

Rural development <u>& agrarian reform</u>

Department: Rural Development & Agrarian Reform **PROVINCE OF THE EASTERN CAPE**

BID FOR THE CONSTRUCTION OF 300 SEATER EXAM HALL AT THE TSOLO AGRICULTURAL AND RURAL DEVELOPMENT INSTITUTE

LOCATION: TSOLO

VOLUME 2 – RETURNABLE DOCUMENTS

BID NO - SCMU8-22/23-0063

Head Office: Supply Chain Management Private Bag X 0040 Bhisho 5605	Consultants: Intsika Architects & Principal Agents 1 st Floor, Leadwood House, Cedarsquare Bonza Bay Road, Beacon Bay, East London 5241				
Contact: Name: Nosibusiso Mateta Telephone: 040 605 5263 / 079 505 9722	Contact: Name: Rob Gillard Telephone: 043 748 2949				
Tenderer					
CSD Number:					
LOGIS Number:					
Preference Points Claimed:					
Closing date on tender: Thursday 3 rd November 2022 Time at: 11:00 am					
Total of the prices inclusive of applicable taxes: R					



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EASTERN CAPE PROVINCIAL GOVERNMENT DEPARTMENT OF RURAL DEVELOPMENT AND AGRARIAN REFORM

CONSTRUCTION OF 300 SEATER EXAM HALL AT THE TSOLO AGRICULTURAL AND RURAL DEVELOPMENT INSTITUTE AT TSOLO

T2.1 List of Returnable Documents

The tenderer must complete the following returnable documents:

1 Returnable Schedules required only for tender evaluation purposes

- Certificate of authority for joint ventures (where applicable)
- Compulsory Enterprise Questionnaire
- Record of Addenda to Tender Documents
- Proposed Amendments and Qualifications
- Schedule of Subcontractors
- Schedule of Plant and Equipment
- Schedule of the Tenderer's Experience
- Schedule of current projects

2 Other documents required only for tender evaluation purposes

- Proof of registration on the CSD and copy of active and updated certificate attached.
- Certificate of Contractor Registration issued by the Construction Industry Development Board.
- Certificate of B-BBEE Registration with level of contribution.

3 Returnable Schedules that will be incorporated into the contract

- ECBD1 Invitation to Bid Part A & B
- Preferencing Schedule SBD 6.1
- Declaration Certificate for Local Production and Content for Designated Sectors SBD 6.2

4 Other documents that will be incorporated into the contract

- Declaration of validity of information.
- Bidder's Disclosure SBD 4.
- Certificate of tenderer's visit to site.
- Tenderer's financial standing.
- Surety and Bank details.
- Form of intent to provide a Performance Guarantee.
- Key personnel for project.
- Curriculum Vitae of key personnel.
- Preliminary Construction Programme.
- Alteration by tenderer.
- Contractor's Health and Safety declaration.
- Contractor's Health and Safety Plan.
- Evaluation Schedule 1 Project Reference Forms 1
- Evaluation Schedule 1 Project Reference Forms 2
- Evaluation Schedule 1 Project Reference Forms 3

C1.1 Form of Offer and Acceptance

- C1.2 Contract Data (Part 2 Data provided by the Contractor)
- C2.2 Bills of Quantities

PART A INVITATION TO BID

ECBD 1

YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF THE DEPARTMENT OF RURAL DEVELOPMENT AND AGRARIAN REFORM								
	COMU 00/00	0063		Ord No.				11.00
BID NUMBER: DESCRIPTION	SCMU8 - 22/23		CLOSING DATE:		Vember 2022			
DESCRIPTION BID FOR THE CONSTRUCTION OF 300 SEATER EXAM HALL AT THE TSOLO AGRICULTURAL & RURAL DEVELOPMENT INSTITUTE AT TSOLO								
BID RESPONSE	DOCUMENTS M	AY BE DEPOSITI	ed in the Bid Box S	SITUATE	ED AT (STREET)	ADDRE	ESS)	
	D	EPARTMENT OF	RURAL DEVELOPM	ENT AN	ID AGRARIAN RI	FORM		
		UIF BUILDING	, CNR PHALO AND F	RHARHA	ABE ROAD, BHIS	НО		
BIDDING PROCE	EDURE ENQUIRI	ES MAY BE DIRE	CTED TO	TECH	NICAL ENQUIRIE	S MAY	BE DIRECTE	D TO:
CONTACT PERS	ON	Ms Nosibusis	o Mateta	CONT	ACT PERSON		Mr Rob Gilla	ırd
TELEPHONE NU	MBER	040 605 5263	8 / 079 505 9722	TELEF	PHONE NUMBER		043 748 2	949
E-MAIL ADDRES	S	Nosibusiso.Miny	a@drdar.gov.za	E-MAI	L ADDRESS		rob@intsik	<u>a.com</u>
SUPPLIER INFO	RMATION							
NAME OF BIDDE	R							
POSTAL ADDRE	SS							
STREET ADDRE	SS			1				
TELEPHONE NU	MBER	CODE		NUMB	BER			
CELL PHONE NU	JMBER			1				
FACSIMILE NUM	BER	CODE		NUMB	BER			
E-MAIL ADDRES	S							
VAT REGISTRAT SUPPLIER COM STATUS		TAX COMPLIANCE SYSTEM PIN:		OR	CENTRAL SUPPLIER DATABASE	MAAA	A	
B-BBEE STATUS		TICK APP	LICABLE BOX]		No: E STATUS LEVE RN AFFIDAVIT	L	[TICK APP	LICABLE BOX]
		Yes	🗌 No				Yes	🗌 No
			ERTIFICATE/ SWOP POINTS FOR B-BB		IDAVIT (FOR EI	IES &	QSEs) MUST	BE SUBMITTED
1. ARE YOU T					RE YOU A FORE	IGN	Yes	No
ACCREDITE REPRESEN SOUTH AFF GOODS /SE /WORKS OF	TATIVE IN RICA FOR THE RVICES	[IF YES ENCLO	SE PROOF]	F /\$	ASED SUPPLIEF OR THE GOODS SERVICES /WOR OFFERED?		[IF YES, ANSV	VER PART B:3]
QUESTIONNAIR	e to bidding f	OREIGN SUPPLI	ERS					
IS THE ENTITY A	RESIDENT OF	THE REPUBLIC C	OF SOUTH AFRICA (F	RSA)?			YES	□ NO
DOES THE ENTI	TY HAVE A BRA	NCH IN THE RSA	?				YES	🗌 NO
DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA?								
DOES THE ENTI	DOES THE ENTITY HAVE ANY SOURCE OF INCOME IN THE RSA?							
IS THE ENTITY L	IABLE IN THE R	SA FOR ANY FOF	RM OF TAXATION?				YES	🗌 NO
IF THE ANSWER IS "NO" TO ALL OF THE ABOVE, THEN IT IS NOT A REQUIREMENT TO REGISTER FOR A TAX COMPLIANCE STATUS SYSTEM PIN CODE FROM THE SOUTH AFRICAN REVENUE SERVICE (SARS) AND IF NOT REGISTER AS PER 2.3 BELOW.								
STATUS SYSTE	STATUS SYSTEM PIN CODE FROM THE SOUTH AFRICAN REVENUE SERVICE (SARS) AND IF NOT REGISTER AS PER 2.3 BELOW,							

PART B TERMS AND CONDITIONS FOR BIDDING

1.	BID SUBMISSION:
1.1.	BIDS MUST BE DELIVERED BY THE STIPULATED TIME TO THE CORRECT ADDRESS. LATE BIDS WILL NOT BE ACCEPTED FOR CONSIDERATION.
1.2.	ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS PROVIDED – (NOT TO BE RE-TYPED) OR IN THE MANNER PRESCRIBED IN THE BID DOCUMENT.
1.3.	BIDDERS MUST REGISTER ON THE CENTRAL SUPPLIER DATABASE (CSD) TO UPLOAD MANDATORY INFORMATION NAMELY: (BUSINESS REGISTRATION/ DIRECTORSHIP/ MEMBERSHIP/IDENTITY NUMBERS; TAX COMPLIANCE STATUS; AND BANKING INFORMATION FOR VERIFICATION PURPOSES). B-BBEE CERTIFICATE OR SWORN AFFIDAVIT FOR B- BBEE MUST BE SUBMITTED TO BIDDING INSTITUTION.
1.4.	WHERE A BIDDER IS NOT REGISTERED ON THE CSD, MANDATORY INFORMATION NAMELY: (BUSINESS REGISTRATION/ DIRECTORSHIP/ MEMBERSHIP/IDENTITY NUMBERS; TAX COMPLIANCE STATUS MAY BE SUBMITTED WITH THE BID DOCUMENTATION. B-BBEE CERTIFICATE OR SWORN AFFIDAVIT FOR B-BBEE MUST BE SUBMITTED TO BIDDING INSTITUTION.
1.5.	THIS BID IS SUBJECT TO THE PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT, 2000 AND THE PREFERENTIAL PROCUREMENT REGULATIONS, 2017, THE JOINT BUILDING CONTRACT COMMITTEE (JBCC) AND, IF APPLICABLE, ANY OTHER SPECIAL CONDITIONS OF CONTRACT.
1.6.	BIDDERS ARE REQUIRED TO ACHIEVE A STIPULATED MINIMUM THRESHOLD FOR LOCAL PRODUCTION AND CONTENT AS PER DTI DESIGNATED SECTOR AS PER SECTION 8 OF THE PPPFA REGULATION OF 2017. BIDDERS MUST COMPLETE SBD6.2 WITH ANNEXURE C AND MUST BE SUBMITTED WITH THE QUOTE. FAILURE TO SUBMIT WILL INVALIDATE THE BID
1.7.	THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FILL IN AND SIGN A WRITTEN CONTRACT FORM (SBD7).
2.	TAX COMPLIANCE REQUIREMENTS
2.1	BIDDERS MUST ENSURE COMPLIANCE WITH THEIR TAX OBLIGATIONS.
2.2	BIDDERS ARE REQUIRED TO SUBMIT THEIR UNIQUE PERSONAL IDENTIFICATION NUMBER (PIN) ISSUED BY SARS TO ENABLE THE ORGAN OF STATE TO VERIFY THE TAXPAYER'S PROFILE AND TAX STATUS.
2.3	APPLICATION FOR TAX COMPLIANCE STATUS (TCS) PIN MAY BE MADE VIA E-FILING THROUGH THE SARS WEBSITE WWW.SARS.GOV.ZA.
2.4	BIDDERS MAY ALSO SUBMIT A PRINTED TCS CERTIFICATE TOGETHER WITH THE BID.
2.5	IN BIDS WHERE CONSORTIA / JOINT VENTURES / SUB-CONTRACTORS ARE INVOLVED, EACH PARTY MUST SUBMIT A SEPARATE TCS CERTIFICATE / PIN / CSD NUMBER.
2.6	WHERE NO TCS IS AVAILABLE BUT THE BIDDER IS REGISTERED ON THE CENTRAL SUPPLIER DATABASE (CSD), A CSD NUMBER MUST BE PROVIDED.
2.7	NO BIDS WILL BE CONSIDERED FROM PERSONS IN THE SERVICE OF THE STATE, COMPANIES WITH DIRECTORS WHO ARE PERSONS IN THE SERVICE OF THE STATE, OR CLOSE CORPORATIONS WITH MEMBERS PERSONS IN THE SERVICE OF THE STATE."

NB: FAILURE TO PROVIDE / OR COMPLY WITH ANY OF THE ABOVE PARTICULARS MAY RENDER THE BID INVALID.

SIGNATURE OF BIDDER:	
CAPACITY UNDER WHICH THIS BID IS SIGNED: (Proof of authority must be submitted e.g. company resolution)	

DATE:

.....

CERTIFICATE OF AUTHORITY FOR JOINT VENTURES

This Returnable Schedule is to be completed by joint ventures.

We, the undersigned, are submitting this tender offer in Joint Venture and hereby authorise Mr/Ms

....., authorised signatory of the company

......, acting in the capacity of lead partner, to sign all documents in connection with the tender offer and any contract resulting from it on our behalf.

NAME OF FIRM	ADDRESS	DULY AUTHORISED SIGNATORY
Lead partner		
		Signature
		Name Designation
		Signature
		Name
		Designation
		Signature
		Name Designation
		Signature
		Designation

COMPULSORY ENTERPRISE QUESTIONNAIRE

	The following particulars must be furnished. In the case of a joint venture, separate enterprise questionnaires in respect of each partner must be completed and submitted.					
Section 1:	Name of enterpr	Name of enterprise:				
Section 2:	VAT registration number, if any:					
Section 3:	cidb registration	n number, if any:				
Section 4:	CSD number:					
Section 5:	Particulars of sole proprietors and partners in partnerships:					
Name*		Identity number*	Pers	onal income tax number*		
* Complete only if s	sole proprietor or par	tnership and attach separate	e page if more than	3 partners		
Section 6:	Particulars of co	ompanies and close cor	porations			
Company registra	ation number:					
Close corporation	n number:					
Tax reference nu	mber:					
Section 7: SBD4 issued by National Treasury must be completed for each tender and be attached as a tender requirement.						
Section 8: SBD 6 issued by National Treasury must be completed for each tender and be attached as a tender requirement.						
-		t he / she is duly authoriz		half of the enterprise: rom the South African Revenue Service that it		
is in ord	er;					
who wh	 Confirms that neither the name of the enterprise or the name of any partner, manager, director or any other person who wholly or partly exercises or may exercise control over the enterprise, appears on the Register of Tende Defaulters established in terms of the Prevention and combating of Corruption Activities Act of 2004; 					
iii) Confirms control c	iii) Confirms that no partner, manager, director or any other person, who wholly or partly exercises or may exercise control over the enterprise, has within the last five years been convicted of fraud or corruption;					
iv) Confirms that I/we are not associated, linked or involved with any other rendering entities submitting tender offers and have no other relationship with any of the tenderers or those responsible for compiling the scope of work tha could cause or be interpreted as a conflict of interest; and						
 V) Confirms that the contents of this questionnaire are within my personal knowledge and are to the best of my belief both true and correct. 						
Signed			Date			
Name			Position			
Enterprise name						

RECORD OF ADDENDA TO TENDER DOCUMENTS

 Title or Details

Attach additional pages if more space is required.

Signed	Date	
Name	Position	
Tenderer		

PROPOSED AMENDMENTS AND QUALIFICATIONS

The Tenderer should record any deviations or qualifications he may wish to make to the tender documents in this Returnable Schedule. Alternatively, a tenderer may state such deviations and qualifications in a covering letter to his tender and reference such letter in this schedule.

The Tenderer's attention is drawn to clause C.3.8 of the Standard Conditions of Tender referenced in the Tender Data regarding the employer's handling of material deviations and qualifications.

Page	Clause or item	Proposal

Signed	Date	
Name	Position	
Tenderer		

SCHEDULE OF PROPOSED SUBCONTRACTORS

We notify you that it is our intention to employ the following Subcontractors for work in this contract.

If we are awarded a contract, we agree that this notification does not change the requirement for us to submit the names of proposed Subcontractors in accordance with requirements in the contract for such appointments. If there are no such requirements in the contract, then your written acceptance of this list shall be binding between us.

We confirm that all Subcontractors who are contracted to construct a house are registered as home builders with the National Home Builders Registration Council.

	Name and address of proposed Subcontractor	Nature and extent of work	Previous experience with Subcontractor.
1.			
2.			
3.			
4.			
5.			

Signed		Date	
Name	F	Position	
Tenderer			

SCHEDULE OF PLANT AND EQUIPMENT

The following are lists of major items of relevant equipment that I / we presently own or lease and will have available for this contract or will acquire or hire for this contract if my / our tender is accepted. Details of major equipment that is owned by and immediately available for this contract. (a) Quantity Description, size, capacity, etc. Attach additional pages if more space is required. Details of major equipment that will be hired, or acquired for this contract if my / our tender is (b) acceptable. Quantity Description, size, capacity, etc. Attach additional pages if more space is required.

Signed	Date	
Name	Position	
Fenderer		

SCHEDULE OF THE TENDERER'S EXPERIENCE

The following is a statement of similar work in respect of this tender successfully executed by myself / ourselves during the past three (3) years:

Employer, contact person and telephone number.	Description of contract	Value of work inclusive of VAT (Rand)	Date contract started	Date contract completed (Date on Completion Certificate

Signed	Date	
Name	Position	
Tenderer		

SCHEDULE OF CURRENT PROJECTS

Tenderers must submit a max one-page description of all projects under construction/ on hold/ just handed over/ towards completion (if they exist). <u>Attach an Appointment letter for each of the projects provided.</u>

The description of each project must include the following information:

- 1. Essential introductory information:
 - 1.1. Name of project.
 - 1.2. Name of client.
 - 1.3. Contact details of client.
 - 1.4. Contact details (including telephone numbers and email addresses) of currently contactable references.
 - 1.5. The period during which the project was performed, and also, if this is different, the period during which the tenderer's team members were contracted.
 - 1.6. Cost of works and/or contract value (making it clear in broad terms what this cost/value purchased, and to what extent (if any) this cost/value was part of a larger project budget or programme budget).

NO.	NAME OF PROJECT.	NAME OF CLIENT.	CONTACT DETAILS OF CLIENT.	PROJECT VALUE	STAGE OF PROJECT
1					
2					
3					

Attach a separate page to address this issue (the above table is just for reference purposes).

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

Signed	 Date	
Name	 Position	
Enterprise name	 	

CONTRACTORS CERTIFICATE OF REGISTRATION ON CSD

[The tenderer shall submit the Contractor's Certificate of Registration on the CSD. Failure to submit the certificate with the tender document will lead to the conclusion that the tenderer is not registered on the National Treasury Central Suppliers Database and therefore not eligible to tender].

CONTRACTORS CERTIFICATE OF REGISTRATION WITH CIDB

[The tenderer shall submit the Contractor's Certificate of Registration with CIDB. Failure to submit the certificate with the tender document will lead to the conclusion that the tenderer is not registered with the CIDB and therefore not eligible to tender].

CONTRACTORS CERTIFICATE OF B-BBEE REGISTRATION

[The tenderer shall submit the Contractor's Certificate of B-BBEE Registration. Failure to submit the certificate with the tender document will lead to the conclusion that the tenderer does not claim any B-BBEE points. Alternatively, the Contractor must complete the Sworn Affidavit after SBD 6.1].

PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2017

SBD 6.1

This preference form must form part of all bids invited. It contains general information and serves as a claim form for preference points for Broad-Based Black Economic Empowerment (B-BBEE) Status Level of Contribution

NB: BEFORE COMPLETING THIS FORM, BIDDERS MUST STUDY THE GENERAL CONDITIONS, DEFINITIONS AND DIRECTIVES APPLICABLE IN RESPECT OF B-BBEE, AS PRESCRIBED IN THE PREFERENTIAL PROCUREMENT REGULATIONS, 2017.

1. GENERAL CONDITIONS

- 1.1 The following preference point systems are applicable to all bids:
 - the 80/20 system for requirements with a Rand value of up to R 50 000 000 (all applicable taxes included); and
 - the 90/10 system for requirements with a Rand value above R 50 000 000 (all applicable taxes included).
- 1.2
- a) The value of this bid is estimated to **not exceed R 50 000 000** (all applicable taxes included) and therefore the 80/20 preference point system shall be applicable; or
- b) Either the 80/20 or 90/10 preference point system will be applicable to this tender (*delete whichever is not applicable for this tender*).
- 1.3 Points for this bid shall be awarded for:
 - (a) Price; and
 - (b) B-BBEE Status Level of Contributor.
- 1.4 The maximum points for this bid are allocated as follows:

	POINTS
PRICE	80
B-BBEE STATUS LEVEL OF CONTRIBUTOR	20
Total points for Price and B-BBEE must not exceed	100

- 1.5 Failure on the part of a bidder to submit proof of B-BBEE Status level of contributor together with the bid, will be interpreted to mean that preference points for B-BBEE status level of contribution are not claimed.
- 1.6 The purchaser reserves the right to require of a bidder, either before a bid is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the purchaser.

2. DEFINITIONS

- (a) **"B-BBEE"** means broad-based black economic empowerment as defined in section 1 of the Broad-Based Black Economic Empowerment Act;
- (b) "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;
- (c) "bid" means a written offer in a prescribed or stipulated form in response to an invitation by an organ of state for the provision of goods or services, through price quotations, advertised competitive bidding processes or proposals;
- (d) **"Broad-Based Black Economic Empowerment Act**" means the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003);
- (e) "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;
- (f) **"functionality"** means the ability of a tenderer to provide goods or services in accordance with specifications as set out in the tender documents.
- (g) "prices" includes all applicable taxes less all unconditional discounts;
- (h) "proof of B-BBEE status level of contributor" means:
 - 1) B-BBEE Status level certificate issued by an authorized body or person;
 - 2) A sworn affidavit as prescribed by the B-BBEE Codes of Good Practice;
 - 3) Any other requirement prescribed in terms of the B-BBEE Act;
- (i) **"QSE"** means a 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;
- (*j*) **"rand value"** means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes;

3. POINTS AWARDED FOR PRICE

3.1 THE 80/20 OR 90/10 PREFERENCE POINT SYSTEMS

A maximum of 80 or 90 points is allocated for price on the following basis: 80/20 or 90/10

$$Ps = 80\left(1 - \frac{Pt - P\min}{P\min}\right)$$
 or $Ps = 90\left(1 - \frac{Pt - P\min}{P\min}\right)$

Where

Ps = Points scored for price of bid under consideration

Pt = Price of bid under consideration

Pmin = Price of lowest acceptable bid

4. POINTS AWARDED FOR B-BBEE STATUS LEVEL OF CONTRIBUTOR

4.1 In terms of Regulation 6 (2) and 7 (2) of the Preferential Procurement Regulations, preference points must be awarded to a bidder for attaining the B-BBEE status level of contribution in accordance with the table below:

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

5. BID DECLARATION

5.1 Bidders who claim points in respect of B-BBEE Status Level of Contribution must complete the following:

6. B-BBEE STATUS LEVEL OF CONTRIBUTOR CLAIMED IN TERMS OF PARAGRAPHS 1.4 AND 4.1

6.1 B-BBEE Status Level of Contributor: _____ = ____ (maximum of 10 or 20 points)

(Points claimed in respect of paragraph 7.1 must be in accordance with the table reflected in paragraph 4.1 and must be substantiated by relevant proof of B-BBEE status level of contributor.

7. SUB-CONTRACTING

7.1 Will any portion of the contract be sub-contracted?

(Tick applicable box)



7.1.1 If yes, indicate:

- i) What percentage of the contract will be subcontracted? %
- ii) The name of the sub-contractor:
- iii) The B-BBEE status level of the sub-contractor:
- iv) Whether the sub-contractor is an EME or QSE:
- V)

(Tick applicable box)



vi) Specify, by ticking the appropriate box, if subcontracting with an enterprise in terms of Preferential Procurement Regulations,2017:

Designated Group: An EME or QSE which is at last 51% owned by:	EME	QSE
	N	N
Black people		
Black people who are youth		
Black people who are women		
Black people with disabilities		
Black people living in rural or underdeveloped areas or townships		
Cooperative owned by black people		
Black people who are military veterans		
OR		
Any EME		
Any QSE		

8.	DECLARATION WITH REGARD TO COMPANY/FIRM
8.1	Name of company/firm:
8.2	VAT registration number:
8.3	Company registration number:
8.4	TYPE OF COMPANY/ FIRM
	 Partnership/Joint Venture / Consortium One-person business/sole propriety Close corporation Company (Pty) Limited [TICK APPLICABLE BOX]
8.5	DESCRIBE PRINCIPAL BUSINESS ACTIVITIES
8.6	COMPANY CLASSIFICATION
	 Manufacturer Supplier Professional service provider Other service providers, e.g. transporter, etc. [<i>TICK APPLICABLE BOX</i>]
8.7	Total number of years the company/firm has been in business:
8.8	I/we, the undersigned, who is / are duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the B-BBEE status level of contributor indicated in paragraphs 1.4 and 6.1 of the foregoing certificate, qualifies the company/ firm for the preference(s) shown and I / we acknowledge that:

- i) The information furnished is true and correct;
- ii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;
- iii) In the event of a contract being awarded as a result of points claimed as shown in paragraphs 1.4 and

6.1, the contractor may be required to furnish documentary proof to the satisfaction of the purchaser that the claims are correct;

- iv) If the B-BBEE status level of contributor has been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the purchaser may, in addition to any other remedy it may have –
 - (a) disqualify the person from the bidding process;
 - (b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;
 - (c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation;
 - (d) recommend that the bidder or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted by the National Treasury from obtaining business from any organ of state for a period not exceeding 10 years, after the *audi alteram partem* (hear the other side) rule has been applied; and
 - (e) forward the matter for criminal prosecution.

WITNESSES 1	SIGNATURE(S) OF BIDDERS(S)
2	DATE: ADDRESS

SWORN AFFIDAVIT – B-BBEE EXEMPTED MICRO ENTERPRISE - GENERAL

SWORN AFFIDAVIT - B-BBEE QUALIFYING SMALL ENTERPRISE (QSE) - CONTRACTORS

I, the undersigned,

Full name & Surname	
Identity number	

Hereby declare under oath as follows:

- 1. The contents of this statement are to the best of my knowledge a true reflection of the facts.
- 2. I am a Member / Director / Owner of the following enterprise and am duly authorised to act on its behalf:

Enterprise Name:	
Trading Name (If	
Registration Number:	
Enterprise Physical	
Address:	
Type of Entity (CC, (Pty) Ltd, Sole Prop	
Nature of Business:	
Definition of "Black People"	 As per the Broad-Based Black Economic Empowerment Act 53 of 2003 as Amended by Act No 46 of 2013 "Black People" is a generic term which means Africans, Coloureds and Indians – (a) Who are citizens of the Republic of South Africa by birth or descent; or (b) Who became citizens of the Republic of South Africa by haturalization- i. Before 27 April 1994; or ii. On or after 27 April 1994 and who would have been entitled to acquire citizenship by naturalization prior to that date.

- 3. I hereby declare under Oath that:
- The Enterprise is _____% Black Owned as per Amended Code Series CSC000 of the Revised Construction Sector Codes of Good Practice issued under section 9 (1) of B-BBEE Act No 53 of 2003 as Amended by Act No 46 of 2013,
- The Enterprise is _____% Black Woman Owned as per Amended Code Series CSC000 of the Revised Construction Sector Codes of Good Practice issued under section 9 (1) of B-BBEE Act No 53 of 2003 as Amended by Act No 46 of 2013,
- The Enterprise is _____% Black Designated Group Owned as per Amended Code Series CSC000 of the Revised Construction Sector Codes of Good Practice issued under section 9 (1) of B-BBEE Act No 53 of 2003 as Amended by Act No 46 of 2013,

- Based on the Financial Statements/Management Accounts and other information available on the latest financial year-end of ______, the annual Total Revenue was between R 10,000,000 million (Ten Million Rands) and less than R 50,000,000.00 (fifty Million Rands).
- □ Please confirm on the table below the B-BBEE level contributor, by ticking the applicable box.

100% Black Owned	Level One (135% B-BBEE procurement recognition level)	
At least 51% Black Owned but less than 100% black owned	Level Two (125% B-BBEE procurement recognition level)	

NB: KEY NOTES FOR QSE (extract from Gazette No. 41287)

- 5.6.3 A QSE that is at least 51% Black Owned or 100% Black Owned that does not comply with paragraph 3.6.2.3 above, will be discounted by one level from that level awarded in paragraphs 5.3.1 and 5.3.2 respectively.
- 5.3.4 Despite paragraphs 5.2, 5.3.1 and 5.3.2, an at least 51% Black Owned QSE's B-BBEE Status Level and corresponding B-BBEE Recognition Level will be enhanced by one level if it achieves full points (excluding the bonus points) for the Skills Development element of the QSE Scorecard (paragraphs 1.1, 1.2 and 1.3 of Statement CSC603) or the Preferential Procurement and Supplier Development element of the QSE Scorecard (paragraphs 1.1, 1.2, 1.3 and 2.1 of CSC604).
- 5.3.5 For the avoidance of doubt, a Measured Entity that is measured in terms of the full QSE scorecard is not eligible for enhancement in terms of paragraph 5.3.4 above.
- Contractors and/Built Environment Professionals are encouraged to familiarize themselves with the Construction Sector Codes (CSC000) as issued through Government Gazette No. 41287, Board No. NOTICE 931 OF 2017.
 Details are available on: www.thedti.gov.za/economic empowernment/bee sector charters.jsp
- An electronic copy can also be requested through DPW offices (Supply Chain Offices)
 - 4. I know and understand the contents of this affidavit and I have no objection to take the prescribed oath and consider the oath binding on my conscience and on the owners of the enterprise which I represent in this matter.
 - 5. The sworn affidavit will be valid for a period of 12 months from the date signed by commissioner.

Deponent Signature: _____

Date: _____

Commissioner of Oaths Signature & Stamp

DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT FOR DESIGNATED SECTORS

SBD 6.2

NB: This Standard Tender Document (SBD) must form part of all tenders invited. It contains general information and serves as a declaration form for local content (local production and local content are used interchangeably).

Before completing this declaration, bidders must study the General Conditions, Definitions, Directives applicable in respect of Local Content as prescribed in the Preferential Procurement Regulations, 2011 and the South African Bureau of Standards (SABS) approved technical specification number SATS 1286:2011 (Edition 1) and the Guidance on the Calculation of Local Content together with the Local Content Declaration Templates [Annex C (Local Content Declaration: Supporting Schedule), D (Imported Content Declaration: Supporting Schedule to Annex C)].

1 GENERAL CONDITIONS

- 1.1. Preferential Procurement Regulations, 2011 (Regulation 9) makes provision for the promotion of local production and content.
- 1.2. Regulation 9(1) prescribes that in the case of designated sectors, where in the award of bids local production and content is of critical importance, such bids must be advertised with the specific bidding condition that only locally produced goods, services or works or locally manufactured goods, with a stipulated minimum threshold for local production and content will be considered.
- 1.3. Where necessary, for bids referred to in paragraph 1.2 above, a two stage bidding process may be followed, where the first stage involves a minimum threshold for local production and content and the second stage price and B-BBEE.
- 1.4. A person awarded a contract in relation to a designated sector, may not sub-contract 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.
- 1.5. The local content (LC) expressed as a percentage of the bid price must be calculated in accordance with the SABS approved technical specification number SATS 1286: 2011 as follows:

LC = [1 - x / y] * 100

Where

- x is the imported content in Rand
- y is the bid price in Rand excluding value added tax (VAT)

Prices referred to in the determination of x must be converted to Rand (ZAR) by using the exchange rate published by the South African Reserve Bank (SARB) at 12:00 on the date of advertisement of the bid as required in paragraph 4.1 below.

The SABS approved technical specification number SATS 1286:2011 is accessible on http://www.thedti.gov.za/industrial development/ip.jsp at no cost.

A bid may be disqualified if -

- (a) this Declaration Certificate and the Annex C (Local Content Declaration: Summary Schedule) are not submitted as part of the bid documentation; and
- (b) the bidder fails to declare that the Local Content Declaration Templates (Annex C, D and E) have been audited and certified as correct.

2. Definitions

- 2.1 "bid" includes written price quotations, advertised competitive bids or proposals;
- 2.2 "bid price" price offered by the bidder, excluding value added tax (VAT);
- 2.3 "contract" means the agreement that results from the acceptance of a bid by an organ of state;
- 2.4 "designated sector" means a sector, sub-sector or industry that has been designated by the Department of Trade and Industry in line with national development and industrial policies for local production, where only locally produced services, works or goods or locally manufactured goods meet the stipulated minimum threshold for local production and content;
- 2.5 "duly sign" means a Declaration Certificate for Local Content that has been signed by the Chief Financial Officer or other legally responsible person nominated in writing by the Chief Executive, or senior member / person with management responsibility (close corporation, partnership or individual).
- 2.6 "imported content" means that portion of the bid price represented by the cost of components, parts or materials which have been or are still to be imported (whether by the supplier or its subcontractors) and which costs are inclusive of the costs abroad (this includes labour and intellectual property costs), plus freight and other direct importation costs, such as landing costs, dock duties, import duty, sales duty or other similar tax or duty at the South African port of entry;
- 2.7 "**local content**" means that portion of the bid price which is not included in the imported content, provided that local manufacture does take place;
- 2.8 "**stipulated minimum threshold**" means that portion of local production and content as determined by the Department of Trade and Industry; and
- 2.9 "**sub-contract**" means the primary contractor's assigning, leasing, making out work to, or employing another person to support such primary contractor in the execution of part of a project in terms of the contract.
- 3. The stipulated minimum threshold(s) for local production and content (refer to Annex A of SATS 1286:2011) for this bid is/are as follows:
- 3.1 The stipulated minimum threshold(s) for local production and content for this tender is/are as follows:

Description of services, works or goods	Stipulated minimum threshold
All Steel Products & Components for Construction	100 %
All Electrical & Telecom Cable Products	90%
Plastic Pipes	100%
Valve products and Actuators	70%
School Furniture	100%

Bidders are required to archive a stipulated minimum threshold for local production and content as per DTI designated sector as per section 8 of the PPPFA Regulation of 2017. Bidders must complete SBD6.2 with Annexure C and must be submitted with the quote. Failure to submit will invalidate the bid.

- Does any portion of the services, works or goods offered? have any imported content?
 YES / NO
- 4.1. If yes, the rate(s) of exchange to be used in this bid to calculate the local content as prescribed in paragraph 1.5 of the general conditions must be the rate(s) published by the SARB for the specific currency at 12:00 on the date of advertisement of the bid.

The relevant rates of exchange information are accessible on www.reservebank.co.za.

Indicate the rate(s) of exchange against the appropriate currency in the table below (refer to Annex A of SATS 1286:2011):

Currency	Rates of exchange
US Dollar	
Pound Sterling	
Euro	
Yen	
Other	

NB: Tenderers must submit proof of the SARB rate (s) of exchange used.

5. Were the Local Content Declaration Templates, (Annex C, D and E) audited and certified as correct?

YES / NO

- 5.1. If yes, provide the following particulars:
 - (a) Full name of auditor:
 - (b) Practice number:
 - (c) Telephone and cell number:
 (d) Email address:

(Documentary proof regarding the declaration will, when required, be submitted to the satisfaction of the Accounting Officer / Accounting Authority)

6. Where, after the award of a bid, challenges are experienced in meeting the stipulated minimum threshold for local content the dti must be informed accordingly in order for the dti to verify and in consultation with the Accounting Officer / Accounting Authority provide directives in this regard.

LOCAL CONTENT DECLARATION (REFER TO ANNEX B OF SATS 1286:2011)

PEF	RSON	NOMIN	T DECLARATION ATED IN WRITI ESPONSIBILITY	NG BY TH	E C	HIEF EX	ECUTI	VE OR SENI	OR I	MEMBER/PERSC	
IN F	RESPE	CT OF E	BID NO: SCMU8-2	22/23-0063							
ISS	UED	BY:	(Procurement	Authority	/	Name	of	Department	/	Departmental	Entity):
NB 1.			n to complete, duly e, auditor or any ot						sferre	d to an external a	uthorized
2.	E) is Decla inform date a D and	access ration D nation on and time d E shou r is requ	he Calculation of L sible on <u>http://ww</u> . After completing n Declaration C. D e of the bid in ord and be kept by the ired to continuous	ww.thedti.gov g Declaration eclaration C ler to substa bidders for v	<u>v.za/ir</u> D, b sho ntiat verific	ndustrial idders sh uld be s a e the de ation pur	develo nould co ubmitte claratio poses	opment/ip.jsp. omplete Declara ed with the bid on made in par for a period of a	Bidde ation docu agraj at lea	ers should first E and then conso umentation at the oh (c) below. De ust 5 years. The s	complete lidate the e closing clarations uccessful
do ł	hereby	declare,	in my capacity as								

Т

(a) The facts contained herein are within my own personal knowledge.

(b) I have satisfied myself that

- (i) the goods/services/works to be delivered in terms of the above-specified bid comply with the minimum local content requirements as specified in the bid, and as measured in terms of SATS 1286:2011; and
- (ii) the declaration templates have been audited and certified to be correct.
- (c) The local content percentages (%) indicated below has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 4.1 above and the information contained in Declaration D and E which has been consolidated in Declaration C;

Bid price, excluding VAT (y)	R
Imported content (x), as calculated in terms of SATS 1286:2011	R
Stipulated minimum threshold for local content (paragraph 3 above)	
Local content %, as calculated in terms of SATS 1286:2011	

If the bid is for more than one product, the local content percentages for each product contained in Declaration C shall be used instead of the table above. The local content percentages for each product has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 4.1 above and the information contained in Declaration D and E.

(d) I accept that the Procurement Authority / Municipality /Municipal Entity has the right to request that the local content be verified in terms of the requirements of SATS 1286:2011.

(e) I understand that the awarding of the bid is dependent on the accuracy of the information furnished in this application. I also understand that the submission of incorrect data, or data that are not verifiable as described in SATS 1286:2011, may result in the Procurement Authority / Municipal / Municipal Entity imposing any or all of the remedies as provided for in Regulation 13 of the Preferential Procurement Regulations, 2011 promulgated under the Preferential Policy Framework Act (PPPFA), 2000 (Act No. 5 of 2000).

SIGNATURE:	DATE:
WITNESS No. 1	DATE:
WITNESS No. 2	DATE:

					Anr	nex C						SATS 1286.201
			Lo	cal Conter	t Declarati	ion - Sumi	mary Sche	dule				
Tender No. Tender descrip Designated pro Tender Author Tendering Ent Tender Exchar	oduct(s) rity: ity name: ıge Rate:	DEPT OF RURAL DEVELOPME Pula	TER EXAM HALL IPONENTS FOR ENT & AGRARIA	PONENTS FOR CONSTRUCTION							<u>Note:</u> VAT to be exc calculations	luded from all
Specified local	content %	100%										
					alculation of I	ocal content	-			Tender	summary	
Tender item no's	List o	of items	Tender price - each (excl VAT)	Exempted imported value	Tender value net of exempted imported content	Imported value	Local value	Local content % (per item)	Tender Qty	Total tender value	Total exempted imported content	Total Imported content
(C8)		C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)	(C16)	(C17)	(C18)	(C19)
41	R8mm Diameter bars		1 /			1 /			2,33		(/	
42	R10mm Diameter bars								2,33			
43	Y10mm Diameter bars								2,33			
44	Y12mm Diameter bars								2,33			
45	Y16mm Diameter bars								2,33			
1	0.58mm Thick 406 Brown	ouilt Roof Covering							660,00			
2		ouilt Roof Covering Lean-to							114,00			
3	0.58mm Thick 406 Brown								60,00			
4	0.58mm Thick 406 Brown								46,00			
31	M10 (Grade 4.8) Galv bolt								155,00			
32	Hilti M10 x 130mm Galv so								86.00			
33		rew anchors into concrete							155,00			
`1	203 x 203mm x 46kg/m H-	section columns							0,62			
3	356 x 171mm x 45kg/m I-s	ection roof beams/rafters							6,48			
5	Lattice eaves trusses of 12	5 x 75 x 20 x 3mm CFLC							1,64			
9	175 x 75 x 20 x 2,5mm CFL	C purlins							3,46			
10	50 x 50 x 3mm Equal angle	sag bars							0,29			
11	50 x 50 x 3mm Equal angle	diagonal sag bars							0,17			
12	70 x 70 x 6mm Equal angle	cross bracing							0,42			
14	0.80mm Thick Welded pla	te U-shaped box gutter							64,00			
17	M12 HT Galv bolts (Grade	8.8)							860,00			
18	M16 HT Galv bolts (Grade								96,00			
1	80 x 80 x 4mm Galv SHS co								2,00			
2	250 x 100 x 4mm Thick Ga	lv RHS stringers to stairs							603,00			
3		Equal leg supporting angles							247,00			
1	125 x 85mm Seamless alu								38,00			
4	75 x 50 Rectangular alumi	n rainwater downpipes							19,00			
Signature of te	enderer from Annex B						(C22) T	(C.		ot imported content ot imported content		
Date:											al Imported content Total local content	

				А	nnex D							SATS 128
			mported Co	ontent Declaratio	n - Suppoi	ting Schee	dule to Anr	nex C				
Fender No.]	Note: VAT to be	excluded from	1				
Tender description: CONSTRUCTION OF 300 SEATER EXA Designated Products: ALL STEEL PRODUCTS & COMPONEN							all calculations	excluded from				
Fender Authority	y:	DEPT OF RURAL DI						-				
Fendering Entity Fender Exchange		Pula		EU	1	GBP		1				
chuci Exchunge				1 20		05.						
A. Exempte	d imported co	ntent		1			Calculation of	imported conte	nt			Summary
Tender item no's	Description of im	ported content	Local supplier	Overseas Supplier	Forign currency value as per Commercial Invoice	Tender Exchange Rate	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT	Tender Qty	Exempted in value
(D7)	(D8	3)	(D9)	(D10)	(D11)	(D12)	(D13)	(D14)	(D15)	(D16)	(D17)	(D18,
									(019)) Total exempt i		
									(013)	rotarexempti	This total m	ust correspon nex C - C 21
B. Imported	d directly by th	e Tenderer					Calculation of	imported conte	nt			Summary
Tender item no's	Description of im		Unit of measure	Overseas Supplier	Forign currency value as per Commercial	Tender Rate of Exchange	Local value of imports	Freight costs to port of entry	landing costs	Total landed cost excl VAT	Tender Qty	Total import
(520)	(0)	41	(022)	(022)	Invoice	(025)	(526)	(0.27)	& duties	(530)	(020)	(024
(D20)	(D2.	1)	(D22)	(D23)	(D24)	(D25)	(D26)	(D27)	(D28)	(D29)	(D30)	(D31
									(D32) Tot	tal imported val	ue by tenderer	
								imported conte	nt			
C. Imported	d by a 3rd party	v and supplie	d to the Ter	laerer			Calculation of					Summary
C. Imported	d by a 3rd party	y and supplie	d to the Ter	laerer	Forign		Calculation of					Summary
-	d by a 3rd party	y and supplie	d to the Ten	Overseas Supplier	Forign currency value as per Commercial Invoice	Tender Rate of Exchange	Calculation of Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT	Quantity imported	
Description of					currency value as per Commercial	Tender Rate	Local value of	Freight costs to	All locally incurred landing costs			Total import
Description of	f imported content	Unit of measure	Local supplier	Overseas Supplier	currency value as per Commercial Invoice	Tender Rate of Exchange	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	cost excl VAT	imported	Summary Total import (D44,
Description of	f imported content	Unit of measure	Local supplier	Overseas Supplier	currency value as per Commercial Invoice	Tender Rate of Exchange	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	cost excl VAT	imported	Total import
Description of	f imported content	Unit of measure	Local supplier	Overseas Supplier	currency value as per Commercial Invoice	Tender Rate of Exchange	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	cost excl VAT	imported	Total import
Description of	f imported content	Unit of measure	Local supplier	Overseas Supplier	currency value as per Commercial Invoice	Tender Rate of Exchange	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties (D41)	cost excl VAT	(D43)	Total import
Description of	f imported content	Unit of measure (D34)	Local supplier	Overseas Supplier	currency value as per Commercial Invoice (D37)	Tender Rate of Exchange	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties (D41)	(D42)	(D43)	Total import
Description of (D. Other fo	(D33)	Unit of measure (D34) payments Local supplier making the	Local supplier	Overseas Supplier (D36) Calculation of foreig	currency value as per Commercial Invoice (D37)	Tender Rate of Exchange	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties (D41)	(D42)	(D43)	Total import (D44 Summa payme Local val
Description of	f imported content (D33) reign currency	Unit of measure (D34) payments Local supplier	Local supplier (D35)	Overseas Supplier (D36) Calculation of forei payment Foreign currency value	currency value as per Commercial Invoice (D37) (Tender Rate of Exchange	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties (D41)	(D42)	(D43)	Total import (D44)
Description of	f imported content (D33) reign currency of payment	Unit of measure (D34) payments Local supplier making the payment	Local supplier (D35)	Overseas Supplier (D36) Calculation of forei payment Foreign currency value paid	currency value as per Commercial Invoice (D37) (Tender Rate of Exchange	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties (D41)	(D42)	(D43)	Total import (D44)
Description of	f imported content (D33) reign currency of payment	Unit of measure (D34) payments Local supplier making the payment	Local supplier (D35)	Overseas Supplier (D36) Calculation of forei payment Foreign currency value paid	currency value as per Commercial Invoice (D37) (Tender Rate of Exchange	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties (D41)	(D42)	(D43)	Total import (D44)
Description of	f imported content (D33) reign currency of payment	Unit of measure (D34) payments Local supplier making the payment	Local supplier (D35)	Overseas Supplier (D36) Calculation of forei payment Foreign currency value paid	currency value as per Commercial Invoice (D37) (Tender Rate of Exchange (D38)	Local value of imports (D39)	Freight costs to port of entry	All locally incurred landing costs & duties (D41) (D45) Tot	cost excl VAT (D42)	e by 3rd party	Total import (D44)
Description of () D. Other fo Type o (f imported content (D33) reign currency of payment	Unit of measure (D34) payments Local supplier making the payment	Local supplier (D35)	Overseas Supplier (D36) Calculation of forei payment Foreign currency value paid	currency value as per Commercial Invoice (D37) 	Tender Rate of Exchange (D38)	Local value of imports (D39)	Freight costs to port of entry (D40)	All locally incurred landing costs & duties (D41) (D45) Tot	cost excl VAT	d/or 3rd party	Total import (D44
Description of () D. Other fo Type o (f imported content (D33) reign currency of payment (D46)	Unit of measure (D34) payments Local supplier making the payment	Local supplier (D35)	Overseas Supplier (D36) Calculation of forei payment Foreign currency value paid	currency value as per Commercial Invoice (D37) 	Tender Rate of Exchange (D38)	Local value of imports (D39)	Freight costs to port of entry (D40)	All locally incurred landing costs & duties (D41) (D45) Tot	cost excl VAT	d/or 3rd party & (D52) above	Total import (D44 Summa payme Local val payme (D51
Description of () D. Other fo Type o (f imported content (D33) reign currency of payment (D46)	Unit of measure (D34) payments Local supplier making the payment	Local supplier (D35)	Overseas Supplier (D36) Calculation of forei payment Foreign currency value paid	currency value as per Commercial Invoice (D37) 	Tender Rate of Exchange (D38)	Local value of imports (D39)	Freight costs to port of entry (D40)	All locally incurred landing costs & duties (D41) (D45) Tot	cost excl VAT	d/or 3rd party & (D52) above This total m	Total import (D44,

