amount of R 70,000.00 for plumbing pipes and showers		Item
			70,000.00
Carried Forward to Summary of Section No. 3			R
Section No. 3			
Bill No. 13			
PLUMBING AND DRAINAGE			
RMD ATELIER (PTY) LTD.			

Item No		Quantity	Rate	Amount
	<u>SECTION 3</u>			
	<u>BILL NO 14</u>			
	<u>PAINTWORK</u>			
	Specification of Materials and Methods to be used- PW371 fourth-edition October 1993			
	<u>PREPARATORY WORK TO PREVIOUSLY PAINTED SURFACES</u>			
	<u>Generally:</u>			
	Primers and first coats may be thinned in accordance with the paint specifications of supplier to aid the absorption of the paint.			
	All surface must be sound, clean and have a moisture content of less than 8% for walls generally and 3% for slabs/screeds etc.			
	where surface of plaster etc are sandy/friable, the first coat must be replace with with plaster primer thinned 10% with turpentine.			
	<u>One coat universl undercoat and two coats interior quality eggshell enamel paint.</u>			
1	On internal walls	m2	1,750	
	<u>One coat alkali resistant primer, one undercoat and two coats interior quality PVA emulsion paint</u>			
2	On ceilings and beams	m2	1,251	
	<u>ON METAL</u>			
	<u>Spot priming defects in pre primed surfaces with zinc chromate primer and applying one undercoat and two coat high gloss enamel paint on steel</u>			
3	On door frames	m2	45	
	Carried Forward			
	Section No. 3 Bill No. 15 PAINTWORK RMD ATELIER (PTY) LTD.			
			R	

Refurbishment of Kuruman Town Hall And Gasegonyana Local Municipal Offices

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Refurbishment of Kuruman Town Hall And Gasegonyana Local Municipal Offices

Bill No	SECTION SUMMARY - MUNICIPAL OFFICES	Page No	Amount
1	CONCRETE, REINFORCEMENT, ETC.	47	
2	MASONRY	50	
3	WATERPROOFING	51	
4	ROOF COVERINGS	52	
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6	CEILINGS, PARTITIONS AND ACCESS FLOORING	59	
7	FLOOR COVERINGS	60	
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11	PLASTERING	68	
12	TILING	69	
13	PLUMBING AND DRAINAGE	74	
14	GLAZING	75	
15	PAINTWORK	77	
Carried to Final Summary			R
Section No. 3 RMD ATELIER (PTY) LTD.			

Item No		Quantity	Rate	Amount
	<u>SECTION 4</u>			
	<u>BILL NO 1</u>			
	<u>CONCRETE, FORMWORK AND REINFORCEMENT</u>			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Cost of tests</u>			
	<p>The costs of making, storing and testing of concrete test cubes as required under clause 7 "Tests" of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the architect. The testing shall be undertaken by an independent firm or institution nominated by the contractor and to the approval of the architect. (Test cubes are measured separately)</p> <p>Breeze concrete shall consist of twelve parts clean dry furnace ash, free from coal or other foreign matter, to one part cement (12:1), the ash graded up to particles which will pass a 16,5mm ring from a minimum which fails to pass a 4,75mm mesh. The finer materials from the screening are to be first mixed with the cement into a mortar and the ash added afterwards and thoroughly incorporated</p>			
	Carried Forward		R	
	<p>Section No. 4 Bill No. 1 CONCRETE, REINFORCEMENT, ETC. RMD ATELIER (PTY) LTD.</p>			

Brought Forward			R
<u>Formwork</u>			
Description of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before reuse			
The vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without damage and shall remain in position until the newly constructed work is able to support itself			
Formworks to soffits of solid slabs etc shall be deemed to be slabs not exceeding 250mm thick unless otherwise described			
Formwork to soffits of slabs, beams, etc shall be deemed to be propped up exceeding 1,5m and not exceeding 3,5m high unless otherwise described			
Formwork to sides of bases, pile caps, ground beams, etc will only be measured where it is prescribed by the engineer for design reasons. Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in "Earthworks"			
<u>REINFORCED CONCRETE</u>			
<u>25MPa/19mm concrete</u>			
1	Slab and Beams	m3	178
2	Staircase	m3	22
<u>TEST TUBES</u>			
3	Making and testing 150 x 150 x 150mm concrete strenght test cube (Provisional)	No	8
Carried Forward			R
Section No. 4 Bill No. 1 CONCRETE, REINFORCEMENT, ETC. RMD ATELIER (PTY) LTD.			

Brought Forward			R
<u>CONCRETE SUNDRIES</u>			
<u>Finishing top surfaces of concrete smooth with a steel trowel</u>			
4	Surface beds, slabs, etc	m2	1,250
<u>ROUGH FORMWORK (DEGREE OF ACCURACY II)</u>			
<u>Rough formwork to sides</u>			
5	Edges, risers, ends and reveals not exceeding 300mm high or wide (Provisional)	m2	45
<u>SMOOTH FORMWORK (DEGREE OF ACCURACY II)</u>			
<u>Smooth formwork to soffits</u>			
6	Slab and beams	m2	120
<u>MOVEMENT JOINTS ETC</u>			
<u>Expansion joints with bitumen impregnated softboard between vertical concrete and brick surfaces</u>			
7	15mm Joints exceeding 300mm high	m	150
<u>REINFORCEMENT (PROVISIONAL)</u>			
<u>High tensile steel reinforcement to structural concrete work</u>			
8	High tensile steel reinforcement in various sizes	t	2.50
9	Mesh Ref. 193	m2	1,250
10	1.6mm Welded mesh	m2	1,258
Carried Forward to Summary of Section No. 4			R
Section No. 4			
Bill No. 1			
CONCRETE, REINFORCEMENT, ETC.			
RMD ATELIER (PTY) LTD.			

Item No	Quantity	Rate	Amount
<u>SECTION 4</u>			
<u>BILL NO 2</u>			
<u>MASONRY</u>			
NOTE : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 116 for CPAP formula purposes			
<u>SUPPLEMENTARY PREAMBLES</u>			
<u>BRICKWORK</u>			
<u>Sizes in descriptions</u>			
Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick			
<u>Face bricks</u>			
Bricks shall be ordered timeously to obtain uniformity in size and colour			
<u>Pointing</u>			
Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc.			
<u>SUPERSTRUCTURE</u>			
<u>Brickwork of NFP bricks in class II mortar</u>			
1	One and half brick walls	m2 320	
2	Half brick walls in beamfilling	m2 112	
<u>BRICKWORK SUNDRIES</u>			
Carried Forward			R
Section No. 4 Bill No. 2 MASONRY RMD ATELIER (PTY) LTD.			

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Brought Forward			R
<u>Brickwork reinforcement</u>			
3	150mm Wide reinforcement built in horizontally	m	960
<u>Prestressed fabricated lintels</u>			
4	110 x 75mm Lintels in lengths not exceeding 3m	m	65
5	110 x 75mm exceeding 3m but not exceeding 4.5m Lintels	m	75
<u>Turning Pieces</u>			
6	110mm Wide turning piece to lintels etc.	m	35
7	220mm Wide turning piece to lintels etc	m	45
<u>Bonding to existing</u>			
8	Cutting toothings and bonding new brickwork to existing	m2	285
<u>Galvanised hoop iron cramps, ties, etc</u>			
9	30x1,6mm Roof tie 1500mm long with one end fixed to timber and oth built into brickwork	No	200
<u>FACE BRICKWORK</u>			
<u>External face bricks (Prime Cost Amount R 6 000.00/1000) pointed with flush horizontal and vertical joints</u>			
10	Extra over brickwork for face brickwork	m2	310
<u>Brick-on-edge header course copings, sills, etc of external face bricks (Prime Cost Amount R 5 000.00/1000) pointed with flush joints on all exposed faces</u>			
11	220mm Wide sill set sloping and slightly projecting	m	100
Carried Forward to Summary of Section No. 4			R
Section No. 4			
Bill No. 2			
MASONRY			
RMD ATELIER (PTY) LTD.			

Item No		Quantity	Rate	Amount
	<u>SECTION 4</u>			
	<u>BILL NO 3</u>			
	<u>WATERPROOFING</u>			
	NOTE : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 120 for CPAP formula purposes			
	<u>DAMP-PROOFING OF WALLS AND FLOORS</u>			
	<u>Primer and two coats "Bostik M6" rubber bitumen emulsion paint</u>			
1	On concrete floor	m2		
	<u>JOINT SEALANTS, ETC</u>			
	<u>"Denbraven LM15" polysulphide sealing compound including backing cord, bond breaker, primer, etc</u>			
2	10 x 10mm In expansion joints in floors	m		
	Carried Forward to Summary of Section No. 4			R
	Section No. 4 Bill No. 3 WATERPROOFING RMD ATELIER (PTY) LTD.			

Item No		Quantity	Rate	Amount
	<u>SECTION 4</u>			
	<u>BILL NO 4</u>			
	<u>ROOF COVERINGS ETC</u>			
	NOTE : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 124 for CPAP formula purposes			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Roof coverings</u>			
	The roof coverings shall be interlocking concealed-fix profile roll continuous lengths and cut to length by pneumatic cut-off process certified Z275 commercial quality galvanized steel. The profile shall be formed with three ribs at centres not exceeding 203mm and a cove exceeding 406mm. These will include a male and female rib. When interlocked, the minimum sheet depth shall be 48mm. Each sheet shall incorporate two stiffener ribs.			
	<u>PROFILED METAL SHEETING AND ACCESSORIES</u>			
	<u>0,6mm "Chromadeck" corrugated iron roof sheet steel in single lengths fixed to timber purlins and 0,6mm galvanised sheet steel accessories.</u>			
1	Roof covering with pitch not exceeding 25 degrees	m2	1,250	
	<u>ROOF AND WALL INSULATION</u>			
	<u>"Sisalation 410" housing grade glass fibre reinforced aluminium foil bonded insulation</u>			
2	Insulation laid taut over purlins (at approximately 1000mm centres) and fixed concurrent with roof covering including galvanised steel straining wires	m2	1,250	
	Carried Forward to Summary of Section No. 4		R	
	Section No. 4 Bill No. 4 ROOF COVERINGS RMD ATELIER (PTY) LTD.			

Item No		Quantity	Rate	Amount
	<u>SECTION 4</u>			
	<u>BILL NO 5</u>			
	<u>CARPENTRY AND JOINERY</u>			
	NOTE : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No.126 for CPAP formula purposes			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Particle board:</u>			
	Particle board shall comply with the following specifications:			
	a) SABS 1300 Particle board: exterior and flooring type			
	b) SABS 1301 Particle board: interior type			
	<u>Joinery:</u>			
	Descriptions of frames shall be deemed to include frames, transoms, mullions, rails, etc			
	Descriptions of hardwood joinery shall be deemed to include pelleting of bolt hole			
	<u>Fixing</u>			
	Items described as "nailed" shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete			
	<u>Decorative laminate finish:</u>			
	Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish			
	<u>ROOFS, ETC</u>			
	Carried Forward		R	
	Section No. 4 Bill No. 5 CARPENTRY AND JOINERY RMD ATELIER (PTY) LTD.			

	<p style="text-align: center;">Brought Forward</p> <p><u>Plate nailed timber roof truss construction</u></p> <p>The following is applicable in respect of roof trusses:</p> <p>Trusses are at maximum 1,10m centres</p> <p>Roof covering is galvanised "IBR" roof sheeting with "Globalcoat" finish on one side on 50 x 75mm purlins at 1,0m maximum centres.</p> <p>Ceilings are generally 6,4mm gypsum plasterboard on 38 x 38mm brandering.</p> <p>All timber to be sawn softwood in accordance with V4 or M4 as defined in SABS 563 or SABS 1245.</p> <p>Metal connector plates shall have a minimum yield strength of 228 MPa and a minimum ultimate tensile strength of 330 Mpa with hot-dip galvanised finish.</p> <p>All joints to be close fitted butt joints.</p> <p>Trusses shall be designed by a registered supplier of prefabricated trusses who shall issue an Engineers Certificate upon completion of the installation.</p> <p>The dimensions in the descriptions of the trusses are nominal and actual measurements are to be obtained on site before design or fabricaton commences.</p> <p>Tenderers must study the roof plan and sections as attached to the back of these bills of quantities (refer drawing No.'s COMP - 001 to 002) and must obtain prices from a qualified and registered roof truss supplier as no claims in this regard will be entertained.</p> <p><u>Sawn softwood</u></p>		R	
1	38 x 114mm Wall plates	m	150	
	<p style="text-align: center;">Carried Forward</p> <p>Section No. 4 Bill No. 5 CARPENTRY AND JOINERY RMD ATELIER (PTY) LTD.</p>		R	

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	Brought Forward			R
2	Design, manufacture and delivered on site, plate nailed roof truss construction to offices, size 26 072 x 9 921mm overall on plan consisting of seventeen mono pitched trusses, each truss 9 921 x 1 335mm high overall with 800mm eaves overhang projecting both sides, including all necessary purlins, runners, bracing and cross bracing (wall plates elsewhere)	No	1	
	<u>Sundries</u>			
3	Two coats creosote on sawn timbers	m2	250	
	<u>EAVES , VERGES , ETC</u>			
	<u>"Everite" pressed nutec-cement</u>			
4	12 x 225mm Fascias and barge boards including galvanised steel H-profile jointing strips	m	150	
	<u>DOORS ETC</u>			
	<u>40mm Thick semi-solid flush panel doors with commercial veneer both sides suitable for painting and hung to steel aluminium, timber frames</u>			
5	Door, size 813 x 2032mm high	No	12	
6	Door size 1660 x 2032mm high	No	8	
	<u>Purpose made Entrance Wooden door</u>			
7	Purpose made double doors (Entrance)	No	8	
	<u>SKIRTINGS</u>			
	<u>Wrought meranti</u>			
8	19 x 76mm Skirting including 19mm quadrant bead nailed	m	250	
	<u>JOINERY FITTINGS, ETC.</u>			
9	Budgetory allowance for Joinery fittings (Cupboards, Drawers, Shelves, etc.)		Item	
	Carried Forward to Summary of Section No. 4			R
	Section No. 4			
	Bill No. 5			
	CARPENTRY AND JOINERY			
	RMD ATELIER (PTY) LTD.			

Item No		Quantity	Rate	Amount
	<u>SECTION 4</u>			
	<u>BILL NO 6</u>			
	<u>CEILINGS, PARTITIONS AND ACCESS FLOORING</u>			
	NOTE : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 129 for CPAP formula purposes			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Descriptions:</u>			
	Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins or shot pinned to brickwork or concrete			
	Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres, and where described as "bolted" the bolts have been given elsewhere			
	<u>CEILINGS ETC</u>			
	<u>NAILED UP CEILINGS</u>			
	<u>6,4mm "Rhino" gypsum plasterboard with H-type pressed steel jointing strips</u>			
1	Ceilings including 38 x 38mm sawn softwood bandering at 400mm centres	m2	1,250	
2	Extra over ceiling for 650 x 650mm trap door of 38 x 50mm wrought softwood rebated framing with one 38 x 50mm sawn softwood cross brander covered with ceiling board and fitted flush in opening	No	4	
	<u>"Rhino" gypsum plasterboard cornices</u>			
3	75mm Coved cornices	m	750	
	Carried Forward to Summary of Section No. 4			
	Section No. 4			
	Bill No. 6			
	CEILINGS, PARTITIONS AND ACCESS FLOORING			
	RMD ATELIER (PTY) LTD.			

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Item No			Quantity	Rate	Amount
	<u>SECTION 4</u>				
	<u>BILL NO. 7</u>				
	<u>FLOOR COVERINGS, PLASTICS AND LININGS ETC.</u>				
	NOTE : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 130 for CPAP formula purposes				
	<u>FLOOR COVERINGS</u>				
	<u>600 x 600 x 2,5mm "Porcelain" or other similar and approved</u>				
1	On floors	m2	1,250		
2	On skirtings	m	750		
	Carried Forward to Summary of Section No. 4				R
	Section No. 4 Bill No. 7 FLOOR COVERINGS RMD ATELIER (PTY) LTD.				

**Refurbishment of Kuruman Town Hall And
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Item No		Quantity	Rate	Amount
	<u>SECTION 4</u>			
	<u>BILL NO 8</u>			
	<u>IRONMONGERY</u>			
	NOTE : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 132 for CPAP formula purposes			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Finishes to ironmongery</u>			
	Where applicable finishes to ironmongery are indicated by suffixes in accordance with the following list: BS Satin bronze lacquered CH Chromium plated SC Satin chromium plated SE Silver enamelled GE Grey enamelled AS Anodised silver AB Anodised bronze AG Anodised gold ABL Anodised black PB Polished brass PL Polished and lacquered PT Epoxy coated SD Sanded NP Nickle plated			
	<u>HINGES, BOLTS, ETC.</u>			
	<u>Union or similar approved</u>			
1	37651LH Indicator bolt	No	8	
	<u>LOCKS</u>			
	Carried Forward		R	
	Section No. 4 Bill No. 8 IRONMONGERY RMD ATELIER (PTY) LTD.			

**Refurbishment of Kuruman Town Hall And
Gasegonyana Local Municipal Offices**

		Brought Forward			R
	<u>Union or similar approved</u>				
2	four lever lockset and handles with chrome plated finish	No	236		
	<u>HANDLES</u>				
	<u>Union or similar approved</u>				
3	32 x 350mm Stainless steel straight back-to-back pull handles	No	28		
4	32 x 515mm Stainless steel straight back-to-back pull handles	No	8		
	<u>LETTERS, NAMEPLATES, ETC</u>				
5	60 x 3mm Thick perspex plate with two 40mm high engraved and painted numerals	No	20		
	<u>"Union"</u>				
6	"AL5022-E06" 150 x 150mm anodised aluminium plate with fire extinguisher symbol	No	6		
7	"AL5022-E10" 150 x 150mm anodised aluminium plate with male symbol	No	2		
8	"AL5022-E11" 150 x 150mm anodised aluminium plate with female symbol	No	2		
9	"AL5022-E14" 150 x 150mm anodised aluminium plate with paraplegic symbol	No	4		
10	"AL5022-E15" 150 x 150mm anodised aluminium plate with fire exit symbol	No	4		
	<u>"Nampak"</u>				
11	"TR2" lockable toilet roll holder plugged	No	8		
	Carried Forward				R
	Section No. 4 Bill No. 8 IRONMONGERY RMD ATELIER (PTY) LTD.				

**Refurbishment of Kuruman Town Hall And
Gasegonyana Local Municipal Offices**

		Brought Forward		R	
	<u>"Chairman Industries"</u>				
12	32mm Type DL2 side grab rail plugged	No	2		
13	32mm Type SR2 rear grab rail plugged	No	2		
	<u>SUNDRIES</u>				
	<u>"Union"</u>				
14	"AL8730AS" door stop plugged	No	20		
	<u>PINNING BOARDS, WRITING BOARDS, PROJECTION SCREENS, ETC</u>				
	<u>Vitrex or similar approved</u>				
15	12mm Thick pinning board 1500x1200mm high with 19mm quarter round and durable cloth covering, plugged to brick wall	No	4		
16	White magnetic writing board 1800x1200mm high with and including rail plugged to wall	No	4		
	<u>DRAPES, BLINDS, ETC.</u>				
	<u>Windovert Nickel HD 9184 or similar approved aluminium venetian blind, with 25x0,21mm thick slats 25x25mm high matching aluminium powder coated bottom tracks with stainless steel separator pins, and roller pins, blinds to be fitted inside reveal to lintel.</u>				
17	Blinds in suitable widths to suit window, size 2400 x 1200mm high	No	22		
	Carried Forward to Summary of Section No. 4			R	
	Section No. 4				
	Bill No. 8				
	IRONMONGERY				
	RMD ATELIER (PTY) LTD.				

Item No		Quantity	Rate	Amount
	<u>SECTION 4</u>			
	<u>BILL NO 9</u>			
	<u>METALWORK</u>			
	NOTE : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 136 for CPAP formula purposes			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Descriptions</u>			
	Descriptions of bolts shall be deemed to include nuts and washers			
	Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete			
	Metalwork described as "holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described			
	<u>WELDED SCREENS, GATES, ETC</u>			
	<u>Steel gates and frames</u>			
1	Double gate and frame 1 660 x 2 067mm high overall, the outer frame of 45 x 45 x 3mm hollow section bolted to wall with and including eight 70mm M80 expansion bolts and the gate 813 x 2 032mm high of 40 x 60 x 2mm hollow section frame with two 40 x 6mm flat section horizontal rails filled in with 20mm diameter vertical rails at 110mm centres fitted with one and a half pairs of suitable pin hinges welded to hollow section steel frame, complete with and including 150mm barrelbolt and padlock	No	12	
	<u>PREPAINTED PROPRIOTORY SECURITY SCREENS, GATES, ETC</u>			
	Carried Forward		R	
	Section No. 4 Bill No. 9 METALWORK RMD ATELIER (PTY) LTD.			

**Refurbishment of Kuruman Town Hall And
Gasegonyana Local Municipal Offices**

Brought Forward			R
<u>Screens and Gates</u>			
2	"Trellidor" or similar approved expandable security gate with and incl ironmongery, overall size 1000 x 2090mm high	No	4
3	"Trellidor" or similar approved expandable security gate with and incl ironmongery, overall size 1500 x 2090mm high	No	8
<u>PRESSED STEEL DOOR FRAMES</u>			
<u>1,2mm Double rebated frames suitable for one and half brick walls</u>			
4	Frame for door 813 x 2 032mm high	No	24
<u>STEEL WINDOWS, DOORS, ETC</u>			
<u>Standard residential windows with type "B2" burglar bars to opening sashes</u>			
5	Window type E1, 533 x 654mm high	No	16
<u>Standard residential windows with type "B2" burglar bars to opening sashes</u>			
6	Purpose made Window, 1000 x 2000mm high	No	22
Carried Forward to Summary of Section No. 4			R
Section No. 4			
Bill No. 9			
METALWORK			
RMD ATELIER (PTY) LTD.			

[illegible]

Item No		Quantity	Rate	Amount
	<u>SECTION 4</u>			
	<u>BILL NO 12</u>			
	<u>PLUMBING AND DRAINAGE (PROVISIONAL)</u>			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	Specification of Materials and Methods to be used- PW371 fourth-edition October 1993			
	<u>Method of measurement and Bills of Quantities</u>			
	This section has been measured according to the Standard System of Measuring Building Work - (Sixth edition) and billed along the guidelines of A.S.A.Q.S. Model Bills of Quantities. Only measured items must be priced and no changes made by the tenderer will be recognised			
	<u>Pricing</u>			
	The tenderer must price each item in this section individually and no changes made by the tenderer shall be recognised			
	Where inclusive items are measured and priced, the contractor must on request, supply full details of the components and prices making up the inclusive items. If the contractor does not supply such details and prices within fourteen days after having been requested to do so, the Quantity Surveyor will determine such at his own discretion			
	<u>Materials and Methods</u>			
	<u>uPVC pipes and fittings</u>			
	Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings Soil, waste and vent pipes and fittings shall be solvent weld jointed			
	Carried Forward		R	
	Section No. 4 Bill No. 12 PLUMBING AND DRAINAGE RMD ATELIER (PTY) LTD.			