SATS 1286.2011

Annex E

Local Content Declaration - Supporting Schedule to Annex C

(E1)	Tender No.	SCMU8-22/23-0063						
(52)	Tandau dasarintian.	CONSTRUCTION OF 300 SEATER EXAM HALL AT	Note: VAT to be excluded fro	om all calculations				
(E2)	Tender description:	TARDI						
(E3)	Designated products:	ALL STEEL PRODUCTS & COMPONENTS FOR CONSTRU	CTION					
(E4)	Tender Authority:	DEPT OF RURAL DEVELOPMENT & AGRARIAN REFORM	DEPT OF RURAL DEVELOPMENT & AGRARIAN REFORM					
(E5)	Tendering Entity name:							

Local Products			
(Goods, Services and Works)	Description of items purchased	Local suppliers	Value
	(E6)	(E7)	(E8)
-			
-			
	<i>(E9)</i> Total local products	(Goods, Services and Works)	
(E10) Manpower costs	(Tenderer's manpower cost)		
(E11) Factory overheads	(Rental, depreciation & amortisation, utility costs, cor	isumables etc.)	
(E12) Administration overhea	ads and mark-up (Marketing, insurance, financing	g, interest etc.)	
		(E13) Total local content	
		This total must correspond v	vith Annex C - C24
Signature of tenderer from Annex B			
Date:			

													SATS 1286.2011
						Anne	C Xe						
						,							
				Loc	al Content	Declaratio	n - Summ	ary Schedu	ıle				
(C1)	Tender No.		SCMU8-22 /23-0063										
(C1) (C2)	Tender descript	ion:	CONSTRUCTION OF 300 SEAT	ER EXAM HALL	AT TARDI								
(C3)	Designated proc		ALL ELECTRICAL AND TELECO									Note: VAT to be exc	luded from all
(C4)	Tender Authorit	y:	DEPT OF RURAL DEVELOPME	NT & AGRARIAN	N REFORM							calculations	
(C5)	Tendering Entity						1		7				
(C6)	Tender Exchang		Pula		EU		GBP]				
(C7)	Specified local c	ontent %	90%			Calculation of I	ocal contont				Topo	ler summary	
l						Tender value	ocarcontent				Tend	ler summary	
				Tender price -	Exempted	net of			Local				
	Tender item no's	List	of items	each	imported	exempted	Imported value	Local value	content %	Tender Qty	Total tender value	Total exempted imported content	Total Imported content
	110 3			(excl VAT)	value	imported	value		(per item)	QUY		imported content	content
	(C8)		(C9)	(C10)	(C11)	content (C12)	(C13)	(C14)	(C15)	(C16)	(C17)	(C18)	(C19)
	1	4mm2 1-Phase 2-Core + EC		(010)	(011)	(C12)	(013)	(014)	(013)	45	(017)	(018)	(019)
	2	6mm2 1-Phase 2-Core + EC								231			
	3	10mm2 3-Phase 4-Core + E	ECC SWA Cu cable							110			
l													
										tender value			
	Signature of ten	derer from Annex B									t imported content		
								(C22) Total	Tender value	net of exemp	t imported content		1
												al Imported content) Total local content	
	Date:			,								content % of tender	
											,		

				Δ	nnex D							SATS 1286.201
			Imported Co	ontent Declaratio		ting Scher	dule to Ann	Nev C				ľ
			Imported Co	Declaratio	n - Suppoi	rung sched	aule to Anr	lex C		_		
Tender No.	Tender No. SCMU8-22/23-00 Tender description: CONSTRUCTION C						Note: VAT to be excluded from					
Designated P		ALL ELECTRICAL AN			all calculations							
Tender Autho		DEPT OF RURAL DE	DEPT OF RURAL DEVELOPMENT & AGRARIAN REFORM							_		
Tendering En Tender Excha		Pula		EU		GBP						
A							C -1	•				6
A. Exemp	ted imported co	ntent			Forign		Calculation of	imported conter				Summary
Tender iten no's	Description of im		Local supplier	Overseas Supplier	currency value as per Commercial Invoice	Tender Exchange Rate	Local value of imports	port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT	Tender Qty	Exempted importe value
(D7)	(D8	3)	(D9)	(D10)	(D11)	(D12)	(D13)	(D14)	(D15)	(D16)	(D17)	(D18)
									(D19)) Total exempt in		R ust correspond with
											Anı	nex C - C 21
B. Impor	ed directly by th	e Tenderer	1				Calculation of	imported conter	nt			Summary
Tender iten no's	Description of im	ported content	Unit of measure	Overseas Supplier	Forign currency value as per Commercial Invoice	Tender Rate of Exchange	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT	Tender Qty	Total imported val
(D20)	(D2	1)	(D22)	(D23)	(D24)	(D25)	(D26)	(D27)	(D28)	(D29)	(D30)	(D31)
	````											
			1		1		•	1	(D32) To	tal imported valu	e by tenderer	
C. Import	ed by a 3rd party	y and supplied	to the Tend	derer			Calculation of	imported conter	nt			Summary
Descriptio	n of imported content	Unit of measure	Local supplier	Overseas Supplier	Forign currency value as per Commercial Invoice	Tender Rate of Exchange	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT	Quantity imported	Total imported val
	(D33)	(D34)	(D35)	(D36)	(D37)	(D38)	(D39)	(D40)	(D41)	(D42)	(D43)	(D44)
		ļ										
`										1		
									<i>(D45)</i> Tot	al imported valu	e by 3rd party	L
D. Other	foreign currency			Calculation of foreig payments								Summary of payments
Ту	pe of payment	Local supplier making the payment	Overseas beneficiary	Foreign currency value paid	of Exchange							Local value of payments
	(D46)	(D47)	(D48)	(D49)	(D50)	4						(D51)
						1						
						-						
L		I	1		1	ם (D:	52) Total of for	eign currency pay	ments declared	d by tenderer and	l/or 3rd party	
Signature of	enderer from Annex B					(D53) Total o	of imported con	tent & foreign cur	rency payment	s - (D32), (D45) 8		ust correspond with
Date:												nex C - C 23

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## Annex E

## Local Content Declaration - Supporting Schedule to Annex C

(E1)	Tender No.	SCMU8-22 /23-0063				
(E2)	Tender description:	CONSTRUCTION OF 300 SEATER EXAM HALL AT TARDI	<u>Note:</u> VAT to be excluded fro	om all calculations		
(E3)	Designated products:	ALL ELECTRICAL AND TELECOM CABLE PRODUCTS				
(E4)	Tender Authority:	DEPT OF RURAL DEVELOPMENT & AGRARIAN REFORM	1			
(E5)	Tendering Entity name:					

Local Products (Goods, Services and Works)	Description of items purchased	Local suppliers	Value
works)	(E6)	(E7)	(E8)
-			
-			
-			
L	(50) Total local products	(Goods, Services and Works)	
		(Goods, Services and Works)	
(E10) Manpower costs (1	Fenderer's manpower cost)		
(E11) Factory overheads (R	ental, depreciation & amortisation, utility costs, co	nsumables etc.)	
(E12) Administration overhead	ds and mark-up (Marketing, insurance, financin	g, interest etc.)	
		(E13) Total local content	
		This total must correspond v	vith Annex C - C24
Signature of tenderer from Annex B			
Date:			

				Annex C							SATS 1286.201
			-	Annex C							
		Local Con	tent Decla	ration - Su	mmary So	hedule					
Tender No. Tender descrip	SCMU8-22 / 23-0063 construction of 300 seater e	XAM HALL AT TARDI									
Designated pro Tender Author		AGRARIAN REFORM								Note: VAT to be exe calculations	luded from all
Tendering Entit									l	calculations	
Tender Exchan	ge Rate:	Pula	EU		GBP						
Specified local	content % 100%										
	1		0	Calculation of	ocal content				Tend	er summary	
Tender item no's	List of items	Tender price - each (excl VAT)	Exempted imported value	Tender value net of exempted imported content	Imported value	Local value	Local content % (per item)	Tender Qty	Total tender value	Total exempted imported content	Total Imported content
(C8)	(C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)	(C16)	(C17)	(C18)	(C19)
7	160mm uPVC rainwater downpipes							15,00			
8	160mm uPVC rainwater downpipes 160mm uPVC rainwater downpipes to tanks							6,00			
44	40mm uPVC pipes							15,00			
44	50mm uPVC pipes							14,00			
46	110mm uPVC pipes							14,00			
68	15mm Polycop pipes							24,00			
69	22mm Polycop pipes							10,00			
1	200mm uPVC Stormwater pipes							49,00			
6	110mm uPVC Sewer pipes							20,00			
7	110mm uPVC sewer pipes							43,00			
8	160mm uPVC Sewer pipes							10,00			
9	160mm uPVC Sewer pipes							58,00			
1	40mm HDPE water pipes							20,00			
2	40mm HDPE water pipes							6,00			
7 8	75mm uPVC pressure water pipes 75mm uPVC pressure water pipes							30,00 5,00			
7	M110 PVC sleeves for DB's							110,00			
/								110,00			
			1	1		1	<u>├</u>				
	•			•			(C20) Total t	ender value			
Signature of te	nderer from Annex B						(C21)	Total Exemp	t imported content		
						(C22) Total	Tender value r	net of exemp	ot imported content		
										al Imported content	
										Total local content	
Date:								(	(C25) Average local	content % of tender	

					nnex D	ting Coho						ſ
			Imported Co	ontent Declaratio	n - Suppor	ting Scheo	dule to Anr	iex C				l
Tender No.	•	SCMU8-22 / 23-00 CONSTRUCTION O						<u>Note:</u> VAT to be e	excluded from	]		
Tender descript Designated Proe		PLASTIC PIPES	F 300 SEATER EXA	IVI HALL AT TARDI				all calculations				
Tender Authorit	•	DEPT OF RURAL DE	VELOPMENT & A	GRARIAN REFORM			-					
Tendering Entit Tender Exchang		Pula		EU		GBP						
A							<b>C</b> - <b>L</b> -	•				c
A. Exempte	ed imported co	ntent			Forign		Calculation of	imported conter				Summary
Tender item no's	Description of im	nported content	Local supplier	Overseas Supplier	currency value as per Commercial Invoice	Tender Exchange Rate	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT	Tender Qty	Exempted imp value
(D7)	(D8	8)	(D9)	(D10)	(D11)	(D12)	(D13)	(D14)	(D15)	(D16)	(D17)	(D18)
									()			
									(D19)	) Total exempt in	This total m	ust correspond nex C - C 21
B. Importe	d directly by th	e Tenderer					Calculation of	imported conter	nt			Summary
Tender item no's	Description of im		Unit of measure	Overseas Supplier	Forign currency value as per Commercial	Tender Rate of Exchange		Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT	Tender Qty	Total imported
(D20)	(D2	1)	(D22)	(D23)	Invoice (D24)	(D25)	(D26)	(D27)	(D28)	(D29)	(D30)	(D31)
	`											
	•								(D32) Tot	tal imported valu	e by tenderer	
C. Importe	d by a 3rd party	y and supplied	to the Ten	derer			Calculation of	imported conter	nt			Summary
	of imported content	Unit of measure	Local supplier	Overseas Supplier	Forign currency value as per Commercial Invoice	Tender Rate of Exchange	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT	Quantity imported	Total imported
Description o	-			(	(D37)		(D39)	(D40)	(0.44)		(D43)	(D44)
	(D33)	(D34)	(D35)	(D36)	(D37)	(D38)	(D39)	(040)	(D41)	(D42)		1
	(D33)	(D34)	(D35)	(D36)	(037)	(D38)	(D39)	(240)	(D41)	(D42)		
	(D33)	(D34)	(D35)	(D36)		(D38)			(D41)	(D42)		
	(D33)	(D34)	(D35)	(D36)		(D38)			(D41)	(D42)		
	(D33)	(D34)	(D35)	(D36)		(D38)						
	(D33)		(D35)	(D36) Calculation of foreig payment	gn currency	(D38)				(D42)	e by 3rd party	Summary
D. Other fo			(D35)	Calculation of foreig	gn currency S						by 3rd party	Summary payment Local value
D. Other fo	preign currency	payments	Overseas	Calculation of foreig payment Foreign currency value	gn currency S	(D38)					e by 3rd party	Summary payment Local value
D. Other fo	oreign currency	payments Local supplier making the payment	Overseas beneficiary	Calculation of foreig payment Foreign currency value paid	gn currency s Tender Rate of Exchange						e by 3rd party	Summary payment Local value payment
D. Other fo	oreign currency	payments Local supplier making the payment	Overseas beneficiary	Calculation of foreig payment Foreign currency value paid	gn currency s Tender Rate of Exchange						e by 3rd party	Summary payment Local value payment
D. Other fo	oreign currency	payments Local supplier making the payment	Overseas beneficiary	Calculation of foreig payment Foreign currency value paid	gn currency s Tender Rate of Exchange			eign currency pay	(D45) Tot	al imported value		Summary paymen Local valu paymen (D51)
D. Other fc	oreign currency	payments Local supplier making the payment	Overseas beneficiary	Calculation of foreig payment Foreign currency value paid	gn currency s Tender Rate of Exchange	(02	52) Total of for		(D45) Tot	d by tenderer and	I/or 3rd party ( <i>(D52</i> ) above	Summary payment Local value payment (D51)

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## Annex E

## Local Content Declaration - Supporting Schedule to Annex C

(E1)	Tender No.	SCMU8-22 / 23-0063					
(E2)	Tender description:	CONSTRUCTION OF 300 SEATER EXAM HALL AT TARDI					
(E3)	Designated products:	PLASTIC PIPES					
(E4)	Tender Authority:	DEPT OF RURAL DEVELOPMENT & AGRARIAN REFORM					
(E5)	Tendering Entity name:						

Local Products (Goods, Services and	Description of items purchased	Local suppliers	Value
(Goods, Services and Works)	Description of items purchased	Local suppliers	value
	(E6)	(E7)	(E8)
·			
-			
	(E9) Total local products	(Goods, Services and Works)	
(E10) Manpower costs	( Tenderer's manpower cost)		
(E11) Factory overheads	(Rental, depreciation & amortisation, utility costs, cor	sumables etc.)	
(E12) Administration overhe	ads and mark-up (Marketing, insurance, financing	g, interest etc.)	
		(E13) Total local content	
		This total must correspond v	with Annex C - C24
Signature of tenderer from Annex B			
Date:			

SCMU8-22 / 23-0063 CONSTRUCTION OF 300 SEATER EXAM HALL VALVE PRODUCTS AND ACTUATORS DEPT OF RURAL DEVELOPMENT & AGRARIAN Pr 70% List of items (C9) Hating valve k with plastic coated steel lever handle k with plastic coated steel lever handle k with plastic k with plast	L AT TARDI	] Ευ	Calculation of I Tender value net of exempted content (C12)	GBP		Local content % (per item) (C15)	Tender Qty ( <i>C16</i> ) 11,00 2,00 2,00 1,00	Total tender value (C17)	Note: VAT to be exc calculations	Total Imported content (C19)
CONSTRUCTION OF 300 SEATER EXAM HALL VALVE PRODUCTS AND ACTUATORS DEPT OF RURAL DEVELOPMENT & AGRARIAN PI 70% List of items (C9) llating valve k with plastic coated steel lever handle k with plastic co	N REFORM Pula Tender price - each (excl VAT)	Exempted imported value	Calculation of I Tender value net of exempted imported content	Imported value	Local value	content % (per item)	Qty (C16) 11,00 2,00 2,00 2,00	Total tender value (C17)	calculations eer summary Total exempted imported content	Total Imported content
List of items (C9) Ilating valve k with plastic coated steel lever handle k with plastic coated steel lever handle vay gate valve 6 RSV Gate Valve on swing type non-return valve	each (excl VAT)	Exempted imported value	Tender value net of exempted imported content	Imported value		content % (per item)	Qty (C16) 11,00 2,00 2,00 2,00	Total tender value (C17)	Total exempted imported content	content
(C9) Ilating valve k with plastic coated steel lever handle k with plastic coated steel lever handle vay gate valve 6 RSV Gate Valve on swing type non-return valve	each (excl VAT)	Exempted imported value	Tender value net of exempted imported content	Imported value		content % (per item)	Qty (C16) 11,00 2,00 2,00 2,00	Total tender value (C17)	Total exempted imported content	content
lating valve k with plastic coated steel lever handle k with plastic coated steel lever handle vay gate valve 6 RSV Gate Valve on swing type non-return valve	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)	11,00 2,00 2,00 2,00		(C18)	(C19)
k with plastic coated steel lever handle k with plastic coated steel lever handle vay gate valve 6 RSV Gate Valve on swing type non-return valve							2,00 2,00 2,00			
k with plastic coated steel lever handle k with plastic coated steel lever handle vay gate valve 6 RSV Gate Valve on swing type non-return valve							2,00 2,00 2,00			
k with plastic coated steel lever handle vay gate valve 6 RSV Gate Valve on swing type non-return valve							2,00 2,00			
vay gate valve 6 RSV Gate Valve on swing type non-return valve										
on swing type non-return valve							1.00			
							1,00	)		
t Iron Gate Valve							1,00			
							3,00			
					(C22) Tota	(C21)	) Total Exem	pt imported content pt imported content (C23) Tot	tal Imported content	
						(C22) Tota	(C21	(C21) Total Exem	(C22) Total Tender value net of exempt imported content (C23) To (C23) To (C24) To	Image: state of the state o

<section-header><section-header><form></form></section-header></section-header>					Δ	nnex D							SATS 1286.2
<form></form>				Imported Co			rting Scheo	dule to Anr	nex C				ľ
<form></form>			-			in Suppor	ting selice				-		l
<form></form>		tion								excluded from			
		Designated Products:         VALVE PRODUCTS           ender Authority:         DEPT OF RURAL D							all calculations				
term (many law:       noise					GRARIAN REFORM						-		
	-	-	Pula		FU		GBP						
Tarder inn no.s         Description of imported content         Local applier (102)         Overses signify (102)         Tarder inn no.s         Tarder inn import         Tarder inn i	render Extinuity												
	A. Exempte	ed imported co	ntent				_	Calculation of	imported conter	nt			Summary
	no's					currency value as per Commercial Invoice	Exchange Rate	imports	port of entry	incurred landing costs & duties	cost excl VAT		
<page-header></page-header>	(D7)	(D8	3)	(D9)	(D10)	(D11)	(D12)	(D13)	(D14)	(D15)	(D16)	(D17)	(D18)
<page-header></page-header>													
<page-header></page-header>										(544)	T-t-lt in		
Tender item         Description of imported content         Unit of message         Overseas Supplier (022)         Foright (022)         Foright (02												This total m An	ust correspond w nex C - C 21
i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i         i	B. Importe	d directly by the	e Tenderer					Calculation of	imported conter	nt			Summary
Image:		Description of im	ported content		Overseas Supplier	currency value as per Commercial				incurred landing costs		Tender Qty	Total imported v
C. Imported by a 3rd party and supplied to the Tenderer       Calculation of imported content       Summary <ul> <li>Description of imported content</li> <li>Unit of measure</li> <li>Local supplier</li> <li>Overseas Content</li> <li>Overseas Supplier</li> <li>Overseas Content</li> <li>Overseas Content</li> <li>Overseas Content</li> <li>Calculation of foreign currency payment</li> <li>Calculation of foreign currency payment</li> <li>Cole Supplier</li> <li>Overseas</li> <li>Foreign currency value</li> <li>Foreign currency value</li> <li>Cole Supplier</li> <li>Overseas</li> <li>Foreign currency value</li> <li>Cole Supplier</li> <li>Overseas</li> <li>Foreig</li></ul>	(D20)	(D2)	1)	(D22)	(D23)		(D25)	(D26)	(D27)	(D28)	(D29)	(D30)	(D31)
C. Imported by a 3rd party and supplied to the Tenderer       Calculation of imported content       Summary <ul> <li>Description of imported content</li> <li>Unit of measure</li> <li>Local supplier</li> <li>Overseas Supplier</li> <li>(Das)</li> <li>(Das)</li></ul>													
C. Imported by a 3rd party and supplied to the Tenderer       Calculation of imported content       Summary <ul> <li></li></ul>													
C. Imported by a 3rd party and supplied to the Tenderer       Calculation of imported content       Summary <ul> <li>Description of imported content</li> <li>Unit of measure</li> <li>Local supplier</li> <li>Overseas Supplier</li> <li>(Das)</li> <li>(Das)</li></ul>								-					
C. Imported by a 3rd party and supplied to the Tenderer       Calculation of imported content       Summary <ul> <li>Description of imported content</li> <li>Unit of measure</li> <li>Local supplier</li> <li>Overseas Supplier</li> <li>Overseas</li> <li>Foreign currency Dayments</li> <li>Description of foreign currency overseas</li> <li>Foreign currency overseas</li> <li>Foreign currency overseas</li> <li>Foreign currency overseas</li> <li>Foreign curr</li></ul>													
C. Imported by a 3rd party and supplied to the Tenderer       Calculation of imported content       Summary <ul> <li>Description of imported content</li> <li>Unit of measure</li> <li>Local supplier</li> <li>Overseas Supplier</li> <li>(Das)</li> <li>(Das)</li></ul>		\ \											
Ender Rate (D33)       Local supplier (D33)       Overseas Supplier (D33)       Forign (D33)       Total landed (D33)       Quantity (D42)       Quantity (D43)       Quantity (D43)       Quantity (D42)       Quantity (D43)       Quantity (D43) </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>(D32) Tot</td> <td>tal imported valu</td> <td>e by tenderer</td> <td></td>										(D32) Tot	tal imported valu	e by tenderer	
Excription of imported content       Unit of measure       Local supplier       Overseas Supplier       Forign currency allow as per commercial invoice       Freight costs to port of entry       All locally incurred to the port of entry       Total landed incurred to the port of entry       Quantity       Total imported content         (D33)       (D34)       (D35)       (D36)       (D37)       (D38)       (D39)       (D41)       (D42)       (D43)       (D43)         (D33)       (D34)       (D35)       (D36)       (D37)       (D38)       (D39)       (D40)       (D41)       (D42)       (D43)       (D44)         (D33)       (D34)       (D35)       (D36)       (D37)       (D38)       (D39)       (D40)       (D41)       (D42)       (D43)       (D44)         (D33)       (D34)       (D35)       (D36)       (D37)       (D38)       (D39)       (D40)       (D41)       (D42)       (D43)       (D44)         (D33)       (D34)       (D35)       (D36)       (D37)       (D38)       (D39)       (D40)       (D41)       (D42)       (D42)       (D43)       (D44)         (D35)       Total imported       (D41)       (D42)       (D41)       (D42)       (D41)       (D41)       (D41)       (D41)	C												
Description of imported content       Unit of measure       Local supplier       Overseas Supplier       Currency rule as per Commercial invoice       Freight costs to port of entry       An incared incurrent port of entry       Total landed cost excl VAT       Quantity imported         (033)       (034)       (025)       (036)       (037)       (028)       (029)       (040)       (041)       (042)         (033)       (024)       (023)       (036)       (037)       (028)       (029)       (040)       (041)       (042)       (041)         (045)       (014)       (024)       (041)       (042)       (041)       (042)       (041)       (042)       (041)       (042)       (041)       (042)       (041)       (042)       (041)       (042)       (041)       (042)       (041)       (042)       (041)       (042)       (041)       (042)       (041)       (042)       (041)       (042)       (041)       (042)       (041)       (042)       (041)       (042)       (041)       (042)       (041)       (042)       (041)       (042)       (041)       (042)       (041)       (042)       (041)       (042)       (041)       (042)       (041)       (042)       (041)       (042)       (041)       (042)	C. Importe	d by a 3rd party	and supplied	to the Tend	lerer			Calculation of	Imported conter	it.			Summary
Image: Signature of tenderer from Annex B       Image: Signature of	Description o	of imported content	Unit of measure	Local supplier	Overseas Supplier	currency value as per Commercial			-	incurred landing costs			Total imported v
D. Other foreign currency payments       Calculation of foreign currency payments       Summary payment         Type of payment       Local supplier making the payment       Overseas beneficiary       Foreign currency value of Exchange       Index Rate of Exchange       Local value payment       Local valu		(D33)	(D34)	(D35)	(D36)	(D37)	(D38)	(D39)	(D40)	(D41)	(D42)	(D43)	(D44)
D. Other foreign currency payments       Calculation of foreign currency payments       Summary payment         Type of payment       Local supplier making the payment       Overseas beneficiary       Foreign currency value of Exchange       Index Rate of Exchange       Local value payment       Local valu													
D. Other foreign currency payments       Calculation of foreign currency payments       Summary payment         Type of payment       Local supplier making the payment       Overseas beneficiary       Foreign currency value of Exchange       Index Rate of Exchange       Local value payment       Local valu													
D. Other foreign currency payments       Calculation of foreign currency payments       Summary payment         Type of payment       Local supplier making the payment       Overseas beneficiary       Foreign currency value of Exchange       Tender Rate of Exchange       Local value payment       Local val					L								
D. Other foreign currency payments       Calculation of foreign currency payments       Summary payment         Type of payment       Local supplier making the payment       Overseas beneficiary       Foreign currency value of Exchange       Tender Rate of Exchange       Local value payment       Local val	×												
D. Other foreign currency payments       payments       payments         Type of payment       Local supplier making the payment       Overseas beneficiary       Foreign currency value paid       Tender Rate of Exchange       Local value payment       Local value payment       Local value payment         (D46)       (D47)       (D48)       (D49)       (D50)       (D51)       (D51)         (D52)       Total of foreign currency payments declared by tenderer and/or 3rd party										(D45) Tot	al imported valu	e by 3rd party	
Type of payment       making the payment       Overseas beneficiary       Foreign currency value of Exchange of Exchange       Local value payment       Local value payment         (D46)       (D47)       (D48)       (D49)       (D50)       (D51)       (D51)	D. Other fo	oreign currency		1									Summary of payments
(D46)       (D47)       (D48)       (D49)       (D50)         (D51)       (D52)       (D52)       (D52)       (D52)         Signature of tenderer from Annex B       (D53)       (D53)       (D51)       (D52)	Туре	of payment	making the										Local value o payments
Signature of tenderer from Annex B (D53) Total of imported content & foreign currency payments - (D32), (D45) & (D52) above		(D46)		(D48)	(D49)	(D50)	1						(D51)
Signature of tenderer from Annex B (D53) Total of imported content & foreign currency payments - (D32), (D45) & (D52) above							4						
Signature of tenderer from Annex B (D53) Total of imported content & foreign currency payments - (D32), (D45) & (D52) above							1						
Signature of tenderer from Annex B (D53) Total of imported content & foreign currency payments - (D32), (D45) & (D52) above							]	52) Total of fa-	eign currency see	monte doclara:	hy tenderer and	lor and north	
	Signature of ter	nderer from Annex B									-		
Date: Annex C - C 23	Date:												

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## Annex E

## Local Content Declaration - Supporting Schedule to Annex C

(E1)	Tender No.	SCMU8-22 / 23-0063				
(E2)	Tender description:	CONSTRUCTION OF 300 SEATER EXAM HALL AT TARDI	om all calculations			
(E3)	Designated products:	VALVE PRODUCTS AND ACTUATORS				
(E4)	Tender Authority:	DEPT OF RURAL DEVELOPMENT & AGRARIAN REFORM				
(E5)	Tendering Entity name:					

(Goods, Services and Description of items purchased Local suppliers	Value
Works)	(50)
(E6) (E7)	(E8)
(E9) Total local products (Goods, Services and Works)	
(E10) Manpower costs (Tenderer's manpower cost)	
(E11) Factory overheads (Rental, depreciation & amortisation, utility costs, consumables etc.)	
(E12) Administration overheads and mark-up (Marketing, insurance, financing, interest etc.)	
(E13) Total local content	
This total must correspond with a	h Annex C - C24
Signature of tenderer from Annex B	
Date:	

												SATS 1286.201
				4	Annex C							
			Local Cor	itent Decla	ration - Su	mmary Sc	hedule					
<ul> <li>Tender No.</li> <li>Tender descrip</li> <li>Designated pro</li> <li>Tender Author</li> </ul>	duct(s) ty:	SCMU8-22 / 23-0063 CONSTRUCTION OF 300 SEATER EX SCHOOL FURNITURE DEPT OF RURAL DEVELOPMENT &									<u>Note:</u> VAT to be exc calculations	luded from all
<ul> <li>Tendering Enti</li> <li>Tender Exchan</li> </ul>			Pula	] ει		GBP		]				
7) Specified local	content %	100%			Calculation of l	ocal contont				Tond	er summary	
Tender item no's		List of items	Tender price each (excl VAT)		Tender value net of exempted imported content	Imported value	Local value	Local content % (per item)	Tender Qty	Total tender value	Total exempted imported content	Total Imported content
(C8)		(C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)	(C16)	(C17)	(C18)	(C19)
43 44	Breaking News'rectangula	arms with upholstered seat r table/desk with 16mm top & mode	esty panel						300,00 300,00			
45	'Cube Quilted'' double sea	ter couch with black leather look							4,00			
Signature of te	nderer from Annex B				<u> </u>		(C22) Total		Total Exem	pt imported content pt imported content		
Date:											I Imported content Total local content content % of tender	

				Α	nnex D							
			Imported Co	ontent Declaratio	n - Suppor	ting Scheo	dule to Anr	nex C				I
Tender No. Tender descript									<u>Note:</u> VAT to be excluded from			
Designated Proc Tender Authorit	ducts:	SCHOOL FURNITUR	RE	GRARIAN REFORM				all calculations				
Tendering Entity Tender Exchang	-	Pula		EU GBP				]				
A. Exempte	ed imported co	ntent					Calculation of	imported conter	nt			Summary
Tender item no's	Description of im	ported content	Local supplier	Overseas Supplier	Forign currency value as per Commercial Invoice	Tender Exchange Rate	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT	Tender Qty	Exempted imp value
(D7)	(DE	3)	(D9)	(D10)	(D11)	(D12)	(D13)	(D14)	(D15)	(D16)	(D17)	(D18)
									(D19)	Total exempt ir	This total m	ust correspond nex C - C 21
B. Importe	d directly by th	e Tenderer					Calculation of	imported conter	nt			Summary
Tender item no's	Description of im		Unit of measure	Overseas Supplier	Forign currency value as per Commercial Invoice	Tender Rate of Exchange	Local value of imports		All locally incurred landing costs & duties	Total landed cost excl VAT		Total imported
(D20)	(D2	1)	(D22)	(D23)	(D24)	(D25)	(D26)	(D27)	(D28)	(D29)	(D30)	(D31)
	`								(D32) Tot	tal imported valu	e by tenderer	
C. Importe	d by a 3rd party	y and supplied	l to the Ten	derer			Calculation of	imported conter	nt			Summary
Description o	f imported content	Unit of measure	Local supplier	Overseas Supplier	Forign currency value as per Commercial Invoice	Tender Rate of Exchange	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT	Quantity imported	Total imported
	(D33)	(D34)	(D35)	(D36)	(D37)	(D38)	(D39)	(D40)	(D41)	(D42)	(D43)	(D44)
									(D45) Tot	al imported valu	e by 3rd party	
×	preign currency	payments		Calculation of foreig payment					<i>(D45)</i> Tot	al imported valu	e by 3rd party	Summary
D. Other fo	oreign currency	Local supplier making the	Overseas beneficiary		s				( <i>D45</i> ) Tot	al imported valu	e by 3rd party	Summary payment Local value
D. Other fo		Local supplier		payment Foreign currency value	Tender Rate				(D45) Tot	al imported valu	e by 3rd party	Summary payment Local value
D. Other fo	of payment	Local supplier making the payment	beneficiary	payment Foreign currency value paid	S Tender Rate of Exchange				(D45) Tot	al imported valu	e by 3rd party	Summary payment Local value payment
D. Other fo	of payment	Local supplier making the payment	beneficiary	payment Foreign currency value paid	S Tender Rate of Exchange		-	eign currency pay	ments declared	l by tenderer ann	1/or 3rd party	Summary payment Local value payment (D51)
D. Other fo	of payment (D46)	Local supplier making the payment	beneficiary	payment Foreign currency value paid	S Tender Rate of Exchange		-	reign currency pay tent & foreign cur	ments declared	l by tenderer ann	d/or 3rd party & ( <i>D52</i> ) above This total m	Summary payment Local value payment (D51)

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## Annex E

## Local Content Declaration - Supporting Schedule to Annex C

(E1)	Tender No.	SCMU8-22 / 23-0063				
(E2)	Tender description:	CONSTRUCTION OF 300 SEATER EXAM HALL AT TARDI	<u>Note:</u> VAT to be excluded fro	om all calculations		
(E3)	Designated products:	SCHOOL FURNITURE				
(E4)	Tender Authority:	DEPT OF RURAL DEVELOPMENT & AGRARIAN REFORM				
(E5)	Tendering Entity name:					

Local Products (Goods, Services and	Description of items purchased	Local suppliers	Value
(Goods, Services and Works)	Description of items purchased	Local suppliers	value
	(E6)	(E7)	(E8)
-			
l		(Goods, Services and Works)	
		(Goods, Services and works)	
(E10) Manpower costs	( Tenderer's manpower cost)		
(E11) Factory overheads	(Rental, depreciation & amortisation, utility costs, cor	isumables etc.)	
(E12) Administration overhe	ads and mark-up (Marketing, insurance, financing	g, interest etc.)	
		(E13) Total local content	
		This total must correspond w	with Annex C - C24
Signature of tenderer from Annex B			
Date:			

## **DECLARATION (VALIDITY OF INFORMATION PROVIDED)**

I ..... declare that the information provided is true and correct, the signature to the tender document is duly authorised and documentary proof regarding any tendering issue will, when required, be submitted to the satisfaction of the Department of Rural Development and Agrarian Reform.

POSITION OF DECLARER

NAME OF COMPANY OR TENDERER

Should the tenderer have, in the opinion of the Department of Rural Development and Agrarian Reform, acted fraudulently illegally, in bad faith or in any improper manner, misrepresented itself with regard to the tender, then the Department of Rural Development and Agrarian Reform may, in its sole discretion:

- * Ignore any tenders without advising the tenderer thereof
- * Cancel the contract without prejudice to any legal rights the Department of Rural Development and Agrarian Reform may have

Should the tenderer disregard this or conduct affairs in a way that transgresses from good business practices, this could seriously impair future business relations between the Department of Rural Development and Agrarian Reform and such tenderer.

#### **BIDDER'S DISCLOSURE**

#### 1. PURPOSE OF THE FORM

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

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

#### 2. Bidder's declaration

- 2.1 Is the bidder, or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest1 in the enterprise, employed by the state? **YES/NO**
- 2.1.1 If so, furnish particulars of the names, individual identity numbers, and, if applicable, state employee numbers of sole proprietor/ directors / trustees / shareholders / members/ partners or any person having a controlling interest in the enterprise, in table below.

Full Name	Identity Number	Name of State institution

#### 2.2 Do you, or any person connected with the bidder, have a relationship

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

with any person who is employed by the procuring institution? YES/NO

#### 2.2.1 If so, furnish particulars:

.....

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

.....

#### 3 DECLARATION

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

- 3.1 I have read and I understand the contents of this disclosure;
- 3.2 I understand that the accompanying bid will be disqualified if this disclosure is found not to be true and complete in every respect;
- 3.3 The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However, communication between partners in a joint venture or consortium2 will not be construed as collusive bidding.
- 3.4 In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications, prices, including methods, factors or formulas used to calculate prices, market allocation, the intention or decision to submit or not to submit the bid, bidding with the intention not to win the bid and conditions or delivery particulars of the products or services to which this bid invitation relates.
- 3.4 The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.
- 3.5 There have been no consultations, communications, agreements or arrangements made by the bidder with any official of the procuring

#### SBD4

² 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.

institution in relation to this procurement process prior to and during the bidding process except to provide clarification on the bid submitted where so required by the institution; and the bidder was not involved in the drafting of the specifications or terms of reference for this bid.

3.6 I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

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

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

Signature	Date
Position	Name of bidder

#### SBD4

## **CERTIFICATE OF TENDERER'S VISIT TO SITE**

This is to certify that, I
representative of (tenderer)
of (address)
Telephone number:
-
Fax number:
in the company of (Principal Agent/Engineer's representative)
visited and examined the site on (date)

I further certify that I have made myself familiar with all local conditions likely to influence the work and the cost thereof, that I am satisfied with the description of the work and the explanations given by the said Engineer's Representative and that I understand perfectly the work to be done, as specified and implied, in the execution of this contract.

TENDERER'S REPRESENTATIVE:	(Signature)
	(Name)
ENGINEER'S REPRESENTATIVE	(Signature)
	(Name)

## FORM OF INTENT TO PROVIDE A PERFORMANCE GUARANTEE

[The tenderer must provide a letter from the bank or institution with whom he has made the necessary arrangements, to the effect that the said bank or institution will be prepared to provide the required performance guarantee when asked to do so].

## **KEY PERSONNEL**

In terms of the Project Specification and the Conditions of Tender, unskilled workers may only be brought in from outside the local municipality if such personnel are not available locally.

The tenderer shall list below the personnel, which he intends to utilise on the Works, including key personnel, which may have to be brought in from outside if not available locally.

	NUMBER OF PERSONS			
EMPLOYEE SKILLS TEAM No	KEY PERSONNEL, PART OF THE CONTRACTOR'S ORGANISATION	KEY PERSONNEL TO BE IMPORTED IF NOT AVAILABLE LOCALLY	UNSKILLED PERSONNEL TO BE RECRUITED FROM LOCAL COMMUNITY	YEARS EXPERIENCE
Director				
Contracts Manager				
Site Agent				
OHS Officer ( Registered with SACPCMP)				
Foreman				
Skilled Worker				
Semi-skilled Worker				
Unskilled Worker				
Other				

#### 

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

## **CURRICULUM VITAE OF KEY PERSONNEL**

DIRECTOR	
Name:	Date of birth:
Profession:	Nationality:
Qualifications:	
Professional Registration Number:	
Name of Employer (firm):	
Current position:	Years with firm:
Employment Record:	
Experience Record Pertinent to Required service:	

#### Certification:

I, the undersigned, certify that, to the best of my knowledge and belief, this data correctly describes my qualifications, my experience and me.

CONTRACTS MANAGER	
Name:	Date of birth:
Profession:	Nationality:
Qualifications:	
Professional Registration Number:	
Name of Employer (firm):	
Current position:	Years with firm:
Employment Record:	
Experience Record Pertinent to Required service:	

#### Certification:

I, the undersigned, certify that, to the best of my knowledge and belief, this data correctly describes my qualifications, my experience and me.

DATE.. SIGNATURE OF CONTRACTS MANAGER .....

SITE AGENT	
Name:	Date of birth:
Profession:	Nationality:
Qualifications:	
Professional Registration Number:	
Name of Employer (firm):	
Current position:	Years with firm:
Employment Record:	
Experience Record Pertinent to Required service:	

#### Certification:

I, the undersigned, certify that, to the best of my knowledge and belief, this data correctly describes my qualifications, my experience and me.

DATE: ...... SIGNATURE OF SITE AGENT: .....

DATE: SIGNATURE OF TENDERER: (of person authorised to sign on behalf of the Tenderer)

OHS OFFICER (Registered with SACPCMP)	
Name:	Date of birth:
Profession:	Nationality:
Qualifications:	
Professional Registration Number:	
Name of Employer (firm):	
Current position:	Years with firm:
Employment Record:	
Experience Record Pertinent to Required service:	

#### Certification:

I, the undersigned, certify that, to the best of my knowledge and belief, this data correctly describes my qualifications, my experience and me.

## PRELIMINARY CONSTRUCTION PROGRAM

The tenderer shall submit a preliminary program reflecting the proposed sequence and duration of the various activities comprising the work for this Contract to include the projected cash flow for each activity. The program shall be in accordance with the information supplied in the Contract, requirements of the Project Specifications and with all other aspects of his tender.

[Note: The program must be based on the completion time as specified in the Contract Data.]

Schedule	Abbreviated description	Days per action	Cumulative project construction days

PROPOSED CONSTRUCTION PERIOD

____ WEEKS

## **ALTERATIONS BY TENDERER**

Should the tenderer desire to make any departure or modification to the General Conditions of Contract, Special Conditions of Contract, Specifications, Schedule of Quantities or Drawings, or to qualify his tender in any way, he shall set out his proposals clearly hereunder, or alternatively, state them in a covering letter attached to his tender and referred to hereunder, failing which the tender will be deemed to be unqualified.

PAGE	CLAUSE OR ITEM	DESCRIPTION

## **BASELINE RISK ASSESSMENT**

PROJECT TITLE	CONSTRUCTION OF 300 SEATER EXAM HALL AT THE TSOLO AGRICULTURAL AND RURAL DEVELOPMENT INSTITUTE AT TSOLO
SCMU NUMBER	SCMU8-22/23-0063

#### 1.1. Preliminary Hazard Identification and Risk Assessments

Every Contractor performing Construction work shall, before the commencement of any Construction work or work associated with the aforesaid Construction work and during such work, cause a Risk Assessment to be performed by a competent person, appointed in writing, and the Risk Assessment shall form part of the Health and Safety Plan and be implemented and maintained as contemplated in the Construction Regulations 9(1).

# The tenderer is to refer to the Detailed Base Line Risk Assessment for this project included together with the Project Specific Health and Safety Specification under C 3.2.3 of Volume 3 (Contract) of the Tender Documentation for a full detailed overview of the risks and hazards applicable to this project that need to be taken into consideration.

The Risk Assessment shall include, at least:

- The identification of the risks and hazards to which persons may be exposed to
- The analysis and evaluation of the risks and hazards identified
- A documented plan of safe work procedures to mitigate, reduce or control the risks and hazards that have been identified
- A monitoring plan and
- A documented review plan Based on the Risk Assessments, Principle Contractor must develop a Site Specific OHS rules that will be applied to regulate the Health and Safety aspects of the Construction.

#### Baseline Risk Assessment Items to be considered:

Risk Rating: 1-3 Low Risk		4-7 Medium Risk		8-10 High Risk	
Task / situation	Personal protective equipment	Risk to safety	Risk to health	Risk to Environment	<b>Risk Rating</b>
HAZARD IDENTIFICATI	ON				
Task / situation	Personal protective equipment	Risk to safety	Risk to health	Risk to Environment	Risk Rating
EQUIPMENT RISKS					
Task / situation	Personal protective equipment	Risk to safety	Risk to health	Risk to Environment	Risk Rating
PHYSICAL RISKS					
Task / situation	Personal protective equipment	Risk to safety	Risk to health	Risk to Environment	Risk Rating
ERGONOMICS RISKS					
Task / situation	Personal protective equipment	Risk to safety	Risk to health	Risk to Environment	Risk Rating

## CONTRACTORS HEALTH AND SAFETY DECLARATION

In terms of Clause 5(1)(h) of the OHSA 1993 Construction Regulations 2014 (referred to as "the Regulations" hereafter), a Contractor may only be appointed to perform construction work if the Employer is satisfied that the Contractor has the necessary competencies and resources to carry out the work safely in accordance with the Occupational Health and Safety Act No 85 of 1993 and the OHSA 1993 Construction Regulations 2014.

To that effect a person duly authorised by the tenderer must complete and sign the declaration hereafter in detail.

#### **Declaration by Tenderer**

- 1. I the undersigned hereby declare and confirm that I am fully conversant with the Occupational Health and Safety Act No 85 of 1993 (as amended by the Occupational Health and Safety Amendment Act No 181 of 1993), and the OHSA 1993 Construction Regulations 2014.
- 2. I hereby declare that my company has the competence and the necessary resources to safely carry out the construction work under this contract in compliance with the Construction Regulations and the Employer's Health and Safety Specifications.
- 3. I hereby confirm that adequate provision has been made in my tendered rates and prices in the Bill of Quantities to cover the cost of all resources, actions, training and all health and safety measures envisaged in the OHSA 1993 Construction Regulations 2014, including the cost of the specific items listed in the tables hereafter.

#### (Tables to be completed by tenderer)

PERSONNEL	COSTS AS ALLOWED IN TENDER	NOMINATED PERSON/S
Construction Manager		
Construction Safety Officer		
Health and Safety Representative		
Working at Heights plan developer		
Working at Heights team		
Medical Assessment for all employees		

#### **TABLE 1: COST OF SAFETY PERSONNEL**

#### TABLE 2: COST OF SAFETY EQUIPMENT

EQUIPMENT	STATE YES or NO	COST ALLOWED FOR IN TENDER
Hard hats		
Safety boots		
Add items as per risk assessment:		

4. I hereby undertake, if my tender is accepted, to provide, before commencement of the works under the contract, a suitable and sufficiently documented Health and Safety Plan in accordance with Regulation 7(1)(a) of the Construction Regulations, which plan shall be subject to approval by the Employer.

- 5. I confirm that copies of my company's approved Health and Safety Plan, the Employer's Safety Specifications as well as the OHSA 1993 Construction Regulations 2014 will be provided on site and will at all times be available for inspection by the Contractor's personnel, the Employer's personnel, the Engineer, visitors, and officials and inspectors of the Department of Labour.
- 6. I hereby confirm that, I will be liable for any penalties that may be applied by the Employer in terms of the said Regulations (Regulation 33) for failure on the Contractor's part to comply with the provisions of the Act and the Regulations.
- 7. I agree that my failure to complete and execute this declaration to the satisfaction of the Employer will mean that I am unable to comply with the requirements of the OHSA 1993 Construction Regulations 2014, and accept that my tender will be prejudiced and may be rejected at the discretion of the Employer.

## CONTRACTORS HEALTH AND SAFETY PLAN

#### [Not applicable for tender purposes]

[The successful Tenderer, only, shall be required to submit the Contractor's Health and Safety Plan as required in terms of Regulation 7 of the Occupational Health and Safety Act 1993 Construction Regulations 2014, and referred to in T2.1, List of Returnable Documents point 4 (other documents that will be incorporated into the contract) <u>after acceptance</u> of the tender]

## **EVALUATION SCHEDULE 1 – PROJECT REFERENCE FORMS - 1**

Project title:	CONSTRUCTION OF 300 SEATER EXAM HALL AT THE TSOLO AGRICULTURAL AND RURAL DEVELOPMENT INSTITUTE AT TSOLO
Project Number:	SCMU8-22/23-0063

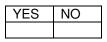
NOTE: This returnable document must be completed by the person who was the Engineer/Project Manager on a project of similar value and complexity that was completed successfully by the tenderer.

I, ________ (name and surname) of _______________(company name) declare that I was the Project Manager on the following building construction project successfully executed by _________(name of tenderer):
Project name: _________
Project location: ________
Construction period: _______Completion date: ________
Contract value: ______

• Please evaluate the performance of the Tenderer on the abovementioned project, on which you were the principal agent, by inserting "Yes" in the relevant box below:

Key	Performance Indicators	Very Poor	Poor	Fair	Good	Excellent	Total
		1	2	3	4	5	
1.	Project performance						
2.	Quality of Service						
3.	Resources: Personnel						
4.	Time management / programming						
5.	Financial management /						
	Project budget management/cash flow, etc.						
тот	AL						

• Would you consider / recommend this tenderer again:



• Any other comments:

• My contact details are:

Telephone:	Cellphone:	Fax:	
E-mail:			
Thus signed at	on this	day of	2022
Signature of Principal Agent		COMPANY STAMP	

#### NOTE:

If reference cannot be verified due to the inability to get hold of the referee or failure on his/her part to respond to a written request to do so, that reference will not score any points. It is the responsibility of the tenderer to put referees who are reachable.

Name of Tenderer

Signature of Tenderer

## **EVALUATION SCHEDULE 1 – PROJECT REFERENCE FORMS - 2**

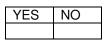
Project title:	CONSTRUCTION OF 300 SEATER EXAM HALL AT THE TSOLO AGRICULTURAL AND RURAL DEVELOPMENT INSTITUTE AT TSOLO
Project Number:	SCMU8-22/23-0063

NOTE: This returnable document must be completed by the person who was the Engineer/Project Manager on a project of similar value and complexity that was completed successfully by the tenderer.

• Please evaluate the performance of the Tenderer on the abovementioned project, on which you were the principal agent, by inserting "Yes" in the relevant box below:

Key	Performance Indicators	Very Poor	Poor	Fair	Good	Excellent	Total
		1	2	3	4	5	
6.	Project performance						
7.	Quality of Service						
8.	Resources: Personnel						
9.	Time management / programming						
10.	Financial management / Project budget management/cash flow, etc.						
тот	AL						

• Would you consider / recommend this tenderer again:



• Any other comments:

• My contact details are:

Telephone:	Cellphone:	Fax:	
E-mail:			
Thus signed at	on this	day of	2022
Signature of Principal Agent		COMPANY STAMP	

#### NOTE:

If reference cannot be verified due to the inability to get hold of the referee or failure on his/her part to respond to a written request to do so, that reference will not score any points. It is the responsibility of the tenderer to put referees who are reachable.

Name of Tenderer

Signature of Tenderer

## **EVALUATION SCHEDULE 1 – PROJECT REFERENCE FORMS - 3**

Project title:	CONSTRUCTION OF 300 SEATER EXAM HALL AT THE TSOLO AGRICULTURAL AND RURAL DEVELOPMENT INSTITUTE AT TSOLO
Project Number:	SCMU8-22/23-0063

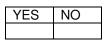
NOTE: This returnable document must be completed by the person who was the Engineer/Project Manager on a project of similar value and complexity that was completed successfully by the tenderer.

I, ________ (name and surname) of ________________(company name) declare that I was the Project Manager on the following building construction project successfully executed by _________(name of tenderer):
Project name: _________
Project location: ________
Construction period: _______Completion date: ________
Contract value: _______

• Please evaluate the performance of the Tenderer on the abovementioned project, on which you were the principal agent, by inserting "Yes" in the relevant box below:

Key	Performance Indicators	Very Poor	Poor	Fair	Good	Excellent	Total
		1	2	3	4	5	
11.	Project performance						
12.	Quality of Service						
13.	Resources: Personnel						
14.	Time management / programming						
15.	Financial management / Project budget management/cash flow, etc.						
TOTAL							

• Would you consider / recommend this tenderer again:



• Any other comments:

• My contact details are:

Telephone:	Cellphone:	Fax:	
E-mail:			
Thus signed at	on this	day of	2022
Signature of Principal Agent		COMPANY STAMP	

#### NOTE:

If reference cannot be verified due to the inability to get hold of the referee or failure on his/her part to respond to a written request to do so, that reference will not score any points. It is the responsibility of the tenderer to put referees who are reachable.

Name of Tenderer

Signature of Tenderer

# PART C1 FORM OF OFFER AND CONTRACT DATA

VOLUME 2 – RETURNABLE DOCUMENTS SCM8-22/23-0063

# **C 1.1 FORM OF OFFER AND ACCEPTANCE**

VOLUME 2 – RETURNABLE DOCUMENTS SCM8-22/23-0063

#### EASTERN CAPE PROVINCIAL GOVERNMENT DEPARTMENT OF RURAL DEVELOPMENT AND AGRARIAN REFORM

# BID FOR THE CONSTRUCTION OF 300 SEATER EXAM HALL AT THE TSOLO AGRICULTURAL AND RURAL DEVELOPMENT INSTITUTE AT TSOLO

### C1.1 Form of Offer and Acceptance

**Note:** 1 This form of offer and acceptance is identical to that contained in Annex F of SANS 10845 - 1: Construction Procurement Processes, Procedures and Methods.

2 SAICE's Practice Manual #1, The use of South African National Standards in Construction Procurement, provides guidance on the formulation of the wording for the actual offer where it is not based on the offered total of prices.

#### OFFER

The employer, identified in the acceptance signature block, has solicited offers to enter into a contract for the procurement of: CONSTRUCTION OF 300 SEATER EXAM HALL AT THE TSOLO AGRICULTURAL AND RURAL DEVELOPMENT INSTITUTE AT TSOLO

The tenderer, identified in the offer signature block, has examined the documents listed in the tender data and addenda thereto as listed in the returnable 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 figures) (or other suitable wording)

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.

Signature(s)	Date:
Name(s)	
Capacity:	
For tenderer: (Name and address)	
Name & Signature of witness:	Date:

#### ACCEPTANCE

By signing this part of this 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 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 Agreements and contract data, (which includes this agreement)

Part C2 Pricing data

Part C3 Scope of work

Part C4 Site information and drawings and documents or parts thereof, which may be incorporated by reference into the above listed Parts.

Deviations from and amendments to the documents listed in the tender data and any addenda thereto as listed in the returnable 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 form of offer and acceptance. No amendments to or deviations from said documents are valid unless contained in this schedule.

The tenderer shall within two weeks 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 securities, bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the conditions of contract identified in the contract data. 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 (5) working days of the date of such receipt notifies the employer in writing of any reason why he/she cannot accept the contents of this agreement, this agreement shall constitute a binding contract between the parties.

Signature(s)	Date:
Name(s)	
Capacity:	
For the employer: (Name and address)	
Name & Signature of witness:	Date:

## SCHEDULE OF DEVIATIONS

#### Notes:

- 1. The extent of deviations from the tender documents issued by the employer before the tender closing date is limited to those permitted in terms of the conditions of tender.
- 2. A tenderer's covering letter shall not be included in the final contract document. Should any matter in such letter, which constitutes a deviation as aforesaid, become the subject of agreements reached during the process of offer and acceptance, the outcome of such agreement shall be recorded here.
- 3. Any other matter 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.
- 4. 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:		
	Subject	
Details:		
3	Subject	
Details:		
4	Subject	
Details:		

By the duly authorised representatives signing this agreement, 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 returnable schedules, as well as any confirmation, clarification or changes 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.

## C 1.2 CONTRACT DATA – PART 2 DATA PROVIDED BY THE CONTRACTOR

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42.0	Part 2: Contract Data provided by the Contractor:				
	POST-TENDER INFORMATION				
	Note: All information for this section requires consultation with the contractor. The principal agent shall not pre-select any of the alternatives available to the contractor				
42.5	CONTRACT DETAILS				
42.5.1	Contractor:				
	Postal address:				
	Tel: E-mail:				
	TAX / VAT Registration No:				
	Physical address:				
42.5.2	The accepted <b>contract sum</b> inclusive of tax is <b>R</b>				
	Amount in words:				
42.5.3 [31.3]	The latest day of the month for the issue of an interim <b>payment certificate:</b>				
42.5.4 [32.12]	The preliminaries amounts shall be paid in terms of: Alternative A Alternative B				
42.5.5 [32.12]	The preliminaries amounts shall be adjusted in terms of: Alternative A Alternative B				
42.5.7	The <b>security</b> to be provided by the <b>contractor</b> :				

[14]				
(a) in respect of contracts up to R1 million, the <b>contractor</b> will provide security in terms of 1				
	(b) in respect of contracts above R1 million, the <b>contractor</b> will provide, a following:	s <b>security</b> , one of the		
	(1) cash deposit of 10 % of the <b>contract sum</b> (excluding VAT)	Yes 🗌 No 🗌		
	(2) variable <b>construction guarantee</b> of 10 % of the <b>contract sum</b> (excluding VAT) (DPW-10.3 EC)	Yes 🗌 No 🗌		
	(3) payment reduction of 10% of the value certified in the <b>payment certificate</b> (excluding VAT)	Yes 🗌 No 🗌		
	<ul> <li>(4) cash deposit of 5% of the contract sum (excluding. VAT) and a payment reduction of 5% of the value certified in the payment certificate (excluding. VAT)</li> </ul>	Yes 🗌 No 🗌		
	(5) fixed construction guarantee of 5% of the contract sum (excluding VAT) and a payment reduction of 5% of the value certified in the payment certificate (excluding VAT) (DPW-10.1 EC)	Yes 🗌 No 🗌		
	NB. Guarantees submitted must be issued by either an insurance com registered in terms of the Short-Term Insurance Act, 1998 (Act 35 of 19 duly registered in terms of the Banks Act, 1990 (Act 94 of 1990) on the to above. No alterations or amendments of the wording of the pro-form	998) or by a bank pro-forma referred		
42.5.8 [29.7.2]	The annual building holiday period after the commencement of the construct	ction period:		
	From: to			

42.6	DOCUMENTS		
42.6.1	Contract documents marked	and annexed hereto:	
	Priced bills of quantities:	Yes 🗌 No 🗌	Document marked as
	Lump sum document:	Yes 🗌 No 🗌	Document marked as
	Guarantees:	Yes 🗌 No 🗌	Document marked as
	Contract drawings: Yes 🗌 No 🗌		Document marked as
	Other documents	Yes 🗌 No 🗌	(attach additional pages if more space is required

# PART C2 – PRICING DATA

# **C 2.1 PRICING INSTRUCTIONS**

#### EASTERN CAPE PROVINCIAL GOVERNMENT DEPARTMENT OF RURAL DEVELOPMENT AND AGRARIAN REFORM

### BID FOR THE CONSTRUCTION OF 300 SEATER EXAM HALL AT THE TSOLO AGRICULTURAL AND RURAL DEVELOPMENT INSTITUTE IN TSOLO

## **C2.1 Pricing Instructions**

- 1. Measurement and payment shall be in accordance with the relevant provisions of clause 8 of each of the SABS 1200 Standardised Specifications for Civil Engineering Construction and Standard System of Measuring Building Work 2015 referred to in the Scope of Work. The Preliminary and General items shall be measured in accordance with the provisions of SABS 1200-A, General and JBCC 4.1 March 2005 JBCC General Preliminaries.
- 2. The units of measurement described in the Bills of Quantities are metric units. Abbreviations used in these Bills of Quantities are as follows:

%	=	percent
h	=	hour
ha	=	hectare
kg	=	kilogram
kľ	=	kilolitre
km	=	kilometre
km-pass	=	kilometre-pass
kPa	=	kilopascal
kW	=	kilowatt
I	=	litre
m	=	metre
mm	=	millimetre
m²	=	square metre
m²-pass	=	square metre-pass
m ³	=	cubic metre
m³-km	=	cubic metre-kilometre
month	=	month
MN	=	meganewton
MN.m	=	meganewton-metre
MPa	=	megapascal
No.	=	number
Prov sum	=	Provisional sum
PC sum	=	Prime Cost sum
R/only	=	Rate only
sum	=	lump sum
t	=	ton (1000 kg)
W/day	=	Work day

- 3. Unless otherwise stated, items are measured net in accordance with the drawings, and no allowance is made for waste.
- 4. 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.

- 5. It will be assumed that prices included in these 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 <u>www.stanza.org.za</u> or <u>www.iso.org</u> for information on standards)
- 6. Where the Scope of Work requires detailed drawings and designs or other information to be provided, all costs associated therewith are deemed to have been provided for and included in the unit rates and sum amount tendered such items
- 7. 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.
- 8. The quantities set out in these Bills of Quantities are approximate and do not necessarily represent the actual amount of work to be done. The quantities of work accepted and certified for payment will be used for determining payments due and not the quantities given in the Bills of Quantities.