<p style="text-align: right;">Brought Forward</p> <p><u>uPVC pressure pipes and fittings</u></p> <p>Pipes for water supply shall be of the class stated Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings Pipes of 50mm diameter and greater shall have sockets and spigots with push in type integral rubber ring joints. Bends shall be uPVC and all other fittings shall be cast iron, all with similar pushing type joints</p> <p><u>Copper pipes</u></p> <p>Pipes shall be hard drawn and half hard pipes of the class stated. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half hard), class 2 (half hard) and class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti syphon pipes, capillary solder fittings and compression fittings shall be "Cobra Watertech" or similar approved type. Capillary solder fittings shall comply with ISO 2016. Only compression fittings shall be used in walls or in ground</p> <p><u>Reducing fittings</u></p> <p>Where fittings have reducing ends or branches they are described as "reducing". In the case of pipes with diameters not exceeding 60mm only the largest end or branch size is given. Should the contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained. In the case of pipes with diameters exceeding 60mm all sizes are given and no claim for extra bushes, reducers, etc will be entertained</p> <p><u>Wire gratings</u></p> <p>Descriptions of gutter outlets etc shall be deemed to include wire balloon gratings</p> <p><u>Exposed concrete surfaces</u></p> <p>Exposed surfaces of concrete stormwater channels, cover slabs, inspection eye marker slabs, gulley tops, cleaning eye tops, catchpits, inspection chambers, etc shall be finished smooth with plaster</p> <p style="text-align: right;">Carried Forward</p> <p>Section No. 4 Bill No. 12 PLUMBING AND DRAINAGE RMD ATELIER (PTY) LTD.</p>	<p style="text-align: center;">R</p>
	R

<p style="text-align: right;">Brought Forward</p> <p><u>Excavations</u></p> <p>No claim for rock excavation will be entertained unless the contractor has timeously notified the quantity surveyor thereof prior to backfilling "Soft rock" and "hard rock" shall be as defined in "Earthworks"</p> <p><u>Laying, backfilling, bedding, etc of pipes</u></p> <p>Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions</p> <p>Where no manufacturers' instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following: SABS 1200 L : Medium-pressure pipelines LD : Sewers LE : Stormwater drainage Pipe trenches etc shall be backfilled in accordance with clauses 3, 5.5, 5.6, 5.7 and 7 of SABS 1200 DB : Earthworks (Pipe trenches) Pipes shall be bedded in accordance with clauses 3.1 to 3.4.1, 5.1 to 5.3 and 7 of SABS 1200 LB : Bedding (Pipes). Unless otherwise described bedding of rigid pipes shall be class B bedding</p> <p><u>Flush pans</u></p> <p>Flush pans shall have straight or side outlets and "P" or "S" traps as necessary</p> <p><u>Stainless steel basins, sinks, wash troughs, urinals, etc</u></p> <p>Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable</p> <p><u>Waste unions</u></p> <p>Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings</p> <p><u>Valves, etc</u></p> <p>Descriptions of valves etc shall be deemed to include flanged or screwed connections to piping, reducers, supports etc</p>		R	
<p style="text-align: right;">Carried Forward</p> <p>Section No. 4 Bill No. 12 PLUMBING AND DRAINAGE RMD ATELIER (PTY) LTD.</p>		R	

Brought Forward			R
<u>RAINWATER DISPOSAL</u>			
<u>0,8 mm Galvanized sheet iron rainwater goods:</u>			
1	100 x 150 x 100 mm VHV galvanized sheet iron gutter fixed to falls on alloy brackets screwed to fascia, at not exceeding 750 mm centres.	m	150
2	Extra over 200 x 150mm eaves gutter for angle	No	15
3	Extra over 200 x 150mm eaves gutter for outlet for 125mm pipe	No	15
4	125 mm Diameter galvanized sheet iron seamless rainwater downpipe fixed to walls on alloy brackets at not exceeding 1500 mm centres.	m	100
5	Extra over 125mm diameter rainwater pipe for shoe	No	10
6	Extra over 125mm diameter rainwater pipe for bend	No	10
<u>SANITARY FITTINGS</u>			
7	"Hibiscus" code 7050 vitreous china basin with pedestal with two tapholes and concealed brackets (WHB2)	No	8
8	WC suite semi-close coupled "Daisy" code 774000 with seat and dual-flushing cistern code 710044	No	3
9	Steel No 704001 wall mounted action urinal cistern with top inlet FJ6 000 flush master with and including 2No No 8127 hanger brackets	No	6
<u>WASTE UNIONS, ETC</u>			
<u>"Cobra Watertech" or other equal approved</u>			
10	32 mm 301 CP waste union	No	5
<u>TRAPS, ETC</u>			
<u>uPVC</u>			
11	32mm Deep seal "P" or "S" trap	No	12
Carried Forward			R
Section No. 4 Bill No. 12 PLUMBING AND DRAINAGE RMD ATELIER (PTY) LTD.			

Refurbishment of Kuruman Town Hall And Gasegonyana Local Municipal Offices

Brought Forward			R
12	110 mm "P" trap with side outlet	No	6
<u>FIRE APPLIANCES ETC</u>			
<u>TAPS,VALVES,ETC</u>			
<u>'Cobra Watertech:</u>			
13	15mm 121RB pillartap	No	12
14	Code 405597 SE2 two roll bathroom dispenser plugged	No	8
<u>BATHROOM FITTINGS, ETC</u>			
<u>"Chairman Industries" or other equal approved</u>			
15	DL2 Stainless steel wall mounted side grab rail plugged (GB1L & R)	m	4
<u>SANITARY PLUMBING</u>			
<u>uPVC pipes:</u>			
16	50mm Pipes.	m	150
17	110mm Pipes.	m	65
<u>Extra over uPVC pipes for fittings:</u>			
18	50mm Access bend.	No	5
19	50mm Junction	No	4
20	50mm Access Junction	No	3
21	110mm Access heel bend.	No	7
22	110mm Vent valve.	No	10
<u>WATER SUPPLIES:</u>			
<u>Class O copper pipes:</u>			
23	15mm Pipes.	m	150
Carried Forward			R
Section No. 4 Bill No. 12 PLUMBING AND DRAINAGE RMD ATELIER (PTY) LTD.			

Refurbishment of Kuruman Town Hall And Gasegonyana Local Municipal Offices

Brought Forward			R
24	22mm Pipes.	m	75
25	28mm Pipes.	m	30
<u>Extra over class O copper pipes for capillary fittings:</u>			
26	15mm Fittings.	No	15
27	22mm Fittings.	No	10
28	28mm Fittings.	No	5
<u>Copper overflow and service pipes:</u>			
29	15mm Service pipe 300mm girth.	No	95
30	22mm Service pipe 300mm girth.	No	80
<u>FIRE APPLIANCES ETC</u>			
<u>'Chubb'</u>			
31	9kg DCP fire extinguisher with brackets screwed and including varnished hardwood backboard plugged.	No	10
32	"Everyway" hose complete with 30m rubber hose, chromium plated stopcock, shut off nozzle and wall bracket	No	5
<u>WATER SUPPLIES TO FIRE APPLIANCES</u>			
33	25mm galvanised steel pipes	m	65
34	25mm galvanised steel fittings	No	10
<u>TESTING</u>			
35	Provide all necessary apparatus water, etc for and test the whole of the Sanitary Plumbing and Water Supply installation to the satisfaction of the Representative/Agent and Municipality, replace any defective work, free of charge and leave perfect		Item
Carried Forward			R
Section No. 4 Bill No. 12 PLUMBING AND DRAINAGE RMD ATELIER (PTY) LTD.			

Brought Forward		R	
<u>BUDGETARY ALLOWANCE</u>			
36	Provide the amount of R 100,000.00 for plumbing	Item	100,000.00
Carried Forward to Summary of Section No. 4			
Section No. 4			
Bill No. 12			
PLUMBING AND DRAINAGE			
RMD ATELIER (PTY) LTD.			

Refurbishment of Kuruman Town Hall And Gasegonyana Local Municipal Offices

Brought Forward			R
<u>Three coats polyurethane semi-gloss varnish</u>			
4	On doors	m2	97
5	On skirtings, rails, etc not exceeding 300mm girth	m	180
Carried Forward to Summary of Section No. 4			R
Section No. 4 Bill No. 14 PAINTWORK RMD ATELIER (PTY) LTD.			

Refurbishment of Kuruman Town Hall And Gasegonyana Local Municipal Offices

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6	CEILINGS, PARTITIONS AND ACCESS FLOORING	89	
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12	PLUMBING AND DRAINAGE	104	
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Carried to Final Summary			R
Section No. 4 RMD ATELIER (PTY) LTD.			

Item No	Quantity	Rate	Amount
<u>SECTION 5</u>			
<u>BILL NO. 1</u>			
<u>PROVISIONAL SUMS</u>			
<u>PREAMBLES</u>			
<u>For Preambles see "Model Preambles For Trades"</u>			
<p><u>The following Provisional Sums and Prime Cost Items are net</u></p> <p><u>The Contractor shall allow for profit and attendance after each Prime Cost Sum. Where no allowance has been made by the Contractor, it shall be assumed the allowance shall have been included elsewhere in the rates for other works.</u></p>			
Carried Forward			R
Section No. 5 Bill No. 1 PROVISIONAL SUMS RMD ATELIER (PTY) LTD.			

Brought Forward		R
<u>SPECIALIST'S WORK</u>		
<p>The following provisional sums and prime cost amount are NET and represent the NET COST of the work described. The contractor shall not be entitled to any discount, percentage or allowance whatsoever on the value of any provisional sum or prime cost amount other the priced value for profit and attendance as provided for. The provisional sums and prime cost amounts maybe deducted in whole or in part from the contract and are subject to adjustment upon completion.</p> <p>In general specialist installations envisaged will be of the following, but not limited there to;</p> <p>Electrical Installations</p> <p>HVAC Installations</p> <p>ITC Installation</p> <p>Fire Detection</p> <p>Joinery Fittings, Signage, etc</p>		
<u>EXTERNAL WORKS</u>		
1	Allow the sum of R400 000.00 (Four Hundred Thousand Rand) for External Works.	Item 400,000.00
2	Allow for profit	%
3	Allow for attendance	%
<u>ELECTRICAL WORKS</u>		
4	Allow the sum of R 2 000 000.00 (Two Million Rand) for the refurbishment of Electrical Works.	Item 2,000,000.00
5	Allow for profit	%
6	Allow for attendance	%
Carried Forward		R
Section No. 5 Bill No. 1 PROVISIONAL SUMS RMD ATELIER (PTY) LTD.		

**Refurbishment of Kuruman Town Hall And
Gasegonyana Local Municipal Offices**

Brought Forward			R
<u>ITC INSTALLATION</u>			
7	Allow the sum of R450 000.00 (Four Hundred and Fifty Thousand Rand) for Information Communications Technology.	Item	450,000.00
8	Allow for profit	%	
9	Allow for attendance	%	
<u>AIR CONDITIONING INSTALLATION</u>			
10	Allow the sum of R500 000.00 (Five Hundred Thousand Rand) for Air conditioning.	Item	500,000.00
11	Allow for profit	%	
12	Allow for attendance	%	
<u>HVAC INSTALLATION</u>			
13	Allow the sum of R800 000.00 (Eight Hundred Thousand Rand) for HVAC.	Item	800,000.00
14	Allow for profit	%	
15	Allow for attendance	%	
<u>FIRE DETECTION AND EQUIPMENTS</u>			
16	Allow the sum of R400 000.00 (Four Hundred Thousand Rand) fire detection and equipments.	Item	400,000.00
17	Allow for profit	%	
18	Allow for attendance	%	
<u>WOODEN WALL PANELLING</u>			
19	Allow the sum of R700 000.00 (Seven Hundred Thousand Rand) for Wooden Wall Panelling.	Item	700,000.00
20	Allow for profit	%	
21	Allow for attendance	%	
Carried Forward			R
Section No. 5 Bill No. 1 PROVISIONAL SUMS RMD ATELIER (PTY) LTD.			

Refurbishment of Kuruman Town Hall And Gasegonyana Local Municipal Offices

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**Refurbishment of Kuruman Town Hall And
Gasegonyana Local Municipal Offices**

Section No	<u>FINAL SUMMARY</u>	Page No	Amount
1	PRELIMINARIES	39	
2	DEMOLITIONS, REMOVALS AND ALTERATIONS	44	
3	MUNICIPAL OFFICES	78	
4	TOWN HALL	108	
5	PROVISIONAL SUMS	112	
	SUB-TOTAL (Excluding Contingencies and Value Added Tax)		R
	Allow 10% for Contingencies	%	
	SUB-TOTAL including Contingencies , but excluding Value Added Tax (VAT)		R
	ADD: Value Added Tax (VAT) calculated at the rate of 15%		R
	Carried to Form of Tender		R
	RMD ATELIER (PTY) LTD.		



PORTION 2: CONTRACT

Part C3 SCOPE OF WORK

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2
November 2022



Tender No: 12/2022-23
Project Name: Refurbishment of Town Hall and Offices at Ga-Segonyana Local Municipality

SCOPE OF WORK

INDEX

Section	Description	Page No.
PART C3.1	SCOPE OF WORK.....	C3.1-1
PART C3.2	ELECTRICAL, MACHENICAL AND FIRE SPECIFICATIONS..	C3.2-1
	Annexure B.....	

END OF SECTION

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2
November 2022



PART C3: SCOPE OF WORK

1 DESCRIPTION OF THE WORKS

1.1 Employer's objectives

The employer's objective is to refurbish and restore the existing Town Hall and Offices at Ga-Segonyana local municipality

1.2 Overview of the works

The project comprises of the restoration of the existing Town hall and offices into its original state.

1.3 Location of the works

The site is situated at Corner Voortrekker and School Street; Kuruman, 8460

2 DRAWINGS

The drawings used for setting up the Bills of Quantities as attached

- **Architectural drawings**
- **Electrical and Mechanical drawings**

To be provided at site hand over

3 MANAGEMENT

3.1 Recording of weather

The Contractor shall erect an effective rainfall gauge on the site and record the daily rainfall figures in a book. Such book shall be handed to the employer's representative for his signature no later than 12 days after rain that is considered to justify an extension of time occurs.

3.2 Unauthorized persons

The Contractor shall keep unauthorized persons from the works at all times. Under no circumstances may any person except guards be allowed to sleep on the building site.

3.3 Management meetings

The Employer's Representative and the Contractor shall hold meetings relating to the progress of the works at regular intervals and at other such times as may be necessary. The Contractor shall attend all site meetings and shall ensure that all persons under his jurisdiction are notified timeously of all site meetings should the Employer's Representative require their attendance at such meetings.

The Contractor shall keep on site a set of minutes of all site meetings, daily records of resources (people and equipment employed), a site instruction book, a complete set of contract working

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2
November 2022



drawings and a copy of the procurement document and make these available at all reasonable times to all persons concerned with the contract.

3.4 Forms for contract administration

The Contractor shall be required to submit an updated contractor monthly report during site meetings, which will be used by the consultant to update the client.

3.5 Payment certificates

The Contractor to ensure that the VAT invoice required with each certificate is delivered timeously. The date of the certificate will be that of the date when the certificate is received by the consultant.

The Contractor to ensure timeous submission of all required documentation for the expedient processing of payment certificates, as required by the client, eg BAS entity forms, company registration details, VAT clearance certificates, etc. The Contractor is responsible for such documentation submission.

4 ADDENDA

- 4.1 Occupational Health and Safety Regulations (*ADDENDUM A*)
- 4.2 Electrical Project Specifications (*ADDENDUM B*)
- 4.3 Mechanical Specifications (*ADDENDUM C*)
- 4.4 Drawings (*ADDENDUM D*)

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2
November 2022

SPECIFICATIONS AND TENDER DOCUMENT
FOR
ELECTRICAL INSTALLATION
AT
TOWN HALL & OFFICES
FOR
GASEGONYANA LOCAL MUNICIPALITY

ELECTRICAL ENGINEERS



P.O. Box 55392
Polokwane, 0700
TEL: 015 296 4155
FAX: 015 296 1477
CONTACT PERSON: TUMELO RAKGOMO
CELL: 072 571 2133

ELECTRICAL INSTALLATION

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4E General Specification: Lightning Protection	4E/1-4E/7
5E Schedule of Material	5E/1-5E/2
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PART 1E

DETAIL TECHNICAL SPECIFICATIONS.

PART 1E

DETAIL TECHNICAL SPECIFICATIONS

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PART 1E

DETAIL TECHNICAL SPECIFICATIONS

1.1 GENERAL

This section is to be read in conjunction with all other sections of the document.

1.2 PROJECT DESCRIPTION

The project comprises the complete Electrical installation of Town Hall & Offices at Gasegonyana Local Municipality, Municipal Offices.

1.3 SCOPE OF WORK

The work to be carried out under this contract comprises the supply, delivery, installation, testing, commissioning, and limited period maintenance of the complete electrical installation in the new building, all to the satisfaction of the Client, Principal Agent, and the Electrical Engineer.

The scope of the work includes the installation of a variety of materials and equipment, all of which are detailed in the following paragraphs.

The contract includes further the supply and use of all materials and equipment that are not specifically stated in these documents, but which are nonetheless necessary for the complete execution of the contract.

1.4 STANDARDS AND REGULATIONS

The entire installation shall be completed to the satisfaction of the Client, Principal Agent and the Electrical Engineer.

All references hereinafter to SABS requirements and regulations shall be deemed to have been replaced by the related South African National Standards (SANS) designated number as applicable, e.g. SABS-0142 replaced by SANS-10142.

The works carried out shall conform to and be in accordance with the following:

- i. Code of Practice for the Wiring of Premises SABS-0142 (as amended)
- ii. Low Voltage Switchgear and Control Gear – SABS IEC 60947 Parts 1 to 7.2
- iii. Low Voltage Distribution earth Systems – SABS-0292
- iv. Electrical Installation Ducting and Trunking Systems ON Walls and in Ceilings – SABS IEC 61084 Parts 1 and 2
- v. Electrical Installation Conduit Systems – SABS IEC 60614 Parts 1 to 2.7
- vi. Electrical Installation Conduit Fittings – SABS IEC 61035 Parts 1 to 2.4
- vii. Electrical Circuit Breakers – SABS 767 Parts 1 and 2
- viii. Electrical Surge Protection – SABS IEC 60099
- ix. Part E2 – General Electrical Specification (attached as Part 4 of this document)

1.5 BILLS OF QUANTITIES AND TENDER PRICE

All rates tendered in the Bills of Quantities will be exclusive of VAT, which will be added to the nett total on the summary page.

Tenderers shall make provision in their rates for delivery to site, storage, use of special equipment etc., as may be necessary for the installation of the equipment specified, and requirements as set out in the Bills of Quantities.

1.6 PROPRIETARY MATERIALS, SYSTEMS ETC.

Any reference in these specifications and bills of quantities to trade or brand names and catalogue numbers etc., shall be deemed to be followed by the words “or other approved” and is intended as an example of standard quality and appearance.

The Tenderers attention is drawn especially to the fact that, in connection with the aforementioned, wherever any wording with meanings equating with similar to, equal to, equivalent to, etc., are used in combination with trade or brand names (and catalogue numbers, etc.), they shall be deemed to be omitted and entirely replaced by the trade or brand names (and catalogue numbers, etc.) followed by the words “OR OTHER APPROVED”. This will take precedence over any contradictory clause or note appearing anywhere in these specifications or Bills of quantities.

1.7 DRAWINGS ISSUED

The drawings listed below are issued, for tender purposes only Drawings Issued (Elsewhere attached):

Dwg. No. 01REC ELE 01 – Electrical Installation: Site Layout
Dwg. No. 01REC ELE 02 – Electrical Installation: Small Power Layout
Dwg. No. 01REC ELE 03 – Electrical Installation: Lighting Layout
Dwg. No. 01REC ELE 04 – Electrical Installation: Single Line Diagrams.
Dwg. No. 01REC ELE 05 – Electrical Installation: HVAC Layout.

The Subcontractor is to note that switch and outlet positions are not to be scaled off the drawings and that it remains his responsibility to ensure that such items, as shown, do not clash with other trades or equipment. On the occurrence of such an incident he shall immediately bring it to the attention of the Electrical Engineer for alternative instruction.

1.8 POWER SUPPLY

A provisional amount of R 0.00 has been allowed for the payment to the authorized supply Authority. This amount is for the Supply Authority to provide for the MV supply to the new building. The subcontractor shall submit the necessary power enquiry to the Supply Authority timeously and make all arrangements for connection, testing and compliance certificates. The subcontractor shall pay for the connection, and on payment thereof, provide the Engineer with a receipt for inclusion in the monthly payment certificate.

1.9 QUALITY AND STANDARD

All materials and equipment supplied shall be new and shall comply fully with the requirements per the Standards listed in 3.4 above.

Any equipment or materials that is not covered in this section or in the General Electrical Specification and is deemed necessary for the completion of the project must have the approval of the Electrical Engineer prior to acquisition and installation thereof.

1.10 SITE CONDITIONS

Tenderers are advised to acquaint themselves with the site prior to tendering. Claims for additional costs to the Subcontractor and arising out of lack of knowledge of site conditions will not be entertained.

1.11 CONTRACT WORK

The Subcontractor shall appoint appropriately qualified and registered personnel for the implementation of the electrical installation.

1.12 SEQUENCE OF WORK

The sequence in which the work is to be carried out must be coordinated with the construction programme and, where necessary shall be done concurrent with and in sufficient time as to avoid delays to the other disciplines.

1.13 SUPERVISION

The works will, at all times for the duration of the contract, be carried out under the supervision of a skilled, competent representative of the Subcontractor. Such person shall be authorized to receive and carry out instructions on behalf of the Subcontractor.

The Subcontractor shall ensure that a sufficient number of workmen are employed at all times to ensure satisfactory progress of the work. However, should it be, in the opinion of the Electrical Engineer, that there is an insufficient number of workmen, the instruction will be given that the Subcontractor to employ more staff at the Subcontractor's own cost.

1.14 MAKING GOOD

The Subcontractor shall, in all instances, be responsible for any work to make good any damage to other trades, caused by himself or his employees during the implementation of the subcontract, and shall be done at his own cost.

1.15 CONDUITS AND ACCESSORIES

Conduits and accessories supplied and installed on this project shall be predominantly plain-ended UPVC. Where conduit is surface installed or exposed to the elements, the conduit shall be plain-ended galvanized.

Conduits run on surface shall be installed horizontally or vertically.

1.16 CABLES

All cables shall be of copper conductor PVC/SWA/PVC manufacture and shall comply with the requirements in SABS 1507.

The cable sizes and proposed cable routes are indicated on the drawings. Final cable routes must be determined on site in consultation with the Electrical Engineer and, if deemed necessary, the Principal Agent.