- 9. Reasonable compensation will be received where no pay item appears in respect of work required in the Bills of Quantities in terms of the Contract and which is not covered in any other pay item.
- 10. The short descriptions of the items of payment given in these Bills of Quantities are only for the purposes of identifying the items. More details regarding the extent of the work entailed under each item appear in the Scope of Work.
- 10. Descriptions in the Bills of Quantities are abbreviated and comply generally with those in the SABS 1200 Standardised Specifications and The Standard System of Measuring Building Work 2015.

# **C 2.2 BILLS OF QUANTITIES**

VOLUME 2 – RETURNABLE DOCUMENTS SCM8-22/23-0063

#### **BILLS OF QUANTITIES**

#### FOR

#### Construction of 300 Seater Exam Hall at the Tsolo Agricultural and Rural Development Institute

#### FOR

#### **Department of Rural Development & Agrarian Reform**

#### ARCHITECTS

Intsika Architects 1st Floor, Leadwood House, Cedarsquare Bonza Bay Road Beacon Bay, East London 5241 Tel. 043 748 2949 Fax: 043 748 1702 e Mail: rob@intsika.com

#### **Principal Agent**

Intsika Architects Tel. 043 748 2949 Fax: 043 748 1702 e Mail: rob@intsika.com

#### **Electrical & Mechanical Engineers**

BVI Engineers Tel. 043 722 2738 Fax: 043 747 7698 e Mail: WernerdL@bvi.co.za

#### QUANTITY SURVEYORS

Bisiwe Van Niekerk Inc Quantity Surveyors & Project Managers The Ridge Office Park, 2nd Floor, 3 Berea Terrace, Berea, East London

 Tel.
 043 721 1043/4

 Fax:
 043 721 1239

 e Mail:
 admin@bisiwe.co.za

#### **Civil & Structural Engineers**

BVI Engineers Tel. 043 722 2738 Fax: 043 747 7698 e Mail: WernerdL@bvi.co.za

# SECTION 1 PRELIMINARIES

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#### SECTION NO. 1 PRELIMINARIES

**MEANING OF TERMS "TENDER / TENDERER"** 

Any reference to the words "Tender" or "Tenderer" herein and/or in any other documentation shall be construed to have the same meaning as the words "Bid" or "Bidder"

#### **PRELIMINARIES**

The JBCC Preliminaries Code 2103, May 2005 edition for use with the JBCC Principal Building Agreement Edition 4.1 Code 2101, March 2005 is taken to be incorporated herein. The tenderer is deemed to have referred to these documents for the full intent and meaning of each clause. These clauses are referred to by number and heading only. Where standard clauses or options are not applicable to the contract such modifications or corrections as are necessary are given under each relevant clause. Where an item is not relevant to this specific contract such item is marked "N/A" signifying "Not Applicable".

#### PRICING OF PRELIMINARIES

Should Option A, as set out in clause B10.3.1 hereinafter be used for the adjustment of preliminaries then each item priced is to be allocated to one or more of the three categories Fixed, Value Related or Time Related and the respective amounts entered in the spaces provided under each item

Items not priced in these Preliminaries shall be deemed to be included elsewhere in these Bills of Quantities.

#### SECTION A: JBCC PRINCIPAL BUILDING AGREEMENT

#### DEFINITIONS

#### 1 A1 DEFINITIONS AND INTERPRETATION

Clause 1.0

Clause 1.1 Definition of "Commencement Date" is added:

"**COMMENCEMENT DATE**" means the date that the **agreement**, made in terms of the Form of Offer and Acceptance, comes into effect

Clause 1.1 Definition of "**Construction Guarantee**" is amended by replacing it with the following:

"CONSTRUCTION GUARANTEE" means a guarantee at call obtained by the contractor from an institution approved by the **employer** in terms of the **employer's** construction guarantee form as selected in the **schedule** 

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Clause 1.1 Definition of " <b>Construction Period</b> " is amended by replacing it with the following:
"CONSTRUCTION PERIOD" means the period commencing on the commencement date and ending on the date of practical completion
Clause 1.1 Definition of "Corrupt Practice" is added:
" <b>CORRUPT PRACTICE</b> " means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution.
Clause 1.1 Definition of "Fraudulent Practice" is added:
<b>"FRAUDULENT PRACTICE</b> " means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of any tenderer and includes collusive practice among tenderers (prior to or after the tender submission) designed to establish tender prices a artificial non-competitive levels and to deprive the tenderer of the benefits of free and open competition.
Clause 1.1 Definition of "Interest" is amended by replacing it with the following:
" <b>INTEREST</b> " means the interest rates applicable on this contract, whether specifically indicated in the relevant clauses or not, will be the rate as determined by the Minister of Finance, from time to time, in terms of section 80(1)(b) of the Public Finance Management Act, 1999 (Act No. 1 of 1999).
Clause 1.1 Definition of " <b>Principal Agent</b> " is amended by replacing it with th following:
"PRINCIPAL AGENT" means the person or entity appointed by the employed and named in the schedule. In the event of a principal agent not being appointed, then all the duties and obligations of a principal agent as detailed in the agreement shall be fulfilled by a representative of the employer as named in the schedule
Clause 1.1 Definition of " <b>Security</b> " is amended by replacing it with the following:
"SECURITY" means the form of security provided by the employer or contractor, as stated in the schedule, from which the contractor or employer may recover expense or loss
Clause 1.6 is amended by replacing the words "prepaid registered post, telefax or e-mail" with "prepaid registered post or telefax"
Clause 1.6.4 is amended by replacing it with the following:
No clause
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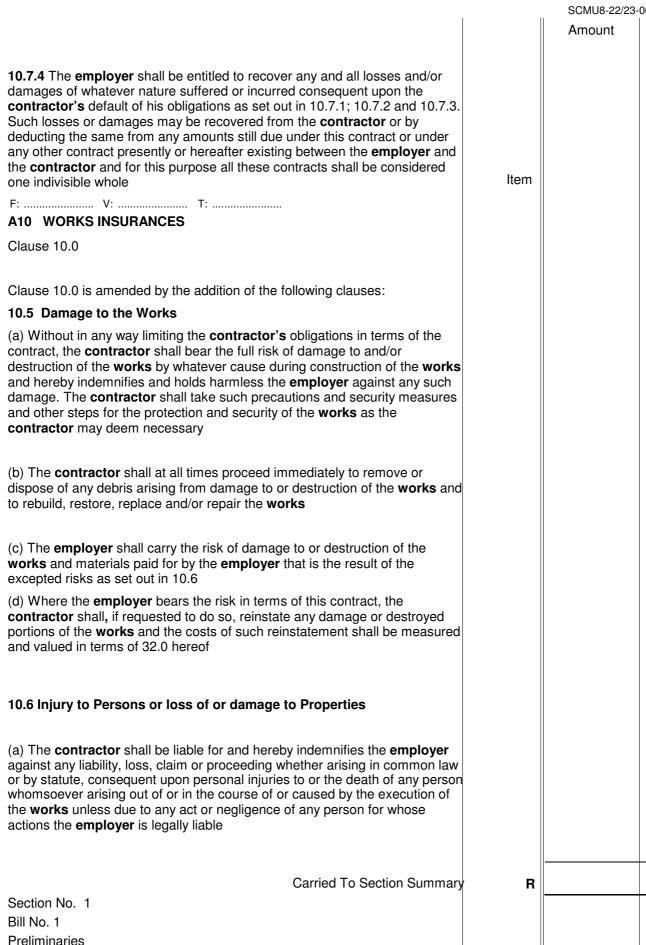
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	OBJECTIVE AND PREPARATION			
2	A2 OFFER, ACCEPTANCE AND PERFORMANCE			
	Clause 2.0	Item		
~	F: V: T:			
3	A3 DOCUMENTS			
	Clause 3.2.1 is amended by replacing "14.1" with "14.0"			
	Clause 3.7 is amended by the addition of the following:			
	The <b>contractor</b> shall supply and keep a copy of the <b>JBCC</b> Series 2000 Principal Building Agreement and Preliminaries applicable to this contract on the <b>site</b> , to which the <b>employer</b> , <b>principal agent</b> and <b>agents</b> shall have access at all times			
	Clause 3.10 is amended by replacing the second reference to " <b>principal</b> agent" with the word "employer"	ltem		
	F: V: T:			
4	A4 DESIGN RESPONSIBILITY			
	Clause 4.0			
	Clause 4.3 is amended by replacing it with the following:			
	No clause	Item		
_	F: V: T:			
5	A5 EMPLOYER'S AGENTS			
	Clause 5.0	ltom		
	Clause 5.1.2 is amended to include clauses 32.6.3, 34.3, 34.4 and 38.5.8 F: V: T:	Item		
6	A6 SITE REPRESENTATIVE			
	Clause 6.0	Item		
	F: V: T:			
7	A7 COMPLIANCE WITH REGULATIONS			
	Clause 7.0			
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	Note: The provisions herein include <i>inter alia</i> , compliance with all the requirements set out in the Construction Regulations, 2003 issued under the Occupational Health and Safety Act, 1993 (Act No 85 of 1993), and in particular with Regulation 5(1) requiring the compilation of a health and safety plan, as well as Regulation 6(1) requiring the appointment of a construction supervisor			
	Note: A separate section has been included in the BOQ document for the <b>Contractor</b> to have the opportunity to price for all the requirements of the Occupational Health and Safety Act, Construction Regulations and Health and Safety Specification.	ltem		
8	F: V: T: A8 WORKS RISK			
	Clause 8.0	Item		
9	F: V: V: T: A9 INDEMNITIES			
Ŭ	Clause 9.0	Item		
	F: V: T:			
	The <b>contractor</b> shall be liable for and hereby indemnifies and holds harmless the <b>employer</b> against any liability, loss, claim or proceeding arising at any time during the period of the contract whether arising in common law or by statute, consequent upon personal injuries to or the death of any person whomsoever resulting from, arising out of or caused by a catastrophic ground movement as mentioned above			
	The <b>contractor</b> shall be liable for and hereby indemnifies the <b>employer</b> against any and all liability, loss, claim or proceeding consequent upon loss of or damage to any moveable or immovable or personal property or property contiguous to the <b>site</b> , whether belonging to or under the control of the <b>employer</b> or any other body or person whomsoever arising out of or caused by a catastrophic ground movement, as mentioned above, which occurred during the period of the contract			
	<b>10.7.3</b> It is the responsibility of the <b>contractor</b> to ensure that he has adequate insurance to cover his risk and liability as mentioned in 10.7.1 and 10.7.2. Without limiting the <b>contractor's</b> obligations in terms of the contract, the <b>contractor</b> shall, within twenty-one (21) <b>calendar days</b> of the <b>commencement date</b> but before commencement of the <b>works</b> , submit to the <b>employer</b> proof of such insurance policy, if requested to do so			
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(b) The **contractor** shall be liable for and hereby indemnifies the **employer** against any liability, loss, claim or proceeding consequent upon loss of or damage to any moveable or immovable or personal property or property contiguous to the **site**, whether belonging to or under the control of the **employer** or any other body or person, arising out of or in the course of or by reason of the execution of the **works** unless due to any act or negligence of any person for whose actions the **employer** is legally liable

(c) The **contractor** shall, upon receiving a **contract instruction** from the **principal agent**, cause the same to be made good in a perfect and workmanlike manner at his own cost and in default thereof the **employer** shall be entitled to cause it to be made good and to recover the cost thereof from the **contractor** or to deduct the same from amounts due to the **contractor** 

(d) The **contractor** shall be responsible for the protection and safety of such portions of the premises placed under his control by the **employer** for the purpose of executing the **works** until the issue of the **certificate of practical completion** 

(e) Where the execution of the **works** involves the risk of removal of or interference with support to adjoining properties including land or structures or any structures to be altered or added to, the **contractor** shall obtain adequate insurance and will remain adequately insured or insured to the specific limit stated in the contract against the death of or injury to persons or damage to such property consequent on such removal or interference with the support until such portion of the **works** has been completed

(f) The **contractor** shall at all times proceed immediately at his own cost to remove or dispose of any debris and to rebuild, restore, replace and/or repair such property and to execute the **works** 

#### 10.7 High risk insurance

In the event of the project being executed in a geological area classified as a "High Risk Area", that is an area which is subject to highly unstable subsurface conditions that might result in catastrophic ground movement evident by sinkhole or doline formation the following will apply:

#### 10.7.1 Damage to the works

The **contractor** shall, from the **commencement date** of the **works** until the date of the **certificate of practical completion** bear the full risk of and hereby indemnifies and holds harmless the **employer** against any damage to and/or destruction of the **works** consequent upon a catastrophic ground movement as mentioned above. The **contractor** shall take such precautions and security measures and other steps for the protection of the **works** as he may deem necessary

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	When so instructed to do so by the <b>principal agent</b> , the <b>contractor</b> shall proceed immediately to remove and/or dispose of any debris arising from			
	damage to or destruction of the <b>works</b> and to rebuild, restore, replace and/or repair the <b>works</b> , at the <b>contractor's</b> own costs			
	10.7.2 Injury to persons or loss of or damage to property			
11	A11 LIABILITY INSURANCES			
	Clause 11.0	ltem		
	F: V: T:			
12	A12 EFFECTING INSURANCES			
	Clause 12.0	ltem		
13	F: V: V: T: A13 No Clause	ltem		
	F: V: T:	nom		
14	A14 SECURITY			
	Clause 14.0			
	Clauses 14.1 - 14.8 are amended by replacing them with the following:			
	14.1 In respect of contracts with a contract sum up to R1 million, the security to be provided by the contractor to the employer will be a payment reduction of five per cent (5%) of the value certified in the payment certificate (excluding VAT)			
	14.1.1 The payment reduction of the value certified in a payment certificate shall be mutatis mutandi in terms of 31.8(A)			
	14.1.2 The employer shall be entitled to recover expense and loss from the payment reduction in terms of 33.0 provided that the employer complies with the provisions of 33.4 in which event the employer's entitlement shall take precedence over his obligations to refund the payment reduction security or portions thereof to the contractor			
	14.2 In respect of contracts with a contract sum above R1 million, the contractor shall have the right to select the security to be provided in terms of 14.3, 14.4, 14.5, 14.6, or 14.7 as stated in the schedule. Such security shall be provided to the employer within twenty-one (21) calendar days from commencement date. Should the contractor fail to select the security to be provided or should the contractor fail to provide the employer with the selected security within twenty-one (21) calendar days from commencement date, the security in terms of 14.7 shall be deemed to have been selected.			
	14.3 Where security as a cash deposit of ten per cent (10%) of the contract sum (excluding VAT) has been selected:			
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14.3.1 The contractor shall furnish the employer with a cash deposit equal in value to ten per cent (10%) of the contract sum (excluding VAT) within

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twenty-one (21) calendar days from commencement date 14.3.2 Within twenty-one (21) calendar days of the date of practical completion of the works the employer shall reduce the cash deposit to an amount equal to three per cent (3%) of the contract value (excluding VAT), and refund the balance to the contractor 14.3.3 Within twenty-one (21) calendar days of the date of final completion of the works the employer shall reduce the cash deposit to an amount equal to one per cent (1%) of the contract value (excluding VAT) and refund the balance to the contractor 14.3.4 On the date of payment of the amount in the final payment certificate, the employer shall refund the remainder of the cash deposit to the contractor 14.3.5 The employer shall be entitled to recover expense and loss from the cash deposit in terms of 33.0 provided that the employer complies with the provisions of 33.4 in which event the employer's entitlement shall take precedence over his obligations to refund the cash deposit security or portions thereof to the contractor 14.3.6 The parties expressly agree that neither the employer nor the contractor shall be entitled to cede the rights to the deposit to any third party 14.4 Where security as a variable construction guarantee of ten percent (10%) of the contract sum (excluding VAT) has been selected: 14.4.1 The contractor shall furnish the employer with an acceptable variable construction guarantee equal in value to ten per cent (10%) of the contract sum (excluding VAT) within twenty-one (21) calendar days from commencement date 14.4.2 The variable construction guarantee shall reduce and expire in terms of the Variable Construction Guarantee form included in the invitation to tender 14.4.3 The employer shall return the variable construction guarantee to the contractor within fourteen (14) calendar days of it expiring 14.4.4 Where the employer has a right of recovery against the contractor in terms of 33.0, the employer shall issue a written demand in terms of the variable construction guarantee 14.5 Where security as a fixed construction guarantee of five per cent (5%) of the contract sum (excluding VAT) and a five per cent (5%) payment reduction of the value certified in the payment certificate (excluding VAT) has been selected: 14.5.1 The contractor shall furnish a fixed construction guarantee to the employer equal in value to five per cent (5%) of the contract sum (excluding VAT) 14.5.2 The fixed construction guarantee shall come into force on the date of issue and shall expire on the date of the last certificate of practical completion 14.5.3 The employer shall return the fixed construction guarantee to the contractor within fourteen (14) calendar days of it expiring Carried To Section Summary Section No. 1 Bill No. 1 Preliminaries

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	14.5.4 The payment reduction of the value certified in a payment certificate shall be in terms of 31.8 (A) and 34.8		
	14.5.5 Where the employer has a right of recovery against the contractor in terms of 33.0, the employer shall be entitled to issue a written demand in terms of the fixed construction guarantee or may recover from the payment reduction or may do both		
	14.6 Where security as a cash deposit of five per cent (5%) of the contract sum (excluding VAT) and a payment reduction of five per cent (5%) of the value certified in the payment certificate (excluding VAT) has been selected:		
	14.6.1 The contractor shall furnish the employer with a cash deposit equal in value to five per cent (5%) of the contract sum (excluding VAT) within twenty-one (21) calendar days from commencement date		
	14.6.2 Within twenty-one (21) calendar days of the date of practical completion of the works the employer shall refund the cash deposit in total to the contractor		
	14.6.3 The payment reduction of the value certified in a payment certificate shall be mutatis mutandi in terms of 31.8(A)		
	14.6.4 Where the employer has a right of recovery against the contractor in terms of 33.0, the employer may issue a written notice in terms of 33.4 or may recover from the payment reduction or may do both		
	14.7 Where security as a payment reduction of ten per cent (10%) of the value certified in the payment certificate (excluding VAT) has been selected:		
	14.7.1 The payment reduction of the value certified in a payment certificate shall be mutatis mutandi in terms of 31.8(B)		
	14.7.2 The employer shall be entitled to recover expense and loss from the payment reduction in terms of 33.0 provided that the employer complies with the provisions of 33.4 in which event the employer's entitlement shall take precedence over his obligations to refund the payment reduction or portions thereof to the contractor		
	14.8 Payments made by the guarantor to the employer in terms of the fixed or variable construction guarantee shall not prejudice the rights of the employer or contractor in terms of this agreement		
	14.9 Should the contractor fail to furnish the security in terms of 14.2, the employer, in his sole discretion and without notification to the contractor, is entitled to change the contractor's selected form of security to that of a ten per cent (10%) payment reduction of the value certified in the payment certificate (excluding VAT), whereafter 14.7 shall be applicable	Item	
	F: V: T:		
15	EXECUTION A15 PREPARATION FOR AND EXECUTION OF THE WORKS		
15			
	Clause 15.0		
	Clause 15.1.1 is amended by replacing it with: No clause		
	Clause 15.1.2 is amended by replacing it with:		
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	The security selected in terms of 14.0			
	Clause 15.1 is amended by the addition of the following clause:			
	15.1.4 An acceptable health and safety plan, required in terms of the			
	Occupational Health and Safety Act, 1993 (Act 85 of 1993), within twenty-one (21) calendar days of commencement date			
	Clause 15.2.1 is amended by replacing it with the following clause:			
	Give the contractor possession of the site within ten (10) working days of the			
	contractor complying with the terms of 15.1.4	ltem		
	F: V: T:			
16	A16 ACCESS TO THE WORKS			
	Clause 16.0	ltem		
	F: V: T:			
17	A17 CONTRACT INSTRUCTIONS			
	Clause 17.0			
	Clause 17.1.11 is amended by deleting the words "and the appointment of			
	nominated and selected subcontractors"	Item		
	F: V: T:			
18	A18 SETTING OUT OF THE WORKS			
	Clause 18.0	ltem		
	F: V: V:			
19	A19 ASSIGNMENT			
	Clause 19.0	Item		
	F: V: T:			
20	A20 NOMINATED SUB-CONTRACTORS			
	Clause 20.0			
	Clause 20.1.3 is amended by replacing it with the following:			
	Clause 20.1.5 is amended by replacing it with the following.			
	No clause			
	Note: See item B9.1 hereinafter for adjustment of attendance on nominated			
	subcontractors executing work allowed for under provisional sums	ltem		
	F: V: T:			
		_		
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21	A21 SELECTED SUB-CONTRACTORS			
21	Clause 21.0			
	Glause 21.0			
	Clause 21 is amended by replacing it with:			
	No clause F: V: T:	Item		
22	A22 EMPLOYER'S DIRECT CONTRACTORS			
	Clause 22.0	Item		
	F: V: T:	nom		
23	A23 CONTRACTOR'S DOMESTIC SUB-CONTRACTORS			
	Clause 23.0	Item		
	F: V: T:			
	COMPLETION			
24	A24 PRACTICAL COMPLETION			
	Clause 24.0	Item		
	F: V: T:			
25	A25 WORKS COMPLETION			
	Clause 25.0	Item		
26	F: V: T: A26 FINAL COMPLETION			
	Clause 26.0			
	Clause 26.1.2 is amended by inserting "#" next to 26.1.2	Item		
	F: V: T:			
27	A27 LATENT DEFECTS LIABILITY PERIOD			
	Clause 27.0	Item		
	F: V: T:			
28	A28 SECTIONAL COMPLETION			
	Clause 28.0	Item		
	F: V: T:			
29	A29 REVISION OF DATE FOR PRACTICAL COMPLETION			
	Clause 29.0			
	Clause 29.2.5 is amended by replacing it with:			
	No clause	Item		
	F: V: T:			
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30	A30 PENALTY FOR NON-COMPLETION			
	Clause 30.0	Item		
	F: V: T:			
01	PAYMENT A31 INTERIM PAYMENT TO THE CONTRACTOR			
31	AST INTERIM PATMENT TO THE CONTRACTOR			
	Clause 31.0			
	Clause 31.5.2 is amended by replacing "14.7.1" with "14.0"			
	Clause 31.8 is amended by replacing it with the following two alternative clauses:			
	Alternative A			
	31.8(A) Where a <b>security</b> is selected in terms of 14.1; 14.5 or 14.6, the value of the <b>works</b> in terms of 31.4.1 and <b>materials and goods</b> in terms of 31.4.2 shall be certified in full. The value certified shall be subject to the following percentage adjustments:			
	31.8(A).1 Ninety-five per cent (95%) of such value in interim <b>payment</b> certificates issued up to the date of <b>practical completion</b>			
	31.8(A).2 Ninety-seven per cent (97%) of such value in interim <b>payment certificates</b> issued on the date of <b>practical completion</b> and up to but excluding the date of <b>final completion</b>			
	31.8(A).3 Ninety-nine per cent (99%) of such value in interim <b>payment certificates</b> issued on the date of <b>final completion</b> and up to but excluding the final <b>payment certificate</b> in terms of 34.6			
	31.8(A).4 One hundred per cent (100%) of such value in the final <b>payment certificate</b> in terms of 34.6 except where the amount certified is in favour of the <b>employer</b> . In such an event the payment reduction shall remain at the adjustment level applicable to the final <b>payment certificate</b>			
	Alternative B			
	31.8(B) Where <b>security</b> as a payment reduction in terms of 14.7 has been selected, the value of the <b>works</b> in terms of 31.4.1 and <b>materials and goods</b> in terms of 31.4.2 shall be certified in full. The value certified shall be subject to the following percentage adjustments:			
	31.8(B).1 Ninety per cent (90%) of such value in interim <b>payment</b> certificates issued up to the date of <b>practical completion</b>			
	31.8(B).2 Ninety-seven per cent (97%) of such value in interim <b>payment</b> certificates issued on the date of <b>practical completion</b> and up to but excluding the date of <b>final completion</b>			
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	31.8(B).3 Ninety-nine per cent (99%) of such value in interim <b>payment certificates</b> issued on the date of <b>final completion</b> and up to but excluding the final <b>payment certificate</b> in terms of 34.6			
	31.8(B).4 One hundred per cent (100%) of such value in the final <b>payment certificate</b> in terms of 34.6 except where the amount certified is in favour of the <b>employer</b> . In such an event the payment reduction shall remain at the adjustment level applicable to the final <b>payment certificate</b>			
	Clause 31.12 is amended by deleting the following:			
	Payment shall be subject to the <b>employer</b> giving the <b>contractor</b> a tax invoice for the amount due	ltem		
32	F: A32 ADJUSTMENT TO THE CONTRACT VALUE			
	Clause 32.0			
	Clauses 32.5.1, 32.5.4 and 32.5.7 are amended by the addition of the following at the end of the sentence:			
	"due to no fault of the contractor"	Item		
33	F:T:			
	Clause 33.0	Item		
34	F: A34 FINAL ACCOUNT AND FINAL PAYMENT			
	Clause 34.0			
	Clause 34.1 is amended by removing "#" next to 34.1			
	Clause 34.2 is amended by inserting "#" next to 34.2			
	Clause 34.8 is amended by deleting the words "where security as a fixed construction guarantee in terms of 14.4 has been selected or where payment reduction has been applied in terms of 14.7.1"			
	Clause 34.13 is amended by replacing "seven (7) calendar days" with "twenty-one (21) calendar days" and deleting the words "subject to the employer giving the contractor a tax invoice for the amount due"	ltem		
~ -				
35	A35 PAYMENT TO OTHER PARTIES			
	Clause 35.0	Item		
	F: V: T: CANCELLATION			
36	A36 CANCELLATION BY EMPLOYER – CONTRACTOR'S DEFAULT			
	Clause 36.0			
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	Clause 36.1 is amended by the addition of the following clauses:			
	36.1.3 refuses or neglects to comply strictly with any of the conditions of contract			
	36.1.4 estate being sequestrated, liquidated or surrendered in terms of the insolvency laws in force within the Republic of South Africa			
	36.1.5 in the judgement of the employer, has engaged in corrupt or fraudulent practices in competing for or in executing the contract			
	Clause 36.3 is amended by removing the reference to "No clause" and replacing the words "principal agent" with "employer"			
	Clause 36.0 is amended by the addition of the following clause:			
	36.7 Notwithstanding any clause to the contrary, on cancellation of this agreement either by the employer or the contractor; or for any reason whatsoever, the contractor shall on written instruction, discontinue with the works on a date stated and withdraw himself from the site. The contractor shall not be entitled to refuse to withdraw from the works on the grounds of any lien or right of retention or on the grounds of any other right whatsoever	ltem		
	F: V: T:			
	37.5 Notwithstanding any clause to the contrary, on cancellation of this agreement either by the employer or the contractor; or for any reason whatsoever, the contractor shall on written instruction, discontinue with the works on a date stated and withdraw himself from the site. The contractor shall not be entitled to refuse to withdraw from the works on the grounds of any lien or right of retention or on the grounds of any other right whatsoever	Item		
37	F: A37 CANCELLATION BY EMPLOYER – LOSS AND DAMAGE			
	Clause 37.0			
	Clause 37.0 is amended by the addition of the following clause:			
	Clause 37.3.5 is amended by replacing "ninety (90)" with "one-hundred and twenty (120)"			
38	A38 CANCELLATION BY CONTRACTOR – EMPLOYER'S DEFAULT			
	Clause 38.0			
	Clause 38.5.4 is amended by replacing "ninety (90)" with "one-hundred and twenty (120)"			
	Clause 38.0 is amended by the addition of the following clause:			
	38.7 Notwithstanding any clause to the contrary, on cancellation of this agreement either by the employer or the contractor; or for any reason whatsoever, the contractor shall on written instruction, discontinue with the works on a date stated and withdraw himself from the site. The contractor shall not be entitled to refuse to withdraw from the works on the grounds of any lien or right of retention or on the grounds of any other right whatsoever	ltem		
	F: V: T:			
	Carried To Section Summary	R		
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39	A39 CANCELLATION – CESSATION OF THE WORKS			
	Clause 39.0			
	Clause 39.3.5 is amended by the addition of the following at the end of the sentence: "within one hundred and twenty (120) working days of completion of such a report"	Item		
	F: V: T:			
	DISPUTE			
40	A40 DISPUTE SETTLEMENT			
	Clause 40.0			
	Clause 40.2.2 is amended by replacing "one (1) year" with "three (3) years"			
	Clause 40.6 is amended by removing the reference to:			
	No clause			
	Clause 40.7.1 is amended by replacing "(10)" with "(15)" and by the addition of the following:			
	Whether or not mediation resolves the dispute, the parties shall bear their own costs concerning the mediation and equally share the costs of the <b>mediator</b> and related costs	ltem		
	F: V: T:			
	SUBSTITUTE PROVISIONS			
41	A41 STATE CLAUSES			
	Clause 41.0	Item		
	F: V: T:			
42	A42 THE SCHEDULE - PRE-TENDER INFORMATION			
	Clause 42.0			
	Tenderers are referred to the document C1.2 Contract Data for variables			
	pertaining to this contract	Item		
	F:T: SECTION B: JBCC PRELIMINARIES			
	<b>B1.0 DEFINITIONS AND INTERPRETATION</b>			
43	B1.1 Definitions and interpretation			
	See also clause A1.0 of Section A for additional and/or amended definitions which shall apply equally to this Section	Item		
	F: V: T:			
	Carried To Section Summary	B		-
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	B2.0 DOCUMENTS		
44	B2.1 Checking of documents	Item	
•••	F: V: T:	nom	
45	B 2.2 Provisional bills of quantities	Item	
	F: V: T:		
46	B2.3 Availability of construction documentation	Item	
	F: V: T:		
47	B2.4 Interests of agents	Item	
48	F: V: T: B2.5 Priced documents	Item	
	F: V: T:		
49	B2.6 Tender submission		
	Clause 2.6 is amended by replacing "JBCC Form of Tender" with "Form of		
	Offer and Acceptance"	Item	
	F: V: T:		
	B3.0 THE SITE		
50	B3.1 Defined works area	Item	
	F: V: T:		
51	B3.2 Geotechnical investigation	ltem	
	F: V: T:		
52	B3.3 Inspection of the site		
	Tenderers shall complete the Site Inspection Certificate included in the tender documents and return the same with the tender submission.	Item	
	F: V: T:	nom	
53	B3.4 Existing premises occupied	Item	
	F: V: T:		
54	B3.5 Previous work - dimensional accuracy	ltem	
	F: V: T:		
55	B3.6 Previous work - defects	ltem	
	F: V: T:		
56	B3.7 Services - known	Item	
<b>F -</b>	F: V: T:	<b>U</b>	
57	B3.8 Services - unknown	Item	
58	F: V: T: B3.9 Protection of trees	ltem	
00	F: V: T:	item	
59	B3.10 Articles of value	Item	
	F: V: V:		
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60	B3.11 Inspection of adjoining properties, etc.	Item	
	F: V: T:		
	B4.0 MANAGEMENT OF CONTRACT		
61	B4.1 Management of the works	Item	
01	-	item	
62	F: V: T: B4.2 Programme for the works	Item	
02		nem	
63	F: V: T: B4.3 Progress meetings	Item	
03	F: V: T:	nem	
64	B4.4 Technical meetings	Item	
04	-	item	
65	F: V: V: T: B4.5 Labour and Plant records	Item	
05		item	
	F: V: V: T: B5.0 SAMPLES, SHOP DRAWINGS AND MANUFACTURERS'		
	INSTRUCTIONS		
66	B5.1 Samples of materials	Item	
	F: V: T:		
67	B5.2 Workmanship samples	Item	
•	F: V: T:		
68	B5.3 Shop drawings	Item	
	F: V:		
69	B5.4 Compliance with manufacturers instruction	Item	
	F: V: T:		
	B6.0 TEMPORARY WORKS AND PLANT		
70	B6.1 Deposits and fees	Item	
	F: V: T:		
71	B6.2 Enclosure of the works	Item	
	F: V: T:		
72	B6.3 Advertising	Item	
	F: V: T:		
73	B6.4 Plant, equipment, sheds and offices	Item	
	F: V: T:		
74	B6.5 Main notice board	Item	
	F: V: T:		
75	B6.6 Subcontractors notice board	Item	
	F: V: T:		
	B7.0 TEMPORARY SERVICES		
76	B7.1 Location	Item	
	F: V: T:		
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	Bill No. 1		
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77	B7.2 Water	Item		
	F: V: T:			
78	B7.3 Electricity	ltem		
	F: V: T:			
79	B7.4 Telecommunication facilities	Item		
	F: V: T:			
80	B7.5 Ablution facilities	Item		
~	B8.0 PRIME COST AMOUNTS			
81	B8.1 Responsibility for prime cost amounts	Item		
00	B9.0 ATTENDANCE ON N/S SUBCONTRACTORS			
82	B9.1 General attendance	Item		
83	F: V: T: B9.2 Special attendance	ltem		
00	F: V: T:	item		
84	B9.3 Commissioning - fuel, water and electricity	ltem		
•	F: V:			
	B10.0 FINANCIAL ASPECTS			
85	B10.1 Statutory taxes, duties and levies	Item		
	F: V: T:			
86	B10.2 Payment of preliminaries	Item		
	F: V: T:			
87	B10.3 Adjustment of preliminaries			
	Clauses B10.3.1 and B10.3.2 are amended by replacing "within fifteen (15)			
	working days of taking possession of the site" with "when submitting his	ltana		
	priced bills of quantities / lump sum document"	Item		
88	F: V: T: B10.4 Payment certificate cash flow	Item		
00	F: V: T:	item		
	B11.0 GENERAL			
89	B11.1 Protection of the works	ltem		
00	F: V: T:			
90	B11.2 Protection/isolation of existing/sectionally occupied works	ltem		
	F: V: T:			
91	B11.3 Security of the works	Item		
	F: V: T:			
92	B11.4 Notice before covering work	ltem		
	F: V: T:			
				-
	Carried To Section Summary	R		
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93	B11.5 Disturbance	Item		
94	F: V: T: B11.6 Environmental Disturbance	ltem		
95	F: V: T: B11.7 Works cleaning and clearing	Item		
96	F: V: T: B11.8 Vermin	Item		
97	F: V: V: T: B11.9 Overhand work	Item		
98	F: V: V: T: B11.10 Instruction manuals and guarantees	Item		
99	F: V: T: B11.11 As built information	Item		
100	F: V: T: B11.12 Tenant installations	Item		
	F: V: T: B12 SCHEDULE OF VARIABLES			
101	B12.1 Schedule of variables - Pre-tender information	Item		
102	F: V: V: T: B12.1 Schedule of variables - Pre-tender information			
	This <b>schedule</b> 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 <b>Preliminaries</b> .			
	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 <b>schedule</b> . Key cross reference clauses are italicised in [] brackets	ltem		
	F: 12.1 PRE-TENDER INFORMATION			
	12.1.1 Provisional bills of quantities [2.2] The quantities are provisional (yes/no) NO			
	12.1.2 Availability of construction documentation [2.3] Construction documentation is complete (yes/no) NO			
	12.1.3 Interests of agents			
	[2.4] Details: To be advised			
	12.1.4 Defined works area			
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[3.1] Details: The site is on the existing Tsolo Ag Development Institute, Farm No: 61, Tsolo.	gricultural and Rural
12.1.5 Geotechnical investigation	
[3.2] Details: N/A - NONE	
12.1.6 Existing premises occupied	
[3.4] Specific requirements: The site is on the ex surrounding buildings which are occupied and w and in operation during construction. There are site.	vill need to remain occupied
12.1.7 Previous work – dimensional accuracy	
[3.5] Details: N/A	
12.1.8 Previous work – defects	
[3.6] Details: N/A	
12.19. Service – known	
[3.7] Details:	
Should the contractor encounter any existing se cables, pipes or sewer during the execution of the principal agent immediately and suspend all affect vicinity until instruction to proceed has been give	he works he shall notify the ected work in the immediate
12.1.10 Protection of trees	
[3.9] Specific requirements:	
All trees on the site outside of the position of the protected.	proposed structure must be
12.1.11 Inspection of adjoining properties	
[3.11] Specific requirements:	
The contractor must inspect adjoining properties notice of the Principal Agent of any consequence building works.	s and immediately bring to the es that may arise from the
12.1.12 Enclosure of the works	
[6.2] Specific requirements:	
The contractor shall enclose the works as required Health and Safety Act and prevent any unauthor	
12.1.13 Offices	
[6.4.3] Specific requirements:	
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The contractor shall provide, maintain and remove on completion of the works an office for the exclusive use of the principal agent, minimum size $4 \times 3 \times 3m$ high internally, suitably insulated and ventilated, provided with electric lighting and fitted with boarded floor, desk, chair, drawing stool, drawing board and lock-up drawers for drawings. The office shall be kept clean and fit for use at all times.
12.1.14 Main notice board
[6.5] Specific requirements:
The contractor shall provide, erect where directed, maintain and remove on completion of the works a notice board size 3000 x 3420mmm constructed of suitable boarding with flat smooth surface and with edging bead 40mm thick all round.
The board shall be securely fixed to hoarding where hoarding is provided, or fixed to and including a suitable supporting structure of timber or tubular posts and braces. The board is to be painted EPWP "orange" with 40mm wide white dividing lines. All wording shall be inscribed in black painted sans serif lettering. (Proof to be sent to Client for approval).
Sub-contractor's individual boards will be allowed on the site subject to the written approval of the Representative/Agent.
12.1.15 Subcontractors' notice board
6.6] Specific requirements: (yes/no) NO
<ul> <li>12.1.16 Water</li> <li>[7.2] Option A (by contractor) (yes/no) YES Option B (by employer – free of charge) (yes/no) NO Option C (by employer – metered) (yes/no) NO</li> <li>12.1.17 Electricity</li> <li>[7.3] Option A (by contractor) (yes/no) YES Option B (by employer – free of charge) (yes/no) NO Option C (by employer – metered) (yes/no) NO</li> <li>12.1.18 Telecommunications</li> <li>[7.4] Telephone (yes/no) YES Facsimile (yes/no) NO E-mail (yes/no) NO E-mail (yes/no) YES</li> <li>12.1.19 Ablution facilities</li> <li>[7.5] Option A (by contractor) (yes/no) YES Option B (by employer) (yes/no) NO</li> </ul>
12.1.20 Protection of existing/sectionally occupied works
[11.2] Protection is required (Only when existing buildings) (yes/no) NO
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12.1.21 Special attendance		
[9.2] Electrical Subcontractor (1) details: Site Mee	tinas	
Mechanical Subcontractor (2) details: Site M	-	
12.1.22 Protection of the works		
[11.1] Specific requirements:		
The contractor shall protect the works for the dura	tion of the contract.	
12.1.23 Disturbance		
[11.5] Specific requirements:		
The contractor shall keep the site, structures, etc operations to prevent dust and shall provide and e completion of the works all necessary temporary of satisfaction of the principal agent	erect and remove on	
12.1.24 Environmental disturbance		
[11.6] Specific requirements: N/A - NONE		
12.2 POST-TENDER INFORMATION		
12.2.1 Payment of preliminaries		
[10.2] Option A (prorated) (yes/no) -		
Option B (calculated) (yes/no) -		
12.2.2 Adjustment of preliminaries		
[10.3] Option A (three categories) (yes/no) -		
Option B (detailed breakdown) (yes/no) -		
12.2.3 Additional agreed preliminaries items		
Details: EPWP requirements as per form C3.5 of	the tender documentation.	
SCHEDULE OF SUPPLEMENTARY INFORMAT	ION	
NOTE:		
The information listed below is in respect of certain Preliminaries, requiring the supplementary inform		
Amount of insurance against injury to person or p single occurrence - <b>R 5 million</b>	roperty in respect of any	
Amount of insurance against removal of support t respect of any single accurance - Not specifical		
Contract Price Adjustment Provisions (CPAP): - ' Adjustment is applicable	ES - Contract Price	
Contract period - 12 (Twelve) Months		
The date for site handover :- <b>TBA</b>		
Amount of penalty per day on which the completic arrear:	n of the works may be in	
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	R2.75c per R100 of contract value per calendar day (Excluding VAT)	
	Contract drawing numbers: <b>Refer to Attached Set of Tender Drawings for</b> <b>all Disciplines under Volume 4</b>	
	Specification of materials and methods to be used: - PW 371, Fourth Revision, October 1993	
	Edition of Standard System of measuring building work: Seventh Edition including the latest amendments	
	SECTION C: SPECIFIC PRELIMINARIES	
	Section C contains specific preliminary items which apply to this contract except where N/A (Not Applicable) appears against an item	
	C1 CONTRACT DRAWINGS	
103	The drawings issued with the tender documents do not comprise the complete set but serve as a guide only for tendering purposes and for indicating the scope of the work to enable the tenderer to acquaint himself with the nature and extent of the works and the manner in which they are to be executed.	
	Should any part of the drawings not be clearly understood by the tenderer he shall, before submitting his tender, obtain clarification in writing from the principal agent.	ltem
	F: V: V: T: <u>C2_GENERAL PREAMBLES</u>	
104	The document "Specification of Materials and Methods to be used (PW371- A)" is obtainable on the Department's website ( <u>http://www.publicworks.gov.za/</u> under "Consultants Guidelines"), and shall be read in conjunction with the bills of quantities / lump sum document and be referred to for the full descriptions of work to be done and materials to be used	ltem
	F: V: T: C3 TRADE NAMES	
105	Wherever a trade name for any product has been described in the <b>bills of</b> <b>quantities</b> / <b>lump sum document</b> , the tenderer's attention is drawn to the fact that any other product of equal quality may be used subject to the written approval of the <b>principal agent</b> being obtained prior to the closing date for submission of tenders	
	If prior written approval for an alternative product is not obtained, the product described shall be deemed to have been tendered for	Item
	F: C4 IMPORTED MATERIALS AND EQUIPMENT	
106	Where imported items are listed in the tender documents, the tenderer shall provide all the information called for, failing which the price of any such item, materials or equipment shall be excluded from currency fluctuations. (refer to Schedule of Imported Materials and Equipment DPW-23(EC) to be completed by tenderer)	
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	Notwithstanding any provisions elsewhere regarding the adjustment of contract prices, the price of any item, material or equipment listed in terms of this clause shall be excluded from the Contract Price Adjustment Provisions (if applicable) F:	ltem		
107				
107	The <b>site</b> is situated in a security area and the tenderer must arrange with the unit commander or other responsible officer to obtain permission to enter the <b>site</b> for tendering purposes	Item	N/A	
	F: V: T:			
	C6 COMMENCEMENT OF WORKS IN SECURITY AREAS			
108	As the <b>works</b> falls within a security area the <b>contractor</b> must give the unit commander or other responsible officer notice before commencement of the <b>works</b> . Should the <b>contractor</b> fail to make such arrangements, admission to the <b>site</b> may be refused and any additional costs will be for the <b>contractor's</b>			
	account	Item	N/A	
	F: V: T:			
	C7 ENTRANCE PERMITS TO SECURITY AREAS			
109	As the <b>works</b> falls within a security area the <b>contractor</b> shall obtain entrance permits for his personnel and workmen entering the area and shall comply with all regulations and instructions which may be issued from time to time regarding the protection of persons and property under the control of the Defence Force, Police or chief security officer	ltem	N/A	
	F: V: T: C8 SECURITY CHECK OF PERSONNEL			
110	The principal agent may require the contractor to have his personnel and workmen, or a certain number of them, security classified			
	In the event of the principal agent requesting the removal of a person or persons from the works for security reasons, the contractor shall do so forthwith and shall thereafter ensure that such person or persons are denied access to the works and the site and/or to any document or information relating to the works F:	ltem	N/A	
	C9 PROHIBITON ON TAKING OF PHOTOGRAPHS			
111	In terms of article 119 of the Defence Act, 44 of 1957, it is prohibited to sketch or to take photographs of any military site or installation or any building or civil works thereon or to be in possession of a camera or other apparatus used for taking of photographs except when authorized thereto by or on behalf of the Minister			
	The same prohibition is also applicable to all correctional institutions in terms of article $44.1(e)$ of the Correctional Services Act 8 of 1959	Item	N/A	
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	C10 HIV/AIDS AWARENESS It is required of the contractor to thoroughly study the HIV/AIDS Specification (PW 1544) of the Department that must be read together with and is deemed to be incorporated under this Section of the <b>bills of</b> <b>quantities</b> / <b>lump sum document</b> . Provision for pricing of HIV/AIDS awareness is made under items C10.1 to C10.5 hereafter and it is explicitly pointed out that all requirements of the aforementioned specification are deemed to be priced hereunder, as the said items represent the only method of measurement and no additional items or extras to the contract in this regard shall be entertained. The contractor must take note that compliance with the HIV/AIDS Specification is compulsory. In the event of partial or total non-compliance, the <b>principal agent</b> , notwithstanding the provisions of clause A 31.0 of		
110	Section A or any other clause to the contrary, reserves the right to delay issuing any progress <b>payment certificate</b> until the <b>contractor</b> provides satisfactory proof of compliance. The <b>contractor</b> shall not be entitled to any compensation of whatsoever nature, including interest, due to such delay of payment.		
112	C10.1 AWARENESS CHAMPION Selection, appointment, briefing and making available of an Awareness Champion including provision of all relevant services, all in accordance with the HIV/AIDS Specification	ltem	
113	F: V: T: C10.2 AWARENESS WORKSHOPS		
	Selection and appointment of a competent Service Provider approved by the principal agent, provision of a Service Provider Workshop Plan and a suitable venue, conducting of awareness workshops by means of traditional and/or modern multi-media techniques, including follow-up courses, making available all tuition material and performing assessment procedures, all in accordance with the HIV/AIDS Specification	ltem	
114	F: V: T: C10.3 POSTERS, BOOKLETS, VIDEOS, ETC.		
	Provision, displaying, maintaining and replacing when necessary of four plastic laminated posters, booklets and educational videos, etc. for the duration of the construction period, all in accordance with the HIV/AIDS Specification	Item	
115	F: V: T: C10.4 ACCESS TO CONDOMS		
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	Provision and maintenance of condom dispensers fixed in position, including male and female condoms, replenishing male and female condoms on a daily basis as required for the duration of the construction period, all in accordance with the HIV/AIDS Specification	Item		
116	F: V: T: C10.5 MONITORING			
	Monitoring HIV/AIDS awareness of workers, providing the principal agent with access to information including making available all reports, thoroughly completed and reflecting the correct information, for the duration of the construction period and close out, all in accordance with the HIV/AIDS Specification	ltem		
	F: V: T:			
	C11 OCCUPATIONAL HEALTH AND SAFETY ACT			
117	The <b>contractor</b> shall comply with all the requirements set out in the Construction Regulations, 2003 issued under the Occupational Health and Safety Act, 1993 (Act No 85 of 1993).			
	It is required of the <b>contractor</b> 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 <b>bills of quantities</b> / <b>lump sum document.</b>			
	The <b>contractor</b> must take note that compliance with the Occupational Health and Safety Act, Construction Regulations and Health and Safety Specification is compulsory. In the event of partial or total non-compliance, the <b>principal</b> <b>agent</b> , notwithstanding the provisions of clause A31.0 of Section A or any other clause to the contrary, reserves the right to delay issuing any progress <b>payment certificate</b> until the <b>contractor</b> provides satisfactory proof of compliance. The <b>contractor</b> shall not be entitled to any compensation of whatsoever nature, including interest, due to such delay of payment.			
	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.			
	Note: A separate section has been included in the BOQ document for the <b>contractor</b> to have the opportunity to price for all the requirements of the Occupational Health and Safety Act, Construction Regulations and Health and Safety Specification	ltem		
	F: V: T: C12 EMPLOYMENT AND TRAINING OF YOUTH WORKERS ON THE EXPANDED PUBLIC WORKS PROGRAMME (EPWP) Infrastructure Projects: NATIONAL YOUTH SERVICE (NYS)			
118	The Contractor shall comply with Additional Specification SL: Employment and Training of Youth Workers on the Expanded Public Works Programme (EPWP) Infrastructure Projects: National Youth Service (NYS) as attached to these Bills of Quantities.			
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	The Contractor shall identify a minimum number of youth workers as indicated, from a priority list and employ them at the statutory labour rates for a minimum period of 6 months and train them as per Specification SL.			
	The Contractor shall liaise and co-ordinate with the Service Provider in providing the priority list and the selection of youth workers and with the employment and training of the identified youth workers.			
	The Contractor shall avail the services of an adequately qualified foreman specifically for the EPWP-NYS youth workers to act as their construction supervisor. This foreman will be responsible for continuously monitoring the progress of the youth workers and to address questions and issues that may arise from the youth workers.			
	A separate provisional allowance item, subject to re-measurement, has been scheduled in the Provisional Allowances section of this bill to cover the direct costs associated with training.	Item		
	F: V: T:			
	C13 SITE INSTRUCTION			
119	Contract 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 at all times.	Itom		
	F: V: T:	Item		
	C14 WARRANTIES FOR MATERIAL AND WORKMANSHIP			
120	Where warranties for materials and/or workmanship are called for, the contractor shall obtain a written warranty, addressed to the employer, from the firm supplying the materials and/or doing the work and shall deliver same to the principal agent on the final completion of the contract. The warranty shall state that workmanship, materials and installation are warranteed for a specified period from the date of final completion and that any defects that may arise during the specified period shall be made good at the expense of the firm supplying the materials and/or doing the work, upon written notice to do so. The warranty will not be enforced if the work is damaged by defects in the construction of the building in which case the responsibility for replacement shall rest entirely with the contractor	Item		
	F: V: T:			
	C15 CO-OPERATION OF THE CONTRACTOR FOR COST MANAGEMENT			
121	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	Item		
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	C16 PROPPING OF FLOORS BELOW			
122	The contractor is advised that propping of floors below may be required if he wishes to use any areas of completed suspended reinforced concrete slabs for vehicle access, storage of materials and goods and location of plant, scaffolding, etc. The location of these areas and any necessary propping shall be approved by the principal agent and the cost thereof shall be borne by the contractor	ltem		
	F: C17 TESTING OF WINDOWS FOR WATER TIGHTNESS			
123	Each window shall be tested for water tightness with water sprayed on using adequate pressure. If in the opinion of the principal agent, the pressure proves to be inadequate, then the pressure shall be boosted by means of compressed air or other approved means	Item		
	F: <u>C18 TESTING OF FLAT ROOF WATERPROOFING FOR WATER</u> <u>TIGHTNESS</u>			
124	Flat roof waterproof areas shall be prepared with small sand dykes around them of a size and enclosing an area approved by the principal agent , flooded with water and kept 'ponded' for at least 36 hours as a test to ensure the water tightness of the waterproofing and before any further construction work is carried out above the waterproofing.	Item		
	F: V: T: C19 PROPRIETARY BRANDED PRODUCTS			
125	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 consultation with the manufacturer's authorised representative.	ltem		
	F: V: T:			
	C20 CONTRACTORS RESPONSIBILITY			
126	The Employer, the Principal Agent and the other professional consultants shall not be responsible for any act or omission on the part of the Contractor which may result in any patent or latent defects, in materials or workmanship, breach or neglect of any local regulations. The Contractor shall at times be responsible for any such neglect, deviation or wrong act, whether the same is discovered before or after the final certificate, or any other Certificate, has been approved.	Item		
	F: V: V: T: <b>C21 OVERTIME</b>			
127	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.	ltem		
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	C22 AS BUILT DRAWINGS		
128	The position of construction breaks and the extend of individual concrete pours are to be recorded by the contractor on the structural engineer's drawings and are to be submitted to the principal agent and the structural engineer for their records.	ltem	
	F: V: T:		
	C23 SPECIAL WORKS/DIRECT CONTRACTS		
129	The Employer and tenants shall have the right to employ other Contractors (hereinafter referred to as 'Direct Contractors') to execute any special or other Works whether contained in this Contract or not, concurrently with the work being executed under this contract.		
	The Contractor shall not be entitled to any percentage, profit or discount on the value of any work executed by 'Direct Contractor's and reflected as 'Provisional Sums' but shall nevertheless allow these direct Contractors and Employers employees to have access to the Works, allocate reasonable space for the storage of their materials, tools and equipment, and co-ordinate the work of such Direct Contractors as necessary, all to the satisfaction of the Architect. The Contractor shall also allow Direct Contractors, etc., to use, free of charge, the latrine accommodation and water and power supply on the site, and shall not in any way hinder or prevent the execution of their work.	Item	
	F: V: T:		
	C24 GUARANTEES AND MAINTENANCE MANUALS		
130	The Contractor shall obtain and hand over to the Principal Agent on Practical Completion, all relevant guarantees, any operating and maintenance instruction manuals, data or instructions required by the Principal Agent or provided by manufacturer's, suppliers or Sub-Contractors.		
	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.	ltem	
	F: V: T:		
	C25 MEDIA RELEASES		
131	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. The Contractor, together with his Sub-Contractor shall not, without the written consent of the Principal Agent, cause any statement or advertisement to be printed, screened or aired by the media.	ltem	
	F: V: T:		
	C26 COST OF CLAIM		
132	All costs incurred by the Contractor in the preparation of claims to the satisfaction of the Principal Agent and/or Quantity Surveyor shall be borne by the Contractor.	ltem	
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	C27 TENDER SUM TO BE FULLY INCLUSIVE		
133	The Tender Sum is deemed to be the fully inclusive price for the finished work described and is deemed to include inter alia for:		
	The supply of all materials.		
	Labour of every description including additional costs incurred in working overtime, weekends, public holidays, etc., to meet the stipulated programme dates.		
	All making, transport, conveying, cartage, carriage and delivery, etc.		
	Taking delivery, unloading, storing, unpacking, hoisting or lowering, settings fixing and building into positions, cutting and waste, templates, patterns and models.		
	Provision and maintenance of all plant equipment, machines trucks and other vehicles, tackle, tools, staging, sheds, stores and temporary works necessary for the due and proper performance of the Contract Works, establishment charges and all fuel, operating costs and depreciation pertaining to plant, equipment, etc.		
	All applicable import taxes and duties.		
	Overheads and profit.		
	All obligations arising out of the Bills of Quantities, and all costs and charges deemed necessary for complying with the terms and conditions herein.		
	All charges required by the Contractor in connection with Preliminary and General, site establishment and the like.	Item	
	F: C28 REMOVAL AND MAKING GOOD OF TEMPORARY WORK, ETC, ON COMPLETION		
134	The Contractor shall remove all (except where specifically stated otherwise) temporary Works, roads, services and the like used for this Contract and shall make good to the entire satisfaction of the Principal Agent any damage resulting therefrom.	ltem	
	F: V: T:		
	<u>C29 LOCATION OF TEMPORARY BUILDINGS AND TEMPORARY</u> SERVICES		
135	The Contractor shall provide all necessary temporary works, including temporary roads, tracks, crossings, hardstanding and services, hoardings, dust screens, tunnelling, etc., required for his own and Sub-Contractors use during the construction and maintenance period.		