Tenderers must base their rates on the lengths of cables as indicated in the Bill of Quantities. During the course of the work, the actual lengths will be remeasured on site and adjustments will be made according to the length per the Bill of Quantities for the particular size of the cable concerned.

The Subcontractor shall measure the required cable lengths on site before ordering the cables as he will not be compensated for surplus cable.

Jointing of cables, due to incorrect measurement, will not be permitted.

Terminations and Labelling

The cable terminations shall be in accordance with the Code of Practice for the Wiring of Premises SANS 10142 as amended. The Subcontractor shall allow to supply and install cable identification tags to both cable ends. Both the source distribution board and feeder distribution board details shall be engraved on the cable tags.

1.17 TRUNKING

Galvanized steel trunking will be run surface and inside the ceiling void for the installation of security, data and telephone cabling as well as the lighting and power circuits and to that an allowance has been made in the Bill of Quantities.

The trunking shall be galvanized steel Cabstrut or other approved, as indicated on the drawings and in the bill of quantities.

1.18 SAMPLES OF MATERIAL

Should the Tenderer wish to supply any item of material or equipment as an alternative to that specified, or should the Electrical Engineer request him to do so, the Tenderer shall submit samples of such materials for approval prior to purchasing or installation thereof.

1.19 WIREWAYS, CONDUIT AND WIRING

The installation shall consist of various types and sizes of conduit, trunking power skirting and cable tray.

Where plasterboard ceilings are installed the conduiting shall be installed such that wiring can be carried out without having to gain access into the ceiling void.

The loop in system of wiring shall be implemented throughout the installation, and, unless otherwise indicated, only one circuit per conduit shall be allowed.

All boxes for isolators, sockets outlets and switch units shall be of galvanized steel manufacture and of suitable dimensions to accommodate standard SABS approved equipment.

The conduits shall be routed so as to be self-draining and shall be to the satisfaction of the Electrical Engineer.

All switch drops shall be built into dry wall partitioning, brick or cast into concrete, as may be applicable, and terminated in flush mounted boxes.

Conduits to socket outlets shall run via the concrete floor slabs, or where applicable, downwards from the ceiling voids and built into the appropriate walls. The conduits to individual socket outlets shall terminate in 100 x 100 mm flush boxes.

Wiring shall be done with PVC insulated copper conductors unless otherwise specified, with an insulation grade of 600/1000V and must comply with the General Electrical Specification.

All lighting circuit wiring, unless indicated otherwise, shall be 2,5 mm² PVC insulated conductors with a 2,5 mm² PVC insulated earth conductor, which shall loop from the distribution board to each light fitting.

All "normal" and "dedicated" socket outlet circuit wiring shall be Red and Black 4.0 mm² PVC insulated conductors with insulated 2,5 mm² earth conductor.

No wiring shall be drawn into a wireway until it has been sufficiently installed and fixed in position. All wireways shall be clear of moisture and debris before wiring is commenced.

1.20 POWER SKIRTING

The power skirting shall be of the "**three compartment two cover**" configuration with individual "snap on" covers and as Cabstrut AL 801 or other approved. The power skirting shall be of **one rigid extrusion** and not two individual units installed one on top of the other. The top compartment shall be used for power and the bottom compartment for data and telephone.

The colour of the power skirting will be Hospital Grey.

1.21 DISTRIBUTION BOARDS

New distribution boards shall be manufactured in accordance with the requirements of the General Electrical Specification and shall be equipped as indicated on the drawings.

The distribution boards shall be similar to those manufactured by Perfection Roslyn Enclosures, Switchboard Manufacturers, or any other accredited board manufacturer and shall have hinged doors with lockable latches (unless otherwise instructed).

The distribution boards shall be supplied complete with externally fitted identification labels and regulatory danger notices as well as the point from which the board is fed.

Spare space (capacity) of at least 30% shall be provided in all boards in order to facilitate future load growth.

It may be a requirement that the distribution boards are inspected by the Engineer on completion but prior to being dispatched from the premises of the manufacturer. This being the case, the Subcontractor shall notify the Engineer of such a pending inspection at least 1 week in advance of the inspection date.

For uniform appearance of switchboards, only one approved make of switchgear shall be used throughout the installation.

All moulded case circuit breakers used shall be of a type such that the supply is connected to the top and the loads connected to the bottom.

1.22 SOCKET OUTLETS

Socket outlets shall be of the Clipsal P2000 range, or other approved.

All flush mounted socket outlets shall be installed at 450mm A.F.F.L. unless indicated

otherwise. All cover plates shall be labelled as described in paragraph 3.31.1 hereof.

a. For Luminaires

Socket outlets provided for luminaires shall be of the unswitched 5 Amp 3 pin variety. These are to be installed in round conduit boxes or fixed directly to the conduit or fixed to trunking by means of male and female bushes, with locknuts as applicable.

The connection between the above socket outlet and luminaires shall be carried out by means of 1,5mm² "Cabtyre" cable complete with 5 Amp plug top, the total length of "Cabtyre" not to exceed 3m.

b. Normal Switched Socket Outlets

These shall be of the 16 Amp 3 pin power skirting or flush mounted type, as required and located as indicated on the drawing. More accurate positioning may be necessary in certain areas such as tea kitchens etc. and the Subcontractor shall refer to Architects detail drawings for this information. The socket outlet shall be white with a white cover

c. Dedicated Socket Outlets

These shall be of the 16 Amp 3 pin for flat-top Earth Pin (i.e. at 0°), either power skirting or flush mounted type, located as indicated on the drawing and shall be **RED or BLUE** in colour.

d. Socket Outlets on generator

These shall be of the 16 Amp 3 pin power skirting or flush mounted type, as required and located as indicated on the drawing. The socket outlet shall be white with a Red cover.

e. Socket Outlets on UPS

These shall be of the 16 Amp 3 pin for flat-top Earth Pin (i.e. at 0°), either power skirting or flush mounted type, located as indicated on the drawing and shall be **RED with a BLUE** cover.

1.23 LIGHT SWITCHES AND DAYLIGHT SWITCH

a) Light Switches

Light switches shall be the 20 Amp, flush mounted type positioned 1200mm A.F.F.L. unless otherwise indicated on the drawing and shall be of the Vetri range, or other approved.

b) Daylight Switches

Daylight switches shall be rated at maximum loads of 15 Amps Resistive and 7 Amps Inductive, at 250 Vac and have a 20 second ON/OFF delay. The daylight switches shall be wired back to the respective DB's as indicated on the schematic diagrams.

Cover plates of all switches shall be labelled as described in paragraph 3.31.1 hereof.

1.24 ISOLATORS

Isolators supplied and installed in the roof for the connection of cassette type airconditioning units shall be 5 Amp Double Pole and of the manufacture as the socket outlets.

Isolators supplied and installed for the connection of the external components of the airconditioning units shall be of the Double or Triple pole configuration and of Ampere ratings as indicated on the drawings. The isolators shall be housed inside of weatherproof enclosures of minimum IP54 rating as NWI or other approved.

Isolators supplied and installed for the connection of hot water cylinders (geysers) shall be 20 Amp DP with Red pilot light and of configuration to suit the surrounding environment (i.e. round box for roof spaces, 100 x 50mm extension box and flush type in visible locations).

All cover plates shall be labelled as described in paragraph 3.31.1 hereof.

1.25 LUMINAIRES AND SCHEDULE

The Subcontractor shall supply, install and connect all luminaires for this project as indicated on the drawings and Bill of Quantities.

The luminaires shall be as detailed below, or other approved:

NOTE : The tenderer shall note that if they propose pricing an alternative luminaire to that which is specified, then written approval is to be obtained from the Electrical Engineer prior to the closing date of the tender.

<u>TYPE</u>	<u>DESCRIPTION</u>
Type A:	CEILING MOUNTED LIGHTS, Recommend C340 Eurolux Light Fittings, Eurolux LED Golfball 6W E27 x 2 G926
Type B:	WALL MOUNTED DOWNLIGHT Eurolux E27 4W LED Clear Filament CandleG956, Recommend Eurolux W349
Type C:	PENDANT LIGHTS INTERIOR, Recommend Eurolux P364, Eurolux LED A65 10W E27 x 2G922
Type D:	SINGLE FLUORESCENT COMPACT TABLE LIGHT 300mm, 6W Eurolux Compact Fluorescent Tube Light Code G364, 226mm
Type E:	SINGLE FLUORESCENT LIGHT 1500mm, 25W Philips Master LED Tube Light 1500mm
Type F :	OFFICE TRIPPLE TUBE LIGHT Eurolux PR112 (Recessed), Eurolux T5 Fluorescent Tubes 3 x 14W (G5) Cool White G323
Type G :	Eurolux T5 Fluorescent Tubes 3 x 14W (G5) Cool White G323, Eurolux LED A65 10W B22 G924
Type H :	WATERPROOF WALL LIGHT FITTING Recommend Eurolux O243 (2 downlighters) , Eurolux GU10 LED 6W (not dimmable) G665CW
Type I :	LED illuminated exit lights with battery back-up Similar or equal to Beka LISU-AD-P/RT1308

- Type J : HU-Series 1 Medical Exam Light Wall Mounted. Similar or equal to HUTZ
- Type K : Solaris LED 300 Minor Procedure Light. Ceiling Mounted. Similar or equal to HUTZ
- Type HB: Suspended High Bay luminaire with press steel fitting, acrylic diffuser/shade with E40 85W energy efficient compact fluorescent lamp, with adjustable chain suspension and connection cover, similar or equal and approved.
- Type X: Emergency signage luminaire fitting complete with Hermetically sealed NiCd battery
- Type Y: Stage Light. Beamz or equivalent approved stage lighting, adjustable head on rail.
- Type SL Post Top mount LED lighting, LED light sources of 55W. The luminaire shall consist of a polycarbonate body and an opal diffuser.
- Type P Pole steel 4m full length galvanised with 5A circuit breaker in the draw box.

1.26 INSTALLATION OF LUMINAIRES

1.26.1 RECESSED LUMINAIRES

Recessed luminaires shall be connected to the lighting circuit by means of an unswitched 5 Amp 3-pin socket outlet located inside the ceiling void on the P8000 wiring channel. The connection between the above socket outlet and luminaire shall be carried out by means of 1,5mm² "Cabtyre" cable complete with 5 Amp plug top, the total length of "Cabtyre" shall not exceed 3m.

1.27 DATA AND TELEPHONE INSTALLATION

The Subcontractor shall supply and install conduits, sleeves, trunking and distribution boards as indicated on the drawings and in the bill of quantities for the data and telephone installation.

The Subcontractor shall supply data and telephone outlet points in the positions indicated on the drawings. The outlets shall be of the combined services configuration i.e. Telephone and data connection points sharing the same outlet point. Where flush outlet points are indicated, these will be of 100 x 100mm dimension.

The outlet points, whether flush or power skirting application, shall comprise a cradle to facilitate the installation of the VETI range (or other approved) of RJ type connector sockets and fitted with blank inserts and the appropriate covers.

The actual telephone and data cabling and installation of RJ11 and RJ45 sockets will be carried out separate to this contract and by the Client's appointed Specialist Subcontractor/s.

1.28 BALANCING OF THE LOAD

The Subcontractor is required to balance the load as equally as possible over the three-phase supply on completion of the installation.

1.29 EARTHING OF PREMISES

The Subcontractor shall allow for the earthing requirements in accordance with the Code of Practice for the Wiring of Premises SABS 0142 and SABS 0292, as amended.

1.30 LABELLING

All circuits, apparatus, switchgears, equipment, etc. shall be suitably and correctly labelled by means of engraved plastic labels (white lettering on black), which are to be either bolted or screwed to the equipment panel.

The labelling methodology is to be submitted, in detail, to the Electrical Engineer for scrutiny and permission to proceed before installation.

1.30.1 SWITCH, SOCKETS AND COVER PLATES

Refer to the General Electrical Specification. All switches, sockets and other outlet cover plates shall have their respective distribution boards and circuit numbers engraved on the cover in an approved manner.

1.31 TESTING INSTALLATION

The Subcontractor shall, on completion of the installation, or such integral parts thereof, as may be determined by the Electrical Engineer, carry out installation, resistance and earth continuity tests as prescribed in SANS Code of Practice for the Wiring of Premises - 10142, Section 9.3.2 latest edition.

The Electrical Engineer reserves the right for himself or his designated representative, to be present at said tests and the Subcontractor shall notify him timorously prior to the commencement of the tests.

The Subcontractor shall be responsible for supplying all test instruments and equipment as is necessary for the tests.

The Subcontractor shall submit, to the Engineer and in an acceptable format, a test report detailing particulars of the tests executed as well as the requisite Certificate of Compliance.

The following tests are the minimum requirement:

1. Routine tests on all switchboards as called for above.
2. 500V Megger test of all circuit external to the switchboards.
3. Earth loop resistance test on all earthed equipment.
4. Earth leakage test on all earth leakage protected circuits to prove the soundness of the wiring and protection.
5. Checking of polarity of all switched socket outlets.
6. Operational check on all equipment to verify execution of works in accordance with drawings and designated circuits.

FAILURE OF WORKS, SITE OR COMMISSIONING TEST

Should the Electrical Engineer be notified to attend official tests as laid down and should the equipment fail the tests for any reason whatsoever, such that the Engineer is required, in so doing to attend additional tests the cost of said tests shall be for the Subcontractor's account.

1.32 RECORDS DRAWINGS

The Subcontractor shall, on completion of the installation, deliver to the Electrical Engineer, one set of marked up paper "Records" drawings. All changes regarding cable routes, lighting positions etc. which may have been necessary during construction are to be entered onto the drawings. These drawings to be submitted in electronic format as well.

The installation will not be accepted as complete unless the above requirements are not fully complied with.

1.33 DEFECTS LIABILITY

Notwithstanding that which is stated in the Agreement and Schedule of Conditions Of Building Contract the defects liability period shall be twelve (12) months from practical completion.

PART 2E

GENERAL ELECTRICAL SPECIFICATION

PART 2E

GENERAL ELECTRICAL

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PART 2E

GENERAL ELECTRICAL SPECIFICATION

2.1 CONDUIT AND CONDUIT ACCESSORIES

2.2.1 Conduit

Conduit shall be of steel galvanized internally and externally, either solid drawn, or welded and not less than 20mm diameter, with all rough edges removed. All tube ends removed. All tube ends are to be reamed. With screwed conduit one threaded end is to be fitted with a coupling and the other end is to be protected against damage.

UPVC conduit may only be used if permitted by the Engineer and only in those areas which he may specify. In this case this conduit shall be according to SABS 950.

Conduit accessories, which are secured to the conduit by means of lugs, screws or setscrews, are not acceptable.

General requirements of conduiting to SABS IEC 60614 (1).

Metal conduits shall be fully in accordance with SABS 1065 - PART I.

2.2.2 Conduit Accessories

All conduit accessories shall be galvanized both internally and externally and comply with SABS 1065 - PART II.

All screwed conduit fittings shall be of malleable cast iron.

Where fittings are fitted with covers, the covers shall be of galvanized pressed steel secured with brass screws.

2.2.3 Flexible Conduit

Flexible conduit shall be of the plastic covered metal type complete with brass connectors to the approval of the Engineer.

2.2 INSTALLATION OF CONDUIT

2.2.1 General

Except where cables are specified for certain circuits, the installation(s) shall be tubed throughout in steel conduit. Split conduit is not permitted. All conduits shall, wherever possible, or unless otherwise specified or agreed, be concealed in the structural work.

Except where agreed or otherwise specified or indicated on the drawings, all conduits to points shall be run via the ceiling and floor slabs or roof space. In damp situations and where exposed to the weather, the conduits shall be so installed as to avoid, as far as possible, the condensation of moisture within them. All running points are to be painted with an approved metal primer.

Mechanical and Electrical continuity must be maintained throughout the installation. Each length of conduit and every conduit fitting must be inspected for defects and all sharp edges or burrs must be removed before it is installed. All joints are to be tightly fitted together.

Running joints with long threads, where used, are to be fitted with a lock nut and the running thread shall not be longer in length than a coupling and lock nut.

In conduits smaller than 32mm elbows and normal bends are not to be used but conduits are to be set to the required angles.

Flexible connections between conduit and appliance or other equipment shall be by means of flexible tubing (see Par 2.1.3).

No wiring shall be drawn into conduits until the conduits have been installed.

Where more than one socket outlet is connected on a circuit, the conduit shall be looped from the one outlet box to the following outlet box.

All switch-boxes, socket outlet boxes and any other purpose made metal box including distribution board trays shall be suitable treated against corrosion before installation with "Rustodian" or other approved metal primer.

All conduits shall be securely fixed into chases, and all flush switch and socket outlet boxes must be firmly embedded in cement mortar.

The Contractor shall make himself familiar with the positions of all fittings, such as blackboards, pinning boards, cupboards, shelving, work-tops, etc, before commencing the conduit installation. The position of switches and socket outlets as indicated on the drawings are approximate only. The Contractor must verify that the final position of these will not be covered by the installation of the fittings referred to above, or come midway between the junction of any dadoes and upper wall finishes.

No extras will be entertained for moving switches or socket outlets as a result of the Contractor's failure to verify the final positions of the fittings or type of wall finish.

2.2.2 In Roof Spaces

The conduit in roof spaces shall be installed parallel or at right angles to the roof truss members and shall be secured at centres not exceeding 1,2m by means of galvanized saddles nailed to the timbers with galvanized clout nails. Crampets will not be allowed.

Crossing of conduits is to be avoided wherever possible. Where unavoidable, one conduit must be neatly set over the other. Where a number of conduits have to run back to the distribution board or switchboard, they shall run parallel to the distribution board or switchboard, and at saddle distance to each other wherever possible.

Conduits run from distribution boards shall terminate in fabricated sheet steel draw boxes installed in the roof above the distribution boards. Each draw box shall be fabricated from 1,60mm galvanized sheet steel with welded corners and suitably treated against corrosion with "Rustodian" or other approved primer and finished in aluminium paint.

Each draw box is to be fitted with a slip-on lid with a 13mm skirt. The box shall be 75mm deep, shall be rectangular in shape and the size of conduits entering or leaving the box. Conduits shall be fixed to the box by means of couplings and brass male bushes or lock nuts and brass bush-nuts.

Conduit droppers shall be neatly cut into timber wall plates and set to face the right direction. All sets must be uniform. Conduits may be set at angles only where droppers or ceiling points are within 230mm of roof members.

No conduits are to be run over the top of gangplanks or trapdoors.

Draw-in boxes with metal covers shall be provided where required and shall be installed near the gangplanks, if any. All inspection conduit fittings in open roof spaces shall face upwards to facilitate wiring and to permit easy inspection. Three-way conduit boxes shall be used for tee-off purposes in open roof spaces. Inspection tees are not to be used except where otherwise agreed or specified.

All conduits extended into a roof space with a roof clearance of more than 900mm shall be set onto the beam and extended into the roof for a distance where there is sufficient clearance.

Under flat roofs or where there is less than 900mm clearance, the conduit shall be installed as specified for tubing in concrete slabs, right angle bends should be kept to a minimum and the shortest route taken.

Where false ceilings occur they shall be tubed as called for in the detailed specification. Conduits in restricted spaces and run as for concrete slabs must however, be installed in a neat and orderly manner.

Conduits to ceilings points for all types of fittings must be firmly supported and shall terminate in a back entry conduit box. The conduit box shall be taken through to the face of the ceiling and finish flush. Where the ceiling brander interferes with the installation of the ceiling point specified, the Contractor must trim the brander to allow the conduit box to be taken through to the face of the ceiling as specified. Luminaires must be bonded to the conduit box by means of metal threaded screws.

2.2.3 In Concrete Slabs

In order not to delay building operations, the Contractor must ensure that all conduits and conduit fittings, which are to be cast in concrete, are laid in good time. The Contractor shall have a competent Electrical Artisan standing by during casting of concrete, etc, to ensure that the conduit boxes are not damaged during casting of concrete.

Draw boxes, expansion joints boxes and round conduit boxes are to be provided where necessary.

Deep type conduit boxes shall be used for side entering conduits and normal shallow boxes may be used for back entry conduits. No elbows, bends or sharp sets will be allowed in concrete slabs except in cases of conduits of 40mm diameter or when larger sweeping bends will be permitted.

Common draw and/or inspection boxes shall be used where there is more than one circuit involved. They shall be installed in lavatories, storerooms, or other inconspicuous places. Covers shall be of hardboard neatly finished to match the finished ceiling or wall surface, and shall be fitted parallel to the wall or ceiling.

All boxes, etc, are to be securely fixed to the shuttering to prevent displacement when concrete is cast. All conduits must be laid off the deck, supported and secured at regular intervals and installed as close as possible to the neutral axis of concrete beams and slabs.

Expansion joints shall be shown on layout Drawing No. N/A included in this General Specification Clause and shall consist of a metal box in which one conduit is fixed and the other capable of movement with the building's expansion and contraction. Earth continuity of these joints shall be maintained by means of stranded copper conductors bonded to the conduits in the box as shown on the drawing.

Earth conductors and clamps buried in concrete are not permitted.

Conduits must be spaced sufficiently apart to allow for proper concreting. All joints shall be painted with an approved metal primer after completion of the tubing installation, prior to the concreting. All exposed parts of the conduit installation shall be suitably protected against corrosion at the discretion of the Chief Engineer: Works.

Before any concrete slab is cast, all conduit droppers to switchboards shall be neatly spaced and rigidly fixed.

2.2.4 Surface Work

All conduits must be plumbed and leveled and only straight lengths shall be used.

In cases where doorframes are out of plumb, or fittings, beams etc, are out of level, the conduit shall be run parallel with the doorframes, fittings, beams etc.

No threads shall be visible when the conduit installation is complete, except on running couplings.

Running couplings shall only be used where unavoidable and shall be fitted with a sliced coupling as a lock nut.

On inspection or normal bends are to be used on surface work, except with the approval of the Works Inspector and where conduits of 32mm diameter or larger are used. Conduits shall be set uniformly and inspection couplings shall be used where necessary.

Fittings, tees, boxes, couplings, etc, are to be cut into the surface to allow the conduit to fit flush against the surface or alternatively spacer bar saddles may be used. Conduit is to be bedded into any irregularities to avoid gaps between the surface and the conduit.

Double sets, where used, shall be parallel with no twists and shall be as short as possible. All conduits, which terminate at metal trays, boxes, industrial switches and plugs shall do so by means of couplings and male bushes. No couplings will be permitted in droppers of lengths less than 3,6m.

Where crossings of conduits is unavoidable, purpose made metal boxes shall be used. The length of the box is to be 8 times the diameter of the largest conduit, the width one and a half times the sum of the diameter of all the conduits, and the depth one and a half times the diameter of the largest conduit with a minimum depth of 50mm. The box shall be fitted with a neatly fitting cover and the finish shall be in keeping with the general layout.