	There is no guarantee given or implied that Site conditions will be such that the Contractor will be able to erect such temporary works, roads, hardhats, offices, stores and temporary accommodation within the site boundaries and it shall be the Contractor's responsibility to adopt whatever measures he deems necessary in this regard and to obtain all necessary permission and		
	pay all costs in connection therewith.	Item	
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	C30 MAKING GOOD			
136	All materials and workmanship in building up, making good, etc., are to match existing and where new materials abutt existing, they are to be neatly jointed to same.			
	'Making good' existing work where disturbed or damaged shall mean the provision of the necessary new material to match existing and the necessary workmanship so that a complete restoration is achieved to the satisfaction of the Principal Agent.			
	'Making good' where abutting walls, etc., are removed, shall mean the provision of the necessary material and workmanship in filling the gaps to match surrounding finishes so that a complete and perfect surface, continuous with surrounding surfaces and matching of same, is obtained to the Principal Agent's satisfaction.	Item		
	F: V: T:			
	C31 STANDARD OF WORKMANSHIP AND MATERIALS			
137	In the absence of detailed specifications for any item or items, National Building Regulations, the latest applicable South African Bureau of Standards Specification, or where such does not exist, then the latest applicable British Standard Specification shall apply.	ltem		
	F: V:	item		
	C32 COMMODITIES TO BE NEW			
138	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 Work.	Item		
	F: V: T:			
	C33 SHOP DRAWINGS			
139	The term 'shop drawings' shall mean drawings, layout drawings, diagrams, illustrations, schedules, performance charts, brochures, operating manuals and other data which are prepared by the Contractor or any Sub-Contractor, manufacturer, supplier or distributor and which illustrate the specified portion of the work. The Contractor shall ensure that all shop drawings required for the Works in terms of this Contract, all Selected/Nominated Sub-Contracts and/or any Principal Agent's instruction, are prepared and submitted timeously in accordance with the following procedure:			
	A) Three prints of shop drawings of all fabricated work, working or setting out drawings, shop details and schedules shall be submitted to the Principal Agent, for approval. Such work shall not be carried out until such approval has been given.			
	B) Shop drawings shall be submitted to the Principal Agent for approval at least two weeks prior to the date on which such approval is required in order to comply with the Contract Programme.			
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	C) All submissions shall be prepared in accordance with the Contract drawings and specifications and/or any Principal Agents 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 implications. Delays in approval of shop drawings due to non- compliance with drawings, specifications and/or Principal Agents instructions shall not constitute grounds for any claims for delay, extension of time and the like.	
	D) When the Principal Agent advises that shop drawings have been approved, the original transparencies of such drawings shall immediately be submitted to the Principal Agent so that the Principal Agents stamp of approval may be appended thereto. Thereafter, four prints of the approved shop drawings, setting out drawings and schedules shall be furnished to the Principal Agent. As many prints of the approved shop drawings and schedules as required shall also be furnished to the Works. No work shall be performed in accordance with drawings and/or catalogues not stamped with the Principal Agents approval.	
	E) The Contractor, Sub-Contractor or Supplier, as the case may be, shall be responsible for ensuring that all dimensions affecting shop drawings conform to the dimensions of built work.	
	F) The Principal Agents approval of shop drawings is limited to checking conformity with specification and shall not relieve the Contractor, Sub-Contractor or Supplier of his responsibility for design, erection or installation fit, nor does it vary his contractual or delictual obligations and liabilities.	
	G) Should the Contractor, Sub-Contractor or Supplier be of the opinion that corrections to shop drawings made by the Principal Agent constitute a change to the scope of work, then he shall immediately advise the Principal Agent in writing of this, together with the cost and/or programme implications thereof, in order to obtain the Architects directive.	
	H) One copy of the final approved set of 'Shop Drawings' is to be submitted to the Quantity Surveyors for purposes of valuation remeasurement.	ltem
	F: <u>C34 MODE OF PROCEDURE</u>	
140	Notwithstanding anything to the contrary contained herein the Principal Agent at all times reserves the right to direct the order in which the various parts of the Contract are to be executed. The Contractor shall give priority to any individual section or portion of the Works that, in the opinion of the Principal Agent, requires to be expedited.	
	Should it appear, in the Principal Agent's opinion, that work in any area is not being executed in accordance with the requirements of the Contract Programme, the Contractor shall provide additional manpower and resources and shall work additional overtime and do everything else required to bring the work back to programme to the satisfaction of the Principal Agent and to the Contractor's cost.	ltem
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	C35 UNAUTHORIZED PERSONS/WORKMEN ON PREMISES			
141	The Contractor shall at all times strictly exclude all unauthorized persons from the Works and the Site, and shall set up notice boards to that effect.			
	No workmen or labourers (except security guards) are to be allowed under any circumstances to sleep or deposit any kit on the premises. The Contractor must provide any necessary independent shelter or shed required for any labour or watchmen on site, to the approval of the Employer.	ltem		
	F: V: T: <u>C36 METHOD STATEMENT</u>			
142	The Tenderer shall produce, when required to do so by the Principal Agent, a Method Statement outlining the methods of construction and labour and plant resources that he proposes to use in the execution of the Works. Any approval given or observation made by the Principal Agent shall not relieve the Contractor of his sole responsibility to adopt the methods of construction and to provide the labour and plant resources necessary for the due and proper timeous execution of the Works.	ltem		
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140	C37 SAFETY HELMETS			
143	The Contractor shall take all necessary steps to ensure that all workmen employed on the Works comply with regulations regarding the wearing of safety helmets and shall provide safety helmets for authorized site visitors. The Contractor shall erect notice boards warning all workmen and visitors to wear safety helmets on or about the Works.	ltem		
	F: V: T: <u>C38 ENCROACHMENT</u>			
144	During the course of the building operations, the Contractor shall be held entirely responsible for any encroachment onto any adjoining properties, buildings, etc., or servitudes and the cost of any remedial measures as required by the Principal Agent shall be borne by the Contractor.	ltem		
	F: V: T: C39 SCAFFOLDING			
145	In accordance with the 7th Edition of the Standard System of Measurement, no special scaffolding has been measured. The Tenderer is advised to visit the site and to study the drawings to assess any special requirements he may deem necessary for the Works. The Tenderer is to price against this item in respect of any special scaffolding and temporary propping requirements for the Works.	ltem		
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	C40 ENVIRONMENTAL PLAN			
146	The Contractor shall for the duration of this contract be deemed to be the mandatory of the Council for the purposes of the Environmental Management Plan and he shall prior to taking occupation of the site satisfy Council by means of written representations that he has fully complied with the relevant requirements of the said Act. The Contractor is referred to the Environmental Management Plan Document appended to the back of this Bills of Quantities.	ltem		
147	<u>C41 LOCAL LABOUR</u> The extend of usage of local labour will be as set out in the Scope of Works. The contractor is to make every effort to make use of local labour for the contract.	ltem		
	F: V: T:			
	C42 CONTRACTORS REPORTS / LABOUR RECORDS / PLANT RECORDS			
148	Monthly the contractor shall provide the <b>principal agent</b> with a written record, in an approved schedule form, reflecting the number and description of tradesmen and labourers employed by him and all subcontractors on the works each day as well as the number, type and capacity of all plant, excluding hand tools, currently used on the works.			
	The contractor shall maintain records on a daily basis of all persons employed on the site as well as all plant on the site.			
	The Contractor is required to furnish the Employer with a detailed report in a required format on a monthly basis and is to make provision under this item for completing the reports on a monthly basis.	Item		
	F: V: V: T: C43 ACCELARATION OF WORKS			
149	The contractor is advised that for the duration of the contract every alternative weekend will be regarded as a seven day week in order to accelarate the works. The contractor must make due allowance for this in his pricing.	1		
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# PRELIMINARIES

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# **SECTION 2**

# **BUILDING WORKS**

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SECTION NO. 2

# **BUILDING WORKS**

# BILL NO. 1 EARTHWORKS (PROVISIONAL)

# **PREAMBLES**

For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used -PW371-A" which shall be read in conjuction with and shall apply to all items in these Bills of Quantities.

# SUPPLEMENTARY PREAMBLES

Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items,materials or methods of similar quality may be used with prior approval from the Architect/Engineer.

# Nature of ground:

The Tenderer must aquaint himself with the nature of the material to be excavated.

The nature of the ground is assumed to be loose fine to medium sandy material, therefore earth, but possibly interspersed with hard rock or soft rock.

In most areas the nature of the ground is assumed to be well compacted filling as a result of platforms created under Bulk Earthworks, therefore 'earth'.

# Subterranean Water:

No information regarding subterranean water is available. The Tenderer must aquaint himself of the prescence and depth of the subterranean water and allow therefore in his price.

The Contractor shall allow for removing seepage and other water from subterranean sources from the excavations by pumping , baling or otherwise.

Accurate records of all such dewatering shall be kept to determine the total volume of water so removed and a clear distinction shall be made between water from subterranean sources and other water.

# Carting away of excavated material:

Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site.

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	Density Testing :					
	Prices for filling are to include for all necessary density and other tests.					
	Rates of filling, etc shall include for all density and soil type testing to prove that the specified compaction is achieved.					
	When additional testing is done on instruction of the Architect/Engineer and these tests are successful, they will be paid for additionally.					
	EARTHWORKS (PROVISIONAL)					
	EXCAVATION OTHER THAN BULK					
	Excavation in earth not exceeding 2m deep					
1	Surface trenches.	m³	173			
2	Holes.	m³	70			
	Extra over excavations other than bulk in earth for excavation in:					
3	Soft rock.	т³	12			
4	Hard rock.	m³	6			
	Risk of collapse of excavations other than bulk:					
5	Sides of trench and hole excavations not exceeding 1,5m deep.	m²	568			
	CARTING AWAY.					
	Extra over all excavations for loading, carting and dumping surplus excavated material (no allowance made for increase in bulk):					
6	In spoil heaps where directed on site, for later re-use.	m³	243			
7	Off site to a dumping site to be found by the Contractor.	m³	116			
	EARTH FILLING, ETC.					
	Filling with selected material from the excavations compacted to a density of at least 93% Mod. AASHTO maximum density:					
8	Backfilling to trenches, holes, etc.	m³	121			
9	Under surface beds, floors, etc. to rainwater tank plinths.	m³	6			
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istrated onto site by the Contractor, compacted to a density of at least 93%: Mod. AASHTO maximum density:       m³       250         10       Under surface beds, floors, etc.       m³       44         Filling with approved 65 material supplied and density of at least 95%: Mod. AASHTO maximum density:       m³       124         12       Under surface beds, floors, etc.       m³       124         Coarse river sand filling compacted to 95% Mod. AASHTO maximum density:       m³       124         13       25mm thick under floors, etc.       m³       124         Selected topsoil filling obtained from the excavations and/or prescribed stock piles on site, lighthy consolidated :       m³       4         14       In planter boxes       m³       4       13         15       Trim and level off surface of ground (excavated or filled under this Contract) to receive concrete surface beds, aprons, ramps, etc. including excavating or filling, ripping and scarifying as necessary and compacting the whole area for a depth of 150mm to a density of at least       m²       1032         KEEPING EXCAVATIONS FREE OF WATER       Keeping excavations free of all water by hand or machinery.       m²       1032         16       Allew for keeping excavations free of all water by hand or machinery.       Item       WEED KILLERS, INSECTICIDES, ETC       Weed Miller (active ingredients metalactor 102.8 g/l, terbilliasien 248.6 g/l and atrasien 248.6 g/l nixed in the proportion of 100 m			Unit	Quantity	Rate	Amount	
11       Under pavings, aprons, etc.       m ³ 44         Filling with approved G5 material supplied and carted onto site by the Contractor, compacted to a density of at least 95% Mod. AASHTO maximum density:       m ³ 124         12       Under surface beds, floors, etc.       m ³ 124         25mm thick under floors, etc.       m ² 742         32       Selected topsolif filling obtained from the excavations and/or presoribed stock piles on site. liability consolidated :       m ³ 4         14       In planter boxes       m ³ 4         5       Surface Preparation:       m ² 1032         15       Trim and level off surface of ground (excavated or filled under this Contract) to receive concrete surface beds, apons, ramps, etc., including excavating or filling, apons, ramps, etc., including excavating or filling, apons, ramps, etc., including excavations free of water:       m ² 1032         16       Allow for keeping excavations free of all water by hand or machined from ince a density of at least gradient 248,6 gr] mixed in the proportion of 100 ml weekkiller (a to 101 maler and applied at a rate of 10 lim       m ² 290         17       Under paving, aprons, etc       m ² 290       E         Carried to Collection         R         Carried to Collection         R		carted onto site by the Contractor, compacted to a density of at least 93% Mod. AASHTO maximum					
Filling with approved G5 material supplied and carted onto site by the Contractor, compacted to a density of at least 95% Mod. AASHTO maximum density:       m³       124         12       Under surface beds, floors, etc.       m³       124         Carse river sand filling compacted to 95% Mod. AASHTO maximum density:       m³       124         13       25mm thick under floors, etc.       m²       742         Selected topsoil filling obtained from the excavations and/or prescribed stock piles on site, lightly consolidated:       m³       4         14       In planter boxes       m³       4         15       Trim and level off surface of ground (excavated or filled under this Contract) to receive concrete surface beds, aprons, ramps, etc., including excavating or filling, ripping and scarifying as necessary and compacting the whole area for a depth of 150mm to a density of at least 95% Mod. AASHTO maximum density.       m²       1 032         KEEPING EXCAVATIONS FREE OF WATER Keeping excavations free of all water by hand or machinery.       m²       1 032         16       Allow for keeping excavations free of all water by hand or machinery.       m²       2 90         17       Under paving, aprons, etc       m²       2 90       m²       2 90         Carried to Collection         R         Carried to Collection         R <td colsp<="" td=""><td>10</td><td>Under surface beds, floors, etc.</td><td>m³</td><td>250</td><td></td><td></td></td>	<td>10</td> <td>Under surface beds, floors, etc.</td> <td>m³</td> <td>250</td> <td></td> <td></td>	10	Under surface beds, floors, etc.	m³	250		
icarted onto site by the Contractor, compacted to a         density:         12       Under surface beds, floors, etc.       m³       124         Carse river sand filling compacted to 95% Mod. AASHTO maximum density:       m³       124         13       25mm thick under floors, etc.       m²       742         Selected topsoil filling obtained from the excavations and/or prescribed stock piles on site, lightly consolidated:       m³       4         14       In planter boxes       m³       4         5       Surface Preparation:       Trim and level off surface of ground (excavated or filled under this Contract) to receive concrete surface beds, aprons, ramps, etc., including excavating or filling, ripping and scarifying as necessary and compacting the whole area for a depth of 150mm to a density of at least 95% Mod. AASHTO maximum density.       m²       1 032         KEEPING EXCAVATIONS FREE OF WATER Keeping excavations free of all water by hand or machinery.       m²       1 032         WEED KLLERS, INSECTICIDES, ETC Weedkiller (active ingredients metalactor 102,8 g/l, terbitilasien 248.6 g/l and atrasien 248.6 g/l mixed in the proportion of 100 ml weedkiller to 100 l water and applied at a rate of 10 l/m       m²       290         17       Under paving, aprons, etc       m²       290       Image: Im	11	Under pavings, aprons, etc.	m³	44			
Coarse river sand filling compacted to 95% Mod.       AASHTO maximum density:         13       25mm thick under floors, etc.       m ² 742         13       25mm thick under floors, etc.       m ³ 742         14       In planter boxes       m ³ 4         15       Trim and level off surface of ground (excavated or filled under this Contract) to receive concrete surface beds, aprons, ramps, etc., including excavating or filling, ripping and scarifying as necessary and compacting the whole area for a depth of 150mm to a density of at least 95% Mod. AASHTO maximum density.       m ² 1 032         16       KEEPING EXCAVATIONS FREE OF WATER Keeping excavations free of all water by hand or machinery.       m ² 1 032         17       WEED KILLERS, INSECTICIDES, ETC Weedkiller (active ingredients metalaclor 102,8 g/l, in the proportion of 100 ml weedkiller to 100 l water and applied at a rate of 10 l/m       m ² 290         17       Under paving, aprons, etc       m ² 290       R         Carried to Collection         Rection No. 2         Bill No, 1       Earthworks (provisional)		carted onto site by the Contractor, compacted to a density of at least 95% Mod. AASHTO maximum					
AASHTO maximum density:       m2       742         325mm thick under floors, etc.       m2       742         selected topsoil filling obtained from the excavations and/or prescribed stock piles on site, lightly consolidated :       m3       4         14       In planter boxes       m3       4         Surface Preparation:       11       11         15       Trim and level off surface of ground (excavated or filled under this Contract) to receive concrete surface beds, aprons, ramps, etc., including excavating or filling, ripping and scartfying as necessary and compacting the whole area for a depth of 150mm to a density of at least 95% Mod. AASHTO maximum density.       m2       1 032         KEEPING EXCAVATIONS FREE OF WATER Keeping excavations free of all water by hand or machinery.       m2       1 032         WEED KILLERS, INSECTICIDES, ETC       Weedkiller (active ingredients metalaclor 102,8 g/l, in the proportion of 100 ml weedkiller to 100 l water and applied at a rate of 10 l/m       m2       290         17       Under paving, aprons, etc.       m2       290       m2         18       Section No. 2       Bil No. 1       Earthworks (provisional)       m2       290	12	Under surface beds, floors, etc.	m³	124			
Selected topsoil filling obtained from the excavations and/or prescribed stock piles on site, lightly consolidated :       m³       4         14       In planter boxes       m³       4         5       Surface Preparation:       Trim and level off surface of ground (excavated or filled under this Contract) to receive concrete surface beds, aprons, ramps, etc., including excavating or filling, ripping and scartying as necessary and compacting the whole area for a depth of 150mm to a density of at least 95% Mod. AASHTO maximum density.       m²       1 032         KEEPING EXCAVATIONS FREE OF WATER       Keeping excavations free of water:       nd       1 032         16       Allow for keeping excavations free of all water by hand or machinery.       Item       Item         WEED KILLERS, INSECTICIDES, ETC       Weedkiller (active ingredients metalaclor 102.8 g/l, terbitilasien 248.6 g/l and atrasien 248.6 g/l) mixed in the proportion of 100 mi weekkiller to 100 I water and applied at a rate of 10 I/m       m²       290         17       Under paving, aprons, etc       m²       290       Earthworks (provisional)							
excavations and/or prescribed stock piles on site, lightly consolidated :       m³       4         14       In planter boxes       m³       4         Surface Preparation:       1         15       Trim and level off surface of ground (excavated or filled under this Contract) to receive concrete surface beds, aprons, ramps, etc., including excavating or filling, ripping and scart/fing as necessary and compacting the whole area for a depth of 150mm to a density of at least 95% Mod. AASHTO maximum density.       m²       1 032         KEEPING EXCAVATIONS FREE OF WATER Keeping excavations free of water:       1       1032         16       Allow for keeping excavations free of all water by hand or machinery.       Item         WEED KILLERS, INSECTICIDES, ETC Weedkiller (active ingredients metalacior 102,8 g/l, terbitilasien 248,6 g/l and atrasien 248,6 g/l) mixed in the proportion of 100 ml weedkiller to 100 l water and applied at arate of 10 l/m       m²       290         17       Under paving, aprons, etc       m²       290         18       No. 1       Earthworks (provisional)       Item	13	25mm thick under floors, etc.	m²	742			
15       Trim and level off surface of ground (excavated or filled under this Contract) to receive concrete surface beds, aprons, ramps, etc., including excavating or filling, ripping and scarifying as necessary and compacting the whole area for a depth of 150mm to a density of at least 95% Mod. AASHTO maximum density.       m²       1 032         KEEPING EXCAVATIONS FREE OF WATER       Keeping excavations free of water:       Item         16       Allow for keeping excavations free of all water by hand or machinery.       Item         WEED KILLERS, INSECTICIDES, ETC       Weedkiller (active ingredients metalaclor 102,8 g/l, terbitilasien 248,6 g/l) mixed in the proportion of 100 ml weedkiller to 100 l water and applied at a rate of 10 l/m       m²       290         17       Under paving, aprons, etc       m²       290       R         Section No. 2       Bill No. 1       Earthworks (provisional)       Item		excavations and/or prescribed stock piles on site,					
15       Trim and level off surface of ground (excavated or filled under this Contract) to receive concrete surface beds, aprons, ramps, etc., including excavating or filling, ripping and scarifying as necessary and compacting the whole area for a depth of 150mm to a density of at least 95% Mod. AASHTO maximum density.       m²       1 032         KEEPING EXCAVATIONS FREE OF WATER       Keeping excavations free of water:       1       1 032         16       Allow for keeping excavations free of all water by hand or machinery.       Item       Item         WEED KILLERS, INSECTICIDES, ETC       Weedkiller (active ingredients metalaclor 102,8 g/l, terbitiliasien 248,6 g/l and atrasien 248,6 g/l) mixed in the proportion of 100 ml weedkiller to 100 I water and applied at a rate of 10 l/m       m²       290         17       Under paving, aprons, etc       m²       290       R         Exercise No. 2       Bill No. 1       Earthworks (provisional)       Item       Item	14	In planter boxes	m³	4			
under this Contract) to receive concrete surface beds, aprons, ramps, etc., including excavating of filling, ripping and scartlying as necessary and compacting the whole area for a depth of 150mm to a density of at least 95% Mod. AASHTO maximum density.       m²       1 032         KEEPING EXCAVATIONS FREE OF WATER       m²       1 032         KEEPING excavations free of water:       1 032         16       Allow for keeping excavations free of all water by hand or machinery.       Item         WEED KILLERS, INSECTICIDES, ETC       Weedkiller (active ingredients metalaclor 102.8 g/l, terbitiliasien 248,6 g/l) mixed in the proportion of 100 ml weedkiller to 100 l water and applied at a rate of 10 l/m       m²       290         17       Under paving, aprons, etc       m²       290       R		Surface Preparation:					
Keeping excavations free of water:         Allow for keeping excavations free of all water by hand or machinery.         WEED KILLERS, INSECTICIDES, ETC         Weedkiller (active ingredients metalaclor 102,8 g/l, terbitilasien 248,6 g/l and atrasien 248,6 g/l) mixed in the proportion of 100 ml weedkiller to 100 l water and applied at a rate of 10 l/m         17       Under paving, aprons, etc         Market by Carried to Collection       m²         Section No. 2       Bill No. 1         Earthworks (provisional)       Image: Section No. 2	15	under this Contract) to receive concrete surface beds, aprons, ramps, etc., including excavating or filling, ripping and scarifying as necessary and compacting the whole area for a depth of 150mm to a density of at least	m²	1 032			
Keeping excavations free of water:         Allow for keeping excavations free of all water by hand or machinery.         WEED KILLERS, INSECTICIDES, ETC         Weedkiller (active ingredients metalaclor 102,8 g/l, terbitilasien 248,6 g/l and atrasien 248,6 g/l) mixed in the proportion of 100 ml weedkiller to 100 l water and applied at a rate of 10 l/m         17       Under paving, aprons, etc         Market by Carried to Collection       m²         Section No. 2       Bill No. 1         Earthworks (provisional)       Image: Section No. 2		KEEPING EXCAVATIONS FREE OF WATER					
machinery.       Item         WEED KILLERS, INSECTICIDES, ETC       Weedkiller (active ingredients metalaclor 102,8 g/l, terbitilasien 248,6 g/l) mixed in the proportion of 100 ml weedkiller to 100 l water and applied at a rate of 10 l/m         17       Under paving, aprons, etc       m²       290         17       Carried to Collection       R         Earthworks (provisional)       Item       Item							
Weedkiller (active ingredients metalaclor 102,8 g/l, terbitilasien 248,6 g/l and atrasien 248,6 g/l) mixed in the proportion of 100 ml weedkiller to 100 l water and applied at a rate of 10 l/m       m²       290         17       Under paving, aprons, etc       m²       290         Example 10       Carried to Collection       R         Section No. 2       Bill No. 1       Earthworks (provisional)       Image: Carried to Collection	16		Item				
terbitilasien 248,6 g/l and atrasien 248,6 g/l) mixed in the proportion of 100 ml weedkiller to 100 l water and applied at a rate of 10 l/m       m²       290         17       Under paving, aprons, etc       m²       290         Carried to Collection         R         Section No. 2 Bill No. 1 Earthworks (provisional)		WEED KILLERS, INSECTICIDES, ETC					
Carried to Collection R		terbitilasien 248,6 g/l and atrasien 248,6 g/l) mixed in the proportion of 100 ml weedkiller to 100 l water					
Section No. 2 Bill No. 1 Earthworks (provisional)	17	Under paving, aprons, etc	m²	290			
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Earthworks (provisional)							
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		Unit	Quantity	Rate	Amount	
	Approved brand of anti-termite soil poison applied by a Registered Pest Control company and guaranteed against termite infestation for ten years:					
18	Under floors, etc., including forming and poisoning shallow furrows against foundation walls, etc., filling in furrows and ramming.	m²	742			
19	To bottoms and sides of trenches, etc.	m²	811			
	TESTS					
	Rates of filling, etc shall include for all density and soil type testing to prove that the specified compaction is achieved.					
	When additional testing is done on instruction of the Architect/Engineer and these tests are successful, they will be paid for additionally.					
	Prescribed tests to determine degree of compaction or other properties of ground or filling					
20	Modified AASHTO Density test	No	15			
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Bill No. 1				
Earthworks (provisional)				
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	Unit	Quantity	Rate	Amount	-00
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<u>SECTION NO. 2</u> <u>BUILDING WORKS</u> <u>BILL NO. 2</u> <u>CONCRETE, FORMWORK AND REINFORCEMENT</u>					
PREAMBLES					
For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371-A" which shall be read in conjuction with and shall apply to all items in these Bills of Quantities.					
SUPPLEMENTARY PREAMBLES					
Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items,materials or methods of similar quality may be used with prior approval from the Architect/Engineer.					
Cost of Tests:					
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/Engineer. The testing shall be undertaken by an independent firm or institution nominated by the Contractor to the approval of the Architect/Engineer. (Test cubes are measured separately).					
Formwork:					
Descriptions 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 re-use.					
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					
Formwork to soffits of solid slabs etc shall be deemed to be to 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					
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Concrete, Formwork And Reinforcement 41					
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		Unit	Quantity	Rate	Amount	
	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					
	CONCRETE, FORMWORK AND REINFORCEMENT					
	UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES					
	15Mpa/19mm Concrete:					
1	Surface blinding under footings and bases. (Provisional).	m³	12			
	REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES					
	25Mpa/19mm Concrete:					
2	Strip footings.	m³	53			
3	Bases.	m³	28			
4	Surface beds, bases of planter boxes, etc.	m³	1			
5	Surface beds to rainwater tank plinths bases.	m³	2			
6	Surface beds on waterproofing.	m³	73			
	REINFORCED CONCRETE CAST ON/IN FORMWORK					
	30MPa/19mm concrete					
7	Columns in foundations (Provisional).	т³	2			
8	Columns.	m³	11			
9	Column framework to doorway.	m³	1			
10	Lintol beams.	m³	1			
11	Beams.	m³	3			
12	Wall beams.	m³	3			
13	Bench seating slabs.	m³	1			
14	Slabs including beams and inverted beams.	m³	23			
	TEST BLOCKS					
	Test blocks:					
15	Making and testing set of three 150 x 150 x 150mm concrete strength test cubes (Provisional).	Sets	25			
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	Bill No. 2 Concrete, Formwork And Reinforcement					
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		Unit	Quantity	Rate	Amount	
	FINISHING TOP SURFACE OF CONCRETE					
	Finishing top surfaces of concrete smooth with a wood float (Class U2):					
16	Surface beds, slabs, bases, etc to falls to rainwater tank plinth.	m²	18			
	Finishing top surfaces of concrete smooth with a power float :					
17	Surface beds, slabs, etc (Provisional).	m²	639			
	GROUTING					
	25MPa non-shrink grout :					
18	Bedding approximately 15mm thick under 315 x 240mm base plate including chamfered edges all round.	No	12			
19	Bedding approximately 20mm thick under 210 x 100mm base plate including chamfered edges all round.	No	2			
20	Bedding approximately 20mm thick behind 1700 x 262mm base plate including chamfered edges all round.	No	2			
21	Bedding approximately 20mm thick under 1700 x 455mm base plate including chamfered edges all round.	No	2			
	ROUGH FORMWORK (DEGREE OF ACCURACY II)					
	Rough Formwork to Sides:					
22	Rectangular columns in foundations (Provisional)	m²	18			
23	Rectangular columns	m²	115			
24	Rectangular columns in framework to doorway	m²	6			
25	Wall beams	m²	22			
26	Inverted/upstand beams	m²	27			
27	Downstand beams	m²	4			
28	Edges, risers, ends and reveals not exceeding 300mm high or wide.	m	65			
	Rough formwork to soffits					
29	Slabs in bench seats propped up not exceeding 1.5m high	m²	10			
30	Slabs propped up exceeding 1.5m and not exceeding 3.5m high	m²	101			
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	Bill No. 2					
	Concrete, Formwork And Reinforcement 43					
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		Unit	Quantity	Rate	Amount	
	Rough formwork to sides and soffits					
31	Lintol beams propped up exceeding 1,5m and not exceeding 3.5m high	m²	5			
32	Beams propped up exceeding 1,5m and not exceeding 3.5m high	m²	28			
	Boxing in rough formwork to form					
33	50 x 50mm Chamfers along top or bottom edges. (Provisional).	m	12			
34	50 x 50mm Vertical chamfers at corners. (Provisional).	m	134			
	MOVEMENT JOINTS ETC					
	Two layers of 3-ply malthoid in slip joints between horizontal concrete and brick surfaces including cement mortar bed.					
35	Not exceeding 300mm wide	m	122			
	Isolation joints with 10mm Thick 'Sondor' or equally approved jointex joint between horizontal concrete and brick surfaces					
36	10mm Joints not exceeding 300mm high.	m	281			
37	10mm Joints not exceeding 300mm high at rainwater plinths	m	12			
	Horizontal joggle construction joints through concrete including thick cement slurry or bitumen paint to one face to form bond breaker.					
38	Surface beds not exceeding 300mmm thick.	m	147			
	Saw cut joints:					
39	3 x 25mm Saw cut joints in top of concrete surface beds to saw cut joints.	m	433			
40	3 x 25mm Saw cut joints in top of concrete surface beds to construction joints.	m	147			
	REINFORCEMENT, ETC. (PROVISIONAL)					
	Mild steel reinforcement to structural concrete work :					
41	R8mm Diameter bars	Tonnes	2,33			
42	R10mm Diameter bars	Tonnes	2,33			
	High tensile steel reinforcement to structural concrete work :					
43	Y10mm Diameter bars	Tonnes	2,33			
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		Unit	Quantity	Rate	Amount	
4	Y12mm Diameter bars	Tonnes	2,33			
5	Y16mm Diameter bars	Tonnes	2,33			
	Fabric reinforcement:					
6	Mesh Ref. No. 193 fabric reinforcement in concrete surface beds, slabs, etc.	m²	26			
7	Mesh Ref. No. 245 fabric reinforcement in concrete surface beds, slabs, etc.	m²	728			
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	Unit	Quantity	Rate	Amount	
SECTION NO. 2					
SECTION NO. 2 BUILDING WORKS					
BILL NO. 3					
MASONRY					
PREAMBLES					
For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371-A" which shall be read in conjuction with and shall apply to all items in these Bills of Quantities.					
SUPPLEMENTARY PREAMBLES					
Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items,materials or methods of similar quality may be used with prior approval from the Architect/Engineer.					
BRICKWORK					
Cement Mortar					
Unless otherwise described, all brickwork shall be built in 1:5 cement mortar					
Sizes in descriptions:					
Where sizes in descriptions are given in brick units, 'one brick' shall represent the length and 'half brick' the width of a brick.					
Hollow walls etc					
Descriptions of hollow walls shall be deemed to include leaving every fifth perpend of the bottom course of the external skin open as a weep hole and galvanised butterfly wire ties at 5 per square meter.					
Descriptions of hollow walls to receive concrete filled cavities shall be deemed to include building up brickwork in increments not exceeding 1m high or as otherwise instructed by Engineer, filling cavity with concrete infill, before raising brickwork further.					
Walls in two skins described as 'bagged and sealed' shall be deemed to include having the outer face of the inner skin bagged with 1:6 cement and sand mixture and sealed with two coats 'Brixeal' bitumen emulsion waterproofing coating.					
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		Unit	Quantity	Rate	Amount	
	Brick reinforcement					
	Descriptions of brickwork shall be deemed to include for steel reinforcing fabric as specified every fourth course in superstructure and every course in foundations. Additional reinforcement in lintols, etc. are measured seperately					
	Face bricks					
	Bricks shall be ordered timeously to obtain uniformity in size and colour.					
	Pointing:					
	Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc.					
	Samples:					
	Samples of all masonry building units, except those for walls described as 'load bearing', shall consist of a minimum of 6 units. Samples of building units to be used in walls described as 'load bearing' shall consist of 30 units from every 30 000 units delivered to site.					
	Rates for brickwork, faced brickwork,etc shall include for all required samples.					
	Brickwork:					
	All brickwork to comply with SANS 10164 Part 1-1980 or the latest revision.					
	BRICKWORK IN FOUNDATIONS (PROVISIONAL)					
	Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:					
1	One brick walls.	m²	172			
2	One brick walls in planter boxes and bench seating.	m²	24			
	BRICKWORK IN SUPERSTRUCTURE					
	Brickwork of NFP bricks in class II mortar:					
3	Half brick walls in beamfilling.	m²	7			
4	One brick walls.	m²	202			
5	One brick walls in internal gable fire walls above concrete beam.	m²	29			
6	One brick walls in rainwater tank plinths.	m²	7			
7	One brick walls in planter boxes and bench seating.	m²	21			
8	One brick walls of two half brick skins bagged and sealed.	m²	458			
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9	350mm Brick walls of three half brick skins bagged and sealed.	m²	12			
	BRICKWORK SUNDRIES					
	Joint forming material in movement joints:					
10	10mm Bitumen impregnated fibre board built in vertically between brick skins and concrete.	m²	20			
11	10mm Bitumen impregnated fibre board built in vertically between brick skins and concrete in foundations. (Provisional).	m²	11			
	Brickwork reinforcement:					
12	75mm Wide reinforcement built in horizontally.	m	21			
13	230mm Wide reinforcement built in horizontally.	m	2 187			
14	230mm Wide reinforcement built in horizontally in foundations. (Provisional).	m	784			
	Turning pieces:					
15	220mm Wide turning piece to lintels etc.	m	4			
	Prestressed fabricated concrete lintels including necessary temporary supports :					
16	75 x 110mm Lintels in lengths not exceeding 3m	m	88			
17	75 x 110mm Lintels in lengths exceeding 4,5m and not exceeding 6m	m	23			
	Galvanised hoop iron cramps, ties, etc:					
18	30 x 1,6mm Wall tie 500mm long with one end shot pinned to concrete and other end built into brickwork	No	250			
19	30 x 1,6mm Wall tie 500mm long with one end shot pinned to concrete and other end built into brickwork in foundations	No	135			
20	30 x 1,6mm Roof tie 1,6m long with one end fixed to timber and other end built into brickwork.	No	54			
	Bagging of 1:3 cement and sand mixture					
21	On brick walls to inside of planter boxes, etc.	m²	19			
22	On brick walls at rainwater tanks to receive waterproofing (elsewhere).	m²	7			
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	FACE BRICKWORK					
	Corobrick Midrand 27-40Mpa Firelight Imperial FBX Clay satin face bricks (or equally approved), size 222 x 106 x 73mm, manufactured in accordance with 227:2007, bedded and jointed in Class II mortar and pointed with recessed horizontal and vertical joints, suitable for exposure zones 1-4 :					
23	Extra over brickwork for face brickwork in foundations (Provisional).	m²	46			
24	Extra over brickwork for face brickwork.	m²	236			
25	Extra over brickwork for face brickwork in planter boxes and bench seating.	m²	18			
26	Extra over brickwork for brick-on-edge header course lintel pointed on face and 110mm soffit.	m	5			
27	Fair raking cutting	m	9			
	FACE BRICKWORK COPINGS, SILLS, ETC.					
	Brick-on-edge header course copings, sills, etc of Selected Face Bricks as before, pointed with recessed joints on all exposed faces:					
28	75mm Wide sill set sloping and slightly projecting.	m	64			
	NUTEC-CEMENT/FIBRE-CEMENT WINDOW SILLS					
	'Everite Nutec' (or equally approved) window sills in single lengths not exceeding 3.6m, bedded in class I mortar including fixing lugs screwed to underside with self tapping screws:					
29	15 x 150mm Wide sills set flat and slightly projecting internally. (Provisional).	m	64			
	PAVING ETC					
	Paving shall be laid in accordance with SANS 1200 MJ, SANS 1058 and the Concrete Masonry Associations specifications and manuals.					
	Paving shall be laid to Stack Bond pattern on 25mm thick (thickness after final compaction) clean river sand (preparation of ground or filling elsewhere), laid with a minimum longitudinal fall of 1% on a transverse fall of at least 2%.					
	Clean fine jointing sand shall be swept and vibrated into joints between paving at completion and paving is to be inspected and re-sanded after three (3) months.					
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		Unit	Quantity	Rate	Amount	
	<u>'Corobrik (KwaZulu Natal) Flagstone Charcoal S-C</u> <u>concrete paving bricks (or equaly approved),</u> <u>manufactured in accordance SANS 1058.</u> <u>Paving of 440 x 440 x 40mm thick concrete paving</u> <u>bricks with butt joints on 25mm thick river sand bed</u> <u>with sand-and-cement mixture swept into joints and</u> <u>hosed down, including preparation of ground or</u> <u>filling (Filling elsewhere measured) :</u>					
30	Paving in stack bond pattern to falls.	m²	290			
31	220mm Wide brick-on-flat header course edgings on 25mm thick mortar bed, including necessary excavation, etc.	m	140			
	Precast concrete edging/kerbing finished smooth on exposed surfaces including bedding, jointing and pointing, etc.					
32	Edging (SABS 927 Fig 2) size 125 x 250mm to edge of walkway/apron paving, on and including 150 x 50mm thick unreinforced 15/19Mpa concrete bedding with 50 x 100mm unreinforced concrete haunching at back of each kerb, including all excavation, backfilling, formwork etc. (Provisional).	m	140			
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		Unit	Quantity	Rate	Amount	
	SECTION NO. 2					
	BUILDING WORKS					
	BILL NO. 4					
	WATERPROOFING					
	PREAMBLES					
	For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371-A" which shall be read in conjuction with and shall apply to all items in these Bills of Quantities.					
	SUPPLEMENTARY PREAMBLES					
	Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items,materials or methods of similar quality may be used with prior approval from the Architect/Engineer.					
	Waterproofing					
	Waterproofing of roofs, basements, etc shall be laid under a ten year guarantee. Waterproofing to roofs shall be laid to even falls to outlets etc with necessary ridges, hips and valleys. Descriptions of sheet or membrane waterproofing shall be deemed to include additional labour to turn-ups and turn-downs					
	Waterproofing is to be laid in strict accordance with the manufacturers Code of Practice and by an Approved Contractor.					
	Preparation of substrata:					
	Screeded roof surfaces shall be firm, dry and clean. Corners shall be coved or arris rounded. All surfaces to receive waterproofing are to be fully primed with a solvent based bitumen primer.					
	Timber boarded roof surfaces shall be dry, clean and even. All internal angles are to receive a timber triangular fillet. Corners and edges shall be arris rounded.					
	DAMPPROOFING OF WALLS AND FLOORS					
	One layer of 375 micron Consol Plastics Brikgrip DPC embossed damp proof course:					
1	In walls.	m²	70			
	One layer of 250 micron Consol Plastics Gunplas USB Green waterproof sheeting sealed at laps with Gunplas Pressure Sensitive Tape:					
2	Under surface beds.	m²	728			
3	Under surface beds at rainwater tank plinths.	m²	14			
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	One layer 375 micron orange polyethylene waterproof sheeting (SANS 952-1985 type A) sealed at laps with PVC self-adhesive tape :					
4	Vertically to walls at rainwater tank plinths.	m²	7			
	<u>'ABE Dura flex' or equally approved liquid</u> <u>application with ecofelt. All surfaces to be free from</u> <u>oil, grease, wax, dirt or any other form of foreign</u> <u>matter that might affect adhesion. Mix using a</u> <u>mechanical mixer until homogeneous and free of</u> <u>lumps. Apply three coats dura.®flex with alternate</u> <u>coats at right angles to each other using a brush,</u> <u>squeegee, trowel or spray with an overcoating time</u> <u>of 16 hours, all in accordance with manufacturer's</u> <u>recommendations.</u>					
5	On concrete floors to bottom of planter boxes.	m²	9			
6	On bagged brick walls to planter boxes.	m²	19			
7	On bagged brick walls at rainwater tank plinths.	m²	7			
	WATERPROOFING TO ROOFS ETC					
	'ABE Dura flex' or equally approved liquid application with ecofelt. All surfaces to be free from oil, grease, wax, dirt or any other form of foreign matter that might affect adhesion. Mix using a mechanical mixer until homogeneous and free of lumps. Apply three coats dura.®flex with alternate coats at right angles to each other using a brush, squeegee, trowel or spray with an overcoating time of 16 hours, all in accordance with manufacturer's recommendations.					
8	On balcony floors to receive tiles (elsewhere measured).	m²	53			
9	On tops and sides of upstand plastered beams.	m²	23			
10	Dressing and sealing into 75mm internal diameter outlet , including additional membrane	No	2			
	FLASHINGS ETC.					
	Prepare, prime and apply Geoflex or equally approved and mat fabric and two coats Geoflex liquid plastic flashing compound at 2 l/m2 :					
11	Parapet walls (Provisional).	m²	14			
12	Bandage flashing 500mm wide (Provisional.	m	24			
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	JOINT SEALANTS ETC					
	Approved silicone or equally approved sealing					
	compound :					
13	In pointing joints around timber frames and face brick walls externally.	m	12			
	Approved two-part polyurethane sealing compound including backing cord, bond breaker, primer, etc					
14	3 x 25mm In saw cut joints in floors.	m	580			
15	10 x 10mm In isolation expansion joints in floors including raking out expansion joint filler as necessary.	m	293			
16	10 x 10mm In vertical expansion joints including raking out expansion joint filler as necessary	m	124			
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BULDING WORKS         BLUE NO.5         ROF COVERINGS         PATELIS         For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371-4" which shall be read in conjuction with and shall apply to all items in these Bills of Quantities.         SPUEMENTARY PREAMBLES         Items, materials or methods of of the quality required. Homes materials or methods of similar quality may be used with prior approval from the Architect/Engineer.         PROFLED METAL SHEETING AND ACCESSORIES         Motion         Manufacturer's approval from the Architect/Engineer.         Prof sheeting systems are to be manufacturer's approved Instruction Book.         Specifications.         Fixing of all roof sheeting systems are to be manufacturer's approved Instruction Book.         Definitions.         The roof sheeting shall be interlocking concealed-fix roll- formed in continuous lengths and cut to length by a neumatic curificate verifying compliance shall be ordinates a described. A certificate verifying compliance shall be sisued by the manufacturer. The profile shall be ordi- formed with three robs at centres not exceeding 203mm and a cover with not exceeding 406mm. These will include a male and a termate rib. When interlocked, the minimum sheet depth shall be 480mm. Each trough shall incorporate two stiftener robs.         Contractor to ensure that the fende ale overlap is not facing in the direction of the prevailing wind and ensure that overlapping sheets are positively locked into position.         Carried to Collection <td< td=""><td></td><td></td><td>Unit</td><td>Quantity</td><td>Rate</td><td>Amount</td><td></td></td<>			Unit	Quantity	Rate	Amount	
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The sheets shall be fixed to every purlin by means of patented D1 Starting clips, D2 Duplex clips and D3 Finishing clips which will securely hold the sheets in position and lock-in both the sidelap and centre rib. The D1, D2 and D3 clips shall be manufactured from Galvanized steel and shall be fixed to the steel purlin with the appropriate self-drilling/tapping screws or with ZAP no 10x45mm Waferhead screws type 17 to timber purlins.

# Flashings :

Flashings specifications shall be to the manufacturers standards and fixed to the sheeting with S1 brackets or, sliding brackets at apex where roof sheets are 30m or longer, to obviate any direct fixing perforations. Prior to flashings being fixed, all troughs at the apex shall be stop-ended to the full depth of the sheet in order to prevent any penetration of wind-driven water. The trough shall be lipped at the eaves end to form a drip. Transverse flashing flanges shall be notched to the sheet profile where necessary. All these operations must be performed with special tools available from the manufacturer.

# Erection, safety, handling and storage:

Every precaution shall be taken to prevent damage to roof sheets, cladding, etc., during all stages of construction. Duck boards should be used when necessary to protect the sheeting from damage. Sheeting which has become deformed or damaged in any way, shall be replaced.

Care shall be taken to ensure that no sheeting or flashing will be cut with abrasive disc on roof surfaces in order to prevent steel particles from penetrating coated surfaces.

Sheetings should be suitably supported, clear of the ground, under well ventilated cover, away from risk of damage from building operations, contact with cement, dust, lime and abrasive dust, until required to be installed.

The contractor shall exercise special care when handling long length sheeting, particularly in windy conditions. Should work be interrupted for any reason, all loose sheeting and incomplete sections must be adequately secured against possible movement by wind and gravity.

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The contractor shall ensure that all materials used on site for roofing/cladding, etc are transported, handled and stored in accordance with the manufacturer's recommendations. Material damaged shall be rejected and replaced with undamaged material at the contractor's expense. Repair of damaged material will not generally be permitted. Rates are to include for preventing damage and protecting sheets through all stages of construction. Protrusion through sheeted surfaces : Protrusions such as pipes, ducts and the like, shall be adequately flashed where they pass through the sheeting surface. Where ribs have to be cut away to permit penetration, additional framing is to be installed as required to support the sheeting. Depending on the position of the penetration through the roof, special attention shall be given to back flashing the sheeting to the ridge or point of water entry. In all cases, all cutting and flashings shall be so arranged that adequate provision is made for the drainage of all troughs and corrugations. Guarantee : The manufacturer shall comply with ISO 9001:2008 Quality Management System. The standing seam concealed fix 406 sheeting shall be laid in strict accordance with the manufacturer's specifications by an approved contractor. A written and approved five year guarantee of siteworkmanship and watertightness shall be issued after final inspection and approval of concealed-fix roofing, cladding, etc., by the Manufacturer on condition that the sheeting was laid by an approved contractor. Cleaning of roof, etc: All debris, swarf, etc. arising from the fixing of the cladding shall be removed from the sheeting as the fixing progresses. In addition, off-cuts of insulation, surplus fasteners and sealants, mandrels from pop rivets, off-cuts of flashings and sheeting, surplus flashing, food packaging, cartons, bottles, cans, etc shall not be left on the roof or in the gutters. Care shall be taken to ensure that no such material enters, blocks or partially impedes the flow of water into the outlets, down pipes, etc. Carried to Collection R

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		Unit	Quantity	Rate	Amount	
	PROFILED METAL SHEETING AND ACCESSORIES					
	<u>'Global Roofing Solutions' 0.58mm Thick 406mm</u> <u>cover Brownbuilt profile (or equally approved)</u> <u>Chromadek Z200 spelter ISQ550 ArcelorMittal brand</u> <u>C3 medium corrosion risk, profiled steel roofing</u> <u>sheets in single lengths with Dark Dolphin colour</u> <u>finish on top side and standard Pebble Grey backing</u> <u>coat finish on reverse side, fixed to steel</u> <u>intermediate purlins at max 1800mm centres and</u> <u>eaves and ridge purlins at max 1500mm centres</u> <u>using Duplex clips fixed with 10No. 16 x 16mm long</u> <u>self drilling wafer head PH2 screws, No. 3 drill point</u> <u>fasteners, all in accordance with the manufacturers</u> <u>specifications and recommendations.</u>					
1	Roof covering with pitch not exceeding 25 degrees.	m²	660			
2	Lean-to roof covering with pitch not exceeding 25 degrees.	m²	114			
3	'Global Roofing Solutions' 0.58mm Thick 406mm cover Brownbuilt profile (or equally approved) Chromadek Z200 spelter ISQ550 ArcelorMittal brand C3 medium corrosion risk, profiled steel roofing sheets in single lengths with Dark Dolphin colour finish on top side and standard Pebble Grey backing coat finish on reverse side, fixed to steel roof eaves truss framework using Duplex clips fixed with 10No. 16 x 16mm long self drilling wafer head PH2 screws, No. 3 drill point fasteners, all in accordance with the manufacturers specifications and recommendations. Side cladding.	m²	60			
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		Unit	Quantity	Rate	Amount	
	'Global Roofing Solutions' 0.58mm Thick 406mm cover Brownbuilt profile (or equally approved) Chromadek Z200 spelter ISQ550 ArcelorMittal brand C3 medium corrosion risk, profiled steel vertical cladding roofing sheets in single lengths with Dark Dolphin colour finish on top side and standard Pebble Grey backing coat finish on reverse side, a 15mm gap to be provided between exterior brickwall and side cladding and cladding is fixed to the exterior brickwork wall with Hilti M8x80mm long "HUS3-H screw anchors – galvanized (or similar approved) with a minimum concrete / brickwork embedment depth of 60mm. Fixing bolts every 300mm in both directions. Off-set achieved with steel spacer plates or shims, all done in accordance with manufacturers specifications and recommendations.					
4	Side cladding.	m²	46			
	'Global Roofing Solutions' 0,58mm Thick to suit Brownbuilt profile (or equally approved) galvanised steel Z200 steel sheet accessories to preceding roof coverings roll-formed in continuous lengths with Chromadek Dark Dolphin colour one side and standard Pebble Grey backing coat to other side and fitted in strict accordance with manufacturers specifications and recommendations.					
5	Ridge cap 550mm girth 3 times bent and notched on site to suit roof profile.	m	32			
6	Gable trim/Barge flash 550mm girth, 3 times bent.	m	41			
7	Headwall flash 375mm girth, 2 times bent and notched on site to suit roof profile.	m	38			
8	Sidewall flash 375mm girth, 2 times bent.	m	24			
9	Counter flash 185mm girth, 2 times bent.	m	62			
10	Counter flash 185mm girth, 2 times bent around roof ridge ventilators.	m	71			
11	Drip flash 231mm girth, 3 times bent.	m	63			
12	Door jamb / window jamb flash 308mm girth, 3 times bent.	m	13			
13	Broad flute closers to suit profile.	m	204			
14	Broad flute closers to suit profile, around roof ridge ventilators.	m	43			
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		Unit	Quantity	Rate	Amount	
15	<ul> <li><u>ROOF AND WALL INSULATION</u></li> <li><u>'Isover' (or equally approved) 100mm Thick</u></li> <li><u>Factorylite non-combustible light weight fibreglass</u></li> <li><u>Glasswool thermal blanket roof insulation with</u></li> <li><u>reinforced foil facing (Code: 12089), nominal density</u></li> <li><u>12kg/m3, R-value 2.56m2 K/W and a thermal</u></li> <li><u>conductivity of 0.039 W/m2/K.</u></li> <li>100mm Thick Insulation blanket laid taut over purlins and fixed concurrent with the roof covering with stapled longitudinal flap joints, including galvanised steel straining wires at not exceeding 300mm centres and tieddown top and bottom after tensioning with and including galvanised hoop iron ties, all in accordance with manufacturers recommendations.</li> </ul>	m²	774			