Where a number of conduits are to be installed in parallel they shall be evenly spaced and grouped under one purpose made saddle. Conduit spacing shall not exceed 10mm. The purpose made saddle shall be made of 25mm x 2mm galvanized steel strip or other approved material, formed to suit the curvature of the various conduits and shall be drilled and fixed by means of screws between. Saddles shall be spaced at intervals not exceeding 1,8m, except for conduit droppers, which shall be saddled centrally between ceiling and accessory box. All saddles are to be secured to the wall by means of black japan or brass round head screws. Distribution boards, draw boxes, industrial switches and plugs, etc, shall be neatly recessed into the surface of plastered walls to avoid double sets or alternatively spacer bar saddles may be used. On face brick walls the conduit shall be tightly set into the switch or plug.

In situations where there are no ceilings, the conduits are to be run along the wall plates and tie beams.

No wiring is to be carried out until the tubing has been inspected and approved.

Where spacer bar saddles are used, these shall be installed at centres of 1m for horizontal and 1,5m for vertical runs.

All conduits shall be painted with an approved enamel paint to match the background colour.

2.2.5 Future Extensions

In roof spaces with a minimum clearance of 900mm, switch and plug drops for future use are to be set 300mm in the correct direction and shall be threaded and fitted with plugged couplings. Where the roof over a slab is to be removed for future expansions, conduits for future use are to terminate 40mm above tie beams and shall be threaded and fitted with plugged couplings.

Where future extensions are to be below slabs, all switch, socket outlet and other conduit droppers are to terminate 130mm below slabs or beams with conduit ends threaded and fitted with plugged couplings.

Where provision is made for future extensions to a concrete slab, all conduits required for future use are to project 130mm from the slab. Conduit projections are to be painted with an approved anti- corrosive paint and must be fitted with plugged couplings.

All switch, plug and other outlet boxes required for future use shall be fitted with approved blank cover plates.

Unused lighting outlet boxes are to be fitted with round hardboard or plastic covers with brass cover screws, which shall fit flat on the finished ceiling.

2.2.6 Fixing of Conduits

Conduits shall be fixed to switch and socket outlet boxes by means of couplings and brass male bushes or lock nuts and brass bush nuts. Couplings and male bushes to be used on all surface work.

2.2.7 Chases and Building Work

Except where otherwise specified conduits, switch boxes, plug boxes and distribution boards are to be built into the brick walls by the Contractor. It will, however, remain the responsibility of the Contractor to ensure that the above-mentioned boxes and distribution boards are correctly built in and are firmly bedded and cemented into the walls, plumb and square.

The Contractor shall, unless otherwise specified, do all necessary chasing and cutting of bricks. All electrical materials (e.g. conduits up to 40mm for UG cables, conduits, conduit boxes, distribution boards etc) must be supplied by the Contractor who must arrange to have these on site, and positioned when required for the building work. A competent Electrical Artisan must be in attendance and ensure that the conduits etc are correctly installed and positioned.

The Contractor is to ensure that tubing installed in chases is securely nailed and covered by a layer of 5:1 mixture of coarse sand and cement, finished flush with brickwork and that switch and plug boxes finish flush with the finished wall surface.

The Contractor is to ensure that below distribution boards connected by means of underground cables, 1230mm wide by 115mm deep cavity in the wall from the cable pipe to the distribution board is to be provided by the Contractor, or alternatively, cable sleeves as specified.

2.3 PLUGGING OF WALLS

Only approved plastic plugs shall be used to secure conduit or equipment up to 5kg mass. The use of round-headed screws only will be permitted.

Heavier equipment shall be secured by means of approved

expansion bolts. Wood plugs and any plugs in the joints in brick walls

are not permitted.

2.4 FIXING TO CONCRETE CEILINGS

Ceiling mounted equipment other than luminaires shall be secured to concrete ceilings by means of expansion bolts, shot bolts or "Robot" tools bolts or as expressly specified for the service.

2.5 WIRING

2.12.1 PVC Insulated Single Core Medium Voltage Conductor

The conductor is to be of high conductivity copper wire insulated with Poly Vinyl Chloride. The cable shall be finished in the required colours and shall be in accordance with SABS 1507 and 1574.

Circuit wiring shall be of the Loop-in system and no wiring joints in the conduit or conduit fittings will be permitted. Not more than two conductors of a kind will be allowed at any outlet point. The end strands of cables, whether single or looped which have to be connected to terminals of switched, plugs, lamp-holders, fittings and distribution boards, etc, are to be tightly twisted together. Cutting away of wire strands of any cable will not be allowed. Only one circuit in any one conduit will be permitted unless otherwise specified.

Conductor sizes shall be as follows except where otherwise specified:

Lighting circuits	2,5mm ²
Bells circuits	1,5mm ²
Clock circuits	1,5mm ²
Incinerator circuits	2,5mm ² with 2,5mm ² insulated earth wire
Ironing circuits	2,5mm ² with 2,5mm ² insulated earth wire
Plug circuits	4,0mm ² with 2,5mm ² insulated earth wire
Geyser circuits	4,0mm ² with 2,5mm ² insulated earth wire
Heater circuits	4,0mm ² with 2,5mm ² insulated earth wire
Stove	10mm ² with 6mm ² insulated earth wire
Motor circuits	
Up to 4kW single phase	4mm ² with 2,5mm ² insulated earth wire
Up to 11kW three phase	4mm ² with 2,5mm ² insulated earth wire

To avoid deformation of PVC insulated cables at temperatures in excess of 57 degrees C, they shall not be brought directly on to the terminals of appliances such as electric heaters, or any other electrical appliances or apparatus (including luminaires) which have a temperature in excess of 57 degrees C. They shall terminate in a suitable terminal box as near to the appliance or fitting as possible and connect up from thereon, with heat resistant conductor.

2.6 MOUNTING AND POSITIONING OF LUMINAIRES

Luminaires and installation to comply with SABS 1464 Parts 1 to 22 and IEC 598-1 and IEC 60598 as applicable.

The Contractor shall, in the case of board and acoustic tile ceilings (i.e. as opposed to concrete slabs), ensure that the luminaires are symmetrically positioned with regard to the ceiling pattern.

The layout of the luminaires as indicated on the drawings shall be adhered to as far as possible. The exact positions must be confirmed on site with the Employer.

Except where otherwise specified, pendant luminaires are to be mounted with the bottom of the fittings 2,4m above finished floor level, mounted on either metal discs or wood blocks.

Under no circumstances shall cover strips be cut to accommodate wood blocks. Wood blocks must be neatly slotted to fit over cover strips and are to be secured by a minimum of two screws, which shall penetrate at least 25mm into solid wood. Ceiling cover strips shall be neatly cut to accommodate fluorescent luminaires.

Where ceilings are raked, all incandescent luminaires are to be mounted on shaped levelling wood blocks securely fixed to the ceiling. Batten holders shall be secured to woodblocks by suitable brass screws. Fluorescent luminaires are to be mounted direct on raked ceilings without levelling blocks.

Fluorescent luminaires to be mounted on concrete ceilings shall be screwed to the outlet boxes and additionally supported by means of 50mm x 6mm expansion bolts. The bolts are to be $\frac{3}{4}$ of the length of luminaires apart.

Where several luminaires are installed end to end, outlet points must be provided after every second luminaire unless otherwise indicated on the drawing. The luminaires are to be joined together by means of 20mm conduit nipples, lock nuts and male brass bushes, and the wiring led through the channels of the luminaires. The Contractor shall ensure that all such rows are correctly lined up and that the rows are parallel with the relevant building line.

The luminaires are to be joined together by means of 20mm conduit nipples, lock nuts and male brass bushes, and the wiring led through the channels of the luminaires. The Contractor shall ensure that all such rows are correctly lined up and that the rows are parallel with the relevant building line.

Incandescent luminaires are to be screwed directly to outlet boxes in concrete slabs and in board ceilings. In board ceilings the conduit box and the conduit shall be secured to the timberwork of the ceiling in such a manner that it shall support any incandescent luminaire,

which is designed to be fixed to a normal conduit box.

Fluorescent luminaires shall be secured to board ceilings by means of the conduit box and 6mm bolts passing through the boards and brandering.

2.7 BATTEN HOLDERS

B.C. batten holders shall be of brass or moulded plastic reinforced type complete with shade ring. The batten holders shall comply with SABS IEC 60238 and SABS IEC 61184. All lamp holders are to have brass terminals with screw type connection.

2.8 LAMP HOLDERS

Edison screw lamp holder : SABS IEC 60238

Bayonet lamp holders : SABS IEC 61184

Lamp holders for tubular fluorescent lamps : SABS IEC 60400

B.C. screwed lamp holders shall be of brass 20mm E.T. complete with shade ring and shall comply with SABS IEC 60238 and SABS IEC 61184 with screw type connection terminals.

2.9 SWITCHES AND SOCKET OUTLETS

Switches SABS IEC 60669 as applicable and socket outlets SABS IEC 60884 as applicable shall be of the most modern manufacture and bear the SABS mark.

Flush switch and plug cover plates shall, unless otherwise specified, be of anodized aluminium of thickness not less than 0,9mm, satin or other approved finish as directed and otherwise to be fully in accordance with SABS IEC 1084 for cover plates and SABS 1085 for wall boxes.

2.10 POSITIONS OF SWITCHES AND SOCKET OUTLETS

Except where otherwise specified, lighting switches and socket outlets are to be installed 1,4m above finished floor level.

All mounting heights specified are to be measured from finished floor level to the bottom of the outlet box.

Where the lower portion of the wall consists of face brickwork and the upper portion of plastered finish, switches and socket outlets are to be mounted in the plastered surface, provided that the lower edge of the plasterwork does not exceed a height of 1,5m above finished floor level in which case the switches or socket outlets are to be installed in the face brick dado.

Where socket outlet and switch boxes have been installed with fixing lugs below finished wall surface, only approved distance pieces required to compensate for the recess shall be used. The lengths of distance pieces are not to exceed 15mm.

Unless otherwise approved, light switches adjacent to doors are to be installed at the lock side of the door. Where the lock position is not indicated on the drawings, its position shall be ascertained before the switch box is installed. Switches are to be installed 150mm from the reveal, or centrally if there is a fitting near the door.

All switch and socket outlet boxes shall be installed plumb, and built into the wall with a 1:1 mixture of cement and sand.

Industrial type switches and socket outlets shall be neatly recessed into the surface of plastered walls to avoid sets or alternatively spacer bar saddles may be used.

Deep type boxes may be used where switches or socket outlets are back to back, but where one side only is to be utilized at the time and the other is for future use, the side for future use shall be suitably covered with a metal cover plate.

2.11 LOW TENSION SWITCHBOARDS

Low Voltage switchgear and control gear to comply with SABS 1473 and SABS IEC 60947 and SABS IEC 60439.

Where switchboards are to be installed in switch rooms or switch cupboards, the Contractor must ensure that the boards are manufactured to suit the dimensions of the rooms or cupboards.

Low tension switchboards shall be specified in detail for each service, but shall generally conform to the following:

They are to be of strong and rigid construction, with suitable angle, channel or folded steel framework. They are to be flush fronted and totally enclosed with sheet steel panels suitably formed at the edges and reinforced to prevent distortion. Unless otherwise directed, all front panels must be at least 2mm thick and all other panels at least 1,6mm thick. Panels are to be secured to the framework with studs and chromium plated dome nuts (self-tapping and similar screws are not permitted).

Switches, etc, are to be mounted on metal frames within the boards to give flush front panels. Equipment of normally surface mounted types such as energy meters, time switches and contactors, are to be mounted on inner metal trays behind hinged front panels. In the case of supply authority meters the hinged front panels must have transparent inserts.

All metal work of the boards must be thoroughly degreased, primed with PA 10 self etching primer and finished with one coat of undercoat and two coats of electric orange high gloss enamel, unless otherwise specified.

All accessible current carrying parts, bus-bars, connecting strips, collector bars, etc, are to be adequately insulated in phase colours and suitably braced to withstand projected fault currents.

Connecting strips and collector bars must be of sufficient cross sectional area to carry full rated current of the switches served, irrespective of the fuse or trip rating.

The complete distribution board including bus-bars must be suitably constructed to withstand fault currents specified.

Connections to bus-bars are to be made by means of lugs suitably bolted and locked with high tensile bolts and connections to lugs must be effected by means of a crimping tool.

Incoming and outgoing bus-bar studs, where required, must be suitably insulated where they pass through panels of the board, and firmly supported within the board.

Where applicable, incoming and outgoing collector bars for cables in parallel must be so arranged that the multiple cable ends can be connected to the bars with reasonably short tails which do not have to cross.

Cable supports must be placed at suitable heights having regard to the bending radius of the cables concerned and convenience in making off.

Walls-mounting and floor-standing back to wall type boards must be provided with full easy access to all equipment and wiring without any necessity of disconnecting or removing of any of the equipment mounted in the board.

Clear visible indication of all switch positions must be provided and the switches must be clearly labelled as directed by the Employer.

The details of construction proposed, and the Chief Engineer must approve all equipment of switchboards: Works before manufacture is commenced.

2.12 DISTRIBUTION BOARDS

2.12.1 Approval

The Chief Engineer must approve the details of construction proposed and all equipment within distribution boards: Works before manufacture is commenced.

2.12.2 Flush Mounting Distribution Boards

These shall be generally manufactured in accordance with SABS 1765. The board shall consist of two panels fitted side by side with common bonding tray and attached to a common architrave. One panel shall accommodate all single phase MCB's and the second panel shall accommodate the main isolator, main bus-bars and the triple pole MCB's. Chassis shall be of rigid channel section rust proofed steel with clip-on trays for the single pole MCB's. The main isolator is to be mounted at the bottom of the second panel with the triple pole circuit breakers above.

In general, single phase boards shall be mounted with the bottom of the architrave 1,5m above finished floor level unless specifically directed otherwise.

2.12.3 Surface Mounting Distribution Boards

These shall be generally manufactured in accordance with SABS 1765, with two panels as for flush boards.

2.12.4 Single Phase Distribution Boards

Single Phase boards shall be generally constructed as three phase boards except they shall have a single panel. Single phase boards shall be mounted with the bottom of the architrave 1,5m above finished floor level unless specifically directed otherwise.

2.12.5 Distribution Board In Roof Spaces

Where distribution boards are installed below a roof space, a minimum of 2 x 20mm and 1 x 25mm spare conduits are to be run from the distribution board into the roof space.

2.13 METER BOXES

The meter box shall be of a design acceptable to the Employer. The Contractor must obtain the approval of the Supply Authority for any meter box intended for use prior to purchase and installation.

The meter box shall be mounted with the top 1,7m above finished ground level. Surface mounted meter boxes shall be secured by at least 4 x 10mm expansion bolts.

Service cables entering the meter box shall be protected by means of a suitably sized galvanized pipe extended 450mm below the ground surface and securely saddled to the wall and bonded to the meter box.

2.14 CONNECTIONS TO OUTLETS

2.14.1 General

Where connectors are used to connect to the wiring of luminaires and other appliances, the connectors shall comply with SABS Specification 1239.

2.14.2 Connection to Stoves

2.14.2.1 General

The connection to an electric stove, unless otherwise specified shall consist of 2 x 10mm² conductors and a 6mm² insulated earth wire in 25mm conduit. The stove shall be controlled by a 60 Amp micro gap switch of approved make and the connection shall be by means of a 45 Amp 3 pin stove plug of the "Cape Town" type. Cable ends, which are to be connected to the stove, shall be equipped with suitable soldered or crimped lugs. The connection between the stove plug and stove shall be by means of flexible conduit.

Except for high school domestic science unit kitchens (see Clause 2.14.2.2), the conduit shall be chased into the wall and fitted with a switchbox for housing the micro gap switch and a 25mm circular conduit box over which the stove plug will be mounted. The stove plug shall be fitted with an adaptor plate and shall be screwed directly to the conduit box by means of round head metal screws. The plug outlet shall face downward.

The stove plug and switch shall be mounted 430mm and 1,4m respectively above finished floor level unless otherwise specified or indicated on the drawings.

2.14.2.2 Connections to Hot-water Cylinders

The connections to hot-water cylinders not exceeding 3kW loading shall consist of 2 x 4mm² PVC conductors and 1 x 2,5mm² earth wire in a 20mm diameter conduit from the distribution board. The conduits shall be chased in the wall and shall terminate at the side of the cylinder in a box over which is to be mounted a double pole isolator with pilot light.

The final connection between the isolator and cylinder shall be by means of silicon heat resistant conductors in 20mm diameter flexible conduit.

Connections to roof mounted hot-water cylinders shall generally be as specified above with an isolator with pilot light mounted adjacent.

2.14.3 Connections to Power Points

Connections to electric motors and fixed apparatus subject to vibration shall, unless otherwise specified or indicated on the drawings, have final connections consisting of conduit and flexible tubing in reinforced hose in accordance with Clause 2.1.3 of this specification and PVC cables and earth wire of the required size.

An isolator shall protect all fixed apparatus and where necessary a starter fitted with a no-volt coil and overload protection adjacent to such apparatus.

Power points for connection of fixed apparatus to be installed by others, shall terminate in an approved type wall mounted switch unless otherwise specified.

The minimum conductor sizes for all power points shall be 4mm² unless otherwise specified.

2.14.4 Underground Service Connection

This clause refers to underground connections not provided by the Supply Authority.

The service cable and earth wire to be connected at the supply point in accordance with Clause 2.15.8 of this specification, and unless otherwise specified, shall be laid 600mm below ground level throughout and otherwise fully in accordance with Clause 2.15 and all applicable sub-clauses thereof. Cable entries to meter boxes shall be in accordance with Clause 2.13 and other entries shall be by pipe or duct as directed.

2.14.5 Connections to Outbuildings

Connections to outbuildings shall be made by means of underground cable only, laid in accordance with Clause 2.15 and all applicable sub-clauses.

Where the cable is run from the roof space of the main building, it shall be enclosed in suitably sized galvanized pipe built into the wall or run surface as directed. Surface run pipes shall be securely saddled at 1,8m centres. Where the cable connects to the conduit in the roof space, a suitable joint box shall be provided or alternatively the cable may be taken through the roof space with fixings at regular intervals, and down to the main board. At the outbuildings, the cable shall be enclosed in a suitably sized galvanized sleeve pipe built into the wall or run surface and terminated in the distribution board tray.

2.14.6 Connection and Mounting of Cable Fed Street/Site Lighting

Street/site lights shall in all cases, except where otherwise specified, be fed by underground cable. Unless otherwise directed, a suitable terminal board shall be provided in the base of the lighting pole for the connection of the incoming and outgoing cables, the feeds from the terminal board to the fitting shall be as specified.

“Surfix” cable and compression glands shall be installed between terminal board and cross arm/bracket mounted luminaires. The terminal board shall also accommodate a miniature circuit- breaker in the phase connection to the fitting. Poles intended for mounting directly in ground are to be provided with a 300 x 300mm base plate.

2.15 UNDERGROUND CABLES

1000 Volt PVC SWA and 1100 Volt PILCA cable and accessories shall be in accordance with the relevant SABS specifications to SABS 1507.

The storage, transportation, handling and laying of underground cables shall be according to the manufacturer's requirements and the Contractor shall have adequate and suitable equipment and labour to ensure that no damage is done to cables during such operation. All cable pipes and ducts entering buildings are to be sealed against the ingress of vermin, water, etc.

2.15.1 Trenching

Cables, unless otherwise specifically directed, shall be laid at a depth of 600mm below ground level. Trenches shall not be less than 300mm wide for one to three cables, and the width shall be increased where more than three cables are to be laid together so that the cables may be placed at least 75mm apart throughout the run.

The Contractor shall take all necessary precautions to prevent trenching work being in any way a hazard to the public and to safeguard all structures, roads, sewer works, or other property from risk of subsidence and damage.

2.15.2 Cable Joints

Joints in underground cable runs will not be permitted unless unavoidable and at the discretion of the Employer. Where cable joints are unavoidable, the cable jointer is to work efficiently and cleanly and so that each end of the cables to be joined may have a minimum of 0.9m of slack disposed in a loop without stress. Back-filling under joints must be firmly tamped to prevent any subsequent settling.

2.15.3 Bedding

In trenches made in intermediate, hard rock, or boulder material, the cables shall be laid on a 75mm thick bed of earth and be covered with a 150mm layer of earth before the trench is filled in. The Contractor to supply all earth required for trench filling.

2.15.4 Laying

Cable shall be removed from the cable drum in such a way that no twisting, tension or mechanical damage is caused, and must be adequately supported at short intervals during the whole operation. Particular care must be exercised where it is necessary to draw cables through pipes and ducts, to avoid abrasion, elongation or distortion of any kind. The ends of such pipes and ducts shall be sealed to approval after the drawing in of the cables.

2.15.5 Back Filling

Back filling after bedding (see Clause 2.15.3) is to be carried out with a proper grading of the material to ensure settling without voids, and the material is to be tamped down after the addition of every 150mm. The surface is to be made good as required.

Back filling of cable trenches must not be commenced until after the cable trenches and laid cable(s) have been inspected by the Employer. Where a Contractor fails to observe this requirement he may, at the discretion of the Employer, be required to re-open such cable trenches for inspection at his own expense.

2.15.6 Protection of Cables

Where so directed by the Employer, concrete or other warning covers shall be placed over cables above the top bedding layer. Cable pipes when directed are to be installed at road and other crossings.

2.15.7 Marking of Cables

Cable marking tape is to be supplied by the Contractor and is to be laid 150mm below ground over a cable run and as may be directed by the Employer to give early indication of underground cable runs.

2.15.8 Joints and Termination of Cables

Joints in underground cables and terminations shall be made by means of "Scotch-Cast" or other approved epoxy-resin pressure type jointing kits. Low tension PVC cables are to be made off with sealing glands and materials specially designed for this purpose, which must be of approved make.

Where cables terminate in a switchboard, the glands or end boxes shall be bolted to a gland plate of the switchboard.

Cable leads of paper insulated cables shall be taped with two layers of "Empire" tape and one layer of the correct phase coloured tape.

2.15.9 Earth Wires

Except where specifically directed otherwise, earth continuity conductors are to be run with all underground cables constituting part of a low tension distribution system. Such earth continuity conductors shall be bare copper wire of a cross sectional area in accordance with the Code of Practice 0142 but shall not be less than 4mm² nor more than 70mm². The earth continuity conductor is to be bonded to the cable armouring, and to the lead sheath if any, at each termination, as well as to the local earth bar. The earth wire must be secured to the cable at 1,8m centres.

2.15.10 Opening Up of Existing Cables

Where it is necessary to expose existing buried cables for any purpose, or to excavate in the vicinity of existing buried cables, pipes, etc, every care is to be exercised and only labourers experienced in such work, and duly warned by the Contractor, shall be employed thereon.

2.15.11 Definitions for Classifying of Excavation

- a) Soft Excavation - shall be excavation in material that can be efficiently removed by a back-acting excavator of flywheel power approximately 0,10kW per millimetre of tinned-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 tyred front-end loader approximately 15T mass and a flywheel power of approximately 100kW.
- b) Intermediate Excavation - shall be excavation in material that requires a back-acting excavator of flywheel power exceeding 0,10kW per millimetre of tinned-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 materials containing more than 40% by volume of boulders of sizes between 0,03 cubic meter and 20 cubic meter in a matrix of softer material or smaller boulders.

Note: (1) Excavation of solid boulders or lumps of size exceeding 20 cubic meter will be classified as hard rock excavation.

(2) Excavation of fissured or fractured rock will not be classed as boulder excavation but as hard rock 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 0,03 cubic meter and 20 cubic meter in a matrix of softer material or smaller boulders.

Note: Those boulders that required 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 classed as Class B Boulder Excavation.

2.16 EARTHING

2.16.1 Main Earthing

The type of main earthing shall be as required by the Supply Authority, if other than the Administration and in any case as directed by the Chief Engineer: Works who may require additional earthing to meet test standards.

Where required, an earth mat is to be provided, the minimum size, unless otherwise specified, being constructed from copper straps (950 x 25 x 3)mm at 230mm centres and braced at all intersections. Alternatively or additionally earth rods or trench earths may be required, as the Chief Engineer: Works may direct, and installed according to his instructions.

All earth electrodes and connections thereto must be approved "in-situ" by the Chief Director: Works before back-filling.

The electrical installation shall not be earthed by means of the lightning arrestor earth electrode, if such is included in the installation, but may be bonded thereto.

An earth mat shall be installed only if specifically called for in the detailed specification.

2.16.2 Earthing in Installations

The installation shall be effectively earthed in accordance with the relevant sections of the Code of Practice 0142 and the requirements of the Supply Authority.

All hot and cold water pipes are to be effectively bonded by means of 12 x 1,5mm solid copper tape (perforated tape or wire will not be permitted), clamped by means of brass bolts and nuts. Bonding tapes exceeding 75mm in length must be fixed to the wall by means of No. 6 x 20mm brass screws and plastic plugs not exceeding 150mm centres. Main earth copper tapes where installed less than 2,4m from ground level, must be run in 20mm diameter conduit securely saddled to the wall.

Gutters and downpipes are to be bonded by means of 6mm round headed brass bolts, with nuts and washers. Self-tapping screws are not permitted.

Connections from the earth bar or terminal on the main board must be made to a visible cold water main, the incoming service conductor, if any, and the earth mat or plate (where such is required) by means of either 12 x 1,5mm solid copper tape or bare 25mm² copper wire, or such larger conductor as the Employer may direct. From each distribution board separate earth conductors are to be taken to the main earth bar or terminal on the main board. Each conductor shall consist of stranded copper conductors drawn into the conduit together with the distribution board feeders. The size of the earth conductors to be in accordance with the requirements of the Code of Practice 0142 or as specified.

Earthing clips shall be made of not less than 0,90mm thick copper strips not less than 12mm wide. They are to be complete with 25 x 7,7mm brass bolts, washers and nuts and must be constructed so that the clips will fit firmly to the conduit without any additional packing. Adjustable earth clips are not permitted.

2.17 EXISTING BUILDINGS

2.17.1 Occupied Buildings

Where work is to be carried out in occupied buildings the Contractor must arrange to carry out the installation with as little interruption to services and discomfort to the occupants as possible.

2.17.2 Temporary Connections

Temporary connections shall be provided where necessary for continuity of services, and as directed by the Employer. The Contractor must ensure that such connections are both electrically safe and free from physical hazard.

2.17.3 Old Materials

Unless otherwise specified all existing materials removed by the Contractor shall remain the property of the Administration and are to be handed to the Administration.

2.17.4 Making Good

Any damage which may be done to the plaster work, floors, ceilings, wood and paint work, furniture and other equipment in the building, etc, during the progress of the electrical installation shall be repaired and made good by the Contractor to the satisfaction of the Chief Engineer: Works.

2.18 COMPLETION

2.18.1 Balancing of Load

The Contractor is required to balance the load as equally as possible over multi-phase supplies.

2.18.2 Tests

The installation shall be tested by the Contractor as the service progresses or as required by the Employer and upon completion, for earth continuity and insulation. The final test before the taking over of the installation shall be made in the presence of the Chief Engineer: Works.

The mandatory "Certificate of Compliance" shall be issued by the Contractor to the Supply Authority, with a copy to the Chief Engineer: Works prior to first delivery being taken.

2.18.3 Labelling

All circuits and apparatus on switchboards shall be suitably and correctly labelled by means of engraved plastic labels (white lettering on black), which are to be either bolted or screwed to the equipment panel, or fitted in channelling provided below the switch gear.

Sub-circuits are to be numbered and a legend detailing the circuits is to be framed and fitted to the door of the distribution board.

All other equipment is to be individually labelled to indicate the function.

All switchboards are to be fitted with a label on which the designation of the board is clearly indicated.

A separate engraved label depicting the origin and cable/conductor size shall be fixed below the main switch.

2.18.4 Finishes

Covers for all boxes, etc, shall be finished to match the paint work of the ceiling or wall surface or as specified.

2.18.5 Site Drawing

On all completed new works or where specifically called for in the Tender Document, the Contractor shall, on completion of the works, submit to the Chief Engineer: Works, a marked up site plan indicating the exact underground cable reticulation.

2.19 SPEAKER AND MICROPHONE OUTLETS

Speaker and microphone outlets are to conform to the following details:

1. Speaker outlet - To have one flat and one round pin.
2. Microphone outlet - To have one round pin only.

Both female and male parts to be supplied and installed by the Contractor.

2.20 TIME SWITCHES

The time switch shall consist of a single pole switch with silver to silver or other approved contacts operated by a quartz movement with a 24 hour reserve.

A suitable 24 hour, night and day dial, with hour indicator and two adjustable strikers, one OFF and one ON must be provided. The whole mechanism is to be totally enclosed in a dust proof case.

The current rating shall be required and the switch is to be suitable for operation on 220 volt 50 Hertz AC supply. Time switches used for under floor heating are to be fitted with weekend cut-out.

2.21 MOULDED CASE CIRCUIT BREAKERS (INCLUDING MINIATURE)

Circuit breakers shall be of the size and type as directed and specified for the service. They shall comply with SABS Specification 156 and SABS IEC 60947-2.

2.22 SWITCHES, ON-LOAD FAULT MAKING (CIRCUIT BREAKERS TYPE) WITHOUT TRIPS

The switches shall be triple pole, hand operated, panel mounting air break type, having continuous current rating as specified and suitable for operation on 380 - 440 Volt 50 Hz AC system.

The contacts are to be of silver alloy and the switch mechanism shall be of the quick-make, quick-break type.

2.23 SWITCHBOARD EQUIPMENT

Switchboard equipment such as switches, circuit breakers, etc, shall be as directed and specified in the detail specification for the service.

Circuit breaker equipment of SABS IEC 60934.

2.24 FUSE-SWITCH UNITS (WITH HRC FUSES)

The fuse-switch unit is to be of the double pole, or triple pole or triple pole with neutral link type, and of the required current rating, as specified for the service and must be in accordance with BS EN 60947-3.

The fuse links must be fully isolated when the switch is in the open position, and interlocks must be provided to prevent the switch being operated with the cover open.

The fuse links shall comply with SABS Specification 172 and SABS IEC 60269-1 to 4.

2.25 BUS-BAR COPPER

Bus-bar copper must be fully in accordance with Tables A1 and A2 of SABS 1473-2 and SABS IEC 60439-2.

2.26 SPECIFICATION COMPLIANCE

The complete installation shall comply with the requirements of this specification. Should any differences or contradictions exist between this Specification and the detailed requirements for a specific installation, then the detailed requirements shall take precedence.

PART 3E

DETAIL SPECIFICATION LIGHTNING PROTECTION

PART 3E

DETAIL SPECIFICATION LIGHTNING PROTECTION

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PART 3E

DETAIL SPECIFICATION LIGHTNING PROTECTION

3.1 SPECIFICATION FOR THE WORK: LIGHTNING PROTECTION

Allow to supply and install the Lightning Protection System for the complete roof over the new Buildings of the new Clinic and out buildings.

All down conductors must be installed into galvanised surface conduits neatly installed flush in the walls of the buildings.

The work group applicable to this trade, shall be No. 160.

3.2 SCOPE

The specification covers the supply of materials, installation, commissioning and testing of a Lightning Protection System for the above service.

The installation has been measured and allowed for in the Bill of Quantities of the documentation.

3.3 PROGRAMME

The installation shall be carried out in accordance with the building programme.

3.4 SPECIALIST WORK

The installation shall be carried out by a recognised specialist with a proven track record in the field of Earthing and Lightning Protection.

Information in respect of the Specialist contractor must be provided as an integral part of this enquiry for consideration together with submission of the tender. The information pages have been included in the documentation.

3.5 COMPLIANCE WITH REGULATIONS AND STANDARDS

The Lightning Protection Installation shall comply with SABS Codes as per the General Specification Lightning Protection.

3.6 DEFINITION OF TERMS

“Air Terminals” – the part of a Lightning Protective System that is intended to intercept lightning charges (Air Terminals include masts, metallic roofs, roof conductors and finials).

“Down conductor” – A conductor that connects an air terminal to the earthing terminal.

“Earthing terminal” – The above ground terminal of the earthing system

“Earthing system” – The part of the lightning protective system that is intended to discharge lightning currents into the general mass of the earth.

“Finial” – An air terminal consisting of a metal rod with a rounded end.

3.7 DRAWINGS

The tenderers shall scrutinize the drawings issued with the tender.

For General tender purposes on request Elevation drawings can be made available.

3.8 WORKING DRAWINGS

The Contractor shall submit shop drawings for the following:

Details of Air Terminals Details of Down Conductors
Details of reinforcing steel bonding terminals (if required) Details of test joints
Details of earthing system
“As built” marked up drawings on completion of the installation.

Lightning ground flash density shall be as for the inland area.

3.9 LIGHTNING PROTECTION SYSTEM

The Lightning Protection System shall consist of the Air Terminal runs, vertical risers, pipework, and equipment forming an integral part of the Installation and the earth electrodes installed into the groundwork.

3.10 SYSTEM DESCRIPTION AND PERFORMANCE

The system shall comprise:

- a) Air terminal conductors shall be installed onto the new roofs consisting of cement tiles.
- b) Down conductors shall be installed flush via 20mm galvanised conduits.
- c) Earthing electrodes shall be installed into the ground (or counter poise earth conductors).

Each earth electrode associated with a down-conductor shall have a resistance not exceeding two hundred ohms or nR_t , whichever is the lesser, where:

$R_t = 30$ ohm for category A structures

$R_t = 50$ ohm for category B or C structures

n = the number of down conductors connected to a common air terminal system.

After the down-conductors have been bonded to their separate earth electrodes, the earth resistance of the earth electrodes system thus connected in parallel by a common air terminal system must not exceed R_t .

The resistance of the completed system shall not exceed thirty ohms.

3.11 AIR TERMINAL CONDUCTORS

Metallic roof structures may be used as the main air terminal and subsequently bonded to down conductors accordingly. Air terminals shall be installed for non-metallic roof structures.

The air terminal conductors shall be 10mm diameter solid aluminium conductors. These shall be mounted in sturdy guides so as to prevent direct contact between the aluminium and the building structure, but permit longitudinal movement of the conductor.

The guides shall be installed at no greater than 600mm intervals. Guides shall also be installed immediately on either side of each bend.

The guides, if made of aluminium, shall be isolated from the concrete by a sturdy metal spacer.

Expansion loops shall be provided in the air terminals at approximately 15 metre intervals.

3.12 DOWN-CONDUCTORS

The down conductors shall preferably be of the same material and section as the air terminal conductors. The down conductors shall be contained in flush mounted galvanised steel conduits.

The conduits shall be installed flush into the brickwork and/or columns between the outlet points at roof height and outlet points at 500mm below ground level.

Each outlet point i.e. at roof height and below ground level, shall consist of an off set conduit protruding from the wall, fitted with a socket (threaded coupling) and blank stopper. Openings in stoppers for conductors shall be sized to the nearest clearance diameter.

The down-conductor connections to the Main Air Terminal shall be, where possible, installed in inconspicuous positions.

3.13 EARTH ELECTRODES

Supply and install 16mm diameter 1,5m long earth rod type electrodes vertically into the ground to a depth with the top 500mm below general ground level. The Electrodes are to be positioned on the sides of the building. The electrodes are to be installed 1 000mm from the building and as far as possible away from any adjacent cables and/or other metal components connected to the "Mains Earth System" for the general building installations.

NOTE: Depending on the earth continuity tests a counterpoise (horizontal ground conductor) earth system can be installed providing the cost does not exceed that of installing Electrodes and that the cost benefit is passed on to the Client.

The earth electrodes shall comprise of a copper clad steel rod at least 16mm in diameter. There shall be a molecular bond between the rod and the cladding, so as to prevent peeling or chipping. The cladding shall be of a quality and thickness as to afford protection against corrosion of the steel core after installation.

All the metal components, the Main Earth Electrodes and all extraneous metal parts are to be bonded to each other by means of 50mm² PVC insulated conductors lugged on both ends and fixed with cadmium plated bolts.

3.14 JOINTS BETWEEN DISSIMILAR METALS

Where copper to aluminium joints are required, these shall be by means of heavily tinned lugs, or ferrules of a design which excludes the possibility of direct contact between copper and aluminium. Lugs shall be secured by means of stainless steel nuts, the end of the conductor in contact with steel shall be tinned, and the clamp shall be of a material which does not promote galvanic action, such as stainless steel.

3.15 MATERIALS

All materials used shall be of the best quality and selected for the best resistance to corrosion.

3.16 TESTING OF LIGHTNING PROTECTION SYSTEM

On installation of each earth electrode for the lightning protection system, its resistance shall be measured. Additional electrodes shall be installed until the specific value has been attained.

Provide permanent testing joints between each down conductor and its associated earth conductor.

Test and submit records to the Engineer, as follows:

Earth resistance of earth conductor continuity of any trench earth continuity of overhead system by measuring between one down and each of the remaining down conductors with the earth conductors disconnected.

On completion of the lightning protection system, the resistance to earth of the system as a whole shall be measured.

3.17 WITNESSING OF TESTS

Prior to commencement of any tests, the Engineer shall be notified to enable him to witness tests should he opt to do so.

3.18 TEST CERTIFICATES

On completion of the lightning protection installation, the specialist Subcontractor shall submit test certificates covering all tests, irrespective of whether any previous test results have been submitted or not, and all such tests shall comply with SABS-0313. The Engineer shall be given 48 hours notice of such tests being carried out, and shall have the right to witness and check these tests.

PART 4E

GENERAL SPECIFICATION LIGHTNING PROTECTION

PART 4E

GENERAL SPECIFICATION LIGHTNING

PROTECTION INDEX

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PART 4E

GENERAL SPECIFICATION LIGHTNING PROTECTION

4.1 SATISFACTORY INSTALLATION

The whole of the installation shall be carried out in accordance with:

- (a) The latest SABS Code of Practice for the Protection of Structures against Lightning – SABS 0313; SABS IEC 61024 (1), & (1-2), SABS IEC 61312 (1) & (4) and SABS IEC 61662 and NRS 042
- (b) The Municipal By-Laws and any other special requirements as deemed necessary by the Local Supply Authority;
- (c) Local Fire Regulations

4.2 TEST ON COMPLETION

Upon completion of the Lightning Protection System the following test shall be witnessed by an appointed representative of the Client and the results shall be recorded on suitable test certificates which must be signed by both the Contractor and the Clients Representative. A sketch must be included on each test certificate indicating the positions of each earth electrode in relation to some permanent reference point. It must also indicate positions at which test were carried out, the type of test and the results of these.

4.2.1 EARTH RESISTANCE TEST

The resistance to earth of each rod-type electrode or group of rod-type electrodes or trench earth which would normally be connected to one down-conductor or earth terminal. This test must be made with the electrodes completely disconnected from any part of the structure or lightning protection system.

4.2.2 ELECTRICAL CONTINUITY TESTS

- (a) External Down-Conductors

Electrical continuity between the lower ends of external down-conductors which must all be disconnected from the earthing system during the test shall not exceed 1 (one) ohm.

- (b) Electrical continuity between any metallic structures of services (e.g. rainwater pipes) which form an integral part of the lightning protection system shall be carried out with all other components of the lightning protection system disconnected from the component being tested.

4.3 DESCRIPTION OF MATERIAL

4.3.1 AIR TERMINALS AND DOWN CONDUCTORS

All conductors must be in accordance with the requirements of BS 1474 or American Standards Specification 6063. All aluminium conductors shall have a cross-section area of not less than 30mm² (domestic dwelling only) or 50mm² for all other applications. The dimensions of flat section conductors to be 20mm x 3mm. Where conductors are mounted in stand-off guides the cross-section area of the conductor must be not less than 70mm² to give adequate mechanical strength.

4.3.2 CONDUCTOR GUIDES

The conductor must be mounted in aluminium alloy guides conforming with the material specification given in 4.3.1 above. The guides must allow for free longitudinal movement of the conductor to cater for expansion and contraction of the system caused by temperature variation. The minimum thickness of any part of the guide shall not be less than 3mm. The guides must be securely attached to the structure using two stainless steel screws and plugs, the use of plated screws is not permitted.

The conductor system shall be supported in guides so that an air gap exists at all times between the aluminium and the surface of the structure, the guides being seated upon plastic or other similar insulating material. Should conductors be installed directly upon the surface of concrete or cement plaster an insulating strip is to be installed over its whole length to prevent contact between the two surfaces. Guides shall be installed to support the conductor at intervals not exceeding 1,2 metres horizontally or 1,5 metres vertically.

N.B.: No Part of an aluminium conductor system must be allowed to come into direct contact with concrete or cement plaster as this may cause the aluminium to corrode.

4.3.3 EXPANSION LOOPS

Where conductors are installed horizontally without deviation from a straight line over long distances, expansion loops must be provided at distances not exceeding 30 metres. These expansion loops must have a cross-sectional area which is at least equal to that of the conductor.

4.3.4 PROTECTION OF DOWN-CONDUCTORS

Where external down conductors are installed in areas which are readily accessible to the public the lower ends of the conductors shall be enclosed in a semi-rigid insulating material. In the case of a circular section conductor this shall comprise a length of 20mm diameter PVC conduit having a length of 2 metres. This conduit shall be securely attached to the wall by means of galvanised steel saddles fixed with stainless steel screws and plugs, spaced at intervals not exceeding 1 metre. Where flat section conductor is used this shall be covered by a similar length of 25mm PVC conduit. The lower end of the conduit shall be positioned as close as practicable to ground level, i.e. immediately above an aluminium to copper joint. The ends of the conduit shall not be sealed.

4.3.5 EARTHING ELECTRODES

Earthing electrodes must consist of either copper-clad steel rods not less than 12mm in diameter and having a minimum copper thickness of 0,20mm, driven into the ground or 50mm² (35mm² for domestic dwellings) bare copper conductor buried in a trench, or a combination thereof. Where copper clad steel electrodes are used they must have a suitable bond between the steel core and copper exterior to prevent moisture ingress between the two metals. Where it is necessary to extend earth rods an electrolytically compatible, corrosion resistant, coupling device, which prevents ingress of moisture into the joint shall be used. The copper conductor below the down conductor joint shall be covered by a semi-rigid PVC conduit for a distance of approximately 200mm above ground and 400mm below ground.

4.3.6 JOINTS ABOVE GROUND

Circular section aluminium conductors shall be joined by aluminium ferrules or lugs which are securely crimped into place. Aluminium lugs must be bolted together using 10mm diameter aluminium bolts and washers. The material specification for these components must conform with that laid down in paragraph 4.3.1. Alternatively heavily tinned copper lugs and ferrules may be used. The lugs should be joined together by means of 10mm diameter copper, brass or bronze bolts and washers. Care should be taken to inhibit corrosion where dissimilar metals are used by thoroughly cleaning the surfaces of the metal before assembly and subsequently sealing the joint with an inert tenacious compound or tape.

Flat section aluminium conductors shall be joined by double rivetting, using aluminium rivets which comply with the material specification laid down in 4.3.1. Alternatively 2 x 6mm diameter stainless steel bolts, nuts and washers may be used. Fold over type bends will not be permitted.

Down-conductors are to be terminated approximately 200mm above finished ground level. Circular section aluminium is to be JOINTED to a 50mm² (35mm² in the case of domestic dwellings) stranded copper conductor by securely crimping in place two heavily tinned lugs and bolting these together using 10mm diameter copper, brass or bronze nuts, bolts and washers.

N.B.: Under no circumstances shall aluminium conductors be buried in ground.

4.3.7 JOINTS BELOW GROUND

A joint in the stranded copper conductor which forms part of the earthing system must be made by using a crimped copper ferrule (not lugs), clamping using two copper line taps of suitable dimensions or exothermic welding. The copper earth conductor must be joined to an earth rod by either clamping, using a standard earth rod clamp or copper line tap or by using a standard earth rod clamp or copper line tap or by exothermic welding. Joints which are made between dissimilar metals, i.e. copper conductor to galvanised steel water main must be thoroughly cleaned before assembly and shall be rendered watertight using waterproof adhesive tape on a suitable compound for a minimum distance of 200mm in all directions from the joint..

4.3.8 BONDS

Where it is necessary to bond the aluminium conductor to an other metallic surface this must be done by bolting or rivetting. When attaching aluminium to a dissimilar metal the joints are to be thoroughly cleaned and sealed to prevent corrosion.

4.4 GENERAL INSTALLATION PROCEDURE

4.4.1 AIR TERMINALS FOR NON-METALLIC PITCHED ROOFS

Aluminium conductors are to be installed along all ridges of roofs and projections such as dormer windows, etc., terminating at the ends with conductors running downwards over the surface of the roof and the eaves. Non-metallic chimneys must be protected by means of a finial of sufficient length to cover the chimney within a 45 degree angle struck downwards from its point. Alternatively it should have a conductor installed in the form of a closed loop upon the upper surface. The conductors are to follow the outer contour of the stack and must be bonded at a convenient point to the nearest component of the air terminal system.

N.B.: This bond may run in a horizontal or downward direction but under no Circumstances must any part of it run above horizontal.

Conductors may be dead-ended, i.e. have one end free and unbonded, providing that the length of such a conductor does not exceed 10 metres and that the unbonded end is either at the same level or higher than the bonded end. This technique may be used where ridge conductors are installed over dormer windows, etc.

In all cases where metallic gutters have been installed along the eaves of a pitched roof, these must be bonded to the air terminal system. Where metallic gutters do not exist, however, a conductor must be installed over surface of the roof at eaves level to which the remainder of the air terminal system is bonded, with the following exceptions:

- (a) Where the maximum distance from ground level to the eaves of the building is less than 4 metres and the pitch of the roof is more than 1 in 2. (27 degrees from the horizontal).
- (b) Where the maximum distances from ground level to the eaves is less than 7 metres and the pitch of the roof is more than 1 in 1,5 (34 degrees from the horizontal).
- (c) Where the distance from the ground level to the eaves is more than 7 metres and the pitch of the roof is more than 1 in 1, i.e. the included angle at the apex of the roof is less than 90 degrees.

Under these circumstances eaves conductors need not be installed.