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	BUILDING WORKS					
	BILL NO. 6					
	CARPENTRY AND JOINERY					
	PREAMBLES					
	For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371-A" which shall be read in conjuction with and shall apply to all items in these Bills of Quantities.					
	SUPPLEMENTARY PREAMBLES					
	Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items,materials or methods of similar quality may be used with prior approval from the Architect/Engineer.					
	Particle board:					
	Particle board shall comply with the following specifications: a) SANS 1300 Particle board: exterior and flooring type b) SANS 1301 Particle board: interior type.					
	Joinery:					
	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 holes.					
	Fixing:					
	Items described as nailed shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete.					
	Items described as plugged shall be deemed to include screwing to fibre, plastic or metal plugs in brickwork or concrete at not exceeding 600mm centres, and where described as "bolted" the bolts have been given elsewhere.					
	<u>General :</u>					
	All glazing to timber doors or frames is elsewhere measured.					
	All factory timber doors are to be pre-treated with a linseed oil based transit stabilizing sealer.					
	ROOF CONSTRUCTION					
	Sawn softwood :					
1	38 x 114mm Wall plates.	m	38			
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		Unit	Quantity	Rate	Amount	
2	38 x 114mm Backing pieces fixed to purlins at approximately 1200mm centres with galvanised steel 'Trip-L-Grip' brackets to receive barge boards (elsewhere measured). (Provisional).	m	41			
3	38 x 114mm Backing piece fixed to end of rafters at approximately 1200mm centres with galvanised steel 'Trip-L-Grip' brackets to receive fascia boards (elsewhere measured).	m	38			
4	50 x 76mm Purlins.	m	238			
5	50 x 228mm Rafters.	m	164			
	Roof Sundries :					
6	$50 \times 1.6$ mm 90 Degree Eco truss hanger bracket, bolted to wall with and including 2 x anchor bolts, to receive timber rafters (elsewhere measured).	No	54			
	EAVES, VERGES, ETC					
	Fibre Cement medium density plain ungrooved fascias and barge boards:					
7	10 x 225mm Plain fascia boards, including PVC H-profile jointing strips and corner jointers, twice screwed on with 12x40mm countersunk brass screws at 900mm centres.	m	38			
8	80 x 275mm Socketless barge board, butt jointed and with PVC H-profile joiners and corner joiners, twice screwed on.	m	41			
	SKIRTINGS					
	'Supreme Mouldings' or equally approved :					
9	21 x 150mm High ERP010-D profiled skirtings with Polmethyl Methacrylate wear layer, fixed to walls with approved adhesive, all in accordance with the manufacturers specifications and recommendations.	m	133			
	WROUGHT HARDWOOD DOORS, ETC.					
	All glazing is elsewhere measured.					
	All doors are to be pre-treated with a linseed oil based transit stabilizing sealer.					
	<u>'Swartland Cape Culture' (or equally approved) 10</u> Year Guarantee Hardwood Doors hung to timber frames:					
10	44mm Type MDF Horizontal (MDFHRZH10) slatted heavy duty hardwood interior door, size 813 x 2032mm high. (See Architects Door Schedule - D 02).	No	3			
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		Unit	Quantity	Rate	Amount	
11	44mm Type MDF Horizontal (MDFHRZH10) slatted heavy duty hardwood interior door, size 913 x 2032mm high. (See Architects Door Schedule - D 03).	No	1			
12	44mm Type MDF Horizontal (MDFHRZH10) slatted heavy duty hardwood interior door, size 813 x 2032mm high with 180 x 880mm high framed opening viewing panel fitted with and including wrought timber glazing beads on both sides (glazing elsewhere measured). (See Architects Door Schedule - D 04).	No	2			
13	44mm Type SD30 Horizontal slatted hardwood double door in two equal leaves with rebated meeting stiles, fitted with composite gaskets to prevent drafts, size 1612 x 2032mm high with 180 x 880mm high framed opening viewing panels to each leaf, fitted with and including wrought timber glazing beads on both sides (glazing elsewhere measured). (See Architects Door Schedule - D 01).	No	5			
14	Extra over for 500 x 300mm high framed opening in slatted doors for aluminium louvre unit (louvre unit elsewhere measured). (Provisional).	No	6			
	FRAMED FRAMES ETC					
	All door frame profiles are to be manufactured according to SABS specification No. 1129 of 1977.					
	All door frames are to be pre-treated with a linseed oil based transit stabilizing sealer.					
	<u>'Swartland Cape Culture' (or equally approved) 10</u> <u>Year Guarantee Hardwood timber door frames</u> <u>constructed from solid laminated wood and fitted</u> <u>with and including composite gaskets to prevent</u> <u>drafts :</u>					
15	SK1 86 x 76mm Heavy duty rebated door frame with 44mm rebate, size 923 x 2114mm high, plugged and screwed to wall.	No	5			
16	SK1 86 x 76mm Heavy duty rebated door frame with 44mm rebate, size 1023 x 2114mm high, plugged and screwed to wall.	No	1			
17	SK3 86 x 76mm Heavy duty rebated double door frame with 44mm rebate, size 1722 x 2114mm high, plugged	NO				
	and screwed to wall.	No	5			
	TIMBER STAGE FLOORS					
	The following in timber stage floors (Refer to Engineers Drawing Timber Stage - Layout and Details No D34435S-220-01 Rev B) :					
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		Unit	Quantity	Rate	Amount	
	Grade 5 SABS approved Structural laminated timber members in structural supporting joists :					
18	75 x 110mm High laminated timber beams in lengths not exceeding 2,4m, twice holed and bolted to brickwall with M10 x 130mm long galvanised 'HUS3-H screw anchors at 300mm centres, embedded to a min depth of 55mm into brickwork, (bolts elsewhere measured).	m	13			
19	75 x 421mm High laminated timber beams in lengths not exceeding 2,4m, resting on concrete surface bed and fixed to concrete with and including 70 x 70 x 6mm galvanised mild steel angle cleat 60mm long at 250mm centres for full length of timber beams and cleats twice holed and bolted to concrete surface bed with M10 x 130mm long galvanised 'HUS3-H screw anchors (elsewhere measured) and bolted to timber beam with galvanised M10 (Grade 4.8) bolts (elsewhere measured).	m	36			
20	75 x 421mm High extreme profiled laminated timber beams cut to take shape of steps profile in lengths not exceeding 2,4m at steps, resting on concrete surface bed and fixed to concrete with and including 70 x 70 x 6mm galvanised mild steel angle cleat 60mm long at 250mm centres for full length of timber beams and cleats twice holed and bolted to concrete surface bed with M10 x 130mm long galvanised 'HUS3-H screw anchors (elsewhere measured) and bolted to timber beam with galvanised M10 (Grade 4.8) bolts (elsewhere measured).	m	1			
21	75 x 480mm High laminated timber beams in lengths not exceeding 2,4m at steps, resting on concrete surface bed and fixed to concrete with and including 70 x 70 x 6mm galvanised mild steel angle cleat 60mm long at 250mm centres for full length of timber beams and cleats twice holed and bolted to concrete surface bed with M10 x 130mm long galvanised 'HUS3-H screw anchors (elsewhere measured) and bolted to timber beam with galvanised M10 (Grade 4.8) bolts (elsewhere measured).	m	1			
22	<u>'Getzner' or equally approved Sylomer pads for</u> <u>vibration absorption :</u> 40mm 'Getzner' or equally approved Sylomer pad layer for absorption of vibration, laid to top of timber beam					
	joists to receive shutterboard (elsewhere) and floor boards (elsewhere) over, and fixed all together with stage flooring with and including suitable concealed nails as per manufacturers instructions and specifications, at equal recommended centres.	m²	29			
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		Unit	Quantity	Rate	Amount	
	SABS approved shutterboard :					
23	Stage deck flooring underlay of 19mm thick Shutterboard layer laid to top of Sylomer pads (elsewhere) on timber beams (elsewhere) and fixed all together with stage flooring with and including suitable concealed nails as per manufacturers instructions and specifications, at equal recommended centres.	m²	29			
24	Stage deck flooring underlay of 19mm thick Shutterboard layer at steps laid horizontally in treads to top of timber profiled beam (elsewhere) and fixed all together with stage flooring with and including suitable concealed nails as per manufacturers instructions and specifications, at equal recommended centres.	m²	1			
25	Stage deck flooring underlay of 19mm thick Shutterboard layer at steps laid vertically in risers to top of timber profiled beam (elsewhere) and fixed all together with stage flooring with and including suitable concealed nails as per manufacturers instructions and specifications, at equal recommended centres.	m²	1			
	SABS approved tongue and groove Saligna wood flooring :					
26	Stage deck flooring of 20 x 96mm thick toungue and groove Saligna wood flooring planks each 3075mm long, concealed fixed to timber beams (elsewhere) all together with underlay shutterboard (elsewhere) and sylomer pads (elsewhere) with and including suitable concealed nails at equal recommended centres, all in accordance with manufacturers instructions and specifications.	m²	29			
27	Stage deck flooring of 20 x 96mm thick toungue and groove Saligna wood flooring planks to stage steps in treads, fixed as before.	m²	1			
28	Stage deck flooring of 20 x 96mm thick toungue and groove Saligna wood flooring planks to stage steps in risers, fixed as before.	m²	1			
29	20 x 96mm Thick toungue and groove Saligna wood flooring planks fixed vertically to front of stage 421mm high, concealed fixed to timber beams (elsewhere) with and including suitable concealed nails at equal recommended centres, all in accordance with manufacturers instructions and specifications.	m²	5			
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		Unit	Quantity	Rate	Amount	
30	20 x 80mm Thick toungue and groove Saligna wood flooring plank cut to size and fitted horizontally along stage front edge surround and concealed fixed to shutterboard and stage flooring with and including suitable nails at equal recommended centres, all in accordance with manufacturers instructions and specifications.	m	13			
	Galvanised bolts, anchors, etc.					
31	M10 (Grade 4.8) galvanised bolts through timber.	No	155			
32	'Hilti' or equally approved M10 x 130mm long galvanised 'HUS3-H screw anchors' into brickwork.	No	86			
33	'Hilti' or equally approved M10 x 130mm long galvanised 'HUS3-H screw anchors' into concrete.	No	155			
	BEADS, ARCHITRAVES, SILLS, ETC					
	Wrought meranti:					
34	19mm Quadrant beads	m	121			
35	44 x 44mm Rebated, splayed and grooved weather boards, fixed to external doors, including grooves in doors.	m	5			
	NOTICE BOARDS, PINNING BOARDS, WRITING BOARDS, KEYBOARDS, DUCKBOARDS, ETC					
	<u>"Parrot", or similar approved bulletin boards with carpet and anodised aluminium frame.</u>					
36	Pinning/bulletin board size 1800 x 1200mm high plugged to walls. (Provisional).	No	3			
	JOINERY FITTINGS, ETC.					
	<u>General :</u>					
	The following joinery cupboard fittings have been measured as complete units i.e. the components of the units have not been separately measured. The descriptions, therefore, of such units shall be deemed to include all components, assembling, housing, notching, glueing, blocking, planting on and screwing with countersunk screws, edge strips, decorative plastic finish, glass, ironmongery, metalwork, paint or varnish finishes, etc.					
	The joinery fittings are deemed to include clear silicone sealant along all the edges between the tiles/wall and counter tops and around the edge of the sinks where applicable.					
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	Unit	Quantity	Rate	Amount
The references given in the descriptions are to the				
The references given in the descriptions are to the respective types of fittings detailed on the Architect's drawings as numbered and annexed to these Bills of Quantities for tender purposes.				
Kitchen Cupboards and Worktops, etc.				
Kitchen Cupboards Specifications:				
Kitchen Tops				
32mm Rustenburg Granite fixed with silicone and polished edges				
Faces of Cupboards & Drawers				
PG Bison or equally approved 16mm thick MelaWood® in Verzasca Oak™Linear™, manufactured in accordance with SANS 1763:1998, constructed using 1830mm wide BisonBord® boards in accordance with the approved shop drawings.				
<ul> <li>2mm Heavy duty impact edging</li> </ul>				
Carcasses				
PG Bison or equally approved 16mm thick MelaWood® in Folkstone Grey™Peen™, manufactured in accordance with SANS 1763:1998, constructed using 1830mm wide BisonBord® boards in accordance with the approved shop drawings.				
Kick Plate				
100x 20mm Meranti Kickplate with 1mm Brushed Stainless Steel 204 cover.				
Hinges				
GRASS® Nexis or equally approved Click-on 110° opening angle screw-in hinge in nickel plated (Item No: 146.322.53.0815) with 2D-cross mounting plate with 2 point fixing (Item No: 314.493.71.0215) and plain hinge cover cap, fixed with 3,5 x 15mm nickel plated chipboard screws including Soft Close closing mechanism (Item No: 924.200.40.0215).				
Drawer Runners				
500mm Heavy Duty bearing drawer runners with soft closers.				
Handles				
170mm Brushed Satin Nickel bar handles SKU#8373				
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		Unit	Quantity	Rate	Amount	
	Kitchen Cupboards, etc.					
37	Kitchen Floor Cupboard Unit type complete at Surverey Hatch, size 1950 x 600 x 900mm high with six (6) equal size open shelves, with and including 32mm Granite worktop 900mm wide with overhang to hatch, cut out around brickwalls to form serverey hatch on same level, and 16mm melawood sides, bottom, division, shelf, back and dividing framework, etc Including all ironmongery, brackets, skirtings, blocking pieces, edging, etc, - All in accordance with the Architects Kitchen Joinery Schedule/Drawing No: A.02.1.	No	1			
38	Kitchen Floor Cupboard Unit type complete at Surverey Hatch, size 3370 x 600 x 900mm high with twelve (12) equal size open shelves, with and including 32mm Granite worktop 900mm wide with overhang to hatch, cut out around brickwalls to form serverey hatch on same level, and 16mm melawood sides, bottom, division, shelf, back and dividing framework, etc,. Including all ironmongery, brackets, skirtings, blocking pieces, edging, etc, - All in accordance with the Architects Kitchen Joinery Schedule/Drawing No: A.02.1.	No	1			
39	Kitchen Floor Cupboard Unit type complete, size 3000 x 600 x 900mm high with three (3) cupboard doors, one (1) trash drawer and four (4) drawers, with and including 32mm Granite worktop, with cut out in top for 1500 x 535mm wide double centre bowl drop on sink (sink elsewhere measured), and 16mm melawood sides, bottom, division, shelf, back and hinged doors, dividing framework, etc,. Including all ironmongery, brackets, runners, rails, skirtings, blocking pieces, edging, etc, - All in accordance with the Architects Kitchen Joinery Schedule/Drawing No: A.02.1.	No	1			
40	L-Shaped Kitchen Floor Cupboard Corner Unit type complete, size 3200 x 600 x 900mm high and 1350 x 600 x 900mm high respectively, with four (4) cupboard doors and two (2) sets of four (4) drawers (8 Drawers total), with and including 32mm Granite worktop and 16mm melawood sides, bottom, division, shelf, back and hinged doors, dividing framework, etc., Including all ironmongery, brackets, runners, rails, skirtings, blocking pieces, edging, etc, - All in accordance with the Architects Kitchen Joinery Schedule/Drawing No: A.02.1.	No	1			
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		Unit	Quantity	Rate	Amount	
	Ablution Vanity Tops, etc.					
41	32mm 'Rustenburg' granite floating vanity top 600mm wide with polished edges, with and including 150mm downstand to front elevation, vanity supported on approved concealed steel support brackets at required centres, including cut outs for waste from lay-on basins and silicone sealer between vanity top and wall.	m	7			
	STORAGE SHELVING, ETC.					
	Supply and fit wall mounted timber and steel shelving complete, consisting of 1820mm long wall bands (code WB1820) with standard epoxy powder coated finish fitted vertically at approximately 670mm centres, fitted as per manufacturers specifications, complete with heavy duty brackets (code WBR 300) for wood shelves and fit six (6) rows of 22mm thick x 380mm wide SAP Lamboard Laminated pine shelving with and including preparation and finish with two coats high quality polyurethane varnish, sanding lightly between coats and shelves screwed to brackets from below :					
10						
42	Steel shelving with six rows of 22mm x 380mm wide laminated SAP timber board shelving on wall bands and brackets, approximately 1916mm high, including finish, fixed to walls. (Provisional).	m	14			
	FURNITURE AND FITTINGS, ETC. (PROVISIONAL)					
	<u>'Cecil Nurse' or equally approved Furniture &amp;</u> Fittings, etc.					
43	'La Mia' side chair without arms with upholstered seat, epoxy coated 'Grey' metal frame with matching injection moulded polypropylene seat & back (Code LM06GRCOM), with and including upholstered seat in 'Loomcraft' contract mega cloth (Code SPELNLL3168), chair size 520mm wide x 540mm deep x 810mm high. (Provisional).	No	300			
	'Procking News' restangular table/deals with 16mm Tap					
44	'Breaking News' rectangular table/desk with 16mm Top including modesty panel (Code BN750BLKME), in colour 'Mondega Elm' with black painted legs, size 750mm wide x 500mm deep x 700mm high. (Provisional).	No	300			
45	'Cube Quilted' double seater couch with 'Black Leather- Look' upholstery diamond double-needle stitching detail to seat and back, flanked by shelter-style arms that provide a comforting embrace, set on simple chrome metal T-legs (Code CBQ02BLK), size 1400mm wide x					
	700mm deep x 795mm high. (Provisional).	No	4			
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SECTION NO. 2				
BUILDING WORKS				
BILL NO. 7				
CEILINGS PARTITIONS AND ACCESS FLOORING				
PREAMBLES				
For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371-A" which shall be read in conjuction with and shall apply to all items in these Bills of Quantities.				
SUPPLEMENTARY PREAMBLES				
Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items,materials or methods of similar quality may be used with prior approval from the Architect/Engineer.				
CEILINGS, PARTITIONS AND ACCESS FLOORING				
<u>Ceilings :</u>				
Unless otherwise described ceilings shall be deemed to be horizontal.				
Fixing :				
Items described as nailed shall be deemed to be fixed with hardened steel nails or pins, or to be shot-pinned, to brickwork or concrete				
Items described as plugged and screwed shall be deemed to include screwing to fibre, plastic or metal plugs at centres not exceeding 600mm, and where described as bolted the bolts have been given elsewhere.				
Steel components :				
All steel components for ceilings, partitions, etc are to be galvanised in accordance with SANS 121				
Descriptions:				
Boards must be stacked on a level surface in a dry place on a timber platform. Boards must be carried on edge.				
'Nutec' ceiling boards shall be secured to timber brandering with 32 x 2.5mm galvanized serrrated nails at centres not exceeding 150mm.				
Skimming of plasterboard ceilings must be plastered the same day that the plasterboard has been erected.				
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SUSPENDED CEILINGS Proprietary suspended ceilings, hangers, suspension grids, lay-in panels, etc are to be strictly in accordance with the manufacturers' recommendations. Electrical light fittings, diffusers, panels etc are generally lay-in units of the same dimensions as the suspension grid described and allowance must be made in the rates accordingly for their support inclusive of any flexibility in setting out that may be required (ceiling panels have not	Jnit	Quantity	Rate	Amount
Proprietary suspended ceilings, hangers, suspension grids, lay-in panels, etc are to be strictly in accordance with the manufacturers' recommendations. Electrical light fittings, diffusers, panels etc are generally lay-in units of the same dimensions as the suspension grid described and allowance must be made in the rates accordingly for their support inclusive of any flexibility in setting out that may be required (ceiling panels have not				
Proprietary suspended ceilings, hangers, suspension grids, lay-in panels, etc are to be strictly in accordance with the manufacturers' recommendations. Electrical light fittings, diffusers, panels etc are generally lay-in units of the same dimensions as the suspension grid described and allowance must be made in the rates accordingly for their support inclusive of any flexibility in setting out that may be required (ceiling panels have not				
lay-in units of the same dimensions as the suspension grid described and allowance must be made in the rates accordingly for their support inclusive of any flexibility in setting out that may be required (ceiling panels have not				
been deducted and pricing is to take cognisance thereof).				
Skimmed Ceiling System with Concealed Ceiling Grid :				
1 Layer Gyproc RhinoBoard® 12.5mm fixed to Gypframe, (or equally approved). UltraSTEEL®         Brandering installed at maximum 600mm centres.         Fix Gyproc RhinoBoard® using Gyproc Sharp-point Screws 25mm at maximum 150mm centres. All joints shall be staggered. Apply Gyproc RhinoTape® to all joints and skim the entire ceiling using Gyproc RhinoLite® CreteStone® to a smooth polished surface. Ceiling grid consisting of Gyproc Suspension Brackets fixed to tie beam/joist using one line of 2 Gyproc Sharp-point Screws 35mm. Install Gyproc Galvanised Steel Angle 25mm x 25mm at ceiling level to the wall running perpendicular to the direction of steel brandering. Install Gypframe. UltraSTEEL® Brandering onto the suspension brackets. Fix steel brandering to the galvanised steel angle using Gyproc Wafer-head Tek Screws 13mm. Gyproc RhinoArt Cornice (elsewhere measured).         Sloping ceilings suspended not exceeding 1m below steel purlins at 1400mm centres between rafter trusses	m²	280		
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		Unit	Quantity	Rate	Amount
	Acoustic Ceiling System with Concealed Ceiling Grid : <u>1 Layer Gyproc Acoustic Ceiling System (Boards)</u> <u>Gyptone. Rigitone® 8-15-20 Super (or equally</u> <u>approved) fixed to Gypframe./DONN ceiling grid</u> <u>using Gyproc Sharp-point Screws 25mm at</u> <u>maximum 150mm centres. Finish the joints and spot</u> the screw heads using Rigitone® Vario Joint Filler. <u>Gypframe./DONN T37K Main Tees (0.4mm thickness,</u> <u>Z150 galv coating, locally manufactured, recycled</u> <u>content, ISO 9001 &amp; 14001 certification) at 1200mm</u> <u>centres and Gypframe./DONN T32K Cross Tees at</u> <u>300mm centres. Where required, install additional</u> <u>cross tees. Gypframe./DONN T37K Main Tees</u> <u>suspended using Gyproc Galvanised Steel Angle</u> <u>25mm x 25mm at 1200mm centres. Gyproc RhinoArt</u> <u>Cornice (elsewhere measured).</u>				
2	Sloping ceilings suspended not exceeding 1m below steel purlins at 1400mm centres between rafter trusses at 6m centres.	_			
3	1 Layer Gyproc Acoustic Ceiling System (Boards) Gyptone. BIG Line 6 (with Activ'Air®) fixed to Gypframe./DONN ceiling grid. Fix Gyptone. boards using Gyproc Sharp-point Screws 25mm at maximum 150mm centres. Apply Gyproc RhinoTape® to all joints. Jointed finish and covering of the screw heads is done using Gyproc RhinoGlide®. Ceiling grid consisting of Gypframe./DONN T37K Main Tees at 1200mm centres and Gypframe./DONN T32K Cross Tees at 600mm centres. Gypframe./DONN T37K Main Tees suspended using Gyproc Galvanised Steel Angle 25mm x 25mm at 1200mm centres. Fix galvanised steel angles to Gypframe./DONN T37K Main Tees using Gyproc Wafer Head Tek Screws 13mm. Gyproc RhinoArt Cornice (elsewhere measured). Sloping ceilings in acoustic bulkheads suspended not exceeding 1m below steel purlins at 1400mm centres (trusses at 6m centres).	m²	246		
4	Ceilings suspended not exceeding 1m below timber purlins at 1100mm centres (rafter trusses at 1m centres).	m²	14		
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		Unit	Quantity	Rate	Amount	
	Exposed Ceiling System with Exposed Ceiling Grid :					
	Lay Gyproc Gyprex® White 1200mm x 600mm ceiling tile into the Gypframe./DONN ceiling grid. Ceiling grid consisting of Gyproc/DONN Wall Angle (SM25/M6) fixed to the perimeter wall using fixings at 300mm centres. Space Gypframe./ DONN Main Tees T38 FR at 1200mm centres. Suspend main tees using Gyproc Pre-stretched Galvanised Hanger wire 2.5mm thick or Gyproc hanger strap 19mm at 1200mm centres. Gyproc Pre-stretched Galvanised Hanger wire shall be put through the main tees hole and would wind 3 times around itself. 2 steel pop- rivets or one Gyproc Wafer-head Tek screw 13mm shall be used to fix the hanger strap to the main tees web. Install Gypframe./DONN Cross Tees T38V/T32V (1200 long) at 600mm centres to create a 1200mm x 600mm ceiling grid. Main tee should be fixed to the wall using angle cleats.					
5	Ceilings suspended not exceeding 1m below timber purlins at 1100mm centres (rafter trusses at 1m centres).	m²	88			
6	Ceilings suspended not exceeding 1m below concrete soffits.	m²	62			
	<u>Cornices, perimeter trims, etc to suspended</u> <u>ceilings :</u>					
7	Gyproc RhinoArt Cove fixed Gyproc RhinoBed® or Gyproc RhinoArt Cornice fixed using Gyproc RhinoArt adhesive, (or equally approved).	m	210			
8	Type SM25 pre-painted recessed wall angles, plugged.	m	229			
	DRYWALL PARTITIONS Partitions consisting of 146mm galvanised steel studs at 610mm centres as vertical support secured in matching galvanised steel floor and ceiling channels, clad on one or both sides as described, including additional studs as necessary at abutments, ends, etc. Board cladding shall be fixed and jointed in strict accordance with the manufacturer's instructions. Paint or varnish finishes are given separately.					
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	'Gyproc' or equally approved Sound Resistant Wall System UltraSTEEL® Stud Drywall, consisting of stud and track system with 146 x 50mm (1 resilient bar) Gypframe [™] Drywall UltraSTEEL® studs at recommended centres, friction fitted into head track and floor track with 102mm Isover Cavitybatt/Cavitylite (14kg/m ³ ) insulation inserted into cavity of partitioning and clad on both sides with 12.5mm Gyproc Rhinoboard SoundBloc, with all external angles to have Gypframe [™] Corner Beads attached and all joints to be covered with Gyproc RhinoTape®. Wall surface to be finished with minimum 3mm thick RhinoLite® Multipurpose, all in accordance with the manufacturer's recommendations.					
9	Partitions internal wall eaves closure 750mm high between rafter beams at columns.	m	60			
10	abutment against end steel columns and rafter beams.	No	4			
11	Extra over partition closure 750mm high for vertical abutment against intermediate steel columns and rafter beams, including cutting around steelwork profile to suit.	No	16			
	TOILET CUBICLES AND PARTITIONS					1
	Supply and install Pelican Systems T1 Toilet Partition System (or equally approved) comprising of 16mm thick particle board panels, laminated both sides with Melawood or Formica (Colour to be later determined by Architect), edged all round with 22 x 22mm lipped channel and fixed into position by means of full height vertical aluminium receiving channels fixed to the abutting wall, floor or pilaster. Pilasters and end partitions are stabilized by a continuous 25 x 25mm aluminium transom section over doors and supplied with a complete set of standard ironmongery comprising of indicator bolts, hat and coat hooks, door stops, toilet roll holders and rubber buffers. Aluminium surrounds, receiving channels and transom sections shall be natural anodised. Note: Door hinges are to be falling butt hinges (Door to move to open position if left open).					
12	End Partition 1500 x 1830mm high.	No	2			
13	Intermediate Partition 1500 x 1830mm high.	No	6			
14	End Pilaster 115 x 1981mm high.	No	4			
15	Intermediate Pilaster 230 x 1981mm high.	No	6			1
	Carried to Collection Section No. 2 Bill No. 7 Ceilings Partitions And Access Flooring 78			R		

		Unit	Quantity	Rate	Amount	/01
16	Doors size 762 x 1762mm high, complete.	No	8			
	Carried to Collection Section No. 2			R		
	Bill No. 7 Ceilings Partitions And Access Flooring					
	79					

#### TARDI 300 SEATER EXAM HALL SCMU8-22/23-0063

	1 11	SCM08-22/23-	0063
		Amount	
<u>BILL NO. 7</u>			
CEILINGS PARTITIONS AND ACCESS FLOORING			
COLLECTION			
	Page No		
Brought Forward from Page	ge 74		
	75		
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	77		
	78		
	79		
Carried To Section Summary	R		
Section No. 2	n n		
Bill No. 7			
Ceilings Partitions And Access Flooring			
80			

1

				50100-22/23-	-0063
	Unit	Quantity	Rate	Amount	
SECTION NO. 2					
BUILDING WORKS					
BILL NO. 8					
FLOOR COVERINGS, WALL LININGS, ETC					
PREAMBLES					
For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371-A" which shall be read in conjuction with and shall apply to all items in these Bills of Quantities.					
SUPPLEMENTARY PREAMBLES					
Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items,materials or methods of similar quality may be used with prior approval from the Architect/Engineer.					
Fixing					
Floor coverings, wall linings, etc shall, where applicable, be fixed with adhesive as recommended by the manufacturers of the flooring, linings, etc					
VINYL FLOOR COVERINGS, WALL LININGS, ETC.					
The following floor coverings, wall linings, etc. Are to be manufactured and/or supplied by manufacturer as specified and installed in strict accordance with the Manufacturer's and/or Supplier's instructions and specifications.					
Vinyl Floor Coverings and Wall Linings :					
Polyflor 3.7mm thick Silentflor PUR Heterogeneous vinyl floor sheeting with a 0.65mm clear wear layer colour Honey Oak (Colour code: 9959), (or equally approved), laid in an approved adhesive spread with a notched trowel on suitably prepared cement screed (elsewhere measured) with a hygrometer reading showing a moisture content of less than 70%, with joints welded with a fully flexible coloured Polyflor welding rod to provide a smooth, hygienic sealed finish and rolled with 68kg articulated floor roller, all in accordance with manufacturer's recommendations.	2	504			
On floors.	m²	564			
Carried to Collection			R		
Section No. 2			n		
Bill No. 8					
Floor Coverings, Wall Linings, Etc					
81					

					SCMU8-22/23-	0063
		Unit	Quantity	Rate	Amount	
2	Polyflor 3.7mm thick Silentflor PUR Heterogeneous vinyl floor sheeting with a 0.65mm clear wear layer colour Honey Oak (Colour code: 9959), (or equally approved), laid in an approved adhesive spread with a notched trowel on suitably prepared steel surfaces, with joints welded with a fully flexible coloured Polyflor welding rod to provide a smooth, hygienic sealed finish and rolled with 68kg articulated floor roller, all in accordance with manufacturer's recommendations. On treads of steel stairs.	m²	19			
-	WALL LININGS, ETC					
	Belgotex Conqueror (or equaly approved) colour Sword, heavy residential (SABS location grade: 3) Stainproof Miracle Fibre (Polypropylene) 5mm thick, level-loop pile MiracleBac® woven polypropylene backed SABS Class 2 fire rating broadloom carpet sheeting laid on and including Orange undercushion, with approved adhesive, all in accordance with the manufacturers recommendations.					
3	On walls. (Provisional).	m²	138			
4	Raking cutting. (Provisional).	m	33			
	EDGE TRIMS, NOSINGS, JOINT COVERS, ETC					
	Stainless steel edge trims, nosings, etc					
5	Standard stainless steel type carpet edge trim fixed to brickwork or concrete around wall linings.	m	47			
	<u>'Polyflor' or equally approved structural movement</u> joints and covers:					
6	EJC65 or equally approved structural joint cover, (colour to match vinyl floor covering) fixed in and to floors at construction/expansion joints, all as per manufacturers instructions. (Provisional).	m	147			
	Polish, sealers, etc :					
7	Clean down and apply 2 coats approved polish sealer on vinyl flooring, all to manufacturers recommendations.	m²	583			
	Carried to Collection			R		
	Section No. 2					
	Bill No. 8 Floor Coverings, Wall Linings, Etc					
	82					

TARDI 300 SEATE	R EXAM HALL
SCM	IU8-22/23-0063

					SCMU8-22/23-	-006
		Unit	Quantity	Rate	Amount	
	MATS (PROVISIONAL)					
	<u>'Mat-lok Aluguard' or equally approved single sided</u> barrier mat :					
8	Door mat size 1800 x 1200 x 12mm gauge, heel-proof, closed construction barrier mat consisting of electrostatic, buffed-nylon tyre-rubber strips, inserted and fixed into modular natural anodised aluminium scraper sections, fixed with nail-in-anchors in sunken AMF31/31 aluminium mat surround (elsewhere measured). (Provisional)	No	1			
	<u>'Decramat' or equally approved Mat-well Frame :</u>					
9	Mat surround size 1800 x 1200mm formed of natural anodised aluminium pre-formed matwell frame					
	AMF31/31, complete with mitred edges and corner connectors, bedded into screed. (Provisional)	No	1			
	Carried to Collection			R		
	Section No. 2 Bill No. 8					
	Floor Coverings, Wall Linings, Etc					
	83					

## TARDI 300 SEATER EXAM HALL SCMU8-22/23-0063

			SCMU8-22/23-0	0063
			Amount	
BILL NO. 8				
FLOOR COVERINGS, WALL LININGS, ETC				
COLLECTION				
		Page No		
Brought F	Forward from Page	81		
		82		
		83		
Carried To Section Summa	rv	R		
Section No. 2	· ,	••		
Bill No. 8				
Floor Coverings, Wall Linings, Etc				
84				

Unit     Quantity     Rate     Amount       SECTION NO. 2 BUILDING WORKS BILL NO.9 IRONMONGERY     Here     Amount     Image: Construction of Materials and Methods to be used - PM371-A* which shall be read in conjuction with and shall apply to all items in these Bils of Quantities.     Image: Construction of Materials and Methods to be used - PW371-A* which shall be read in conjuction with and shall apply to all items in these Bils of Quantities.     Image: Construction of Materials and Methods to be used - PW371-A* which shall be read in conjuction with and shall apply to all items in these Bils of Quantities.     Image: Construction of Materials and Methods to be used specified by trans materials or methods to be used specified by trans materials or methods to be used specified by dimitar quality may be used with prior approval from the Architect/Engineer.     Image: Construction of Materials Statin bronze lacquered : CH Chronium platet : SC Sain chromium platet : SE Silver enamelled : GE Grey enamelled : ASA nocidised black : PB Polished brass : PL Polished and lacquered : PT Epoxy coated.     Image: Construction platet : SC Sain chromium platet : SE Silver enamelled : GE Grey enamelled : ASA nocidised black : PB polished brass : PL Polished and lacquered : PT Epoxy coated.     Image: Construction platet : SC Sain chromium platet : SE Silver enamelled : GE Grey enamelled : ASA nocidised black : PB polished brass : PL Polished and lacquered : PT Epoxy coated.     Image: Construction platet : SC Sain chromium platet : SE Silver enamelled : GE Grey enamelled : Collection No     Image: Construction platet : SC Sain chromium platet : SE Silver enamelled : GE Grey enamelled : Collection No     Image: Construction platet : SC Sain chromium platet : SE Silver enamelled : GE Grey enamelled : Collection No     Image: Construction platet :						SCMU8-22/23	006
BULDING WORKS         BILL NO. 3         IROMMONGERY         PREAMBLES         For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371-4* which shall be read in conjuction with and shall apply to all items in these Bills of Quantities.         SUPPLEMENTARY PREAMBLES         Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior approval from the Architect/Engineer.         Enrishes to ironnongery:         Where applicable finishes to ironnongery are indicated by suffixes in accordance with the following list: BS Satin bronze lacquered : CH Chromium plated : SC Satin chromium plated : SE Shore reanselled : SC Satin bronze lacquered isliver : AB Anodised bronze : AG Anodised gold : ABL Anodised black : PB Polished brass : PL Polished and lacquered : PT Epoxy coated.         Filing:         Items, materials or metul plugs in brickwork or concrete.         HNGES, FLOOR SPRING HINGES, BOLTS, PANIC BOLTS, ETC Approved hinges. floor springs. bolts, panic bolts, etc.         20 DBB-SC-180 Satin chrome 153mm manual flush bolt with heal.         3 DPB-SC-180 Satin chrome 153mm manual flush bolt with heal.         4 DPS-SS-032 Stainless steel dust proof strike.         5 PHA2 S SD Two point locking panic bar - Single door - Door leaf 1000mm wide x 2270mm high (2201.2104.PHX02.PHX04).         Setts       3 Itonnmorgery			Unit	Quantity	Rate	Amount	
BULDING WORKS         BILL NO. 3         IROMMONGERY         PREAMBLES         For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371-4* which shall be read in conjuction with and shall apply to all items in these Bills of Quantities.         SUPPLEMENTARY PREAMBLES         Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior approval from the Architect/Engineer.         Enrishes to ironnongery:         Where applicable finishes to ironnongery are indicated by suffixes in accordance with the following list: BS Satin bronze lacquered : CH Chromium plated : SC Satin chromium plated : SE Shore reanselled : SC Satin bronze lacquered isliver : AB Anodised bronze : AG Anodised gold : ABL Anodised black : PB Polished brass : PL Polished and lacquered : PT Epoxy coated.         Filing:         Items, materials or metul plugs in brickwork or concrete.         HNGES, FLOOR SPRING HINGES, BOLTS, PANIC BOLTS, ETC Approved hinges. floor springs. bolts, panic bolts, etc.         20 DBB-SC-180 Satin chrome 153mm manual flush bolt with heal.         3 DPB-SC-180 Satin chrome 153mm manual flush bolt with heal.         4 DPS-SS-032 Stainless steel dust proof strike.         5 PHA2 S SD Two point locking panic bar - Single door - Door leaf 1000mm wide x 2270mm high (2201.2104.PHX02.PHX04).         Setts       3 Itonnmorgery		SECTION NO. 2					
BILL NO. 3       IRONNONGERY         PREAMBLES       For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371-A* which shall be read to conjuction with and shall apply to all items in these Bills of Quantities.         SUPPLEMENTARY PREAMBLES         Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior approval from the Architect/Engineer.         Einishes to ironmongery         Where applicable finishes to ironmongery are indicated by suffixes in accordance with the following list: BS Statin bronze lacquered : CH Orthornium plated : SC Statin chromium plated : SE Silver enamelied : GE Grey enamelied : AS Anodised bilver : AB A							
IRONMONGERY     PREAMBLES       For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371-A* which shall be read in conjuction with and shall apply to all items in these Bills of Quantities.       SUPLEMENTARY PREAMBLES       Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior approval from the Architect/Engineer.       Enishes to ironmongeryE       Where applicable finishes to ironmongery are indicated by suffixes in accordance with the following list: BS Satin bronze lacquered : CH Chromium plated : SE Grey enamelied : AS Anodised silver : AB Anodised bronze : AG Anodised gold : ABL Anodised black : PB Polished brass : PL Polished and lacquered : PT Epoxy coated.       Fixing:       Items described as plugged shall be deemed to include screwing to fibre, plastic or metal plugs in bickwork or concrete.       HINGES, FLOOR SPRING HINGES, BOLTS, PANIC BOLTS, ETC Approved hinges, floor springs, bolts, panic bolts, elsci:       1     2240 2000mm Aluminium sinkless hinge, centre pin, Anodised.       1     20400 200mm Aluminium sinkless there to ball bearing butt hinge.       2     DBB-SS-009 102x75x3mm Stainless steel two ball bearing butt hinge.       3     DFB-SC-180 Satin chrome 153mm manual flush bolt with heel.       4     DPS-SS-032 Stainless steel dust proof strike.       5     PHA2 S SD Two point locking panic bar - Single door - Door leaf 10000mm wide x 2270mm high (2201.2104.PHX02.PHX04).       Setts <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>							
For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371-4x which shall be read in conjuction with and shall apply to all items in these Bills of Quantities.         SUPPLEMENTARY PREAMBLES         Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior approval from the Architect/Engineer.         Finishes to ironmongery:         Where applicable finishes to ironmongery are indicated by suffixes in accordance with the following list: BS Stath bronze lacquered : CH Chromium plated : SC Stath chromium plated : SC Shall Shodised black : PB Polished brass: PL Polished and lacquered : PT Epoxy coated.         Fixing:         Items described as plugged shall be deemed to include screwing to fibre, plastic or metal plugs in brickwork or concrete.         HINGES, FLOOD SPRING HINGES, BOLTS, PANIC BOLTS, ETC         Approved hinges, floor springs, bolts, panic bolts, etc.;         1       2040 200mm Aluminium sinkless hinge, centre pin, Anodised.         1       2040 200mm Aluminium sinkless thinge, centre pin, Anodised.         2       DBB-SS-009 102x75x3mm Stainless steel two ball bearing but thinge.         3       DFS-SS-030 Stain chrome 153mm manual flush bolt with heel.       No         4       DPS-SS-032 Stainless steel dust proof strike.       No       5         5       PHA2 S SD Two point locking panic bar - Single door - Door leaf 1000mm wide x 2							
Specification of Materials and Methods to be used -         PW371-47 which shall be read in conjuction with and shall apply to all items in these Bills of Quantities.         SUPPLEMENTARY PREAMELES         Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior approval from the Architect/Engineer.         Finishes to Ironmongery:         Whore applicable finishes to ironmongery are indicated by suffixes in accordance with the following list: BS Satin bronze lacquered : GH Ornmum plated : SC Satin chromup plated : SE Sliver enamelled : GE Grey enamelled : AS Anodised sliver : AB Anodised bronze : AG Anodised gold : AL Anodised back : PB Polished brass : PL Polished and lacquered : PT Epoxy coated.         Fixing:         Items described as plugged shall be deemed to include screwing to fibre, plastic or metal plugs in brickwork or concrete.         HINGES, FLOOR SPRING HINGES, BOLTS, PANIC BOLTS, ETC         Approved hindes, floor springs, bolts, panic bolts, elsc.         elsc.         1       2040 200mm Aluminium sinkless hinge, centre pin, Anodised.         No       6         2       DBB-SS-009 102x75x3mm Stainless steel two ball bearing but hinge.         bearing but hinge.       Pairs         24       3         DFB-SC-180 Satin chrome 153mm manual flush bolt with heel.       No         VE DPS-SS-032 Stainless steel dust proof strike.		PREAMBLES					
Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior approval from the Architect/Engineer.         Einishes to ironmongery.         Where applicable finishes to ironmongery are indicated by suffixes in accordance with the following list: BS Satin bronze lacquered : CH Chronium plated : SC Satin bronze lacquered : CH Chronium plated : SC Satin bronze lacquered : CH Chronium plated : SC Satin bronze : AG Anocised biox: : PB Polished brass : PL Polished and lacquered : PT Epoxy coated.         Fixing:         Items described as plugged shall be deemed to include screwing to fibre, plastic or metal plugs in brickwork or concrete.         HINGES, FLOOR SPRING HINGES, BOLTS, PANIC BOLTS, FLO         Approved hinges, floor springs, bolts, panic bolts, elic:         1       2040 200mm Aluminium sinkless hinge, centre pin, Anocised.         No       6         2       DB-SS-009 102x75x3mm Stainless steel two ball bearing butt hinge.         4       DPS-SC-180 Satin chrome 153mm manual flush bolt with heel.         5       PHA2 S SD Two point locking panic bar - Single door - Door leaf 1000mm wide x 2270mm high (2201.2104.PHX02.PHX04).         Sets       3         Carried to Collection       R         Marcine to Collection No. 2       Bill No. 9         Itoms negrey       Sets       3		Specification of Materials and Methods to be used - PW371-A" which shall be read in conjuction with and					
It rade names or catalogue numbers are only an indication of the quality required, Items, materials or methods of similar quality may be used with prior approval from the Architect/Engineer.         Finishes to ironmongery:         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 : ABL Anodised black : PB Polished brass : PL Polished and lacquered : PT Epoxy coated.         Fixina:         Items described as plugged shall be deemed to include screwing to fibre, plastic or metal plugs in brickwork or concrete.         HINGES, FLOOR SPRING HINGES, BOLTS, PANIC POLISHEd         POLTS, ETC         Approved hinges, floor springs, bolts, panic bolts, etc.         1       2040 200mm Aluminium sinkless hinge, centre pin, Anodised.         No       6         2       DBB-SS-009 102x75x3mm Stainless steel two ball bearing butt hinge.         Pairs       24         3       DFB-SC-180 Satin chrome 153mm manual flush bolt with heel.       No         4       DPS-SS-032 Stainless steel dust proof strike.       No         5       PHA2 S SD Two point locking panic bar - Single door - Door leaf 1000mm wide x 2270mm high (2201.2104.PHX04).       Sets       3         Carried to Collection       R		SUPPLEMENTARY PREAMBLES					
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Items described as plugged shall be deemed to include screwing to fibre, plastic or metal plugs in brickwork or concrete.       Image: Strewing to fibre, plastic or metal plugs in brickwork or concrete.         HINGES, FLOOR SPRING HINGES, BOLTS, PANIC BOLTS, ETC       Approved hinges, floor springs, bolts, panic bolts, etc.:       Image: Strewing to fibre, plastic or metal plugs in brickwork or concrete.         1       2040 200mm Aluminium sinkless hinge, centre pin, Anodised.       No       6         2       DBB-SS-009 102x75x3mm Stainless steel two ball bearing butt hinge.       Pairs       24         3       DFB-SC-180 Satin chrome 153mm manual flush bolt with heel.       No       10         4       DPS-SS-032 Stainless steel dust proof strike.       No       5         5       PHA2 S SD Two point locking panic bar - Single door - Door leaf 1000mm wide x 2270mm high (2201.2104.PHX02.PHX04).       Sets       3         Carried to Collection         R         Carried to Collection         R		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					
screwing to fibre, plastic or metal plugs in brickwork or concrete.       HINGES, FLOOR SPRING HINGES, BOLTS, PANIC BOLTS, ETC         Approved hinges, floor springs, bolts, panic bolts, etc.:       1         1       2040 200mm Aluminium sinkless hinge, centre pin, Anodised.         2       DBB-SS-009 102x75x3mm Stainless steel two ball bearing butt hinge.         9       DFB-SC-180 Satin chrome 153mm manual flush bolt with heel.         4       DPS-SS-032 Stainless steel dust proof strike.         5       PHA2 S SD Two point locking panic bar - Single door - Door leaf 1000mm wide x 2270mm high (2201.2104.PHX02.PHX04).         Settion No. 2       Bill No. 9         Bill No. 9       Ironmongery		Fixing:					
BOLTS, ETC       Approved hinges, floor springs, bolts, panic bolts, etc.:       No       6         1       2040 200mm Aluminium sinkless hinge, centre pin, Anodised.       No       6         2       DBB-SS-009 102x75x3mm Stainless steel two ball bearing butt hinge.       Pairs       24         3       DFB-SC-180 Satin chrome 153mm manual flush bolt with heel.       No       10         4       DPS-SS-032 Stainless steel dust proof strike.       No       5         5       PHA2 S SD Two point locking panic bar - Single door - Door leaf 1000mm wide x 2270mm high (2201.2104.PHX02.PHX04).       Sets       3         Carried to Collection         Section No. 2         Bill No. 9       Ironmongery       R		screwing to fibre, plastic or metal plugs in brickwork or					
etc.:       No       6         1       2040 200mm Aluminium sinkless hinge, centre pin, Anodised.       No       6         2       DBB-SS-009 102x75x3mm Stainless steel two ball bearing butt hinge.       Pairs       24         3       DFB-SC-180 Satin chrome 153mm manual flush bolt with heel.       No       10         4       DPS-SS-032 Stainless steel dust proof strike.       No       5         5       PHA2 S SD Two point locking panic bar - Single door - Door leaf 1000mm wide x 2270mm high (2201.2104.PHX02.PHX04).       Sets       3         Carried to Collection         R         Carried to Collection         Section No. 2 Bill No. 9 Ironmongery       Image: Section No. 2							
Anodised.       No       6         2       DBB-SS-009 102x75x3mm Stainless steel two ball bearing butt hinge.       Pairs       24         3       DFB-SC-180 Satin chrome 153mm manual flush bolt with heel.       No       10         4       DPS-SS-032 Stainless steel dust proof strike.       No       5         5       PHA2 S SD Two point locking panic bar - Single door - Door leaf 1000mm wide x 2270mm high (2201.2104.PHX02.PHX04).       Sets       3         Carried to Collection         R         Image: Section No. 2         Bill No. 9       Ironmongery       Ironmongery							
bearing butt hinge.       Pairs       24         3       DFB-SC-180 Satin chrome 153mm manual flush bolt with heel.       No       10         4       DPS-SS-032 Stainless steel dust proof strike.       No       55         5       PHA2 S SD Two point locking panic bar - Single door - Door leaf 1000mm wide x 2270mm high (2201.2104.PHX02.PHX04).       Sets       3         6       Carried to Collection       R       Image: Carried to Collection No. 2         8       Bill No. 9       Ironmongery       Image: Carried to Collection No. 2	1	• •	No	6			
with heel.       No       10         4       DPS-SS-032 Stainless steel dust proof strike.       No       5         5       PHA2 S SD Two point locking panic bar - Single door - Door leaf 1000mm wide x 2270mm high (2201.2104.PHX02.PHX04).       Sets       3         Carried to Collection         R         Section No. 2         Bill No. 9       Ironmongery	2		Pairs	24			
5       PHA2 S SD Two point locking panic bar - Single door - Door leaf 1000mm wide x 2270mm high (2201.2104.PHX02.PHX04).       Sets       3         Carried to Collection       Sets       3         Section No. 2 Bill No. 9 Ironmongery       Image: Section No. 2       Image: Section No. 2	3		No	10			
Door leaf 1000mm wide x 2270mm high (2201.2104.PHX02.PHX04).     Sets     3       Carried to Collection     R       Section No. 2     Bill No. 9       Ironmongery     Ironmongery	4	DPS-SS-032 Stainless steel dust proof strike.	No	5			
Carried to Collection R Section No. 2 Bill No. 9 Ironmongery	5	Door leaf 1000mm wide x 2270mm high					
Section No. 2 Bill No. 9 Ironmongery		(2201.2104.PHX02.PHX04).	Sets	3			
Section No. 2 Bill No. 9 Ironmongery		Carried to Collection			R		
Bill No. 9 Ironmongery							
		Bill No. 9					
85		Ironmongery					
		85					

					SCMU8-22/23-	-006
		Unit	Quantity	Rate	Amount	
	LOCKS					
	Approved locks, locksets, etc. :					
6	'Yale' or equally approved 51mm 'All Weather' 5 pin plastic covered external padlock and 3 keys.	No	3			
7	DCE-002 S.S Stainless steel round cylinder escutcheon.	Pairs	4			
8	D038R NP Nickel plated rebate conversion kit for Euro profile locks D036S, D037D	No	5			
9	DSC104301 MK (43mm) Satin Nickel 43mm Five pin Euro-profile Single cylinder, Master Keyed.	No	3			
10	DDC106601 MK (66mm) Satin Nickel 66mm Five pin Euro-profile Double cylinder, Master Keyed.	No	2			
11	DKC106601 MK (66mm) Satin Nickel 66mm Five pin Euro-profile knob cylinder, Master Keyed.	No	4			
12	D036S SS Stainless steel Cylinder sash lock, case dimensions 116.5mm high x 78mm deep, with forend dimensions 168mm high x 22mm wide and backset 57mm. Centres 61mm.	No	5			
13	D037D SS Stainless steel Cylinder deadlock, case dimensions 116.5mm high x 78mm deep, with forend dimensions 168mm high x 22mm wide and backset 57mm.	No	3			
14	DMWC-SS-008 Stainless steel bathroom deadlock, case dimensions 38mm high x 76mm deep, with forend dimensions 78mm high x 22.5mm wide and backset 55mm.	No	1			
15	DWC-005 Stainless steel bathroom WC indicator (Red $\&$ White) and turn knob.	Sets	8			
16	DWC-006 Stainless steel disabled WC indicator (Red & White) and turn knob for physically impaired.	Sets	1			
17	PHT3901 Satin Nickel Exterior access lock with lever handle (Cylinder not included).	No	1			
18						
	and including 100 x 100 x 75mm thick meranti block with chamfered edges, finished with and including clear varnish and twice bolted to wall with and including 6 x 80mm Rawlbolts.	No	7			
	Carried to Collection Section No. 2 Bill No. 9			R		
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		I			SCMU8-22/23-006	3
		Unit	Quantity	Rate	Amount	
	HANDLES, FLUSH PULLS, ETC					
	Handles, flush pulls, etc :					
19	TH120 Latch S.S Stainless steel lever handle set on rose - Latch	Sets	1			
20	Ref TH120 Cyl S.S Stainless steel lever handle set on rose with cylinder escutcheons	Sets	4			
21	DPH301B Stainless steel 325x25mm Straight tubular pull handle flange fixing.	No	2			
22	DPH210 BTB Stainless steel 300x30mm Straight tubular pull handle BTB (BTB fixing sets included).	Pairs	2			
23	DPH206 BTB Stainless steel 400x30mm Offset tubular pull handle BTB (BTB fixing sets included)(Pull handle complies with BS 8424.Grade 3 - Heavy Duty).	Pairs	6			
	PUSH PLATES AND KICKING PLATES					
	Push plates and kick plates :					
24	DPP-430-BL-SF 150x300 - Grade 430 Brushed stainless steel blank push plate size 150mm x 300mm x 1,2mm thick, drilled and countersunk for stainless steel screw fixing to doors.	No	2			
25	DKP-430-SF 200 - Grade 430 Brushed stainless steel kick plate 200mm x 813mm x 1,2mm thick, finished size to be checked on site, drilled and countersunk for stainless steel screw fixing to doors.	No	4			
	DOOR CLOSERS					
	Approved door closers:					
26	TS90-SL - EN 3/4 Cam action slide channel NON HOLD OPEN door closer, hydraulic speed control, Pull side - leaf or transom fixing; Push side - leaf or transom fixing, EN3 850-950, EN4 950-1100. Colour Silver.	No	2			
27	TS73V PA DC-PAB-SL EN2-4 parallel arm DELAYED ACTION door closer, push side fitting (parallel arm bracket included) EN2 750-850, EN3 850-950, EN4					
	950-1100, colour silver.	No	1			
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					SCMU8-22/23	3-006
		Unit	Quantity	Rate	Amount	
28	TS91B HO-SL MECHANICAL HOLD OPEN Cam action slide channel door closer, Max door width 950mm, Closing Force EN 3, hydraulic speed control, Pull-side door leaf fixing (Standard), Push side transom fixing. Door closer compliant with EN 1154. Door closer is CERTI FIRE approved (Certificate No. CF 119) for door types ITT 120, MM/IMM 240, Certified manufacturer to ISO 9001. Colour Silver.	No	4			
29	TS83 PA with Parallel arm bracket - EN 3-6 Parallel Arm NON HOLD OPEN door closer, adjustable strength, hydraulic speed control, Push side fixing (Parallel arm bracket included) EN3 850-950, EN4 950-1100, EN5 1100-1250, EN6 1250-1400. Door closer tested to EN 1154. Approved to AS1905 Part 1 Fire Resistant doors, Certified manufacturer to ISO 9001. Colour Silver.	No	1			
	LETTERS, NAMEPLATES, ETC.					
	Door Signage:					
30	DSS-130M "MALE" stainless steel information sign size 150x150mm, fixed to doors with stainless steel self tapping screws.	No	1			
31	DSS-131F "FEMALE" stainless steel information sign size 150x150mm, fixed to doors with stainless steel self tapping screws.	No	1			
32	DSS-133P "DISABLED PERSONS" stainless steel information sign size 150x150mm, fixed to doors with stainless steel self tapping screws.	No	1			
	PHOTOLUMINESCENT SIGNS					
	SABS approved wall mounted / Ceiling mounted emergency photoluminescent statutory fire signs to SANS 1186, size 290 x 290mm, Framed and Single Sided :					
33	290 x 290mm 'NO SMOKING' natural anodised sign with one pictogram fixed to wall.	No	2			
34	290 x 290mm 'FIRE BLANKET' photo liminescent sign, with one pictogram, single sided, framed and wall mounted.	No	1			
05		INU	I			
35	290 x 290mm 'EXIT' photo luminescent sign, with one pictogram, single sided, framed and wall mounted.	No	4			
36	380 x 290mm 'FIRE EXIT - KEEP CLEAR' photo luminescent sign, with one pictogram, single sided, framed and wall mounted.	No	4			
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					SCMU8-22/23	3-006
		Unit	Quantity	Rate	Amount	
37	580 x 290mm 'RUNNING MAN & DOWNWARD ARROW' photo luminescent sign, with two pictograms, single sided, framed and wall mounted.	No	2			
38	580 x 290mm 'RUNNING MAN & SIDEWARD ARROW LEFT' photo luminescent sign, with two pictograms, single sided, framed and wall mounted.	No	2			
39	580 x 290mm 'RUNNING MAN & SIDEWARD ARROW RIGHT' photo luminescent sign, with two pictograms, single sided, framed and wall mounted.	No	2			
40	580 x 290mm 'FIRE EXTINGUISHER & DOWNWARD ARROW' photo luminescent sign, with two pictograms, single sided, framed and wall mounted.	No	2			
41	870 x 290mm 'FIRE HOSE REEL, EXTINGUISHER & DOWNWARD ARROW' photo luminescent sign, with three pictograms, single sided, framed and wall mounted.	No	2			
42	190 x 190mm 'ELECTRIC SHOCK HAZARD (EL1)' brushed stainless steel sign, with one pictogram, single sided, mounted to wall above DB board and other electrical hazards.	No	1			