Any non-metallic objects which protrude above the general roof lines such as Cape Dutch gable ends must be protected as described above with a suitable air terminal system. Any metallic objects which protrude above the general roof line, such as hot water expansion pipes must be bonded as directly as possible to the nearest eaves conductor, gutter or other part of the lightning system.

N.B.: These bonding conductors must run in a horizontal or preferably a downward direction, from the vent pipe, etc., to the lightning protection system.

4.4.2 AIR TERMINALS FOR METALLIC PITCHED ROOFS

Buildings with roofs covered with electrically continuous metal sheets do not require separate air terminals but must be earthed via down conductors generally as described in 4.4.6 and 4.4.7. Any non-metallic objects projecting above the general roof line must be separately protected as described in 4.4.1 and bonded to the metal roof covering.

4.4.3 AIR TERMINALS FOR NON-METALLIC FLAT OR MONO-PITCHED ROOFS

For flat or mono pitched roofs of non-metallic construction the air terminal system must consist of aluminium alloy conductors installed around the outer perimeter of each section of the roof structure. These conductors must be installed on top of parapet walls if these exist. Lift motor rooms, tank rooms, penthouses, etc., which protrude above the general roof line must have air terminal conductors installed around the outer perimeter of each roof slab or parapet wall. Any non-metallic objects which protrude above the roof line, such as expansion pipes, signs, flag poles, handrails, etc., must be bonded directly to the nearest component of the lightning protection system as described in 4.4.1.

N.B.: It is not permissible for the ends of conductors to be bonded directly to the perimeter air terminal system if the latter is installed upon a parapet wall having a height exceeding 500mm above roof slab level. In these circumstances the conductors are to be bonded directly to the down conductors.

4.4.4 AIR TERMINALS FOR METALLIC FLAT OR MONO PITCHED ROOFS

Metallic flat or mono pitched roofs do not require separate air terminal conductors, providing that there is electrical continuity between the metallic roofing sheets (see 4.4.2). A metallic roof surrounded by a non-metallic parapet wall shall have conductors installed at the top of the parapet wall and these must be bonded to the metallic roof at intervals not exceeding 20 metres.

If the parapet wall is clad with metal over its upper surface or a handrail is installed which affords good electrical continuity, separate air terminal conductors need not be installed. Under these circumstances the metal handrail or cladding must be bonded to the metal roof covering at intervals not exceeding 20 metres.

A non-metallic covering such as slates, tiles, asbestos cement sheeting, etc., supported by a steel structure being electrically continuous throughout may be treated as being of a complete metal construction. In these circumstances no separate air terminal system need be installed providing the steel roof structure is bonded to earth at intervals given in 4.4.5.

4.4.5 DOWN CONDUCTORS FOR NON-METALLIC STRUCTURES

Down conductors must be installed at regular intervals around structures and to run as directly as possible between the air terminal and earthing systems. They must where practicable be positioned at the external corners of the structure. The maximum separating distance between down conductors around the perimeter of the structure must not exceed 30 metres. In the case of very tall buildings having a slender base, i.e. chimney stacks, water towers, etc., a minimum of two down conductors must be installed.

The lower ends of down conductors are to be terminated and bonded to the earthing system approximately 200mm above finished ground level. Under no circumstances must aluminium conductor be buried underground. Test joints must be provided between the down conductors and earthing system. Down conductors must run vertically between the air terminal and earthing systems. Where this is impracticable, their course may be deviated to run at any angle up to and including horizontal. Where it is necessary to run conductors horizontally over the upper surface of a structural protrusion such as an exposed concrete slab, the conductor may run down vertically over the edge of the slab and return to the main structure so that the distance between the upper and the lower conductors exceeds one third of the length of the horizontal run. Loop down conductors are not permitted. Down conductors must not run over the underside of large overhangs which are less than 6 metres above ground level or other areas where people are likely to be present during a thunderstorm.

External or internal metallic rainwater pipes may be used as down conductors providing these are of substantial section and are jointed by screwing one length into another or welding. Thin gauge galvanised steel pipes whose sections are held together by friction, rivets or screws must not form part of a lightning protection system.

4.4.6 DOWN CONDUCTORS FOR REINFORCED CONCRETE FRAMED STRUCTURES

The steel reinforcement of this type of structure may be used in place of down conductors. Where the reinforcing system is used the air terminal system must be bonded to it at a maximum of 30 metre intervals using steel clamps. This bond may be achieved by clamping, with a steel clamp, a steel conductor to a selected reinforcing bar, the opposite end of this conductor must terminate at a corrosion resistant metallic terminal such as Grade 316 stainless steel.

The reinforcing system of prefabricated concrete buildings must not be used unless special provision is made for bonding the various prefabricated sections together. The terminals should be mounted flush with the face of the concrete.

An aluminium alloy bond must then be taken from the air terminal system and be connected to the stainless steel terminal by means of a heavily tinned crimp lug for circular section aluminium, or a suitable be-metallic joint in the case of flat section aluminium. A similar system must be used to bond the reinforcing system at ground level to the earthing system at points directly below the air terminal bonds. Here copper conductors must be used as the external bonding material. Under no circumstances must copper or other non-ferrous material be allowed to come into contact with steel reinforcing bars as this may cause severe corrosion and subsequent structural damage.

The lightning protection system must not be bonded to any part of the structure which is electrically isolated from the remainder of the building i.e. cantilevered sections. In these circumstances or where it is otherwise impracticable to use the reinforcing system, external down conductors must be installed as described in 4.4.5.

4.4.7 DOWN CONDUCTORS FOR STEEL FRAMED STRUCTURES

Where the framework of a building is constructed of structural steel columns, these may be used in place of down conductors providing the separating distance between them does not exceed 30 metres. The upper systems and the lower ends to be linked to the earthing system.

4.4.8 EARTHING BY MEANS OF VERTICALLY INSTALLED ROD-TYPE ELECTRODES

Rod-type electrodes must be driven into the ground at a position directly below each down connector. The maximum earthing resistance of each electrode or number of electrodes bonded to any one down conductor shall not exceed $N \times 30$ ohms where N equals the total number of down conductors which are bonded to a common air terminal system or 200 ohms whichever is the lower value.

The minimum horizontal separating distance between rod-type electrodes bonded together must not be less than their installed depth.

The upper ends of installed rod-type electrodes are to be terminated Approximately 500mm below finished surface level. A 50mm² copper bonding conductor must be installed to run between each earthing electrode system and the lower ends of the adjacent down conductors. A joint is to be made between each of these bonding conductors and the down conductors at a position approximately 200mm above finished ground level. These bonding conductors must be installed in PVC conduit must be approximately 600mm and must be installed so that approximately 200mm protrudes above ground level, the remainder being buried into the soil.

4.4.9 EARTHING BY MEANS OF METALLIC WATER MAINS

Where two or three down conductors are installed the water mains may serve as an earth terminal for one of these. Where three or more down conductors are installed the water mains may serve as an earth terminal for two of these. Regardless of whether the water mains are used as an earth terminal or not, the incoming metal water pipe must be bonded to the lightning protection earthing system underground.

4.4.10 EARTHING BY MEANS OF TRENCH TYPE ELECTRODES

Where soil conditions prevent the satisfactory installation of rod-type electrodes, a trench earth system must be installed. This method is to comprise of a 50mm² stranded copper conductor installed horizontally into a trench at a depth of 500mm below finished ground level. The conductor is to follow the general outline of the structure to be protected and be installed 1 metre away from the outside walls. Where the building stands on rocky ground, the trench earth may be attached to the lower part of the wall in areas where rock protrudes through the soil. The conductor must, however, be buried wherever possible as described above.

Each down conductor must be bonded to the trench earth system as directly as possible by means of copper conductor.

Trench earth systems must have a maximum earth resistance of 30 ohms. An isolated length of trench earth mat must be bonded to the down conductor system in such a way as to reduce the length of dead-ends to a minimum.

Should trench earths be installed beneath pathways where people are likely to be present during a thunderstorm, a plastic, bitumiastic or ceramic pipe must be installed having a length similar to the width of the pathway and the trench earth conductor run inside it.

N.B. The maximum useful length of a dead-end trench earth is 80 metres.

PART 5E

Schedule of Materials

PART 5E

SCHEDULE OF MATERIALS

This schedule shall be completed in full at time of tender.

The schedules will be scrutinized by the Engineer and should any materials offered not comply with the requirements contained in the specification, the Contractor will be required to supply material in accordance with the contract at no additional cost to the client.

NB: Only one manufacturer's name to be installed for each item.

1. GENERAL ELECTRICAL

Item	Material	Make or Trade Name	Country of Origin
1	Distribution boards		
2	On load isolators without trips		
3	Earth leakage units, without overload		
4	Circuit breakers: 1P; 2P; 3P		
5	Contactors		
6	Light switches (flush type)		
7	Socket outlets (flush type)		
8	Socket outlets (power skirting type)		
9	Fan & air con. isolators		
10	Geyser isolators		
11	Daylight switches		
12	Weather proof draw boxes		
13	Power skirting		
14	PVC trunking		
15	Metallic Trunking		
16	Cables: Cu conductor pvc/swa/ecc/pvc		
17	Cable glands		
18	Cable Tray		
19	5 Amp unswitched socket outlets		
20	Light fittings: Type A		
21	Type C		
22	Type D		
23	Type E		
24	Type F5		
25	Type FD		
26	Type FL		
27	Type HB		
28	Type X		
29	Type Y		
30			

CONTRACTOR :

SIGNED :

DATE :

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PART 1: STANDARD SPECIFICATION

1 GENERAL AND STANDARD TECHNICAL SPECIFICATIONS

1.1 General

1. The installation described in this document shall comply with various standard specifications and requirements as well as the Project Specification or Supplementary Technical Specification.
2. The Project Specification (Part 2) shall be read as forming part of the standard specifications. Where there is any discrepancy between the Project Specification and the standard specifications, the Project Specification (Part 2) shall have preference. The Tenderer shall immediately enquire about such discrepancy.

1.2 Specifications and Drawings

The Engineer's drawings covering the various sections of the installation have been provided with the tender document. The working drawings of the contract shall, however, consist of:

1. The Engineer's drawings
2. The Architect's drawings
3. The Structural Engineer's drawings, as applicable
4. The Engineer's drawings of other disciplines, as applicable
5. The drawings of other service installations that are relevant for co-ordination and installation purposes
6. The installation drawings of other Contractors, where applicable.

Unless otherwise stated, three sets of the Engineer's Drawings, Specifications and schedules (if any) and one set of 1.2 will be issued free of charge to the contractor for installation purposes.

Provisions are made in the building structure to accept the specified installation.

The Contractor shall supply to the Engineer three copies of marked-up structural, or other drawings showing all builders work and/or additional requirements to be made in the structure in order to fit in dimensions of apparatus and materials to be installed by him. This information to be supplied in accordance with a programme mutually agreed upon by the Contractor and the Engineer.

Copies of shop drawings, as prescribed in Part 2 hereof, shall be submitted to the Engineer for approval and to demonstrate compliance with the contract documents. Shop drawings are drawings, diagrams, illustrations, schedules, performance charts, brochures and other data which are prepared by the Contractor, manufacturer, supplier or distributor, and which illustrate relevant portions of the work.

The Engineer's approval of shop drawings or samples is limited to check conformity with design requirements and shall not relieve the Contractor of responsibility for erection or installation fit, or for any deviation from the requirements of the contract unless the Contractor has informed the Engineer in writing of such deviation at the time of submission of shop drawings or samples, and the engineer has given written approval for the specific deviation. The Engineer's approval shall not relieve the Contractor of responsibility for erection or installation fit or for errors or omissions in the shop drawings or samples.

The Engineer's drawings and specifications shall be considered binding with regard to the quality, quantity, general scheme, system, arrangement and function of the Contract works. All dimensions specially marked on the drawings shall be strictly followed.

During the execution of the work one of the sets of prints of drawings as mentioned in 1.2 above, and a specification shall be available for reference on site. Any discrepancy between the Drawings and the Specification and/or Schedules shall be drawn to the attention of the Engineer immediately such discrepancy is discovered.

Upon or before receiving final payment, the Contractor shall return to the engineer all such documents bearing the Engineer's name as have been stipulated to be returned. None of the documents herein before mentioned shall be used by any of the parties hereto for any other purposes than this contract and neither of the parties shall divulge or use, except for the purpose of this contract, any information contained in these documents. A deposit may be charged by the Engineer for possession of the specification documents. This deposit will be refunded upon the return of the documents.

1.3 Installation – General

1. The equipment mentioned in this specification shall be installed complete in all respects by the Contractor for this complete contract as specified in this Specification and as indicated on the relevant drawings.
2. Water and drainage connections (if required) will be provided as part of this contract to all equipment requiring connections. Fittings for final connections from these points to the equipment supplied shall form part of this contract.
3. Electrical connections will be provided for all electrically operated equipment to a specific point in close vicinity (2 m) of all items of equipment. The material for the final electrical connections from these points to the various items of equipment and the final connection itself, shall form part of this contract.
4. All equipment mentioned in this specification must be completely pre-wired and pre-piped in the manufacturer's works to form complete units, which shall be ready for installation on arrival on site.
5. All equipment shall be suitable for operation on an electrical power supply of 400/230 V, single/three phase, 50 Hz alternating current.
6. All equipment and the installation thereof, must conform to the Occupational Health and Safety Act of 1983, as amended, with special reference to pressure vessels.
7. All electrical equipment, installations and wiring must conform to the regulations governing such work. All conduits, control panels, control wiring, etc. are to be recessed.

1.4 Metric Calibration of Instruments

All instruments and gauges on all items of equipment shall be in the SI unit metric system.

1.5 Painting

The paintwork of all equipment, which is damaged during the course of the erection and installation and prior to acceptance, must be satisfactorily made good by the contractor(s).

1.6 Information to be provided with the tender

1. Tenderers are required to enter at the time of tender in the Schedule of materials the manufacturers of the materials and equipment, on which their tender is based, and the catalogue numbers and other information by which the materials and equipment may be identified. Sufficient details must be given to enable the unit concerned to be identified without ambiguity. It is not sufficient for a Tenderer to state in the schedules "as specified".
2. All tender offers must be supported with descriptive literature and technical data for each item of equipment offered.

1.7 Commissioning and testing

The commissioning and testing of each item of equipment and system is the responsibility of the contractor concerned with the supply, delivery and installation of the particular items of equipment and systems. All final testing shall be carried out in the presence of the engineer and all tests shall be to his satisfaction.

Recognised and statutory test procedures shall be carried out on all equipment.

1.8 Approval of equipment

All equipment offered must be of an approved and well-known manufacture. Only equipment of proven manufacture and quality will be considered.

1.9 Material

Where stainless steel is specified, this shall mean "chrome nickel steel" type 304 18/8 grade. Lower grades of steel will not be acceptable.

1.10 Dimensions

The dimensions specified are maximum measurements, which must not be exceeded.

Tenderers must ensure, wherever possible, that the dimensions of equipment offered can be accommodated within the spaces provided and as scaled from the drawings. This requirement is essential for the matching of associated equipment and the building layout.

A workshop drawing indicating equipment layout for each building as well as all relevant dimensions shall be submitted for approval before manufacturing shall commence.

1.11 Trade Names

Where trade names are indicated in this specification, it should be clearly understood that such trade names are never mandatory but merely assist to identify the quality and performance of the article required by the Department.

The tenderer is therefore at liberty to provide his own choice of article provided that the article is of equal quality and performance as the named article.

Quality refers to:

- The value of the article:
 - sturdiness/solidity in make
 - composite materials
 - aspect (appearance)
 - size or volume (if important)
 - price

Performance refers to:

- The output of the article;
 - economical use
 - tamper resistance
 - of article itself
 - of its fixation
 - maintenance
 - cost of
 - ease of
 - accessibility for

Where a trade name is mentioned, it does not imply that the named article complies with the specification in all respects. It is the responsibility of tenderers to verify that equipment and/or materials offered complies with all specification requirements and is capable to perform the required duties.

1.12 The following Standard Specification as issued by the Department of Public Works, although not bound in this document, is applicable:

- Electrical Installation and Equipment pertaining to Mechanical Services, Issue IX 1998.
 - SABS 460 : Copper and Copper alloy tubing
 - SABS 455 : Covered electrodes for the manual arc welding of carbon and carbon manganese steels
 - SABS 044 : Welding : Parts 1 to VII
 - SABS 0238 : Welding and thermal cutting processes – Health and safety
 - SABS 763 : Hot-dip (galvanised) zinc coatings (other than on continuously zinc-coated sheet and wire)
-

- SABS ISO 3573 : Continuous hot-dip zinc-coated carbon steel sheet of commercial, local forming and drawing qualities.
- SABS 0214 : The design, fabrication and inspection of articles for hot-dip galvanising.
- SABS 1186-1 : Symbolic Safety Signs Part 1: Standard signs and general requirements.
- OHS ACT : The Occupational Health and Safety Act, Act 85 of 1993.

PART 2 PROJECT SPECIFICATION

2 PROJECT SPECIFICATION

2.1 General

In this document where the term “Main Contractor”, Building Contractor”, “Builder” or “Sub- Contractor” is used, it shall mean the Contractor appointed in terms of this document.

1. 2 Applicable documents and Drawings

The supply and installation of the mechanical systems are subject to the following documents forming part of this specification:

- 1 Part T1 - Tender Procedure
- 2 Part T2 - Returnable documents
- 3 Part C1 - Contract data
- 4 Part C2 - Scope of Work
- 5 Part C3 - Pricing Schedule
- 6 Part C4 - Drawing schedule
- 7 The Occupational Health and Safety Act, Act No. 85 of 1993.
- 8 The latest issue of SABS 1091: “national colour standards for paint”.
- 9 SABS 044 1963 as amended, Welding parts I-VII.
- 10 SABS 1S0 9000 to 4, Quality Management and Quality Assurance Standards.
- 11 The Department's Standard Specification for the Electrical Equipment and Installation for Mechanical Services, as amended.
- 12 The Contractor shall note that all relevant clauses of all applicable standard specifications not specifically mentioned herein, shall also apply.
- 13 All specifications as listed in Part IV
- 14 SABS 0238: Welding and thermal cutting processes – Health and safety.

2.3 Scope of Contract

This contract consists of the supply, delivery, installation and handing over in working order of the following at the Gasegonyana Municipal Offices & Town hall.

- Ventilation and Air conditioning Systems

his part of the specification shall be considered supplementary to the standard specifications as

All information in t described in Part 1 of this document, and shall be read as forming part of same.

2.4 Design condition and parameters

a) Ambient Conditions

Equipment should operate normally and deliver the specified capacities at the following ambient conditions:

- 1.1 Altitude..... ± 1337 m
- 1.2 Summer Ambient..... 33°Cdb and 20°Cwb
- 1.3 Winter Ambient..... : -1.0 °Cdb and -1.61°Cwb

- b) The power supply on site shall be a three-phase/single phase supply, with nominal voltage of 400 / 230 V – 50 Hz.

2.5. General requirements

a) Site Supervision by Subcontractor

The Subcontractor is responsible for supervision on this contract. A complete CV of the person responsible for the site supervision shall be submitted to the Engineer. The Engineer may require an interview with the proposed supervisor. The final choice of the supervisor shall not in any way alter the final tender amount on this subcontract.

The Subcontractor shall replace the supervisor at his own cost if the aforementioned supervisor is unable to perform his duties satisfactorily.

The submission of the supervisor's CV is required only after the Subcontractor has been appointed.

b) Standard Specifications

Refer to Part 1. The mechanical installations as described in this document shall conform to all the standard and SABS specifications as listed in Part 1.

2.6 Submissions by Subcontractor

- (i) Submissions with Regards to Equipment
- (ii) The Subcontractor should take note that all equipment selections approved (or not rejected) by the Engineer shall not free the Subcontractor to comply with the specification.
- (iii) The following information with regards to equipment selections shall be submitted to the Engineer:
 - Manufacture, name and model
 - Motor capacity
 - Power consumption
 - Diagrams, tables, and graphs to explain the functioning of equipment, where applicable
 - Applicable pamphlets or catalogue information
 - Name and address of manufacturer and/or distributor
 - Number of years that equipment is available in RSA
 - Any other relevant information required by the Engineer.
- (iv) The above submissions are required after appointment of the Subcontractor and in accordance with the requirements of the main contract programme. The following submissions are required:
 - Ceiling sweep fans
 - Ventilation fans
 - Split type a/c units
 - Door Grilles, louvres
 - Other equipment required as indicated by the Engineer
- (v) Marked-up Drawings and Shop Drawings
Refer to Part 1. The subcontractor shall submit three copies of the builders work drawings and three copies of the workshop drawings to the engineer for approval before installation can commence. The workshop drawings shall consist of the following:

- Equipment layout and sections including ducting layout and sections where applicable
- Piping layout and sections and piping schematic drawings
- Electrical wiring and control circuits
- Builders work drawings

1. The Contractor shall be responsible for any discrepancies, errors or omissions in the drawings and information supplied by him, whether they have been approved by the Engineer or not, provided that such discrepancies, errors and omissions are not due to incorrect drawings or inaccurate information furnished to the Contractor in writing by the Employer or Engineer.
2. The Contractor shall, at his own expense carry out alternations or remedial work necessitated by reason of such discrepancies, errors or omissions for which he is responsible and modify the drawings and information accordingly, or, if the same be done by or on behalf of the Employer because of the Contractor's failure to undertake the same, the Contractor shall bear all costs reasonably incurred therein.
3. The successful Subcontractor shall verify that provision have been made for all openings, wooden frames, sleeves, plinths, electrical distribution boards, conduits, etc., as described above and that such openings, frames, etc. are in the correct position before any concrete casting or building work is done.

(vi) Installation Fit

Refer to Part 1, Clause 1,2

(vii) Supports

Refer to Part 1. No supports for the gas piping are shown on the drawings. The Subcontractor shall allow for sufficient supports.

(viii) Wooden and Steel Frames and Sleeves

Refer to Part 1

(ix) Samples to be Supplied

- i. Grilles
 - ii. Ceiling sweep fan
-

iii. The Subcontractor shall be informed at a later stage if any other samples are required.

(x) Local Altitude

All specified capacities are based on site conditions

(xi) Performance of Systems and Equipment

The system, equipment and layout designed by the Engineer shall conform to his requirements with regard to installation and performance and in accordance with the Specification. This suggests that the performance of the equipment in the system supplied and installed by the Subcontractor, shall be in accordance with the design and performance figures as published by the manufacturers and/or suppliers.

The efficiency of the design of the specified system is not the responsibility of the Subcontractor. It is, however, the responsibility of the Subcontractor to see to it that the quality of the workmanship and the installation of the equipment shall conform to the requirements of the Engineer and to the satisfaction of the supplier/manufacturer.

It is furthermore accepted that the Subcontractor has assured himself that all equipment supplied and installed under this contract, shall perform within the given limits, as stated by the supplier/manufacturer, to conform to the specification.

(xii) Protection, Cleaning, Adjustments, Commissioning, tests and Operating Maintenance Manuals

- i. The Subcontractor shall be responsible for the running of the installation, including the maintenance and replacement of worn parts, from the start-up date until it is handed to the Owner.
- ii. The Subcontractor shall allow for 12 months of complete maintenance on the installation after the installation has been handed over to the Owner.
- iii. The Subcontractor shall explain fully, in the presence of the Engineer, the working of the system to the Owner or his representative.

(xiii) Guarantee

The Subcontractor shall guarantee all material, equipment and workmanship for a period of twelve (12) months. The guarantee shall commence from the day the system is considered complete and in good working order by the Engineer, i.e. from first hand over.

The installation as a whole shall be guaranteed against faults caused by shortcomings in the design and equipment, excluding design faults by the Engineer. Normal wear and tear is also excluded from the guarantee. The guarantee shall make provision for the replacement of defective parts and fittings during the guarantee period without any cost whatsoever to the Main Contractor, Engineer and Owner. Poor workmanship shall be rectified free of charge. The Subcontractor shall cede the remaining part of the guarantee, if any, after the twelve-month guarantee period to the Owner.

The sub contractor shall allow for extension in the guarantee of any equipment if any such equipment is not guaranteed by the supplier for twelve (12) months after the first hand over.

2.7 Ventilation and Airconditioning Installation

a) General Ventilation Fans

Refer to Part 1 for the Standard Specification for Airconditioning and Ventilation installations.

Ventilation fans i.e. toilet extraction fans and ceiling sweep fans shall be installed as indicated on the drawings. All capacities shall be as indicated on the drawings.

The contractor shall be responsible for calculating the final fan pressure requirements, based on the final equipment selection and the final equipment/ducting layout. Pressures indicated are estimates for pricing purposes only.

Fresh air and exhaust air fans shall be supplied with sound attenuators as indicated on the drawings.

The toilet extract fans shall be interlocked with the light switches as part of this contract.

Ceiling sweep fans shall be provided with three speed controllers mounted as indicated. Wiring to controllers shall be installed neatly in conduit.

It is the contractor's responsibility to ensure that all openings (window or wall) are clearly marked out to enable the builder to provide same. Builders work drawings shall be submitted timeously as described elsewhere.

All fans shall be complete with sleeves, resilient mountings, flanges, feet, shutters wiring, control, etc. as may be required.

b) Kitchen Canopy and Exhaust Fan

The kitchen canopy shall be provided and installed in the position as shown.

- i. The canopy shall be manufactured entirely from 0,9m AISI 304 stainless steel with 240 grit finish. The canopy shall be manufactured in sections riveted or bolted together. The insides of the canopy shall be smooth and free from crevices or standing seams to facilitate easy and thorough cleaning. Horizontal and vertical sheets shall be cross-braced and stiffened to prevent warpage or vibration. The canopy shall be complete with hangers, ducting, fans, attenuators and on/off isolators next to the fan. The canopy fan shall have a two speed control. The control panel shall be installed in the office in the kitchen as indicated.
- ii. The canopy shall be fitted with stainless steel guttering not less than 90mm wide and 40mm deep and shall be sloped so that the water condensate will drain through a 25mm socket with removable screw type plug. The insides of the guttering shall be free from any obstacles so as to facilitate cleaning.
- iii. The canopy shall be supported 2400 mm from floor level. Removable drip trays manufactured from stainless steel shall be provided underneath the filters. All small openings, joints and holes where fat can accumulate shall be filled with an approved polyurethane sealer. No welding or drilling of structural beams or roof trusses for fixing of supports will be allowed.
- iv. Calculation of final fan pressure shall be done by the Contractor.
- v. The canopy shall be provided with an exhaust duct manufactured from 0,9mm thick galvanised steel.
- vi. The canopy shall be fitted with grease filters. Grease filters shall be of good quality and high efficiency. Filters shall be installed along the entire length of the hood in V-formation. The housing shall be manufactured from 0,9 m AISI 304 stainless steel.
- vii. Lighting consisting of 1200mm long twin vapour lume fluorescent polycarbonate light fittings shall be installed along both longitudinal sides of the hoods. The lights shall be vapour proof and shall be installed flush with the inside of the hood and sealed off so that the inside is smooth and easily cleanable.
- viii. Fan capacities shall be based on a face velocity of not less than 0,5 m/s across the face area of the canopy. The fan shall be direct driven by a totally enclosed fan cooled motor with class IP45 insulation. Fan speed shall not exceed 1440 rpm. Heavy duty flame retardant flexible connections shall be provided between fans and ductwork.
- ix. Sound attenuators shall be provided as indicated on the drawings. The acoustic media in each sound attenuator shall be protected against the ingress of fat and moisture. Maximum sound levels inside the kitchen shall not exceed NC 35.
- x. Canopy supports form part of this installation. The method of canopy support shall be submitted to the engineer for approval.

1. Kitchen Ventilation System Schedule

Description	Capacity	Estimated Press Drop (Pa)	Comments
Cooking exhaust	9720 l/s	370	Ducted System
Store Extract	110 l/s	120	Ducted System

2. Ventilation System Schedule

Description	Location	Capacity (l/s)	Estimated Press Drop (Pa)	Comments
Toilet Extract (E.A.F. 03)	Administration	236 l/s	110	Ducted System
Toilet Extract (E.A.F. 04)	Library	180 l/s	110	Ducted System
Toilet Extract (E.A.F. 05)	Computer lab Block X ground floor	180 l/s	110	Ducted System
Toilet Extract (E.A.F. 06)	Computer lab Block X first floor	180 l/s	110	Ducted System
Toilet Extract (E.A.F. 07)	Computer Lab Block C	420 l/s	120	Ducted System

3. Split type air conditioning units

- Refer to Clause 4.1.0 of the Department of Public Works Standard Specification for Air conditioning and ventilation installations. Clauses 4.1.2, 4.1.3 and 4.1.4 are not applicable.
- Split type air conditioning units shall be installed in the positions as indicated on the drawings. The units shall be of the high wall mounted type as indicated. All units shall be of the heat pump type.
- It is essential that the contractor allow for the proper de-rating of the units for refrigerant pipe length, altitude and design conditions.
- Refrigerant pipe routes as indicated on the drawing are only schematic. Final routes shall be determined and co-ordinated on site by the contractor. Refrigerant pipe work shall be insulated as per the Department of Public Works Standard Specification, Clause 4.1.1.5 and 4.1.5.6.

All refrigerant piping shall be installed in galvanised trunking and shall be painted white where visible. Refrigerant circuit shall furthermore comply with Clause 4.29 of the Department of Public Works Standard Specification.

- Condensate drain piping shall be chased into walls and shall terminate at points as indicated. Final connection of condensate pipes to drain pipes form part of this contract and the contractor shall make due allowance for all required fittings.
- Drip pans shall be provided as per Clause 1.1.6 of the Department of Public Works Standard Specification.
- All split units shall be of the wireless remote control type or alternatively of the hard wired remote type. In the latter case, the wiring shall be installed in conduit and the control shall be mounted at eye level. Final positions of controls are to be co-ordinated on site. If unit controls are hard wired then the contractor shall allow for 10 m of wiring per unit. Refer to Clause 4.1.5.5 of the Department of Public Works Standard Specifications. No joints will be allowed in the control wiring.
- Condensing units shall be installed against the walls using galvanised steel frameworks. All steel brackets, mounting plates, etc form part of this contract.
- The following units shall be installed:

(i) Kitchen area

Area	Cooling Capacity kW		Heating Capacity kW	Type	No of
	Total	Sensible			
Dietician/Supervisor	3.0	2.8	2.1	High wall	1
Day Store	1.7	1.7	0	High wall	1

(ii) Administration Block

Unit Reference	Cooling Capacity kW		Heating Capacity Kw	Type	No of
	Total	Sensible			
Admin Plant (VRF Heatpump)	106.5	103	119.5	Heat pump	1
CC1	10.6	8.46		Ceiling Cassette	2
CC2	6.74	6.44		Ceiling Cassette	1
CC3	2.48	2.18		Ceiling Cassette	1
CC4	3.72	3.50		Ceiling Cassette	1
CC5	2.84	2.62		Ceiling Cassette	1
CC6	2.77	2.62		Ceiling Cassette	1
CC7	3.68	3.45		Ceiling Cassette	1
CC8	2.25	2.10		Ceiling Cassette	1
CC9	12.1	11.0		Ceiling Cassette	1
CC10	14.1	13.3		Ceiling Cassette	1

4. GRILLES

Aluminium door and transfer grilles shall be provided and installed as indicated on the drawings. The grilles shall be natural anodized Aluminium.

5. DUCTING

Ducting shall be installed as per the Departments Standard Specification for Air conditioning and Ventilation Installations.

6. ELECTRICAL INSTALLATION**1 Electrical Installation**

- The electrical installation shall conform to the Departments Specification for Electrical Installations and Equipment Pertaining to Mechanical Services.

The electrical installations shall furthermore comply with the OHS Act and with all local government rules and regulations.

The electrical installation shall be inspected by a representative from the Department.

- Connecting up with electrical supplies (provided by others) forms part of this contract. Making of and all sleeves, connectors, isolators, etc. form part of this contract, including the actual connecting to the electrical supply.

2 Controls

- Toilet ventilation fans shall be interlocked with light switches.
- Ceiling sweep fans shall be provided with three speed controllers, installed in positions as indicated.
- Split type a/c units shall be provided with hard wired controls.

7. Tools

All special tools required which may be specially designed for the particular equipment offered, must be supplied and listed in the tender and included in the unit price.

8. Builders work

- All builders work shall form part of this contract. Builders work drawings shall be submitted within four (4) weeks after the contract starting date.

- 2 Casting of new plinths, cutting/drilling through walls, slabs, etc., making good thereof, painting, etc., shall form part of this contract.
- 3 No chopping through walls, floors, etc., shall take place without prior permission from the Engineer.
- 4 Hoisting, rigging and loading off of equipment, shall form part of this contract. Making good and repainting of gates, walls, floor, etc. damaged during the course of rigging procedures, shall also form part of this contract. Scaffolding shall be provided where required as part of this contract.
- 5 Making good of all openings in walls, floors, etc., form part of this contract.
- 6 Plinths are to be constructed using reinforced steel to Supplier's requirements. All plinths must be provided with a galvanised angle iron frame.

9. Noise levels and vibration

Refer to Clause 3.15.0 of the Department of Public Works Standard Specification for Air conditioning and Ventilation Installations.

Offices: Noise levels shall not exceed NC35 inside buildings.

Library: Noise levels shall not exceed NC25 inside buildings.

10. Painting and Identification markings

Refer to Clause 3.13.0 of the Department of Public Works Standard Specification for Air conditioning and Ventilation Installations.

- Visible galvanised trunking and brackets shall be painted white.
- All other equipment shall be factory painted. The colour of toilet fans and ceiling fans shall be white.
- All grilles and louvres shall be natural anodised aluminium.

11. Operating manuals, Maintenance Manuals , Wiring Diagrams and Control Diagrams

- a) The Subcontractor shall submit to the Engineer, for his approval, a complete operating and maintenance manual before first delivery. The manual shall be complete with final layout drawings, wiring diagrams, control diagrams, and shall be made up as follows:
 - System description
 - Detailed equipment description
 - Operating instructions
 - Trouble shooting procedures
 - Preventative maintenance schedule
 - Maintenance instructions for each item of equipment
 - Recommended spare parts list.
- b) Four operating and maintenance manuals shall be submitted at final hand over. As built drawings shall be supplied in electronic format (Autocad) on CD, in addition to the hard copies in the O & M Manuals.

12. Training

The Contractor shall provide instructors to train the Clients service personnel. These instructors shall be available for a total period of three (3) working days (eight hours per day) after the systems have been commissioned and handed over to the Client before the training commences.

13. Maintenance

The Subcontractor shall be responsible for all preventative and other maintenance and for consumable minor materials required for maintenance such as lubricants, etc., from the time the installation is scheduled for operation until the system is handed over to the Owner and thereafter for a maintenance period (12 months) as detailed in the Standard Conditions of Contract.

14. Maintenance contract

Prior to the expiry of the maintenance period mentioned above, the Subcontractor shall offer a maintenance contract as required to maintain the installation in a satisfactory working condition. The maintenance contract shall preferably be offered prior to the acceptance of the installation.

15. Time for completion

All work must be completed in a minimum period of time. The contract period shall be six months.

All mechanical work shall be completed concurrently with the building.

The Engineer will assist the Subcontractor with any queries that may arise in the course of the contract, but he will not hold himself responsible for any delays caused in the execution of the contract. The Subcontractor is held responsible for the delivery of his complete assignment on the stipulated date. The installations are to be handed over complete and in full working order to the Engineer after the stipulated and specified tests have been successfully carried out.

**FIRE PROTECTION SYSTEM
SPECIFICATION
GASEGONYANA MUNICIPALITY
TOWN HALL & OFFICES**

FIRE PROTECTION SPECIFICATION

SECTION	DESCRIPTION	PAGE
1	General	3
2	Fire water piping	9
3	Fire hydrants and fire hose reels	15
4	Fire extinguishers	17
5	Signage	18
6	Evacuation chairs, Fire sealing	19

SECTION 1: GENERAL

1. GENERAL

This technical specification shall be read in conjunction with the project drawings.

Conflicts, errors or discrepancies found in this specification or drawings shall be brought to the Engineer's attention for resolution before tender stage.

Any deviations from the specifications, drawings and/or equipment specified shall be listed together with the alternatives offered and shall be submitted as part of the tender. If no deviations are listed, it will be assumed that the Tender comply with all the relevant technical parts of this specification.

All installations shall be complete in all respects and the Contractor shall allow for the completion and successful operation of the complete installation, irrespective of whether every separate item is specified or not.

2. THE SITE

The site is situated in Gasegonyana Municipal Offices, KURUMAN, South Africa.

Tenderers are advised to visit the site and acquaint themselves with the nature and extent of the work involved before submitting their tenders.

3. COMPLETION DATE

The Contractor will be required to keep up with the main contract in accordance with the main Contractor's program and to complete the mechanical installation concurrently with the main contract.

4. PROGRAM

Directly after acceptance of his tender, the Contractor shall submit time schedules for each activity for which he is responsible to the Main Contractor, for the inclusion thereof in the Main Contractor's program.

The following items shall be programmed in consultation with the Main Contractor:

- Working drawings
- Approval of working drawings
- Equipment detail submission for approval
- Ordering of material
- Piping installation
- Approval of first fix
- Plant equipment installation
- Second fix
- Electrical installation
- Commissioning and testing

FIRE PROTECTION SPECIFICATION

- Inspection for practical completion
- Remedial work
- As built information; operating and maintenance manuals

A copy of the program shall be submitted to the Engineer well within time. The program shall be regularly updated and circulated to all affected parties.

5. FINISHING AND TIDYING

In view of the intense concentration of construction activities likely to be experienced during the contract period, progressive and systematic finishing and tidying will form an essential part of this contract. On no account must spoil, rubble, materials, equipment or unfinished operations be allowed to accumulate in such a manner as to unnecessarily impede the activities of other and in the event of this occurring, the Employer shall have the right to withhold payment for as long as may be necessary in respect of the relevant works in the area(s) concerned without prejudicing the rights of others to institute claims against the Contractor on the ground of unnecessary obstruction.

Finishing and tidying must be done on a daily basis and not simply be left to the end of the contract. All finishing and tidying shall be carried out to the best advantage of the project as a whole.

6. SCAFFOLDING, LIFTING AND PLANT EQUIPMENT

All scaffolding, lifting and plant equipment required for the execution of the contract shall be supplied by the Contractor under this contract.

7. SUPERVISORY STAFF

At all times while on the premises, all artisan and labourer members of the mechanical Contractor's and Subcontractor's staff shall wear clothing adequately marked with the relevant Contractor's name.

The work shall be done by, or at all times be under the personal supervision of a qualified artisan (or qualified technician) in the respective trade.

8. QUALITY OF MATERIALS AND WORKMANSHIP

All materials shall be new, undamaged and free from rust or other defects. Only material of the best quality, which has been approved by the Engineer, shall be used.

The Contractor shall, upon the request of the Engineer, furnish him with documentary proof to his satisfaction that the material are of the quality specified. Samples of materials for testing, if required, shall be supplied by the Contractor, free of charge.

Where applicable, all material shall be in accordance with the relevant standard specifications of the South African Bureau of Standards and /or other standards as specified in the technical specifications.

The installation shall be carried out according to the latest modern engineering practices.

The Engineer reserves the right to reject any work or part thereof that, according to his judgement, does not meet the highest standards of material and workmanship and to enforce replacement of the work at the expense of the Contractor.

FIRE PROTECTION SPECIFICATION

9. RATING OF EQUIPMENT

The Contractor shall supply the sizes and rating of all the equipment to be installed under this contract to the Engineer for approval prior to purchasing or ordering such equipment.

All equipment offered shall operate well within the manufacturer's ratings. Where applicable, the Contractor shall de-rate all equipment for site specific conditions.

10. SPACE REQUIREMENTS AND ACCESS

The Contractor shall ensure that the equipment offered by them can be installed in the available space as shown on the drawings. Should it be found at a later stage that the equipment offered does not fit, all costs arising from the rectification of this problem shall be for the Contractor's account.

The equipment shall be installed in such a manner that complete access is provided for operating and maintenance purposes.

Tenderers shall also ensure that the equipment offered by them will pass through available building openings. Large equipment shall be made up in sections and each section shall be small enough for access through doors and other building openings. All additional costs involved for the modification of equipment or to change the make of equipment in order to allow access shall be for the account of the Contractor.

11. REGULATIONS AND STANDARDS

The equipment, installation, commissioning and maintenance shall in all respects comply with the regulations and standards as specified in each section of the specification.

All losses, costs or expenditures, which may arise as a result of negligence to comply with any regulation applicable to this contract shall be for the account of the Contractor.

Where trade names and references to catalogues are found in the specification, the intention is to set a particular standard of equipment. Where "other approved" equipment is specified, the Contractor shall obtain written approval from the Engineer before he may deviate from the specified equipment. This approval must be obtained at tender stage.

12. DRAWINGS

The dimensions and positions of equipment shown on the Engineer's drawings are schematic and for tender purposes only. The drawings are not suitable for manufacturing purposes. The responsibility for dimensional and layout accuracy remains with the Contractor. The following drawings shall be submitted by the Contractor to the Consulting Engineer for approval, within 3 weeks of acceptance of the tender:

1. Builder's work drawings

All building requirements are to be indicated on these drawings to meet the dimensional requirements of the equipment and materials to be installed by the Contractor.

2. Mechanical layout drawings

These are equipment layout drawings required for the manufacture and installation of equipment, showing detailed dimensions.

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3. Electrical drawings

These include switchboard layouts, circuit diagrams, interconnection diagrams, and cable and equipment schedules.

Any work done by the Contractor without an approved drawing shall be at the Contractor's own risk, and any changes required to conform with the contract documents or co-ordinate his work with other trades, shall be for the account of the Contractor.

The approval of drawings by the Consulting Engineer shall not relieve the Contractor of his responsibilities to carry out the work in terms of the contract documents.

The mechanical and electrical drawings shall be updated during the contract period and shall be included in the operating manuals at the end of the contract period as "As Built drawings".

13. OPERATION MANUALS AND MAINTENANCE INSTRUCTIONS

The Contractor shall submit three copies of operating and maintenance manuals to the Engineer. Manuals shall consist of:

- a) Comprehensive literature of the different components of the installation.
- b) Paper prints of all approved drawings and diagrams where applicable.
- c) Start-up and shutdown procedures.
- d) Commissioning data of all equipment in tabulated form.
- e) Prescriptions for routine tests, which shall be performed by the user together with the time when such tests shall be performed.
- f) Schedule of apparatus and equipment complete with model numbers, optional extras, modifications, electrical requirements, etc.
- g) Detailed monthly, quarterly, bi-annual or annual preventative maintenance procedures where applicable.
- h) Manufacturer's catalogues.
- i) List of spares for all equipment.
- j) Suppliers telephone numbers and addresses.
- k) Wiring diagrams.
- l) Test certificates.

The operating manuals shall be bound in strong hard cover format. Material in the manual shall be clear, legible and well-arranged and provided with an index.

Manuals shall be available three weeks before practical completion of the installation and no handover shall be considered without these manuals.

14. MAINTENANCE AND GUARANTEE

All equipment supplied, and work done as part of this contract shall be maintained and guaranteed for a period of one year from date of practical completion. This includes statutory maintenance as specified by the relevant SANS

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specifications. The contractor shall service the equipment and attached the necessary stickers with service dates and next due date to all equipment before practical completion shall be achieved.

The Contractor is responsible for all material and labour during this period.

The Contractor shall visit the installation on a monthly basis and do the scheduled maintenance as prescribed in the operating instructions. On completion of the monthly visit a full report shall be prepared and submitted to the Engineer within 5 days from the visit.

In case of a breakdown, the Contractor shall react within reasonable time and repair the installation to the satisfaction of the Engineer. Should the Contractor, in the discretion of the Engineer, not react within reasonable time, the Engineer shall commission another Contractor and the cost thereof shall be recovered from the defaulting Contractor.

15. PAYMENT CLAIMS

In addition to the conditions of contract, the Contractor shall attach to his application for payment an explanation of material cost and labour cost. The following information is required with respect to material and labour:

- Estimated percentage delivered/completed at date of the previous claim.
- Estimated percentage delivered/completed at date of current claim.
- Total cost claimed at date of previous claim.

16. PAINTING

Where painting is specified, the following shall apply:

Steel surfaces shall be properly cleaned by removing all dirt, oil, scale and rust by brushing and sanding until a clean shiny surface is obtained. Hereafter a metal primer shall be applied.

Galvanized surfaces shall be cleaned with a galvanizing cleaning agent and then washed with clean water to remove the factory applied protection against white rust. Hereafter a calcium plumbate primer shall be applied, followed by an undercoat between 24 and 72 hours after application of the primer.

Other surfaces shall be cleaned by removing all dirt and a primer as specified by the paint supplier for the particular surface shall be applied.

The primer coat shall be followed by a matt undercoat and a final topcoat of high gloss enamel of an approved colour. Each layer of paint shall be clearly distinguishable from each other by means of different colours and each layer shall be properly sanded before the following coat is applied.

All paint shall at least be of SABS quality for industrial use and shall be approved by the Engineer. Equipment shall be painted according to the National colour standards for paint, SANS 1091.

17. PROTECTION OF WORKS

The Contractor shall take all precautions necessary for the protection of life, equipment and property in connection with the works during installation.

The Contractor shall be held responsible for any damage of equipment during transport and installation as well as any damage to the building and shall repair any such damage at his own expense. Where equipment cannot be repaired to an "as-new" condition, it will be completely replaced at the expense of the Contractor.

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Equipment delivered to site shall be stored in a well-protected area where it cannot be damaged.

18. BUILDING WORK AND REMOVAL OF EQUIPMENT

The following work shall be carried out by the builder/main Contractor.