	Signarama or equally approved ceiling mounted suspended double sided signs with curv display, finished in silver anodised aluminium with convex frame, silver anodised aluminium end caps and clear non glare lens, supplied and installed to manufacturers specifications and instructions.					
43	1000 x 200mm High 'RESTROOMS' Sign with three pictograms (Male, Female & Disabled)	No	1			
44	1000 x 200mm High 'KITCHEN' Sign with one pictogram (Knife, Fork & Spoon)	No	1			
	BATHROOM FITTINGS					
	Bathroom Fittings:					
45	'Kimberly Clarke' or equally approved Professional type MR2 surface mounted Satin finish stainless steel toilet tissue dispenser,White (Code: SA426130), overall size 130 x 135 x 256mm high, installed by manufacturers installation team, complete.	No	9			
46	'Kimberly Clarke' or equally approved Professional Aqua hand cleanser dispenser, stainless steel (Code:6983000), overall size 150 x 130 x 250mm high,					
	installed by manufacturers installation team, complete.	No	8			
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	Section No. 2					
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	Ironmongery 89					

					SCMU8-22/23	-006
		Unit	Quantity	Rate	Amount	
47	'Kimberly Clarke' or equally approved Professional 'Reflex' Hands Free rolled towel dispenser, stainless steel (Code: SA426125), overall size 315 x 260 x 365mm high, installed by manufacturers installation team, complete.	No	5			
48	'Kimberly Clarke' or equally approved Disposer wall mounted general waste bin, stainless steel (code: SA426135), overall size 345 x 290 x 390mm high, installed as per manufacturer, complete.	No	5			
49	Sanitary wall bin small (code: DIS-BINNS-051), plugged and screwed to wall with stainless steel screws, as per manufacturer, complete.	No	6			
50	Chrome plated toilet brush set (code: AC-0913-100) size 155 x 120 x 375mm high, plugged.	No	9			
	<u>Grab Rails:</u>					
51	'Franke' CNTX700A or equally approved 32mm Diameter satin finished Grade 304 stainless steel angle bar (Code: 359877), size 618 x 95 x 256mm with Franke fine grip surface, plugged and screwed to walls with stainless steel screws.	No	1			
52	'Franke' CNTXBR or equally approved 32mm Diameter satin finished Grade 304 stainless steel cistern back rail (Code: 359912), size 750 x 260mm with Franke fine grip surface, plugged and screwed to walls with stainless steel screws.	No	1			
	<u>SUNDRIES</u>					
	Approved door stops, coat hooks, etc. :					
53	DDS-SS-017 Stainless steel floor mounted door stop plugged.	No	8			
54	DDS-SS-021 Stainless steel floor mounted door stop plugged.	No	1			
	VENETIAN BLINDS (PROVISIONAL)					
	Supply and fit aluminium venetian blind, colour to Principal Agent later specification, with 16 x 0,21mm thick slats including 25 x 25mm high matching aluminium powder coated top and bottom tracks with stainless steel separator pins, cordlock and roller pins, blinds to be fitted inside reveal to concrete lintol:					
55	Venetian blinds to suit window opening size 1600 x 450mm high. (W3)	No	1			
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	Bill No. 9					
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# TARDI 300 SEATER EXAM HALL - TSOLO AGRICULTURAL & RURAL DEVELOPMENT INSTITUTE

## TARDI 300 SEATER EXAM HALL SCMU8-22/23-0063

		Unit	Quantity	Rate	Amount	
56	Venetian blinds to suit window opening size 2400 x 450mm high. (W2)	No	2			
57	Venetian blinds to suit window opening size 800 x 1600mm high. (W3)	No	1			
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		17412100	SCMU8-22/23	
			Amount	
BILL NO. 9				
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		Page No		
	Brought Forward from Page	85		
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BULDING WORKS         BLL NO. 10         STRUCTURAL STEELWORK         PEAMBLES         For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371-4" which shall be read in conjuction with and shall apply to all items in these Bills of Quantities.         SUPDEMENTARY PREAMBLES         Items, materials or methods of of the quality required. Items, materials or methods of similar quality may be used with prior approval from the Architect/Engineer.         Descriptions of bolts shall be deemed to include nuts and washers         Descriptions of L-shaped and U-shaped anchor bolts shall be deemed to include bending, threading, nuts and washers and embedding in concrete         Descriptions of columns and beams shall be deemed to include flat section base, top, bearer and connection plates         Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in bickwork or concrete         NOTE: All structural steelwork to be fabricated and erected in accordance with SABS 0162-1984 and SABS 1200H - 1983. Dimensions and levels to be evertified on site. All botts must be glavanised grade 8.4 unless otherwise specified by the Engineer prior to transporting oise. All botts must be glavanised grade 8.4 unless otherwise specified by the Engineer. Bolts shall not have threads within the share planeer. Bolts by the Engineer plates are used, longer bolts must be used to ensure that sufficient length of thread is taken up by the nuts.         Carried to Collection       R		Unit	Quantity	Rate	Amount	
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TARDI 300 SEATER EXAM HALL
SCMU8-22/23-0063

Unit         Quantity         Rate         Amount           All welds to be 6mm continuous fillet or the weld throat thickness to be the thickness of the thimnest of the two pared 350W. Purifis and girts to be pre-galvanised.         Image: Control of Contrel of Contrel of Control of Contrel of Control of Control of Cont					SCMU8-22/23	-0
thickness to be the thickness of the thinnest of the two parent metals. All structural steel wombers to be of grade 350W. Purlins and girts to be pre-galvanised. All structural steelwork inclusive of bolts, nuts, washers, plates, connections, etc., other than purlins & girts to be hot dipped galvanised in accordance with SANS 121 or ISO 1461 All hot dipped members to be of hiled, cut, welded, etc., prior to galvanising. Prices to include for preparation of shop drawings for approval of the Engineer prior to manufacture. A minimum of 7 days must be allowed for checking of shop drawings. Only structural sizes, connections and splices will be checked. Final dimensions and fitting of members shall remain the contractors responsibility. Prices to include for fabrication, cutting, drilling, bending, welding, etc., delivery to site, and holsting up and recting into position. The contractor is responsible for stabilising the structure and maintaining it in the correct position during erection. All purlins and upit cleat holes are to be 14mm Dia for M12 black bolts of grade 4.8. Fixing holes are to be on purlins. All purlins due to be fixed staggered and purlins are to be continuous over at least two spans. Purlins are to be continuous over at least two spans. Purlins are to be continuous convert all days they spans. Purlins are to be continuous over at least two spans. Purlins are to be fixed o cleats with two bolts at continuous connection and evection of structural steel. 0-7 days: Concrete curring, no loading on ground floor slab permitted. 7.14 days: Light toot traffic permitted. 14.28 days: Light vehicles-5 ton.28-4 days: Maximum gross crane load during construction a slab. Structural steelwork shall be completed by the Manufacturer - cleaned, hot-dipped galvanised in workshop before transportation to site. Structural steelwork shall be completed by the Manufacturer - cleaned, and painted with specified primer in wockshop before transportation to site. Structural steelwork shall be completed by the Manufacturer -		Unit	Quantity	Rate	Amount	
preparation of shop drawings for approval of the Engineer prior to manufacture. A minimum of 7 days must be allowed for checking of shop drawings. Only structural sizes, connections and splices will be checked.         Final dimensions and fitting of members shall remain the contractors responsibility. Prices to include for fabrication, cutting, drilling, bending, welding, etc., delivery to site, and hoisting up and erecting into position. The contractor is responsible for stabilising the structure and maintaining if in the correct position during erection.         All purins and girt cleat holes are to be 14mm Dia for M12 black bolts of grade 4.8. Fixing holes are to be on purlins. All purlin splices are to be fixed staggered and purlins are to be fixed to cleats with two bolts at continuous connection and two bolts at purlin or cleat end.         Note: The following restrictions are applicable on ground floor slab during construction and erection of structural steel. 0.7 days: Concrete curing; no loading on ground floor slab during construction and erection of structural steel. 0.7 days: Concrete curing; no loading on ground floor slab perior to avert damage to concrete ground floor slab. Only tyre cranes permitted on slab.         Structural steelwork shall be completed by the Manufacture - cleaned, hot-dipped galvanised in workshop before transportation to site.       Structural steelwork shall be completed by the Manufacture - cleaned, and painted with specified primer in workshop before transportation to site. ONLY if specified in the Engineering Structural Steel drawings.	thickness to be the thickness of the thinnest of the two parent metals. All structural steel members to be of grade 350W. Purlins and girts to be pre-galvanised. All structural steelwork inclusive of bolts, nuts, washers, plates, connections, etc., other than purlins & girts to be hot dipped galvanised in accordance with SANS 121 or ISO 1461 All hot dipped members to be drilled, cut,					
M12 black bolts of grade 4.8. Fixing holes are to be on purlins. All purlin splices are to be fixed staggered and purlins are to be continuous over at least two spans. Purlins are to be continuous connection and two bolts at purlin or cleat end.         Note: The following restrictions are applicable on ground floor slab during construction and erection of structural steel. 0-7 days: Concrete curing; no loading on ground floor slab permitted. 7-14 days: Light foot traffic permitted. 14-28 days: Light vehicles<5 ton.28+ days: Maximum gross crane load during construction = 25 ton (excludes lifting load). Crane outrigger base footings to be on double cross layer of 50 x 228mm timber spreader supports over and area of 1.00 x 1.00m or similar approved by the Engineer to avert damage to concrete ground floor slab. Only tyre cranes permitted on slab.	preparation of shop drawings for approval of the Engineer prior to manufacture. A minimum of 7 days must be allowed for checking of shop drawings. Only structural sizes, connections and splices will be checked. Final dimensions and fitting of members shall remain the contractors responsibility. Prices to include for fabrication, cutting, drilling, bending, welding, etc., delivery to site, and hoisting up and erecting into position. The contractor is responsible for stabilising the structure and maintaining it in the correct position during					
floor slab during construction and erection of structural steel. 0-7 days: Concrete curing; no loading on ground floor slab permitted. 7-14 days: Light foot traffic permitted. 14-28 days: Light vehicles-5 ton.28+ days: Maximum gross crane load during construction = 25 ton (excludes lifting load). Crane outrigger base footings to be on double cross layer of 50 x 228mm timber spreader supports over and area of 1,00 x 1,00m or similar approved by the Engineer to avert damage to concrete ground floor slab. Only tyre cranes permitted on slab.         Structural steelwork shall be completed by the Manufacturer - cleaned, hot-dipped galvanised in workshop before transportation to site.         Structural steelwork shall be completed by the Manufacturer - cleaned and painted with specified primer in workshop before transportation to site.         Structural steelwork shall be completed by the Manufacturer - cleaned and painted with specified primer in workshop before transportation to site.         Structural steelwork shall be completed by the Manufacturer - cleaned and painted with specified primer in workshop before transportation to site.         Structural steelwork shall be completed by the Manufacturer - cleaned and painted with specified primer in workshop before transportation to site ONLY if specified in the Engineering Structural Steel drawings.         R	M12 black bolts of grade 4.8. Fixing holes are to be on purlins. All purlin splices are to be fixed staggered and purlins are to be continuous over at least two spans. Purlins are to be fixed to cleats with two bolts at continuous connection and two bolts at purlin or cleat					
Manufacturer - cleaned, hot-dipped galvanised in workshop before transportation to site.         Structural steelwork shall be completed by the Manufacturer - cleaned and painted with specified primer in workshop before transportation to site ONLY if specified in the Engineering Structural Steel drawings.         Carried to Collection       R         Section No. 2       Carried to Collection	floor slab during construction and erection of structural steel. 0-7 days: Concrete curing; no loading on ground floor slab permitted. 7-14 days: Light foot traffic permitted. 14-28 days: Light vehicles <5 ton.28+ days: Maximum gross crane load during construction = 25 ton (excludes lifting load). Crane outrigger base footings to be on double cross layer of 50 x 228mm timber spreader supports over and area of 1,00 x 1,00m or similar approved by the Engineer to avert damage to concrete					
Manufacturer - cleaned and painted with specified primer in workshop before transportation to site ONLY if specified in the Engineering Structural Steel drawings.         Carried to Collection         R         Section No. 2	Manufacturer - cleaned, hot-dipped galvanised in					
Section No. 2	Manufacturer - cleaned and painted with specified primer in workshop before transportation to site ONLY if					
Section No. 2						
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	Section No. 2 Bill No. 10					
Structural Steelwork						
94	94					

		I			SCMU8-22/23-	006
		Unit	Quantity	Rate	Amount	
	STRUCTURAL STEELWORK					
	The following structural steelwork to roofs must be read in conjunction with Engineers Steel Roof Layout Drawing No D34435S-210-01 Rev A and Steel Roof Sections and Details Drawing D34435S-211-01 Rev A.					
	GALVANISED STEEL COLUMNS AND BEAMS					
	Welded columns in single lengths with flat base,					
	cap, bearer and connection plates, bolted to concrete :					
1	203 x 203mm x 46kg/m H-section columns including 315 x 240 x 20mm thick base plate with 4 No holes for M16 holding down anchor bolts, column fully welded to rafter and including 10mm stiffener plates to both sides of columns. (12 No Columns).	Tonnes	0,62			
2	70 x 70 x 6mm Equal angle cleats back to back 115mm long, fully welded to steel rafter columns, to receive CFLC eaves truss chord plate (elsewhere), 4 times holed to receive M12 bolts (elsewhere measured).	Ka	07			
	Welded beams in single lengths with flat bearer and connection plates, bolted to steel :	Kg	37			
3	356 x 171mm x 45kg/m I-section roof beams/rafters fully welded to H columns (elsewhere) one side and connected at apex to other rafter with and including connection plates size 707 x 190 x 20mm thick eight times holes, including haunch's at apex and at column connection cut from 356 x 171mm x 45kg/m I-Section beam rafter and stiffeners. (24 No Rafters).	Tonnes	6,48			
4	70 x 70 x 6mm Equal angle cleats back to back 165mm long, fully welded to steel rafter beams to receive CFLC	Tonnes	0,40			
	purlins (elsewhere), 4 times holed to receive M12 bolts (elsewhere measured).	Kg	208			
	Carried to Collection			R		
	Section No. 2					
	Bill No. 10 Structural Steelwork					
	Structural Steelwork 95					
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		Unit	Quantity	Rate	Amount	
	GALVANISED STEEL TRUSSES					
	Welded roof trusses of angle rafters, tie beams, rails, struts, braces, cleats, etc and flat bearer, gusset and connection plates, bolted and welded to steel :					
5	Lattice eaves trusses in sections spanning between steel rafters and bolted together at rafters/columns, each eaves truss approximately 6000mm long x 730mm high extreme, with each eaves truss consisting of 125 x 75 x 20 x 3mm Cold Formed Lipped Channels (CFLC) top chord, bottom chord, vertical bracing and diagonal bracing, with all bracing members fully welded to top and bottom chords. Trusses to be constructed using ungalvanised CFLC members and then all complete trusses to be hot dipped galvanised after fabrication. (10 No Eaves Trusses). See Engineers Steel Roof Drawing for Sections & Details - D34435S-211-01 Rev A).	Tonnes	1,64			
6	67.5 x 125 x 6mm Thick plate fully welded to steel eaves truss top and bottom chords where two trusses meet for fixing to back to back angles on columns (elsewhere), 4 times holed to receive M12 bolts (elsewhere measured).	Kg	14			
7	140 x 125 x 6mm Thick plate fully welded to steel eaves truss top and bottom chords on end trusses for fixing to back to back angles on columns (elsewhere), 4 times holed to receive M12 bolts (elsewhere measured).	Kg	7			
8	125 x 75 x 4mm Thick closure plate fully welded to steel eaves truss top and bottom chords on end trusses.	Kg	3			
	<u>GALVANISED STEEL PURLINS, GIRTS, BRACING,</u> <u>ETC</u>					
	Purlins and girts, bolted to steel					
9	175 x 75 x 20 x 2,5mm Thick Cold-Formed Lipped Channels (CFLC) in purlins bolted to steel rafter beams at approximately 1385mm centres, continuous over 2 bays and staggered, fixed to steel rafters with 70 x 70 x 6mm back to back angle cleats 165mm long (elsewhere measured).	Tonnes	3,46			
	<u>Welded bracing, anti-sag rails, etc with flat</u> connection/gusset plates, etc, bolted to steel					
10	$50 \times 50 \times 3mm$ Thick Equal Angle sag bars, fixed to purlins each end with and including $50 \times 50 \times 3mm$ angle 145mm long welded to both ends of sag bar in vertical direction, twice holed for M12 bolts (elsewhere					
	measured).	Tonnes	0,29			
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	Section No. 2 Bill No. 10					
	Structural Steelwork					
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		Unit	Quantity	Rate	Amount	
11	$50 \times 50 \times 3$ mm Thick Equal Angle diagonal sag bars, fixed to purlins and rafter beams each end with and including $50 \times 50 \times 3$ mm angle 145mm long welded to both ends of sag bar in vertical direction, twice holed for M12 bolts (elsewhere measured).	Tonnes	0,17			
12	70 x 70 x 6mm Thick Equal Angle cross bracing, fixed to gusset plates (elsewhere measured) on rafter beams and angles twice holed at connections to receive 2 M16 bolts (elsewhere measured) at each end.	Tonnes	0,42			
13	230 x 300 x 8mm Thick Gusset plate fully welded to bottom of top flange of steel rafter beams to receive cross bracing (elsewhere) and plates 4 times holed to receive M16 bolts (elsewhere measured).	Kg	61			
	GALVANISED STEEL GUTTERS 0.80mm Thick welded plate gutters, galvanised steel Z200 steel sheet accessories to match roof coverings, roll-formed in continuous lengths with Chromadek Dark Dolphin colour one side and standard Pebble Grey backing coat to other side and fitted in strict accordance with the manufacturers specifications and recommendations.					
14	Eaves U- shaped box gutters 665mm girth, 3 times bent along length including necessary collared and sealed expansion joints fitted to top of eaves truss and H-Beam columns (elsewhere), including lapping under roof sheeting and fixing to purlins See Engineers Steel Roof Drawing for Sections & Details - D34435S-211-01 Rev A).	m	64			
15	Extra over box gutter for stopped end.	No	4			
16	Extra over box gutter for outlet for 160mm diameter pipe.	No	4			
	BOLTS, FASTENERS, ETC Galvanised Bolts, etc. :					
17	M12 High tensile galvanised bolts (Grade 8.8)	No	860			
18	M16 High tensile galvanised bolts (Grade 8.8)	No	96			
19	Galvanised Anchors, etc. : M16mm Diameter U-shaped galvanised threaded anchor bolt (Grade 8.8) approximately 1120mm girth embedded					
	in top of concrete columns.	No	24			
	Carried to Collection Section No. 2 Bill No. 10			R		
	Structural Steelwork					
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## TARDI 300 SEATER EXAM HALL SCMU8-22/23-0063

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Bill No. 10
Structural Steelwork
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	Unit	Quantity	Rate	Amount
SECTION NO. 2 BUILDING WORKS BILL NO. 11 METALWORK				
PREAMBLES				
For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371-A" which shall be read in conjuction with and shall apply to all items in these Bills of Quantities.				
SUPPLEMENTARY PREAMBLES				
Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items,materials or methods of similar quality may be used with prior approval from the Architect/Engineer.				
Descriptions:				
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.				
Items described as plugged shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres				
Note :				
Also refer to Supplementary Preambles under Structural Steelwork Bill for clauses relevant to structural metalwork, such as steel stairs, under these bills of quantites.				
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Carried to Collection Section No. 2			R	
Bill No. 11				
Metalwork				
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		Unit	Quantity	Rate	Amount	
	GALVANISED STEEL STAIRS					
	The following in 2 No galvanised welded single flight stairs with landing, excluding balustrades, each stair size 5957 x 1700mm on plan x 3000mm high overall, bolted to concrete surface bed at bottom end and downstand concrete beam top end with stringer on one side bolted to brickwall. Balustrading is elsewhere measured. (See Engineers Steel Stairs Drawing for Layout & Details - D34435S-210-03 Rev <u>A</u> )					
1	80 x 80 x 4mm Galvanised SHS column posts 1490mm high overall, including 210 x 100 x 10mm thick galvanised base plate with 2 No holes for M16 chemical anchor holding down bolts (elsewhere measured) and twice holed at top to receive two M16 bolts (elsewhere measured).	No	2			
2	250 x 100 x 4mm Thick Galvanised RHS stringers to both sides of staircases.	Kg	603			
3	40 x 40 x 4mm Thick Galvanised equal leg supporting angles fully welded to stringers in treads and risers, to receive 'Vastrap' plate (elsewhere measured).	Kg	247			
4	40 x 40 x 4mm Thick Galvanised equal leg supporting angles approximately 440mm long, fully welded to stringers at landings, to receive 'Vastrap' plate (elsewhere measured).	Kg	13			
5	60 x 60 x 6mm Thick Galvanised equal leg angles 140mm long fully welded to stringer at landings one side and other side twice holed to receive 80x80x4mm SHS column (elsewhere measured).	No	2			
6	65 x 50 x 6mm Thick Galvanised unequal leg angle 400mm long fully welded to stringer one side and other side three times holed to receive chemical anchors to brickwork (anchors elsewhere measured).	No	6			
7	1700 x 262 x 12mm Thick Galvanised mild steel baseplate fully welded to stringers at ends and 7 times holed to receive M16 chemical anchoring rods for fixing to concrete beam at 1st floor slab (chemical anchor rods elsewhere measured) and exposed end of rods to be grinded flush with baseplate and welded all around.	No	2			
8	1700 x 455 x 10mm Thick Galvanised mild steel baseplate fully welded to stringers at bottom ends and 5 times holed to receive M16 chemical anchor bolts for fixing to concrete surface bed (chemical anchor bolts elsewhere measured).	No	2			
	Carried to Collection Section No. 2 Bill No. 11 Metalwork			R		
	100					

TARDI 300 SEATER EXAM HALL
SCMU8-22/23-0063

Unit     Cuantity     Rate     Amount       9     4.5mm Thick Vastrap' mild steel chequer plate welded horizontally to supporting angles, both sides, (angles elsewhere measured) for continuous stair treads, with ribs on plate facing downwards.     m ² 14       10     4.5mm Thick Vastrap' mild steel chequer plate welded vortically to supporting angles, both sides, (angles elsewhere measured) for continuous stair insers, with ribs on plate facing downwards.     m ² 11       11     4.5mm Thick Vastrap' mild steel chequer plate welded to supporting angles, both sides, (angles elsewhere measured) on continuous stair insers, with riso on plate facing downwards.     m ² 5       12     M16 Galvanised chemical anchor both into brickwork.     No     18       13     M16 Galvanised chemical anchor both 130mm long into concrete and exposed end qrinded flush.     No     14       14     M16 Galvanised chemical anchor rods 160mm long into concrete and exposed end qrinded flush.     No     14       15     M16 Galvanised steel hinged pedestrian gate to service ducts to match dobte sliding gate datail, complete in single end, sait dopting approved extrema building plane by match dopting approved extrema building plane both size 770 x 150 x 9mm thick in cladding panets by the roment inscade infill, gate filled in with Size 770 x 150 x 9mm thick in cladding panets opsiton, two galvanised gate hings ext 21 times holdes for bolling to brickwork with M12 chemical anchors (elsewhere measured).     No     2       Carried to Collection       Carried to Collection	1			1 1		SCMU8-22/23-	0063
horizontally to supporting angles, both sides, (angles elsewhere measured) for continuous stair treads, with ribs on plate facing downwards.       m²       14         10       4.5mm Thick 'Vastrap' mild steel chequer plate welded verically to supporting angles, both sides, (angles elsewhere measured) for continuous stair risers, with ribs on plate facing downwards.       m²       11         11       4.5mm Thick 'Vastrap' mild steel chequer plate welded verically of no continuous stair landings, with ribs on plate facing downwards.       m²       5         12       M16 Galvanised Grade 8.8 bolts.       No       4         13       M16 Galvanised chemical anchor bolt into brickwork.       No       14         14       M16 Galvanised chemical anchor tods 160mm long into concrete.       No       14         14       M16 Galvanised chemical anchor tods 160mm long into concrete.       No       14         16       Single hinged pedestrian gate to service ducts to match double siding gate drains and 60 x 60 x 4mm SHS middle rail, with 30 x 30 x 3mm equal angles fully welded verically to SHS framework to support fing engles k to suit opening size 870 x 2100mm high overall, consisting of 60 x 60 x 4mm SHS middle raining allowing a subtable locking meetings using a subtable locking gate hinge approved stream gate box for years and gate kill a mitmi mum gap of 30mm shift angle size 870 x 10 mm long into concrete and exposed end police ding pales kill welded years and years a			Unit	Quantity	Rate	Amount	
vertically to supporting angles, both sides, (angles elsewhere measured) for continuous stair risers, with ribs on plate facing downwards.       m²       11         11       4.5mm Thick Vastrap' mild steel chequer plate welded to supporting angles, both sides, (angles elsewhere measured) on continuous stair landings, with ribs on plate facing downwards.       m²       5         12       M16 Galvanised Grade 8.8 bolts.       No       4         13       M16 Galvanised chemical anchor bolt into brickwork.       No       14         14       M16 Galvanised chemical anchor bolt 130mm long into concrete.       No       14         15       M16 Galvanised chemical anchor ods 160mm long into concrete.       No       14         15       M16 Galvanised chemical anchor ods 160mm long into concrete.       No       14         16       Single hinged pedestrian gate to service ducts to match double siding gate detail, complete in single leal, to suil opening size 870 x 2100mm high overall, consisting of 60 x 60 x 4mm SHS middle rail, with 30 x 30 x 3mm equal angles fully welded vertically approved external building planks size 770 x 150 x 9mm thick in cladding panels with a minimum gap of 30mm itske to steel framing at 600mm centres using exposed 8 x 35mm self tapping galvanised screws and gate fitted with and incluing a suitable locking mechanism to lock gate in closed position, two galvanised gate hinges each 2 times holed tor bolting to brickwork with M12 chemical anchors (elsewhere measured).       No       2         Carried to Collection       No       2 <td>9</td> <td>horizontally to supporting angles, both sides, (angles elsewhere measured) for continuous stair treads, with</td> <td>m²</td> <td>14</td> <td></td> <td></td> <td></td>	9	horizontally to supporting angles, both sides, (angles elsewhere measured) for continuous stair treads, with	m²	14			
b supporting angles, both sides, (angles elsewhere measured) on continuous stail landings, with ribs on plate facing downwards.       m²       5         12       M16 Galvanised Grade 8.8 bolts.       No       4         13       M16 Galvanised chemical anchor bolt into brickwork.       No       18         14       M16 Galvanised chemical anchor bolt 130mm long into concrete.       No       14         15       M16 Galvanised chemical anchor bolt 130mm long into concrete.       No       14         16       Galvanised steel hinged pedestrian gate to concrete and exposed end grinded flush.       No       14         16       Single hinged pedestrian gate to service ducts to match double sliding gate detail, complete in single leaf, to suit opening size 870 × 2100mm high overall, consisting of 60 × 60 × 4mm SHS middle rali, with 'Everite Nutce Vermont fascade infill, gate filled in with 'Everite Nutce Vermont fascade infill, gate filled in with 'Everite Nutce Vermont galvanised steel hinged pedestring at solution galavanised steel not shalp opsition, two galvanised steel not shalp opsition, two galvanised steel not shalp opsition, two galvanised steel notical anchors (elsewhere measured).       No       2         Carried to Collection         R         Carried to Collection         R	10	vertically to supporting angles, both sides, (angles elsewhere measured) for continuous stair risers, with	m²	11			
13       M16 Galvanised chemical anchor bolt into brickwork.       No       18         14       M16 Galvanised chemical anchor bolt 130mm long into concrete.       No       14         15       M16 Galvanised chemical anchor rods 160mm long into concrete and exposed end grinded flush.       No       14         15       M16 Galvanised steel hinged pedestrian gate to prickwork.       No       14         16       Single hinged pedestrian gate to service ducts to match double sliding gate detail, complete in single leaf, to suit opening size 870 × 2100mm high overall, consisting of 60 × 60 × 4nm SHS frame and 60 × 60 × 4nm SHS middle rail, with 30 × 30 × 3mm equal angles fully welded vertically to SHS framework to support fibre cement fascade infill, gate filled in with 'Everite Nutec Vermont' or equally approved external building planks size 770 × 150 × 9mm thick in cladding panels with a minimum gap of 30mm fixed to steel framing at 600mm centres using exposed 84 × 35mm self tapping galvanised screws and gate fitted with and including a suitable locking mechanism to lock gate in closed position, two galvanised gate hinges each 2 times holed for bolting to brickwork with M12 chemical anchors (elsewhere measured).       No       2         Carried to Collection         R         Garried to Collection         No       2	11	to supporting angles, both sides, (angles elsewhere measured) on continuous stair landings, with ribs on	m²	5			
14       M16 Galvanised chemical anchor bolt 130mm long into concrete.       No       14         15       M16 Galvanised chemical anchor rods 160mm long into concrete and exposed end grinded flush.       No       14         15       GALVANISED STEEL GATES, SCREENS, ETC Welded galvanised steel hinged pedestrian gate to brickwork :       No       14         16       Single hinged pedestrian gate to service ducts to match double sliding gate detail, complete in single leaf, to suit opening size 870 x 2100mm high overall, consisting of 60 x 60 x 4mm SHS frame and 60 x 60 x 4mm SHS middle rail, with 30 x 30 x 3mm equal angles fully welded vertically to SHS framework to support fibre cament fascade infill, gate filled in with "Everite Nutec Vermont" or equally approved external building planks size 770 x 150 x 9mm thick in cladding panels size 770 x 150 x 9mm thick in cladding panels size 770 x 150 x 9mm thick in cladding panels size 770 x 150 x 9mm thick in cladding panels size 770 x 150 x 9mm thick in cladding planks size 770 x 150 x 9mm thick in cladding planks size 770 x 150 x 9mm thick in cladding planks size 770 x 150 x 9mm thick in cladding planks size 770 x 150 x 9mm thick in cladding planks size 770 x 150 x 9mm thick in cladding planks size 770 x 150 x 9mm thick in cladding planks size 770 x 150 x 9mm thick in cladding planks size 770 x 150 x 9mm thick in cladding planks size 770 x 150 x 9mm thick in cladding planks size 770 x 150 x 9mm thick in cladding planks size 770 x 150 x 9mm thick in cladding planks size 770 x 150 x 9mm thick in cladding planks distorews and galvanised gate hinges each 2 times holed for botting to brickwork with M12 chemical anchors (elsewhere measured).       No       2         Minute Size 770 x 150 x 9mm thick in	12	M16 Galvanised Grade 8.8 bolts.	No	4			
concrete.       No       14         15       M16 Galvanised chemical anchor rods 160mm long into concrete and exposed end grinded flush.       No       14         15       M16 Galvanised steel hinged pidestrian gate to prickwork:       No       14         GALVANISED STEEL GATES, SCREENS, ETC       Welded galvanised steel hinged pedestrian gate to service ducts to match double sliding gate detail, complete in single leaf, to suit opening size 870 x 2100m high overal, consisting of 60 x 60 x 4mm SHS frame and 60 x 60 x 4mm SHS middle rail, with 30 x 30 x 3mm equal angles fully welded vertically to SHS framework to support fibre cement fascade infill, gate filled in with "Everite Nutec Vermont' or equally approved external building planks size 770 x 150 x 9mm thick in cladding panels with a minimum gap of 30mm fixed to steel framing at 600mm centres using exposed 8 x 35mm self tapping galvanised screws and gate fitted with and including a suitable locking mechanism to lock gate in closed position, two galvanised gate hinges each 2 times holed for bolting to brickwork with M12 chemical anchors (elsewhere measured).       No       2         Carried to Collection         R         Carried to Collection         No       2	13	M16 Galvanised chemical anchor bolt into brickwork.	No	18			
concrete and exposed end grinded flush.       No       14         GALVANISED STEEL GATES, SCREENS, ETC       Welded galvanised steel hinged pedestrian gate to brickwork :         16       Single hinged pedestrian gate to service ducts to match double sliding gate detail, complete in single leaf, to suit opening size 870 x 2100mm high overall, consisting of 60 x 60 x 4mm SHS frame and 60 x 60 x 4mm SHS middle and so x 30 x 3mm equal angles fully welded vertically to SHS framework to support fibre cement fascade infill, gate filled in with "Everite Nutec Vermont" or equally approved external building planks size 770 x 150 x 9mm thick in cladding panels with a minimum gap of 30mm fixed to steel framing at 600mm centres using exposed 8 x 35mm self tapping galvanised screws and gate fitted with and including a suitable locking mechanism to lock gate in closed position, two galvanised gate hinges each 2 times holed for bolting to brickwork with M12 chemical anchors (elsewhere measured).       No       2         Carried to Collection         R	14		No	14			
Welded galvanised steel hinged pedestrian gate to brickwork :         16       Single hinged pedestrian gate to service ducts to match double sliding gate detail, complete in single leaf, to suit opening size 870 x 2100mm high overall, consisting of 60 x 60 x 4mm SHS frame and 60 x 60 x 4mm SHS middle rail, with 30 x 30 x 3mm equal angles fully welded vertically to SHS framework to support fibre cement fascade infill, gate filled in with 'Everite Nutec Vermont' or equally approved external building panels with a minimum gap of 30mm fixed to steel framing at 600mm centres using exposed 8 x 35mm self tapping galvanised screws and gate filted with and including a suitable locking mechanism to lock gate in closed position, two galvanised gate hinges each 2 times holed for bolting to brickwork with M12 chemical anchors (elsewhere measured).       No       2         Carried to Collection         R         Carried to Collection	15		No	14			
brickwork :         16       Single hinged pedestrian gate to service ducts to match double sliding gate detail, complete in single leaf, to suit opening size 870 x 2100mm high overall, consisting of 60 x 60 x 4mm SHS frame and 60 x 60 x 4mm SHS middle rail, with 30 x 30 x 3mm equal angles fully welded vertically to SHS framework to support fibre cement fascade infill, gate filled in with 'Everite Nutec Vermont' or equally approved external building panels with a minimum gap of 30mm fixed to steel framing at 600mm centres using exposed 8 x 35mm self tapping galvanised screws and gate filted with and including a suitable locking mechanism to lock gate in closed position, two galvanised gate hinges each 2 times holed for bolting to brickwork with M12 chemical anchors (elsewhere measured).       No       2         Carried to Collection         R         Carried to Collection         R		GALVANISED STEEL GATES, SCREENS, ETC					
16       Single hinged pedestrian gate to service ducts to match double sliding gate detail, complete in single leaf, to suit opening size 870 x 2100mm high overall, consisting of 60 x 60 x 4mm SHS framework to support fibre cement fascade infill, gate filled in with "Everite Nutec Vermont" or equally approved external building planks size 770 x 150 x 9mm thick in cladding panels with a minimum gap of 30mm fixed to steel framing at 600 mm centres using of 30mm fixed to steel framing at 600 mm centres using exposed 8 x 35mm self tapping galvanised screws and gate fitted with and including a suitable locking mechanism to lock gate in closed position, two galvanised gate hinges each 2 times holed for bolting to brickwork with M12 chemical anchors (elsewhere measured).       No       2         Carried to Collection         R							
Carried to Collection   R     Section No. 2   Bill No. 11   Metalwork	16	Single hinged pedestrian gate to service ducts to match double sliding gate detail, complete in single leaf, to suit opening size 870 x 2100mm high overall, consisting of 60 x 60 x 4mm SHS frame and 60 x 60 x 4mm SHS middle rail, with 30 x 30 x 3mm equal angles fully welded vertically to SHS framework to support fibre cement fascade infill, gate filled in with 'Everite Nutec Vermont' or equally approved external building planks size 770 x 150 x 9mm thick in cladding panels with a minimum gap of 30mm fixed to steel framing at 600mm centres using exposed 8 x 35mm self tapping galvanised screws and gate fitted with and including a suitable locking mechanism to lock gate in closed position, two galvanised gate hinges each 2 times holed for bolting to brickwork with M12 chemical anchors (elsewhere	Νο	2			
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		Unit	Quantity	Rate	Amount	
47	Welded galvanised steel sliding gate and fixed screen to brickwork and concrete :					
17	120 x 120 x 8mm Galvanised mild steel equal angle track 5100mm long with 20 x 5mm thick steel fishtale lugs welded to both sides of track at 250mm centres and track cast into reinforced concrete surface bed with angle iron corner projecting 65mm high (See Engineers Steel Sliding Gate Drawing for Layout & Details - D34435S-210-02 Rev A).	No	1			
18	Double sliding gate complete in two equal leaves, with one sliding leaf and one fixed leaf, to suit opening size $5722 \times 2100$ mm high overall, with each leaf size 2880 x 2100mm high and consisting of 60 x 60 x 4mm SHS frame and 60 x 60 x 4mm SHS middle column, with 30 x 30 x 3mm equal angles fully welded vertically to SHS framework to support fibre cement fascade infill.					
	Both leaves filled in with 'Everite Nutec Vermont' or equally approved external building planks size 1340 x 150 x 9mm thick in cladding panels with a minimum gap of 30mm fixed to steel framing at 600mm centres using exposed 8 x 35mm self tapping galvanised screws and gate fitted with and including a set of galvanised U-profile sliding gate wheels (200kg min safe working load rating) to sliding leaf as well as set of 2 rubber roller guides welded to top of fixed frame, with and including suitable locking mechanism to sliding leaf to lock gate in closed position, including 2 No baseplates size 170 x 115 x 12mm thick fully welded to base of columns of fixed panel and 4 times holed and bolted to surface bed with M12 chemical anchors (elsewhere measured), including 15mm non-shrink grout under base plate, all in accordance with Engineers Sliding Gate Detail (See Engineers Steel Sliding Gate Drawing for Layout & Details - D34435S-210-02 Rev A).	No	1			
19	M12 Galvanised chemical anchor bolt 180mm long into concrete or brickwork.	No	16			
	GLAZED STAINLESS STEEL BALUSTRADING					
	316 Brushed stainless steel and glass balustrading to concrete balconies and steel staircases :					
20	Horizontal balustrading 1000mm high of 50mm diameter stainless steel round tube continuous top rails, 38mm diameter stainless steel round tube posts with base plates at equal centres fixed with and including bolts to concrete with stainless steel washer to cover holes in baseplates, filled in between posts with 8mm toughened safety glass fixed with four stainless steel glass clamps, all as per Architects Balustrade Detail attached.		52			
		m	52			
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		Unit	Quantity	Rate	Amount
21	Raking balustrading 1000mm high to steel staircases of 50mm diameter stainless steel round tube continuous top rails, 38mm diameter stainless steel round tube posts with base plates at equal centres fixed with and including bolts to steel stairs with stainless steel washer to cover holes in baseplates, filled in between posts with 8mm toughened safety glass fixed with four stainless steel glass clamps, all as per Architects Balustrade Detail attached.	m	12		
22	Extra over for L- intersection of horizontal balustrades.	No	8		
23	Extra over for ends.	No	10		
24	Extra over for ramped junction of end of horizontal with end of raking balustrading.	No	4		
25	NATURAL ANODISED ALUMINIUM LOUVRE DOOR GRILLE 'Europair' or equally approved door grille louvre units with telescopic backframe extruded type 50S anodised grade aluminium with fixed horizontal chevron louvres fitted to openings in doors (openings elsewhere measured): Door grille size 500 x 300mm high overall to fit opening size 500 x 300mm high, fixed to door with s/s screws punched and counter-sunk and sealed. (Provisional). ALUMINIUM ROLLER SHUTTERS ETC 'Xpanda' or equally approved aluminium push pull roller shutter in powder coated 'Charcoal Grey' colour finish, with 450mm headroom with 130mm clearance on free side and 130mm clearance on operator side, 50mm wide extruded slats, 75mm wide side guides, Rol-Lok, with pressed steel canopy cover and weather strip T-bar to bottom edge, with perimeter framing plugged and screwed to reveals at maximum 300mm centres to concrete or brickwork.	No	6		
26	high opening. (See Architects Door Schedule - D 06).	No	1		
27	Manual push-up slatted roller shutter for 2700 x 1200mm high opening. (See Architects Door Schedule - D 07).	No	1		
28	Manual push-up slatted roller shutter for 2440 x 2100mm high opening. (See Architects Door Schedule - D 08).	No	4		
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	Unit	Quantity	Rate	Amount	
ALUMINIUM WINDOWS.					
Aluminium windows, etc., are to be constructed and installed in accordance with the guidelines of The Association of Architectural Aluminium Manufactures of South Africa (AAAMSA). These frames cannot be built in and openings must be prepared by the Contractor for the aluminium frame to be fixed into, where after the plaster can be finished up against the frame. All dimensions to be checked and verified on site prior to manufacture.					
Unless otherwise stated ironmongery is to be the manufacturer's standard corrosion resistant ironmongery for the particular product range.					
Glazing is to be carried out in strict accordance with the SANS 0137/2000 Code of Practice: "The Installation of Glazing in Buildings" and where required, safety glazing materials must conform to SANS 1263.					
All opening sashes must be weather and draught proofed using wool pile, vinyl, etc. seals and the perimeter frames sealed to the structure using manufacturer approved sealants.					
All aluminium is to be protected after manufacture by removable PVC tape or other approved application. The protection is to be removed only when authorised by the Architect.					
Any component damaged in any way prior to the completion of the building is to be replaced with new. 'Touching up' of decorative finishes will not be permitted.					
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		Unit	Quantity	Rate	Amount	
29	'Wispeco' or equally approved top hung Aluminium Windows able to meet the mechanical performance requirements of SANS 613 for wind loads of up to 1500Pa. Frames are to be of 60-80um 'Charcoal' powder coated aluminium sections, constructed and installed according to the quidelines of The Association of Architectural Aluminium Manufactures of South Africa (AAASA). Glazing is to be carried out in strict accordance with the SANS 0137/2000 Code of Practice: 'The Installation of Glazing in Buildings' and where required, safety glazing materials must conform to SANS 1263 and safety glass must have name of manufacturer permanantly marked on each sheet, visible after glazing. Drawings of all sections and fixing details to be used to be submitted for approval and all dimensions are to be verified on site prior to manufacture. All shopfronts and windows must be weatherproofed and sealed where necessary and all aluminium is to be protected during installation and for the duration of construction work by removable PVC tape. All ironmongery to be as specified by manufacturer. Burglar Bars are to be installed to all opening sections comprising of 6mm thick 30mm wide clear polycarbonate InvisiBars, fitted directly into aluminium frames over opening sections with maximum spacing of 120-130mm between each bar and stainless steel pop rivets with polyethylene cover caps fitted over installation points. If the bar spans greater than 950mm then a vertical support or aluminium support is required to reduce flexibility. Descriptions in the bills of quantities are to be read in conjunction with the Architects Window Schedules and Details attached. The references given in the descriptions are to the respective types of windows detailed on the Architect's schedules annexed to these Bills of Quantities for tender purposes. Aluminium top hung window size 600 x 600mm high overall, consisting of one top hung opening section, glazed with 6,75mm Decorlam laminated safety glass and opening section to receive burglar proofing, all as per Archite	Νο	9			
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30	Aluminium top hung windows size 2400 x 450mm high overall, consisting of three equal top hung opening sections, all glazed with 6,35mm GSA SmartGlass IntruderprufeNS Clear laminated safety glass and opening sections all to receive burglar proofing, all as per Architects Window Schedule Detail - W02.	No	2			
31	Aluminium top hung windows size 2400 x 450mm high overall, consisting of three equal top hung opening sections and one larger fixed pane section size 800 x 1140mm high below left end opening section, all glazed with 6,35mm GSA SmartGlass IntruderprufeNS Clear laminated safety glass and opening sections all to receive burglar proofing, all as per Architects Window Schedule Detail - W03.					
32	Aluminium fixed windows size 5400 x 1590mm high overall, consisting of six equal fixed top sections and two larger fixed pane sections both size 900 x 1140mm high below left and right end fixed sections, all glazed with 6,35mm GSA SmartGlass IntruderprufeNS obscure laminated safety glass, all as per Architects Window Schedule Detail - W04.	No	1			
	ALUMINIUM DOORS, ETC.					
	Aluminium doors and shopfronts, etc., are to be constructed and installed in accordance with the guidelines of The Association of Architectural Aluminium Manufactures of South Africa (AAAMSA).					
	Unless otherwise stated ironmongery is to be the manufacturer's standard corrosion resistant ironmongery for the particular product range.					
	Glazing is to be carried out in strict accordance with the SANS 0137/2000 code of Practice: "The Installation of Glazing in Buildings" and where required, safety glazing materials must conform to SANS 1263 and AAAMSA selection guide for safety glazing materials.					
	All opening sashes must be weather and draught proofed using wool pile, vinyl, etc. seals and the perimeter frames sealed to the structure using manufacturer approved sealants.					
	All aluminium is to be protected after manufacture by removable PVC tape or other approved application. The protection is to be removed only when authorised by the Architect. Any component damaged in any way prior to the completion of the building is to be replaced with new. 'Touching up' of decorative finishes will not be permitted.					
	A certificate of conformance with SANS 999 is required.					
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		Unit	Quantity	Rate	Amount	
	Descriptions in the bills of quantities are to be read in conjunction with the Architects Door and Shopfront Schedules and Details attached. The references given in the descriptions are to the respective types of doors detailed on the Architect's schedules annexed to these Bills of Quantities for tender purposes.					
	<u>'Wispeco' or equally approved purpose made Cealco</u> <u>CLIP 44 epoxy powder coated aluminium hinged</u> <u>doors, with R4 (85mm) bottom rail and frames with</u> <u>25 micron Natural Anodised aluminium protective</u> <u>coating, etc, including hinges with nylon bushes,</u> <u>clip on glazing beads with gasket seals, locksets,</u> <u>handles, bolts, etc., plugged to brickwork or</u> <u>concrete :</u>					
33	Single glazed aluminium door and frame, to fit opening size 900 x 2100mm high, glazed door with two unequal glass panes with one dividing transom, door glazed with and including 6,35mm PG Smartglass SolarVue PVB laminated safety glass, Grey HL, door fitted with approved standard ironmongery, lockset and handles, all as per attached Architects Door Schedule Detail - D05.	No	1			
34	Double glazed aluminium door and frame, to fit opening size overall 1800 x 2100mm high, double glazed door in two equal leaves, each leaf with two unequal glass panes with one dividing transom, door glazed with and including 6,35mm PG Smartglass SolarVue PVB laminated safety glass, Grey HL, doors fitted with approved standard ironmongery, lockset and handles, all as per attached Architects Door Schedule Detail - D09.	No	2			
	<b>POWDER COATED ALUMINIUM SHOPFRONTS</b> All work is to be executed in strict compliance with the Manufacturer and any other drawings, specifications, etc., issued by the manufacturer. Only specialist contractors approved by the manufacturer may be employed in the preparation and installation of the shop fronts and its ancillary components, e.g. sealant application, glazing.					
	Sealants between aluminium components and between aluminium components and surrounding structures are to be two part polyurethane flexible sealants in accordance with SABS 1077.					
	Silicone sealants for glazing are to be approved and selected and used in strict accordance with the manufacturer's instructions.					
	Santoprene seals to mullions, transoms, etc., are to be Santoprene type G-25067 vent seals.					
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	Unit	Quantity	Rate	Amount	
Gasket seals for glazing are to be santoprene seals as recommended by the manufacturer. All glass and glazing is to be in accordance with SABS 0137. All junctions between mullions, transoms, etc., are to be mastic sealed. All contact surfaces between sub-frames, frames, cills, etc., and the enclosing structure are to be mastic pointed. All fixings are to be of aluminium or stainless steel. All fixing screws are to be stainless steel. Items described as plugged are to be stainless steel screwed into plastic plugs. Aluminium Shopfront System consisting of frames to be 60-80um Powder Coated Aluminium sections, constructed and installed according to the guidelines of The Association of Architectural Aluminium Manufactures of South Africa (AAASA). Glazing is to be carried out in strict accordance with the SABS 0137/2000 Code of Practice: "The Installation of Glazing in Buildings" and where required, safety glazing materials must conform to SABS 1263. Drawings of all sections and fixing details to be used to be submitted for approval and all dimensions are to be verified on site prior to manufacture. All shopfronts and windows need to be weatherproofed and sealed where necessary and all aluminium is to be protected during installation and for the duration of construction work by removable PVC tape. All ironmongery to be as specified by the manufacturer. Descriptions in the bills of quantities are to be read in conjunction with the Architects Shopfront Schedules, Door Schedules and Details attached. The references given in the descriptions are to the respective types of Shopfronts and Doors detailed on the Architect's schedules annexed to these Bills of Quantities for tender purposes.					
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		Unit	Quantity	Rate	Amount	
35	<u>'SHEERLINE CLIP 44' or equally approved</u> <u>Aluminium Shopfront System, with R4 (85mm)</u> <u>bottom rail, as manufactured and supplied by</u> <u>'Sheerline' or equally approved Aluminium Systems,</u> <u>complete with sub frames (with 25 micron Natural</u> <u>Anodised Aluminium protective coating),</u> <u>ironmongery, glass, sealing, etc. and fixing to</u> <u>brickwork or concrete :</u> Aluminium Shopfront SF 01 size 24649 x 3684mm high					
	overall, fitted between concrete columns and brickwork, consisting of seventeen (17) unequal top hung opening and fixed sections at high level, with aluminium doors to both bottom ends (doors elsewhere measured), all shopfronts glazed with 6.35mm GSA Smartglass Solarshield S30 Grey Laminated Safety Glass. (Refer to Architects Shopfront Schedule SF 01).	No	1			
36	Aluminium Shopfront SF 02 size 24649 x 3684mm high overall, fitted between concrete columns and brickwork, consisting of seventeen (17) unequal top hung opening and fixed sections at high level, with fixed shopfront sections to one bottom end and aluminium double doors to other bottom end (doors elsewhere measured), all shopfronts glazed with 6.35mm GSA Smartglass Solarshield S30 Grey Laminated Safety Glass. (Refer to Architects Shopfront Schedule SF 02).	No	1			
37	Aluminium Raking Shopfront SF 03 size 20448mm long overall with two ends 3794mm high and raking shopfront sections to gable end above, fitted between concrete columns and brickwork, consisting of eighteen (18) unequal fixed sections at high level to gable and with four equal fixed shopfront sections to both bottom ends, each size 1379 x 3794mm high, with all shopfronts glazed with 6.35mm GSA Smartglass Solarshield S30 Grey Laminated Safety Glass. (Refer to Architects Shopfront Schedule SF 03).	No	1			
38	Aluminium Raking Shopfront SF 04 size 20456mm long overall with two ends 3293mm high and raking shopfront sections to second gable end above, fitted between concrete columns and brickwork, consisting of twenty four (24) unequal fixed sections at high level to gable and with two equal fixed shopfront sections to both bottom ends, with all shopfronts glazed with 6.35mm GSA Smartglass Solarshield S30 Grey Laminated Safety Glass. (Refer to Architects Shopfront Schedule SF 04).	No	1			
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# Unit Quantity Rate Amount **SECTION NO. 2 BUILDING WORKS** BILL NO. 12 PLASTERING PREAMBLES For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used -PW371-A" which shall be read in conjuction with and shall apply to all items in these Bills of Quantities. SUPPLEMENTARY PREAMBLES Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior approval from the Architect/Engineer. Preparation of surfaces to receive screeds, plaster, etc.: Surfaces shall be dry and clean, free of dust, sand, grit and flaking particles, laitance and loose matter, contaminants such as oil, grease, etc. Surfaces shall have a moisture content not exceeding 4%. All free standing water to be removed prior to application of primers or compounds. Absorbent surfaces to be thoroughly pre-soaked in fresh water. Oil, grease, animal fats, etc. to be removed with suitable product to be applied in strict accordance with the manufacturer's instructions. Once clean, surfaces to be profiled mechanically (scabbling, blasting, scarifying, chipping or grinding) or by means of acid etching in strict accordance with the manufacturer's instructions. All floors should be level and free of all material as per SANS10155 and all existing screeds should be tested for satisfactory levelness using a level light meter. As a general rule, a maximum deviation of not more than 3mm over an area of 3m is a good guide and will give a quality level floor, with the deviation not being too close together and too frequent. Where the screed does not conform to these requirements then a self levelling screed is to be applied and the rates are to include for the testing of the existing screeds as described above. V-Grooves to plaster : V-Grooves are deemed to be included and are to be provided in plaster where it meets with concrete columns, slabs or beams. Carried to Collection R Section No. 2 Bill No. 12 Plastering