- a) Drilling and cutting of necessary holes in the concrete, brickwork, ceilings and wooden doors, including making good to match original finish.
- b) Removal and re-installation of suspended or plastered ceilings.
- c) Cutting of ceiling or floor panels for installation of air terminals.
- d) Concrete plinths for installation of equipment.
- e) Waterproofing of roof penetrations and plinths.
- f) Water supply points and drain points for a/c equipment.

19. TESTING

The plant shall be tested and operated to meet the performance figures and duties specified. All safety features and interlocks shall be tested.

20. COMMISSIONING

The installation shall be commissioned in accordance with the following codes or any other recognised commissioning procedure or code approved by the Consulting Engineer:

The Contractor shall submit a commissioning program to the Consulting Engineer at least two weeks prior to the commencement of commissioning and shall at the same time notify the Consulting Engineer of the code or procedure to which the plant will be commissioned.

The results of all checks and measurements shall be recorded in writing during the commissioning period. Commissioning records shall be handed over to the Consulting Engineer prior to the first acceptance of the plant. The commissioning records shall also be included in the operating manuals.

21. TRAINING

The Contractor shall train the Client's site staff after commissioning has been completed. The site staff shall receive enough instructions to ensure that they are fully conversant with the equipment concerned. The operating manuals shall be used during training.

FIRE PROTECTION SPECIFICATION

1. SECTION 2: FIRE WATER PIPING

1. SCOPE

The following installations shall be specified under this section of the technical specification:

- Fire water piping for fire hydrants and fire hose reels

2. DESIGN CRITERIA

DESIGN DATA	
Outdoor summer temperatures	32 °C Db/ 21°C Wb
Outdoor winter temperatures	3,3 °C Db/ -0,1°C Wb

3. REGULATIONS AND STANDARDS

The equipment, installation, commissioning and maintenance shall in all respects comply with the following regulations:

- a) The Occupational Health and Safety Act, Act No. 85 of 1993;
- b) Local Municipal Regulations, by-laws and Ordinances;
- c) Fire Department Regulations;
- d) The Application of the National Building Regulations, SANS10400 Part T and Part W;
- e) The use and control of fire-fighting equipment Part 2: Fire hose reels and above-ground hydrants - SANS 10105-2:2010;
- f) Water supply installation for buildings – SANS 10252-1: 2012; and
- g) Black and Hot-Dipped Zinc-Coated (Galvanized) Welded and Seamless Steel Pipe for Fire Protection - ASTM A 795.

4. REQUIREMENTS FOR FIRE WATER PIPING INSTALLATIONS

4.1 GENERAL

All fire water pipe installations shall adhere to the following general requirements:

- a) Piping shall conform to applicable British Standards;
- b) Pipes shall be cut accurately to measurements established on site and installed into place without springing or forcing and properly clear of windows, doors and other openings. All piping shall be reamed after cutting and shall be clean, straight and free of defects;
- c) Drawings are generally diagrammatic and indicative of work to be installed. Run and arrangement of piping shall be approximately as indicated, subject to modification as required to suit conditions on site to avoid interference

FIRE PROTECTION SPECIFICATION

with work of other trades and allow for convenient and accessible location of all parts of the piping system. All required offsets, fittings, valves, taps, drains, etc., might not be indicated. Refer to and carefully check conditions on site and other services and arrange work accordingly and install all offsets, fittings, valves, taps, drains, etc., required to meet such conditions;

- d) Pipe runs shall be straight and direct, in general forming right angles with or parallel to walls or other piping, and neatly spaced. Piping shall be installed so that there is sufficient clearance between finished coverings of piping, fittings and adjoining work. Hang piping at or in ceiling from construction above as close as possible to bottom of slabs, beams, etc., maintaining maximum headroom at all times. No item shall be installed to lower an established ceiling height without written permission. Provide sleeves where piping passes through partitions, beams, slabs, etc.
- e) Provide valved and capped connections for the drainage of the entire system at all low points to facilitate maintenance;
- f) Provide unions or flanged connections at connections to all equipment, shut off valves, apparatus and specialties requiring disconnection for repairs, replacement and adjustment;
- g) No cold springing shall be done except in the presence of the Engineer who must approve all operations before being carried out. Cold springing is defined for misalignment, as any error in alignment, which requires more than 50 kg push or pull to bring into place. Where cold springing is called for on the drawings, the Engineer will observe the cold spring put in at each point indicated;
- h) Where necessary, adequate temporary supports shall be installed during erection so as not to overstress piping or equipment to which piping is connected;
- i) All supports shall employ heavy commercial hardware to BS EN 12845 and no perforated straps or strip steel shall be used;
- j) Where necessary, provision shall be made to minimize vibration of piping. Piping which is subject to vertical movements shall be provided with springs or other suitable supports;
- k) Hangers shall be assembled in such a manner that they cannot be disengaged by any pipe or support steel movement;
- l) Piping installed on racks is to lie directly on the steel except where shown with shoes. The Contractor will ensure that the corners of the support steel are smoothed off by filing or grinding;
- m) No pipe shall be supported from another pipe with the exception where it is detailed as such on the engineer's drawings;
- n) The Contractor shall be responsible for determining the sizes, quantities, types and spaces of pipe hangers, supports and support devices not shown on the drawings. It shall be in accordance with this specification. The Contractor shall be responsible for the supply and installation of all such hangers, supports and support devices. The Contractor shall supply details of all calculations to the Engineer for approval and shall supply the Engineer with two marked up prints showing the location and types of all supports installed in addition to those specifically detailed; and
- o) During construction activities, all pipe ends shall be kept plugged to prevent any ingress of dirt, rubble etc. These plugs shall only be removed once construction activities necessitate to do so.

FIRE PROTECTION SPECIFICATION

4.2 ABOVE GROUND PIPE INSTALLATIONS

a) Piping material shall comply with the following Specifications and Standards:

- Black and Hot-Dipped Zinc-Coated (Galvanized) Welded and Seamless Steel Pipe for Fire Protection - ASTM A 795

b) Nuts, clips, eye rods, angle brackets, or other fasteners shall not be welded to pipes or fittings. Flanges shall be in accordance with ASME B16.5. Steel slip-on boss flanges for welding shall have a nominal pressure at least 10% in excess of the maximum fluid pressure.

c) Bolts in flanges are to be high tensile steel and of the correct length such that no more than 1,5 clear threads protrude beyond the nuts after tightening to the correct torque.

d) In flanged joints, new gaskets shall be used for every assembly operation unless such an assembly is intended solely for initial fitting. The Contractor shall supply sufficient gaskets to meet this requirement. Gasket material shall be fibre composition or similar material suitable for pressure and temperature service.

e) Screwed joints shall be screwed up tightly using an approved jointing compound such as PTFE tape. Hemp joints will not be accepted.

f) Pipes joined with grooved fittings shall be joined by a listed combination of fittings, gaskets, and grooves. Grooves cut or rolled on pipe shall be dimensionally compatible with the fittings.

g) All piping, including non-metallic pipes, shall be marked continuously along its length by the manufacturer in such a way as to properly identify the type of pipe. This identification shall include the manufacturer's name, model designation, or schedule.

h) All pipes shall be marked according to the requirements of the local authority or as specified by the Engineer. All surface pipes shall be painted to the required colour as specified by the Engineer.

i) All pipe-work and fittings shall be pressure tested and certified to the Engineer's specifications.

j) For screwed piping, use wrought iron fittings to ASME B1.20.1. Use eccentric fitting at changes in pipe size. No bushing shall be used in lieu of reducing fittings.

k) Piping to be screwed to ASME B1.20.1. Screwed joints shall be screwed up tightly using an approved jointing compound such as PTFE tape. Hemp joints will not be accepted.

l) Piping joints up to 50 mm diameter shall be allowed to be screwed and socketed. 65 mm and larger shall be welded or grooved joint coupling type.

4.3 UNDER GROUND PIPE INSTALLATIONS

a) Unless otherwise specified all underground pipe-work > 50 mm Ø shall be Class E uPVC with rubber ring type joints.

b) All bends shall be uPVC Class E type fittings with rubber ring joints.

c) All other fittings such as T-pieces, Reducers, Flanges, etc. shall be bitumen dipped cast iron rubber ring jointed fittings.

d) No solvent weld type fittings will be allowed.

FIRE PROTECTION SPECIFICATION

- e) All cast iron fittings shall be coated and wrapped.
- f) All pipes shall be laid on a 100 mm sand-bedding cradle and covered with 300 mm sand before backfilling.
- g) All backfilling shall be to the Engineers specification and approval.
- h) Pipe trenching for flexible pipe bedding:

AREA	MINIMUM	MAIN FILL
Vehicle traffic	1100	Soilcrete
Under surface bed	600	Soilcrete
Other areas	900	90 % MOD AASHTO

- i) All thrust blocks shall be cast between the pipe and the undisturbed trench material.
- j) No concrete shall come into direct contact with the uPVC pipe. At the thrust blocks the bend shall be wrapped with a "Densopol 80 HT Tape" or similar approved.
- k) All pipes shall be laid with at least 900mm cover to the top of the pipe.
- l) Marker blocks to standard detail shall be installed at all tees or changes of directions.
- m) HDPE pipe connections to uPVC pipes up to 50mm Ø can be done by means of SG Iron manufactured saddles with the appropriate gaskets and cadmium plated bolts and nuts.
- n) All pipe crossings under traffic areas shall be backfilled with soilcrete and compacted as specified.
- o) All pipework shall be pressure tested with all joints uncovered, to the satisfaction of the Engineer.
- p) Any pipe buried shall have at least 900-mm cover and steel pipes shall be coated and wrapped with approved corrosion protective material and tested in the presence of the Engineer.

4.4 PIPE SUPPORTS, HANGERS, ANCHORS AND BRACKETS

- a) All pipe hangers, brackets, supports, stanchions and anchors shall be designed, supplied and installed by the Contractor in accordance with Section 6 (Hanging, Bracing and restraint of System Piping) of NFPA 13, Standard for Installation of Sprinkler Systems - latest edition.
- b) All pipe hangers, brackets, hanger rods, fasteners, supports, stanchions and anchors shall be designed taking into account the following:

FIRE PROTECTION SPECIFICATION

Maximum Distance Between Hangers m for different pipe diam mm											
Pipe Description	20	25	32	40	50	65	80	100	125	150	200
Steel pipe except threaded light-wall	3	3.6	3.6	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Threaded light-wall steel pipe	NA	3.7	3.7	3.7	3.7	3.7	NA	NA	NA	NA	NA
Copper tube	2.4	2.4	3	3	3.7	3.7	3.7	4.5	4.5	4.5	4.5
CPVC	1.7	1.8	2	2.1	2.4	2.7	3	NA	NA	NA	NA
Polybutylene (IPS)	NA	1.1	1.4	1.5	1.8	NA	NA	NA	NA	NA	NA
Polybutylene (CTS)	0.9	1	1.2	1.3	1.6	NA	NA	NA	NA	NA	NA
Ductile Iron Pipe	NA	NA	NA	NA	NA	NA	4.5	4.5	NA	4.5	4.5

These spans may be exceeded when clearly necessary, provided the working stress in the longitudinal axis plus bending stress, does not exceed 69 MPa.

c) Components of any pipe support shall be securely attached to each other by means of bolts or threaded rod with nuts and washers.

d) All components of all pipe supports shall be galvanised.

e) All support components shall be true to shape and free from sharp corners. All boltholes shall be accurately located and free from distortion.

f) Pipe supports shall be capable of withstanding loads equivalent to the relevant proof test loads as listed in the SANS 10287 table 5

The proof test load shall not cause failure or damage to the hanger assembly. Test loads shall be applied to pipe clips using appropriately sized mandrels.

Critical movement in hanger assemblies shall be taken up by the pre-measurement load indicated in the table, before final proof test loads are applied. Test loads shall be applied gradually without any sudden change in magnitude.

The final method of supporting all of the piping shall be approved by the Engineer and shall have been tested by an approved authority to comply with the stress loadings of this specification.

4.5 PRESSURE TEST

a) All piping shall be pressure tested before taken into use and this test shall be witnessed by the Engineer;

b) The Contractor shall provide two pressure tests to the entire system. The first test shall consist of a compressed air test to a minimum pressure of 1000 kPa. The second pressure test shall consist of water test to a minimum pressure of 1600 kPa and shall only be performed once the complete system has been installed and inspected and approved by the Engineer. The water to be used for the water pressure test shall be sterilised as described in this

FIRE PROTECTION SPECIFICATION

specification. On completion and approval of the water pressure test the system shall be drained and flushed and only filled with approved water from the completed water supply system on approval from the Engineer.

c) For water tests completed sections of the pipe installation shall be filled with water after all outlets have been plugged, sealed or closed. The section of pipe shall be hydraulically pressure tested by means of a suitable manually operated or mechanically driven pressure pump. A pressure of at least 1,5 times the working pressure of the class rating of pipes or fittings, with a minimum pressure of 1600 kPa shall be applied for a period of time specified in the specifications or as recommended by the manufacturers.

d) Tests shall not be performed against closed valves.

e) Leakages that occur shall be measured and calculated and checked against the allowable losses.

f) For underground pipe installations if the completed section of pipe complies with all specifications and passes the tests and inspection, it could be approved and the Contractor may be instructed to backfill the open sections of trench at the joints and connections, where applicable. The Contractor shall then proceed to build all the valve chambers, inspection chambers, etc.

4.6 STERILIZATION OF FIRE WATER SYSTEMS

a) Pipe system including all fittings shall be completely and fully sterilised before taken into use. The pipe system shall be filled with potable water chlorinated to a concentration of 15 mg of chlorine per litre of water. The chlorinated water shall remain in contact with the inner surface of the pipeline for a period of not less than 24 hours. The pipe system shall be filled with chlorinated water in such a manner that no chlorine shock is created or air is trapped in the pipeline.

b) At least 14 days prior to the commencement of sterilising the Contractor shall submit full details of the proposed method of sterilising the pipeline to the Engineer for his approval.

c) The cost of water for filling the pipeline for sterilising shall be borne by the Contractor.

d) The Contractor shall provide all necessary materials, tools, equipment and labour necessary to sterilise the pipeline. After sterilising the pipeline, the Contractor shall, at no extra cost, empty the pipeline and dispose of the water in a manner approved by the Engineer.

e) The Contractor may use the following products as a source of chlorine:

- Chloride of lime yielding 33 % free chlorine by mass.
- Calcium hypochlorite yielding 70 % free chlorine by mass.
- Chlorine gas applied by chlorinator.

f) Once sterilisation is completed, an approved water quality test shall be carried out to a minimum number of 10% of the total water points. These shall be randomly selected, evenly spread and marked on drawings. These tests shall include a full bacteriological test. Test results shall be handed to the Engineer. Test results shall be included in the O&M manuals. Each abortive test shall be for the Contractors account.

FIRE PROTECTION SPECIFICATION

2. SECTION 3: FIRE HYDRANTS AND FIRE HOSE REELS

1. SCOPE

The following installations shall be specified under this section of the technical specification:

- Fire hydrants
- Fire hose reels

2. REGULATIONS AND STANDARDS

The equipment, installation, commissioning and maintenance shall in all respects comply with the following regulations:

- a) The Occupational Health and Safety Act, Act No. 85 of 1993;
- b) Local Municipal Regulations, by-laws and Ordinances;
- c) Fire Department Regulations;
- d) The Application of the National Building Regulations, SANS10400 Part T and Part W;
- e) The use and control of fire-fighting equipment Part 2: Fire hose reels and above-ground hydrants - SANS 10105-2:2010;
- f) Water supply installation for buildings – SANS 10252-1: 2012;
- g) Components of underground and above ground hydrant systems – SANS 1128-1: 2010;
- h) Fire hose reels (with semi-rigid hose) – SANS 543: 2015
- i) The use and control of firefighting equipment – fire hose reels and above ground hydrants - SANS 10105-2: 2010; and
- j) Hose couplings, connectors and branch pipe and nozzle connections – SANS 1128-2: 2010.

3. GENERAL

Fire hydrants and fire hose reels shall be provided at the positions as indicated on the drawings. They will be installed to ensure they are readily accessible and immediately available in the event of fire. The positions of this firefighting equipment shall be identified by means of signs complying with the provisions of SANS 1186-1.

The existing fire network inside the building is currently connected to the domestic water supply installation. The scope of this contract includes to find these connection points, disconnect them from the domestic supply and connect them to the new fire network being installed as part of the contract.

4. HYDRANTS

Hydrants shall be supplied and installed as per the standard layout shown on the drawings. Hydrants shall be complete with 2 x 30m flexible hose and couplings per hydrant.

5. HOSE REELS

FIRE PROTECTION SPECIFICATION

Hose reels shall be supplied and installed as per the standard layout shown on the drawings.

6. INSTALLATION

Installation of hydrants and hose reels shall provide easy and unobtrusive access to the use of the equipment. Pipework and connections of hose reels and hydrants to pipework shall comply with the relevant sections of this specification and the various SANS and BS specifications.

FIRE PROTECTION SPECIFICATION

3. SECTION 4: FIRE EXTINGUISHERS

1. SCOPE

The general installations of fire extinguishers shall be specified under this section of the project specification.

2. REGULATIONS AND STANDARDS

- a) The Occupational Health and Safety Act, Act No. 85 of 1993;
- b) Local Municipal Regulations, by-laws and Ordinances;
- c) Fire Department Regulations;
- d) The Application of the National Building Regulations, SANS10400 Part T and Part W;
- e) CO₂ type extinguishers – SANS 1567: 2014;
- f) The use and control of firefighting equipment – portable and mobile extinguishers – SANS 10105-1: 2010; and
- g) The production of reconditioned firefighting equipment – SANS 1475-1: 2010.

3. GENERAL

Fire extinguishers shall be provided at the positions as indicated on the drawings. Extinguishers shall be mounted on brackets or installed in cabinets. The positions of the fire extinguishers shall be identified by means of signs complying with the provisions of SANS 1186-1. Operating instructions shall be provided on the extinguisher.

4. INSTALLATION

Installation of fire extinguishers shall be as such that the carrying handle of the extinguisher is not more than 1,5 m above the floor level. Where the extinguishers are to be installed in cabinets, the cabinets may not be provided with a lock of any type. It shall be easily openable to provide unobtrusive access to the equipment and the removing of it from the cabinet.

FIRE PROTECTION SPECIFICATION

4. SECTION 5: SIGNAGE

5. SCOPE

The general escape route signage and fire protection equipment indication signage shall be specified under this section of the project specification.

6. REGULATIONS AND STANDARDS

- a) The Occupational Health and Safety Act, Act No. 85 of 1993;
- b) Local Municipal Regulations, by-laws and Ordinances;
- c) Fire Department Regulations;
- d) The Application of the National Building Regulations, SANS10400 Part T and Part W;
- e) Symbolic safety signs Part 1: Standard signs and general requirements – SANS 1186-1:2015; and
- f) National colour standard, SANS 1091.

7. GENERAL

All signage shall be as specified in Part 1 of SANS 1186. This SANS specification addresses specific requirements for standard ordinary (non-reflective) symbolic safety signs, including signs on vinyl sheets (decals) and to self-luminous (radio luminescent), internally illuminated, retro-reflective and photo luminescent symbolic safety signs (complete with their backing sheets, where applicable).

8. TYPE AND DIMENSION

All signage shall comply with SANS 1186 in terms of type of sign, specific dimensions and the colour specified. Furthermore, all signs shall specifically comply with Table 8 of SANS 1186. Refer to SANS 1091 for the National Colour Standard for signage.

9. INSTALLATION

All signs shall be free from rough and sharp edges, warps, dents, cavities and other surface irregularities. Coated surfaces shall be smooth, free from grittiness, runs, sags, wrinkles, brush marks and orange peel.

The position and type of signs are indicated on the engineering signage drawing. Signs shall be provided in the positions as indicated on these drawings. The positioning of signage shall comply with the following:

- Clearly visible and in no means obscured to ensure it is most conspicuous;
- Shall not create a hazard;
- Be placed where it can be seen readily and where it will provide optimum warning;
- Safety signs shall be placed at 90° to the passage or walkway which it is to serve wherever possible;
- Signage shall be manufactured from the most effective materials for protection against corrosive elements in an area of corrosive chemicals and substances.

FIRE PROTECTION SPECIFICATION

10. SECTION 6: EVACUATION CHAIRS; FIRE SEALING

1. SCOPE

Additional installations forming part of the fire protection installation and specified under this section of the project specification are:

- Evacuation chairs
- Fire sealing

2. REGULATIONS AND STANDARDS

- a) The Occupational Health and Safety Act, Act No. 85 of 1993;
- b) Local Municipal Regulations, by-laws and Ordinances;
- c) Fire Department Regulations;
- d) The Application of the National Building Regulations, SANS10400 Part T and Part W;

3. GENERAL

Where a make and model has been specified, the intention is to set the quality and functional standard. Where the contractor can improve on the product by utilising a different make and/or model, the contractor shall obtain approval from the engineer first.

4. INSTALLATION

The installation shall be coordinated with all other services and the contractor shall submit all working drawings, electrical requirements and drawings/brochures of the equipment to the engineer for approval before any product is procured.

5. EVACUATION CHAIRS

Five (3) evacuation chairs shall be supplied and installed in the emergency escape stairs where indicated on the drawings. Evacuation chairs shall be of the Evac+Chair 300H type with hammock seat. The chair shall be blue with yellow hammock. The evacuation chair shall have the following features:

- Tracked chair with self-braking system
- Suitable for staircases and one-person operation
- Dual position seating
- Lightweight
- Head, chest and thigh restraints
- Locking rear wheels

The chairs shall be complete with photoluminescent signage, wall mounted hooks, dust cover, user guide and instructional DVD.

A portable transfer device for lifting incapacitated persons from a wheel chair into or out of an evac+chair shall be provided with each evacuation chair.

6. FIRE SEALING

The fire stop specialist contractor shall survey the entire main building and mark up on the fire drawings the openings that need to be fire stopped. Similarly, all positions where services penetrate fire walls shall be marked on the drawings.

The specialist contractor shall use the Hilti software to document all fire stop applications.

For cables and bunched cables penetrating walls, Hilti CP 678 firestop cable coating shall be used. Product shall be applied up to 500mm on both sides of wall.

For small openings in walls, Hilti CP 620 firestop foam shall be used.

For combustible pipe penetrations, Hilti CP 648-E firestop wrap strip shall be used. Product shall be applied up to 500mm on both sides of wall.

For large openings, Hilti CP 670 firestop board and Hilti CP 670 firestop coating shall be used.

Before deciding on the product(s) to be used, the specialist contractor shall obtain the services of the manufacturer who will advise on the specific product to be used per application. The Fire stop process shall be carefully planned and executed in a step by step approach as follows:

- Survey site for all openings to be sealed and mark up on a drawing
- Survey site with manufacturer and engineer and decide on applicable product
- Document all findings, specifications and put quality assurance plan in place
- Once all building and installations trades have completed their installation work and site is ready, apply product and document the process. Follow quality assurance plan
- Inspect with engineer and manufacturer
- Issue compliance certification for all areas where product has been applied.