TARDI 300 SEATER EXAM HALL
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	Unit	Quantity	Rate	Amount	
<u>GRANOLITHIC:</u>					
Method :					
The method to be used shall be either the monolithic method or the bonded method.					
Preparation :					
For granolithic applied monolithically, the concrete floor shall be swept clean after bleeding of the concrete has ceased and the slab has begun to stiffen; any remaining bleed water shall be removed and the granolithic applied immediately thereafter. For granolithic to be bonded to the floor slab after it has hardened, the slab surface shall be hacked (preferably by mechanical means) until all laitance, dirt, oil, etc is dislodged and swept clean of all loose matter. The slab shall then be wetted and kept damp for at least six hours before applying the granolithic					
<u>Mix :</u>					
Granolithic shall attain a compressive strength of at least 41MPa. The coarse aggregate shall comply with SANS 1083 and shall generally be capable of passing a 10mm mesh sieve. Where the thickness of the granolithic exceeds 25mm, the size of the coarse aggregate shall be increased to the maximum size compatible with the thickness of the granolithic.					
Panels :					
Granolithic shall be laid in panels not exceeding 14m for monolithic finishes, not exceeding 9,5m for bonded finishes and not exceeding 6m for all external granolithic. Wherever possible, panels shall be square but at no time should the length of the panel exceed 1,5 times its width.					
Where possible joints between panels shall be positioned over joints in the floor slab and shall be at least 3mm wide through the full thickness of the finish, separated by strips of wood or fibreboard and finished with V-joints.					
Laying :					
Monolithic granolithic shall be applied to the partially set slab and thoroughly compacted and lightly wood floated to the required levels.					
Bonded granolithic shall be applied to the slab after applying a 1:1 sand-and-cement slurry brushed over the surface and allowed to partially set before applying the granolithic. The granolithic shall be throughly compacted and lightly wood floated to the required levels.					
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	After wood floating, the monolithic and bonded granolithic shall remain undisturbed until bleeding has ceased and the surface has stiffened. Any remaining bleed water and laitance shall then be removed and the surface steel trowelled or power floated.					
	Curing, seasoning and protection					
	Granolithic shall be covered with clean hessian with waterproof building foil over and kept wet for at least seven days after laying.					
	GRANOLITHIC					
	Untinted granolithic, on concrete :					
1	25mm Thick on floors and landings.	m²	62			
2	25mm Thick on concrete benches.	m²	12			
3	Grano skirtings 20mm thick x 100mm high with 30mm radius cove to receive epoxy coating (elsewhere measured).	m	48			
	SCREEDS					
4	Screeds on concrete:		74.4			
4	25mm Thick on floors and landings.	m²	714			
5	Average 25mm thick on external balconies with upper surface to slight falls.	m²	53			
	SELF LEVELLING SCREEDS					
	Self levelling screeds on concrete/screeded surfaces :					
	All surfaces must be clean, mechanically sound and free of laitance, dust, grease and oil with vacuum abrasive blast cleaning being the preferred method of surface preparation. Wet grinding followed by vacuuming may also be used. All holes in the concrete or screed which are deeper than 40mm should be repaired before priming. Concrete surfaces should be prepared as above and primed with Isocrete Acrylic Primer or Isocrete Aqualock DPM (where required if floor slab is above 75% RH) and apply a.b.e Construction Chemicals Isocrete 4000 (or equally approved) cement-based screed, all in accordance with the manufacturers specifications and instructions.					
6	3mm Thick on floors and landings.	m²	578			
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	EPOXY SCREEDS					
	Chemical Resistant Epoxy Screed :					
	All surfaces must be clean, mechanically sound and free of laitance, dust, grease and oil with vacuum abrasive blast cleaning being the preferred method of surface preparation. Wet grinding followed by vacuuming may also be used. All holes in the concrete or screed which are deeper than 40mm should be repaired before priming. Concrete surfaces should be prepared as above and apply a.b.e. Construction Chemicals (or equally approved) Medium Sea Grey G24 abe screed chemical resistant epoxy screed and comprising a clear resin and activator blended with a pre-packed graded aggregate and a colour pigment including abecote 436 sealer, applied strictly as directed, all in accordance with the manufacturers specifications and instructions.					
7	5mm Thick on floors and landings.	m²	62			
8	5mm Thick on grano skirtings not exceeding 300mm high.	m	48			
	INTERNAL PLASTER					
	Cement plaster on brickwork :					
9	On walls.	m²	924			
10	On narrow widths.	m²	31			
	Cement plaster on concrete :					
11	On walls and wall beams.	m²	11			
12	On projecting and isolated rectangular columns.	m²	94			
13	On beams.	m²	19			
14	On upstand / inverted beams	m²	20			
15	On downstand beams	m²	4			
16	On concrete ceilings.	m²	48			
17	On narrow widths.	m²	6			
	EXTERNAL PLASTER					
	Cement plaster on brickwork :					
18	On walls in foundations. (Provisional).	m²	3			
19	On walls.	m²	252			
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20	On narrow widths.	m²	12			
	Cement plaster on concrete :					
21	On walls and wall beams.	m²	11			
22	On beams.	m²	14			
23	On upstand / inverted beams.	m²	20			
24	On concrete ceilings.	m²	53			
25	On narrow widths.	m²	7			
	CORNER PROTECTORS, DIVIDING STRIPS, ETC					
	Corner protectors, dividing strips, etc .:					
26	3 x 57mm Flat section brass dividing strips between different floor finishes at external doors.	m	10			
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<u>SECTION NO. 2</u> BUILDING WORKS					
BILL NO. 13 TILING					
PREAMBLES					
For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371-A" which shall be read in conjuction with and shall apply to all items in these Bills of Quantities.					
SUPPLEMENTARY PREAMBLES					
Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items,materials or methods of similar quality may be used with prior approval from the Architect/Engineer.					
Patterns					
Unless otherwise described, tiles shall be laid with continuous joints in both directions.					
Fixing					
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					
Tiling described as fixed with adhesive on power floated concrete shall be deemed to include for approved tiling key-coat					
Ceramic, porcelain, marble and granite tiles are to be fixed and grouted with suitable adhesives and grouts as recommended by the manufacturer of the tiles					
Preparation of surfaces:					
The area to be tiled is to be wood floated. If tiling onto critical surfaces prime with approved primer or use new generation flexible one part adhesives which enables application directly onto critical surfaces.					
Surfaces must be firm and free of dust, mould, oil, grease, wax polish and organic growth. Organic growth must be removed and the spores killed with an effective fungicide such as a household bleaching solution.					
On both walls and floors there are minimum curing periods for walls and concrete floors as well as screeds and plasters and they are as follows:					
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Tiling					
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Image: New concrete floors require 6 weeks curing time before direct bedding     Image: New concrete floors require 4 weeks curing time before direct bedding     Image: New concrete floors require 4 weeks curing time before direct bedding     Image: New concrete floors require 4 weeks curing time before direct bedding     Image: New concrete floors require 4 weeks curing time before direct bedding     Image: New concrete floors require 4 weeks curing time before direct bedding     Image: New concrete floors require 4 weeks before tiling can commence     Image: New concrete floors require 4 weeks before tiling can commence     Image: New concrete floors require 4 weeks before tiling can commence     Image: New concrete floors and crouted with TAL or quality approved size 300 x floor measured with TAL or quality approved in the floor screed (alsewhere measured) with TAL or quality approved inted line floor screed (alsewhere measured) with TAL or quality approved with TAL or guality approved with floors canced (alsewhere measured) with TAL or guality approved with floors canced (alsewhere measured) with TAL or guality approved with floors canced (alsewhere measured) with TAL or guality approved with floors canced (alsewhere measured) with floor canced with MaL or guality approved with floor canced with floor canced be cleaned with water as the work proceeds.     m²     10       1     On narrow widths.     m²     137     137       2     On floors and line danges: Min bloor canced be cleaned with Water as the work proceeds.     m     100       3     On floors and line	1			, · · ·		SCMU8-22/23-	0063
direct bedding       * New brick walls require 6 weeks curing time before direct bedding         * New brick walls require 4 weeks curing time before screeding and the screed another 4 weeks before tiling can commence         * New brick walls require 4 weeks curing time before plastering and the plaster another 2 weeks before tiling can commence <b>CEFAMIC WALL TILING Union</b> Tiles Lin hard body ceramic wall tiles (Code: 1LINCARLG30X60), or equally approved, size 300 x 600m, fixed to internal wall plaster backing felsewhere measured) with TAL or equally approved into the surface to be cleaned with water as the work proceeds.         1       On valls.       m²       146         2       On narrow widths.       m²       10 <b>PORCELAIN FLOOR TILING</b> "union Tiles porcelain floor tiles (Code: 1UMM126000), or equally approved professional tile adhesive with flush pointed joints continuous in both directions and grouted with TAL or equally approved professional tile adhesive with flush pointed ionts continuous in both directions and grouted with TAL or equally approved professional tile adhesive with flush pointed joints continuous in both directions and grouted with TAL or equally approved professional tile adhesive with flush pointed joints continuous in both directions and grouted with water as the work proceeds.       m²       10         2       On narce width ILE or equally approved professional tile adhesive with flush pointed joints continuous in both directions and grouted with water as the work proceeds.       m       100         3       On floors and landings.       m²       137<			Unit	Quantity	Rate	Amount	
direct backling         * New concrete for require 4 weeks curing time before screeding and the screed another 4 weeks before tiling can commence         * New bick walls require 4 weeks curing time before plastering and the plaster another 2 weeks before tiling can commence         CERANC WALL TLINE         * Union' Tiles Lin hard body ceramic wall tiles (Code: 1LINCARLIG30X60), or equally approved size 200 x 500m, fixed to internal wall plaster backing (elsewhere measured) with TAL or equally approved time to the directions and grouted with TAL or equally approved time tile (line of the directions and grouted with TAL or equally approved time tiles (Eode: 1LINCARLIG30X60), or equally approved time (line of the directions and grouted with TAL or equally approved time tiles (Code: 1LINCARLIG30X60), or equally approved time (lines code), size 600 x 600m, fixed to internal floor screed (elsewhere measured) with TAL or equally approved time (lines code) with TAL or equally approved time (lines code) with TAL or equally approved time tile grout, with excess grout on the surface to be cleaned with water as the work proceeds.         1       On walls.       m ² 2       On narrow widths.       m ² 4       Bolt internal floor screed (elsewhere measured) with TAL or equally approved include with TAL or equally approved include with TAL or equally approved include a dire size 600 x 600m, fixed to internal floor screed (elsewhere as the work proceeds.         3       On floors and landings.       m ² 4       Skirlings 100mm high of cut tiles.       m       100         Carried to Collection       m							
screeding and the screed another 4 weeks before tiling can commence  * New brick walls require 4 weeks curing time before plastering and the plaster another 2 weeks before tiling can commence  CERAMIC WALL TILING Union' Tiles Lin hard body ceramic wall tiles (Code: TILINCARILIG30X60), or equally approved, size 300 x 600mm, fixed to internal wall plaster backing continuous in both directions and grouted with TAL or equally approved tinted tile grout, with excess grout on the surface to be cleaned with water as the work proceeds. 1 On walls. m ² 146 2 On narrow widths. m ² 10 PORCELAIN FLOOR TILING 'Union' Tiles porcelain floor tiles (Code: UNINT 3600), or equally approved, size 600 x 500mm, fixed to internal floor screed (elsewhere measured) with TAL or equally approved professional tile dthesive with flush pointed joints continuous in both directions and grouted with TAL or equally approved tinted tile grout, with excess grout on the surface to be cleaned with water as the work proceeds. 3 On floors and landings. m ³ 137 4 Skirtings 100mm high of cut tiles. m 100							
plastering and the plaster another 2 weeks before tiling can commence         CERAMIC WALL TILING         'Union' Tiles Lin hard body ceramic wall tiles (Code: 1LINCARLIG30X60), or equality approved, size 300 x 500m, fixed to internal wall plaster backing (elsewhere measured) with TAL or equally approved time to the function with by pointed joints continuous in both directions and grouted with TAL or equally approved time tile (Equation with equation with water as the work proceeds.         1       On walls.       m²       146         2       On arrow widths.       m²       10         PORCELAIN FLOOR TILING       'Union' Tiles porcelain floor tiles (Code: UMM129600, or equally approved, size 600 x 500 m, fixed to internal floor science (elsewhere measured) with TAL or equally approved, size 600 x 500 m, with excess grout on the surface to be cleaned with water as the work proceeds.       m²       137         2       On arrow widths.       m²       137         3       On floors and landings.       m²       137         4       Skirtings 100mm high of cut tiles.       m       100         Carried to Collection         R         Carried to Collection		screeding and the screed another 4 weeks before tiling					
Union' Tiles Lin hard body ceramic wall tiles (Code: 1'LINCARLIG30X60), or equally approved, size 300 x 600mm, fixed to internal wall plaster backing incertion the surface to be cleaned with water as the work proceeds.       m ² 146         1       On walls.       m ² 146         2       On narrow widths.       m ² 10         PORCELAIN FLOOR TILING 'Union' Tiles porcelain floor tiles (Code: UNM129600), or equally approved professional tile adhesive with flush pointed joints continuous in both directions and grouted with TAL or equally approved with water as the work proceeds.       m ² 10         2       On narrow widths.       m ² 10         PORCELAIN FLOOR TILING 'Union' Tiles porcelain floor tiles (Code: UNM129600), or equally approved professional tile adhesive with flush pointed joints continuous in both directions and grouted with TAL or equally approved intert tile grout, with excess grout on the surface to be cleaned with water as the work proceeds.       m ² 137         3       On floors and landings.       m ² 137         4       Skirtings 100mm high of cut tiles.       m       100         Carried to Collection Section No. 2 Bill No. 13 Tiling       R		plastering and the plaster another 2 weeks before tiling					
ININCARLIG30X60), or equally approved, size 300 x         600mm, fixed to internal wall plaster backing         ielsewhere measured) with TAL or equally approved         professional tile adhesive with flush pointed joints         continuous in both directions and grouted with TAL         or equally approved tinted tile grout, with excess         grout on the surface to be cleaned with water as the         work proceeds.         1       On walls.         m²       146         2       On narrow widths.         m²       10         PORCELAIN FLOOR TILING         'Union' Tiles porcelain floor tiles (Code:         UNM129600), or equally approved         professional tile adhesive with flush pointed joints         continuous in both directions and grouted with TAL         or equally approved tinted tile grout, with excess         grout on the surface to be cleaned with water as the         work proceeds.         3       On floors and landings.         3       Skirtings 100mm high of cut tiles.         M       100         Section No. 2       Bill No. 13         Tiling       Carried to Collection		CERAMIC WALL TILING					
2       On narrow widths.       m ² 10         PORCELAIN FLOOR TILING:       'Unin12 sporcelain floor tiles (Code: UNIN129600), or equally approved, size 600 x 600mm, fixed to internal floor screed (elsewhere measured) with TAL or equally approved professional tile adhesive with flush pointed joints continuous in both directions and grouted with TAL or equally approved linted tile grout, with excess grout on the surface to be cleaned with water as the work proceeds.       m ² 137         3       On floors and landings.       m ² 137         4       Skirtings 100mm high of cut tiles.       m       100         Carried to Collection         Section No. 2       Bill No. 13 Tiling       Bill No. 13		1LINCARLIG30X60), or equally approved, size 300 x 600mm, fixed to internal wall plaster backing (elsewhere measured) with TAL or equally approved professional tile adhesive with flush pointed joints continuous in both directions and grouted with TAL or equally approved tinted tile grout, with excess grout on the surface to be cleaned with water as the work proceeds.					
PORCELAIN FLOOR TILING       'Union' Tiles porcelain floor tiles (Code: UNM129600), or equally approved, size 600 x       for the sufficient of	1	On walls.	m²	146			
'Union' Tiles porcelain floor tiles (Code: UNM129600), or equally approved, size 600 x       600mm, fixed to internal floor screed (elsewhere measured) with TAL or equally approved professional tile adhesive with flush pointed joints continuous in both directions and grouted with TAL or equally approved tinted tile grout, with excess grout on the surface to be cleaned with water as the work proceeds.       m ² 137         3       On floors and landings.       m ² 137         4       Skirtings 100mm high of cut tiles.       m       100         Carried to Collection         R         Carried to Collection         Section No. 2         Bill No. 13 Tiling       Sill No. 13	2	On narrow widths.	m²	10			
UNM129600), or equally approved, size 600 x         600mm, fixed to internal floor screed (elsewhere         measured) with TAL or equally approved         professional tile adhesive with flush pointed joints         continuous in both directions and grouted with TAL         or equally approved tinted tile grout, with excess         grout on the surface to be cleaned with water as the         work proceeds.         3       On floors and landings.         4       Skirtings 100mm high of cut tiles.         m       100         Carried to Collection       R         Section No. 2       Bill No. 13         Tiling       Section No. 2		PORCELAIN FLOOR TILING					
4 Skirtings 100mm high of cut tiles. m 100 Carried to Collection Section No. 2 Bill No. 13 Tiling M M M M M M M M M		UNM129600), or equally approved, size 600 x 600mm, fixed to internal floor screed (elsewhere measured) with TAL or equally approved professional tile adhesive with flush pointed joints continuous in both directions and grouted with TAL or equally approved tinted tile grout, with excess grout on the surface to be cleaned with water as the					
Carried to Collection   R     Section No. 2   Bill No. 13   Tiling	3	On floors and landings.	m²	137			
Section No. 2 Bill No. 13 Tiling	4	Skirtings 100mm high of cut tiles.	m	100			
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		Unit	Quantity	Rate	Amount	
	<u>'Union' Tiles porcelain floor tiles (Code:</u> <u>UNM129600), or equally approved, size 600 x</u> <u>600mm, fixed to external floor screed (elsewhere</u> <u>measured) with TAL or equally approved</u> <u>professional tile adhesive, mixed with TAL or equally</u> <u>approved Bond in lieu of water, to a minimum 1:50</u> <u>falls in accordance with SANS 1200 D, degree of</u> <u>accuracy I, with flush pointed joints continuous in</u> <u>both directions and grouted with TAL or equally</u> <u>approved tinted tile grout, with excess grout on the</u> <u>surface to be cleaned with water as the work</u>					
5	On external balcony floors and landings.	m²	53			
6	Skirtings 100mm high of cut tiles.	m	41			
	NOSINGS, JOINT COVERS, PROTECTORS, ETC.					
	Approved wall edge protectors:					
7	Standard aluminium type straight edge tiling trim.	m	151			
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<u>BILL NO. 13</u>			Amount	
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<u>SECTION NO. 2</u> <u>BUILDING WORKS</u> <u>BILL NO. 14</u> <u>PLUMBING AND DRAINAGE (PROVISIONAL)</u>					
PREAMBLES					
For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371-A" which shall be read in conjuction with and shall apply to all items in these Bills of Quantities.					
SUPPLEMENTARY PREAMBLES					
Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items,materials or methods of similar quality may be used with prior approval from the Architect/Engineer.					
'Polycop' polypropylene pipes:					
Polypropylene pipes 54mm diameter and under shall be seamless copper coloured class 16 pipes jointed with 'Fast-fuse' heat welded thermoplastic or brass compression fittings as designed for use with copper pipes as stated.					
Pipes shall be firmly fixed to walls etc with coloured nylon snap-in pipe clips with provision for accommodating thermal movement and jointed and fixed strictly in accordance with the manufacturer's					
All pipe diameters are nominal external.					
uPVC pressure pipes and fittings:					
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 push-in type joints.					
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	Unit	Quantity	Rate	Amount	
Copper pipes:					
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' type. Capillary solder fittings shall comply with ISO 2016. Only compression fittings shall be used in walls or in ground.					
Fixing of pipes, fittings, etc :					
Unless specifically otherwise stated, descriptions of pipes shall be deemed to include for fixing to walls etc. casting in, building in or suspending not exceeding 1m below suspension level Descriptions of wall mounted, floor standing, drop-in, etc type sanitary fittings shall be deemed to include fixing in					
position and all fixing accessories.					
Descriptions of proprietary items shall include fixing in position and all fixing accessories as specified by the manufacturer.					
Chasing :					
Chasing pipes into new walls shall be regarded as "building in" and is not measured seperately. The cost of chasing and making good shall be included in the rates for the pipes.					
Reducing fittings:					
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.					
Wire gratings:					
Descriptions of gutter outlets etc shall be deemed to include wire balloon gratings.					
Exposed concrete surfaces:					
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.					
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	Unit	Quantity	Rate	Amount	
Excavations:					
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'.					
Laying, backfilling, bedding, etc of pipes:					
Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions.					
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 clause 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.					
Flush pans:					
Flush pans shall have straight or side outlets and 'P' or 'S' traps as necessary.					
Stainless steel basins, sinks, wash troughs, urinals, etc:					
Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable.					
Prices for sinks are to include for preparing the worktop to receive the fitting and for securely fixing sinks to worktops using the clips provided. The Contractor is to provide worktop manufacturers with details of cut outs ensure that the cut openings are sufficiently accurate to provide proper engagement for these clips.					
Waste unions:					
Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings.					
General:					
All screw and bolt fixings for sanitary ware are to be stainless steel or chromium plate on brass.					
Prices for sanitary fittings are to include for the application of white anti-fungal silicone sealant between the fittings and abutting wall and floor finishes, vanity tops, bathroom fittings, etc.					
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Plumbing And Drainage (provisional)					
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		Unit	Quantity	Rate	Amount	
	RAINWATER DISPOSAL					
	0.60mm Thick Approved seamless aluminium watertight gutters and rainwater accessories, with factory coated finish (colour to match roof sheeting to approval), installed complete as per manufacturers specifications and recommendations:					
1	125 x 85mm Ogee seamless aluminium eaves gutters, complete with braces and clips at 600mm centres in concealed fix.	m	38			
2	Extra over eaves gutter for stopped end.	No	8			
3	Extra over 125 x 85mm eaves gutter for outlet for 75 x 50mm downpipes.	No	6			
4	75 x 50mm Rectangular aluminium rainwater downpipes, fixed to walls with holderbats at 1000mm centres.	m	19			
5	Extra over 75 x 50mm rectangular rainwater pipe for shoe.	No	6			
6	450 x 250 x 350mm Deep rainwater header box / hopper box with outlet for 160mm diameter pipe, fixed to steel cladding and steelwork.	No	4			
	uPVC rainwater pipes :					
7	160mm Diameter rainwater downpipes, fixed to walls or cladding with holderbats at 1000mm centres.	m	15			
8	160mm Diameter rainwater downpipes, fitted into rainwater tanks.	m	6			
9	Extra over rainwater pipe for swan-neck.	No	2			
10	Extra over 160mm diameter rainwater pipe for shoe.	No	2			
	Approved 'Fulbore' cast iron outlets, including stainless steel gratings, etc.					
11	50mm Side outlet, complete, cast into concrete balcony upstand beams.	No	4			
12	75mm Vertical outlet, complete, cast into concrete balcony slabs.	No	2			
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		Unit	Quantity	Rate	Amount	
	SANITARY FITTINGS					
	Franke' or equally approved grade 304 (18/10)					
	stainless steel domestic drop on sinks:					
13	'Franke Trendline' or equally approved drop on sink and					
	drainer, size 1500 x 535mm DCB with two centre bowls					
	size 343 x 410 x 146mm deep, set on cupboard fitting (cupboard elsewhere), including cutting one taphole.	NIa				
		No	1			
	'Geberit' or equally approved vitreous china wash					
	<u>hand basins :</u>					
14	550 x 480 x 150mm 'Geberit Selnova Comfort' or equally approved white Rectangular barrier free washbasin,					
	ergonomically shaped front and shallow bowl with					
	centred tap hole, including visible integrated overflow,					
	washbasin suitable for use by disabled wheelchair users and mounted to brickwall with required fixing material as					
	per manufacturer and sealed with approved sealant					
	where basin meets the wall.	No	1			
	'Geberit' or equally approved fine fireclay lay-on					
	wash hand basins :					
15	600 x 450 x 158mm 'Geberit VariForm' or equally					
	approved white Rectangular lay-on washbasin, with centred tap hole bench, for mounting on granite					
	washtops, including visible integrated overflow and					
	sealed with approved sealant where basin meets					
	washtop.	No	9			
	'Geberit' or equally approved vitreous china WC					
	<u>suites :</u>					
16	'Geberit Selnova' or equally approved White vitreous					
	china wall hung rimfree washdown WC with and including white 'Selnova' WC seat fastened from above,					
	with stainless steel hinges, fitted to brick wall, and to					
	receive concealed back inlet concealed cistern with flushvalve (elsewhere measured).	No	8			
	, , ,	INO	0			
17	'Geberit Selnova Comfort' or equally approved White					
	vitreous china wall hung rimfree washdown, large projection WC, suitable for use by disabled wheelchair					
	users, with and including white 'Selnova Comfort' WC					
	seat ring, barrier free and fastened from above, with stainless steel hinge bar, fitted to brick wall, and to					
	receive concealed back inlet concealed cistern with					
	flushvalve (elsewhere measured).	No	1			
						<u> </u>
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		Unit	Quantity	Rate	Amount	
	'Geberit' or equally approved vitreous china urinals :					
18	'Geberit Selnova' or equally approved 360 x 370 x 610mm white vitreous china wall mounted rear inlet and outlet concealed control urinal with flush rim, hidden trap and hidden fastening with Kerafix fastening material for urinals, for operating with automatic water-saving flush and connecting to concealed urinal flush controls (elsewhere measured), fixed to brickwall.	No	6			
19	'Geberit' or equally approved white vitreous china wall mounted urinal division, size 400 x 700mm high, including approved fasterning material and fi <u>x</u> ed to brickwork.	No	6			
	STAINLESS STEEL RACKS, TABLES, ETC.					
	<u>'Franke model T' or equally approved table</u> manufactured from grade 304 stainless steel 1,2mm thick with a 50x10mm turndown all round. The underside sprayed with vermin proof bitumastic sound deadening and supported with a 30x30x3mm framework and galvanised mild steel backing sheet. Unit fixed 900mm high from the top of the front apron to the finish floor level with and including anchor bolts.					
20	Stainless steel table size 1500 x 650mm wide. (Provisional).	No	1			
21	Stainless steel table size 1850 x 650mm wide. (Provisional).	No	1			
22	Solid Shelves manufactured from grade 304 stainless steel 1.2mm thick shelf designed to fit over the cross braces on the legs of table, size 1500 x 420mm wide.	No	1			
23	Slatted Shelves manufactured from 22mm diameter grade 304 stainless steel tubing. Under shelf designed to fit over the cross braces on the legs of table, size 1850 x 420mm wide.	No	1			
	WASTE UNIONS ETC					
	Waste unions, etc:					
24	32mm 'Geberit' or equally approved waste outlet with free outlet and valve cover.	No	10			
25	32mm 'Geberit' or equally approved waste outlet with free outlet screen.	No	10			
26	38mm Chrome plated heavy pattern slotted sink waste union with flange, shank, slotted with back nut plug, chain and stay.	No	2			
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		Unit	Quantity	Rate	Amount	
	TRAPS ETC					
	Traps, etc.:					
27	40 x 50mm Rubber double bowl sink reseal P or S trap combination.	No	1			
28	'Geberit' or equally approved 40mm Bright chrome plated bottle trap with dip tube for washbasins, with horizontal outlet.	No	1			
29	'Geberit' or equally approved 50-56mm Bright chrome plated set of bottle trap for washbasins, with horizontal outlet, for concealed installation, including 32mm connection bend, cover plate, in-wall cabinet, concealed trap, seals, protection box and fastening material.	No	9			
30	'Geberit' or equally approved 50mm Diameter white urinal trap, horizontal rear outlet.	No	6			
	TAPS, VALVES, ETC					
	Stopcocks, Stoptaps, Gate valves, Check valves, Strainers, etc:					
31	15 x 10mm Code 232/10 Chrome plated angle regulating valve with adaptor nut and ring, including 10mm Diameter x 350mm long chrome plated supply tube and capnut (code C-232PIPE), to basins and sink.	No	11			
32	15mm Rough brass CxC 'Copcal' capillary type underwall stoptap (code 133-15), in line for supply to cisterns.	No	9			
33	15mm Chrome plated fullway ballcock with plastic coated plated steel lever handle.	No	2			
34	22mm Chrome plated fullway ballcock with plastic coated plated steel lever handle.	No	2			
35	22mm 1003/125RB fullway gate valve.	No	2			
	Crutch handle, elbow action and lockshield bibtaps:					
36	20mm Rough brass hose crutch handle bibtap with 20mm BSP hose union to standpipes or gulleys.	No	3			
	Mixer fittings:					
37	'Hansgrohe' Décor or equally approved chrome single lever basin mixer with 10mm flexible connection tubes (Code 31730000) to wash hand basins.	No	9			
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Unit     Cuantity     Pate     Amount       38     'Hansgroha' Talis Care or equally approved chrome single lever basin mixer with extr long handle and 10mm fixeble connection tubes (Code 3203500) to disabled wash hand basins.     No     1       39     'Hansgrohe Décor' or equally approved chrome single lever wall mounted kitchen sink mixer (Code 31825000). No     1     1       40     'Geberit' or equally approved installation set with flush pipe, for manual urinal flush control, universal, for concealed installation is pice, with and including urinal flush control with prevents, including protection box with over, water supply connection, concealed housing, stop valve with throttle, conduit pipe, terminal and 32mm flush pipe, with and including urinal discontrol, universal, for concealed housing, stop valve with throttle, conduit pipe, terminal and studientor, including urinal discontrol, universal, for concealed housing, stop valve with throttle, conduit pipe, terminal and studien, fortal actuation plate Type 10 in stainless steel flinsh, norplete al in accordance with manufacturers instructions and specifications.     No     6       41     'Geberit' Kombitis element or equally approved 8cm Sigma concealed sold wall, complete al in accordance with manufacturers instructions and specifications.     No     9       42     Zmm 600kPa Mono pressure control valve (code KHNA 200CX).     No     1       43     Sem Pipes.     m     15       44     40mm Pipes.     m     14       45     Somm Pipes.     m     15       45     Somm Pipes.     m <td< th=""><th></th><th></th><th></th><th></th><th></th><th>SCMU8-22/23</th><th>-0063</th></td<>						SCMU8-22/23	-0063
single lever basin mixer with exits long handle and 10mm flexible connection tubes (Code 32035000) to disabled wash hand basins.       No       1         39       'Hansgrohe Décor' or equally approved chrome single lever wall mounted kitchen sink mixer (Code 31825000). No       No       1         40       'Geberit' or equally approved installation set with flush pipe, for manual unnal flush control, universal, for concealed installation is olid construction, including protection box with cover, water supply connection, concealed installation is olid construction, and including unnal flush control with pneumatic flush actuation, actuation plate Type 10 in stainless steel finish, complete all in accordrance with manufacturers instructions and specifications.       No       6         41       'Geberit' Kombifix element or equally approved 8cm Sigma concealed cistern for wall hung WC (elsewhere measured), height 105em, front actuated with and including Sigma 10 'Stoy connection with hangle stop valve, protection cover for service opening and protection cover for service opening and protection cover for service opening and protection cover for service opening and specifications.       No       9         22mm 400kPa Mono pressure control valve (code KH3, 116).       No       1         43       22mm Vacuum breaker (code KHN4.200CX).       No       1         44       40mm Pipes.       m       15         44       40mm Pipes laid in and including trenches not exceeding Im deep under surface beds.       m       2         44       50mm Pipes laid in and including trenches not exceeding			Unit	Quantity	Rate	Amount	
lever wall mounted kitchen sink mixer (Code 31825000).       No       1         Toilet and urinal flushvalves and built in cisterns:       Yeberit' or equally approved installation is set with flush pipe, for manual urinal flush control, universal, for concealed installation in solid construction, including protection box with cover, water supply connection, concealed housing, stop valve with throttle, conduit pipe, terminal and 32mm flush spipe, with and including unnal flush control with prever, water supply connection, actuation plate Type 10 in stalletes steef finish, complete all in accordance with manufacturers instructions and specifications.       No       6         41       'Geberit' Kombifix element or equally approved 8cm Sigma concealed cistern for wall hung WC (elsewhere measured), height 109en, front actuated with and no including Sigma 10 'Stop & Go flush' screwable actuator in stallation set with including this pipe and pan contection over for service opening and protection cover for service opening and tastering material is inside solid wall, complete all in accordance with manufacturers instructions and specifications.       No       9         42       22mm 600kPa Mono pressure control valve (code KHN4.200CX).       No       1       4         43       22mm Vacuum breaker (code KHN4.200CX).       No       1       4 <td>38</td> <td>single lever basin mixer with extra long handle and 10mm flexible connection tubes (Code 32035000) to</td> <td>No</td> <td>1</td> <td></td> <td></td> <td></td>	38	single lever basin mixer with extra long handle and 10mm flexible connection tubes (Code 32035000) to	No	1			
40       'Geberit' or equally approved installation set with flush pipe, for manual urinal flush control, universal, for concealed installation is solid constraint, flush control with prevention, accordated housing, stop valve with throttle, conductipipe, terminal and 32mm flush pipe, with and including urinal flush control with preumatic flush stoculation, plate Type 10 in stainless steel finish, complete all in accordance with manufacturers instructions and specifications.       No       6         41       'Geberit' Kombifix element or equally approved 8cm Sigma concealed cistern for wall hung WC (elsewhere measured), height 109cm, front actuated with and including Sigma 10 'Stop & 60 flush' screwable actuator in stainiess steel finish, including flush pipe and pan connection with angle stop valve, protection cover for flush pipe, fixed with included flush pipe and pan connection with angle stop valve, protection cover for service opening and protection cover for flush pipe, fixed with included flush pipe all in accordance with manufacturers instructions and specifications.       No       9         42       22mm 600kPa Mono pressure control valve (code KH3.16), upVC (SANS 967) pipes:       No       1         43       22mm Vacuum breaker (code KHN4.200CX).       No       2         50mm Pipes.       m       15         44       40mm Pipes.       m       14         45       50mm Pipes.       m       14         46       110mm Pipes       m       14         47       40mm Pipes laid in and including trenches not exceeding Im deep under surface beds.       m <td>39</td> <td></td> <td>No</td> <td>1</td> <td></td> <td></td> <td></td>	39		No	1			
pipe, for manual urinal fush control, universal, for         concealed installation is solid construction, including         protection box with cover, water supply connection,         concealed housing, stop valve with throttle, conduit pipe,         terminal and 32mm flush pipe, with and including urinal         flush control with preumatic flush actuation, actuation         plate Type 10 in statiness steel finish, complete all in         accordance with manufacturers instructions and         specifications.         41       'Geberit' Kombifix element or equally approved 8cm         Sigma concealed cistern for wall hung WC (elsewhere         measured, height 1096m, front actuated with and         including Sigma 10 'Stop & Go flush' screwable actuator         in stainless steel finish, including flush pipe and pan         conceated with manufacturers instructions and         specifications.         No       9         Pressure reducing valves, vacuum breakers, etc.:         22 Zhm 000kPa Mono pressure control valve (code         KH3.116).       No         42       22mm Vacuum breaker (code KHN4.200CX).       No         43       22mm Vacuum breaker (code KHN4.200CX).       No         44       40mm Pipes.       m       14         45       50mm Pipes.       m       14 <td></td> <td>Toilet and urinal flushvalves and built in cisterns:</td> <td></td> <td></td> <td></td> <td></td> <td></td>		Toilet and urinal flushvalves and built in cisterns:					
41       'Geberit' Kombifix element or equally approved 8cm Sigma concealed cistern for wall hung WC (elsewhere measured), height 109cm, front actuated with and including Sigma 10 'Stop & Go flush' screwable actuator in stainless steel finish, including flush pipe and pan connector, water supply connection with angle stop valve, protection cover for service opening and protection cover for flush pipe, fixed with included fastening materials inside solid wall, complete all in accordance with manufacturers instructions and specifications.       No       9         42       22mm 600kPa Mono pressure control valve (code KH3.116).       No       1         43       22mm Vacuum breaker (code KHN4.200CX).       No       2         50mm Vacuum breaker (code KHN4.200CX).       No       2         50mm Pipes.       m       14         44       40mm Pipes.       m       14         47       40mm Pipes       m       14         48       50mm Pipes laid in and including trenches not exceeding 1m deep under surface beds.       m       2         6       Carried to Collection       m       2       R         6       Carried to Collection       m       2         7       Bill No. 14       Plumbing And Drainage (provisional)       1       1	40	pipe, for manual urinal flush control, universal, for concealed installation in solid construction, including protection box with cover, water supply connection, concealed housing, stop valve with throttle, conduit pipe, terminal and 32mm flush pipe, with and including urinal flush control with pneumatic flush actuation, actuation plate Type 10 in stainless steel finish, complete all in accordance with manufacturers instructions and	Νο	6			
Pressure reducing valves, vacuum breakers, etc.:          42       22mm 600kPa Mono pressure control valve (code KH3.116).       No       1         43       22mm Vacuum breaker (code KHN4.200CX).       No       2         5ANITARY PLUMBING UPVC (SANS 967) pipes:           44       40mm Pipes.       m       15         50mm Pipes       m       14         47       40mm Pipes laid in and including trenches not exceeding 1m deep under surface beds.       m       14         48       50mm Pipes laid in and including trenches not exceeding 1m deep under surface beds.       m       2         Carried to Collection Section No. 2        R	41	Sigma concealed cistern for wall hung WC (elsewhere measured), height 109cm, front actuated with and including Sigma 10 'Stop & Go flush' screwable actuator in stainless steel finish, including flush pipe and pan connector, water supply connection with angle stop valve, protection cover for service opening and protection cover for flush pipe, fixed with included fastening materials inside solid wall, complete all in accordance with manufacturers instructions and					
42       22mm 600kPa Mono pressure control valve (code KH3.116).       No       1         43       22mm Vacuum breaker (code KHN4.200CX).       No       2         50mm Vacuum breaker (code KHN4.200CX).       Mo       1         44       40mm Pipes.       m       15         50mm Pipes.       m       14         46       110mm Pipes       m       14         47       40mm Pipes laid in and including trenches not exceeding 1m deep under surface beds.       m       14         48       50mm Pipes laid in and including trenches not exceeding 1m deep under surface beds.       m       2         Carried to Collection       m       2       R			INU	9			
KH3.116).       No       1         43       22mm Vacuum breaker (code KHN4.200CX).       No       2         SANITARY PLUMBING uPVC (SANS 967) pipes:       No       1         44       40mm Pipes.       m       15         44       40mm Pipes.       m       14         45       50mm Pipes.       m       14         46       110mm Pipes laid in and including trenches not exceeding 1m deep under surface beds.       m       44         48       50mm Pipes laid in and including trenches not exceeding 1m deep under surface beds.       m       2         Carried to Collection         Section No. 2       Bill No. 14       Plumbing And Drainage (provisional)       K	40						
SANITARY PLUMBING uPVC (SANS 967) pipes:       m       15         44       40mm Pipes.       m       15         45       50mm Pipes.       m       14         46       110mm Pipes laid in and including trenches not exceeding 1m deep under surface beds.       m       14         47       40mm Pipes laid in and including trenches not exceeding 1m deep under surface beds.       m       4         48       50mm Pipes laid in and including trenches not exceeding 1m deep under surface beds.       m       2         Carried to Collection       m       2       R         Section No. 2 Bill No. 14 Plumbing And Drainage (provisional)	42	KH3.116).	No	1			
uPVC (SANS 967) pipes:       m       15         44       40mm Pipes.       m       15         45       50mm Pipes.       m       14         46       110mm Pipes       m       14         47       40mm Pipes laid in and including trenches not exceeding 1m deep under surface beds.       m       44         48       50mm Pipes laid in and including trenches not exceeding 1m deep under surface beds.       m       2         Karried to Collection       m       2       R         Section No. 2       Bill No. 14       Plumbing And Drainage (provisional)       Image: Convert of the section of the	43	22mm Vacuum breaker (code KHN4.200CX).	No	2			
44       40mm Pipes.       m       15         45       50mm Pipes.       m       14         46       110mm Pipes       m       14         47       40mm Pipes laid in and including trenches not exceeding 1m deep under surface beds.       m       44         48       50mm Pipes laid in and including trenches not exceeding 1m deep under surface beds.       m       2         K       Carried to Collection       m       2       R         Section No. 2       Bill No. 14       Plumbing And Drainage (provisional)       Image: Carried to Collection 2       Image: Carried to Collection 2       Image: Carried to Collection 2		SANITARY PLUMBING					
45       50mm Pipes.       m       14         46       110mm Pipes       m       14         47       40mm Pipes laid in and including trenches not exceeding 1m deep under surface beds.       m       44         48       50mm Pipes laid in and including trenches not exceeding 1m deep under surface beds.       m       2         K       Carried to Collection       m       2         Section No. 2       Bill No. 14       Humbing And Drainage (provisional)       Image: Carried to Collection 2       Image: Carried to Collection 2							
46       110mm Pipes       m       14         47       40mm Pipes laid in and including trenches not exceeding 1m deep under surface beds.       m       4         48       50mm Pipes laid in and including trenches not exceeding 1m deep under surface beds.       m       2         6       Carried to Collection       m       2         7       Section No. 2       Bill No. 14       Image (provisional)	44	40mm Pipes.	m	15			
47       40mm Pipes laid in and including trenches not exceeding 1m deep under surface beds.       m       4         48       50mm Pipes laid in and including trenches not exceeding 1m deep under surface beds.       m       2         Carried to Collection       m       2         Section No. 2       Bill No. 14         Plumbing And Drainage (provisional)       Image: Carried to Collection 2       Image: Carried to Collection 2	45	50mm Pipes.	m	14			
1m deep under surface beds.       m       4         48       50mm Pipes laid in and including trenches not exceeding 1m deep under surface beds.       m       2         Carried to Collection         R         Section No. 2         Bill No. 14       Plumbing And Drainage (provisional)	46	110mm Pipes	m	14			
1m deep under surface beds.     m     2       Carried to Collection     R       Section No. 2     Bill No. 14       Plumbing And Drainage (provisional)     Image: Carried to Collection	47		m	4			
Section No. 2 Bill No. 14 Plumbing And Drainage (provisional)	48		m	2			
Bill No. 14 Plumbing And Drainage (provisional)					R		
Plumbing And Drainage (provisional)							
		Plumbing And Drainage (provisional)					

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		Unit	Quantity	Rate	Amount	
49	110mm Pipes laid in and including trenches not exceeding 1m deep under surface beds.	m	5			
	Extra over uPVC pipes for fittings (SANS 967):					
50	50mm Reducer.	No	16			
51	110mm Reducer.	No	6			
52	40mm Bend.	No	10			
53	50mm Bend.	No	7			
54	110mm Bend.	No	5			
55	40mm Access bend.	No	10			
56	50mm Access bend.	No	7			
57	110mm Access bend.	No	5			
58	50mm Junction.	No	4			
59	110mm Junction.	No	5			
60	50mm Access junction.	No	2			
61	110mm Access junction.	No	5			
62	110mm Access reducing junction.	No	2			
63	110mm Pan connector	No	9			
64	110mm Two-way' vent valve.	No	5			
	Sundries:					
65	Testing waste pipe systems, complete.	Item				
	WATER SUPPLIES					
	Polycop' polypropylene pipes with and including compression fittings:					
66	15mm Pipes laid in trenches not exceeding 2m deep, including excavation in all materials, bedding, backfilling, compaction and disposing of surplus excavated material.	m	4			
67	22mm Pipes laid in trenches not exceeding 2m deep, including excavation in all materials, bedding, backfilling, compaction and disposing of surplus excavated material.	m	8			
68	15mm Pipes.	m	24			
69	22mm Pipes.	m	10			
	Carried to Collection			R		
	Section No. 2 Bill No. 14					
	Plumbing And Drainage (provisional)					
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		Unit	Quantity	Rate	Amount	
	Class 2 copper pipes :					
70	15mm Pipes	m	26			
71	22mm Pipes	m	11			
72	22mm Pipes laid in trenches not exceeding 2m deep, including excavation in all materials, bedding, backfilling, compaction and disposing of surplus excavated material.	m	5			
	Extra over Class 2 copper pipes for capillary fittings					
73	15mm Fittings	No	36			
74	22mm Fittings	No	25			
	Extra over Class 2 copper pipes for brass compression fittings					
75	15mm Fittings	No	42			
76	22mm Fittings	No	25			
	TESTING					
	Testing:					
77	Testing water pipe system, complete.	Item				
	ELECTRIC WATER HEATERS					
78	<u>'Approved' Geysers (SABS 151:1992), to be</u> <u>compatible with heat pump installations, where</u> <u>required :</u> 150 Litre horizontally mounted 3kW electric water heater,					
	complete, mounted in duct space, including geyser platform and brackets.	No	1			
	<u>'Approved' polyethylene geyser trays (SABS 1848:2000):</u>					
79	Geyser tray to suit 150 litre capacity horizontal geyser (elsewhere measured), with and including 50mm diameter PVC overflow connector.					
		No	1			
	WATER BOILERS AND CHILLERS					
	Water boilers and water chillers:					
80	Hydroboil code 3800 7,5/06' litre white powder coated water boiler, plugged and screwed to wall, and connected to water supply and electrical supply, (electrical connection elsewhere measured).	No	1			
	()	NO				
	Carried to Collection Section No. 2			R		
	Bill No. 14					
	Plumbing And Drainage (provisional)					
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		Unit	Quantity	Rate	Amount	
	FIRE APPLIANCES ETC.					
	Fire Extinguishers to SANS 10400-T :					
81	1,2 x 1,8m SABS approved fire blanket including mounting bracket and backboard plugged and screwed to wall.	No	1			
82	4,5kg DCP hand held fire extinguisher including mounting bracket and backboard plugged and screwed to wall.	No	3			
83	5kg Carbon dioxide CO2 hand held fire extinguisher including mounting bracket and backboard plugged and screwed to wall.	No	1			
84	9kg DCP hand held fire extinguisher including mounting bracket and backboard plugged and screwed to wall.	No	1			
	Fire Hose Reels to SANS 10400-T :					
85	Fire hose reel complete with 30m rubber hose, pressure gauge, chromium plated stopcock/ball valve, fire hose reel combined nozzle stop cock shut-off nozzle and wall bracket mounted to wall as per manufacturers instructions and to Engineering fire drawing specifications.	No	2			
	WATER SUPPLIES TO FIRE APPLIANCES					
	SABS62 Medium Grade Hot Dipped Galvanised Steel Pipes :					
86	25DN GMS pipes.	m	6			
87	25DN GMS Pipes laid underground with and including two layers of Densowrap or equally approved up to 100mm above floor level.	m	38			
	Extra over SABS62 Medium Grade Hot Dipped Galvanised Steel pipes for compression fittings:					
88	25DN Elbow.	No	10			
89	25DN Union connector	No	5			
90	25DN Coupling reducer	No	2			
	Testing					
91	Testing fire water pipe system, complete	Item				
	Carried to Collection			R		
	Section No. 2					
	Bill No. 14 Plumbing And Drainage (provisional)					
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		Unit	Quantity	Rate	Amount	
92	WATER STORAGE TANKS, ETC         JOJO or equally approved SABS and ECO approved         Polyethylene (LLDPE) drinking water tanks with 10         year guarantee :         10 000 Litre Slimline Cloudy Grey circular water tank, complete with 15mm plastic tap, clip on lid, outlet and overflow, mounted on top of concrete plinth base and tied down as instructed by manufacturer (concrete base elsewhere measured).	No	2			
	Carried to Collection			R		
	Section No. 2 Bill No. 14 Plumbing And Drainage (provisional)					
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#### TARDI 300 SEATER EXAM HALL SCMU8-22/23-0063

		SCMU8-22/23-0
		Amount
<u>BILL NO. 14</u>		
PLUMBING AND DRAINAGE (PROVISIONAL)		
COLLECTION		
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Carried To Section Summary	R	
Section No. 2 Bill No. 14		
Plumbing And Drainage (provisional)		
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		Unit	Quantity	Rate	Amount	
	<u>SECTION NO. 2</u> BUILDING WORKS BILL NO. 15 GLAZING					
	PREAMBLES					
	For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371-A" which shall be read in conjuction with and shall apply to all items in these Bills of Quantities.					
	SUPPLEMENTARY PREAMBLES					
	Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items,materials or methods of similar quality may be used with prior approval from the Architect/Engineer.					
	Safety glazing to comply with SANS 1263 Part 1, 2 or 3 with name of the manufacturer permanently marked on each sheet visible after glazing, glazed in accordance with NBR N schedule 1 and SABS 0137.					
	GLAZING TO WOOD WITH PINNED-ON BEADS (BEADS ELSEWHERE)					
	6,35mm 'GSA Smartglass Intruderprufe' or equally approved normal strength (N.S.) Clear laminated safety glass :					
1	Panes exceeding 0,1m and not exceeding 0,5m	m²	2			
	TOPS, SHELVES, DOORS, MIRRORS, ETC.					
	6mm Silvered float glass copper free mirrors with 10 mm bevelled and polished edges holed for and fixed with chromium plated dome capped mirror screws with rubber buffers to plugs in brickwork or concrete:					
2	Mirror 600 x 900mm high with four screws.	No	10			
	Carried To Section Summary			R		
	Section No. 2 Bill No. 15 Glazing					
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	Unit	Quantity	Rate	Amount	
SECTION NO. 2					
BUILDING WORKS					
<u>BILL NO. 16</u>					
PAINTWORK					
PREAMBLES					
For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371-A" which shall be read in conjuction with and shall apply to all items in these Bills of Quantities.					
SUPPLEMENTARY PREAMBLES					
Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items,materials or methods of similar quality may be used with prior approval from the Architect/Engineer.					
PREPARATORY WORK FOR UNPAINTED SURFACES					
All work to be executed in strict accordance with the specifications and instructions of the manufacturer.					
Primers and first coats may be thinned in accordance with the various paint specifications to aid the absorption of the paint.					
All surfaces must be sound, clean and have a moisture content of less than 8% for walls generally, 3% for slabs/screeds, and 14% for wood etc, when measured with a Doser hygrometer or equivalent.					
Where surfaces of plaster etc are sandy / friable, the first coat must be replaced with a plaster primer thinned 10% with turpentine.					
PAINTWORK ETC TO NEW WORK					
ON NEW INTERNAL FLOATED PLASTER SURFACES					
<u>'Plascon Cashmere' or equally approved paint to</u> interior new cement plaster, surface to be dry, sound and clean and cured for a minimum of 14 days, with a moisture content measured with a Doser Hygrometer (or equivalent), of BD 2 scale - 8% or less. Prime with one coat Plascon Plaster Primer (UC56) with an overcoating time of 16 hours and finish with two coats Cashmere (CAS 1) with 2 hours drying time between coats, for a maintenance cycle of 10 years in a C3 - industrial environment, for					
interior use :					
Walls and beams.	m²	717			
Carried to Collection			R		
Section No. 2					
Bill No. 16					
Paintwork					
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		Unit	Quantity	Rate	Amount	
2	Projecting columns.	m²	94			
3	Ceilings and beams.	m²	21			
	ON NEW EXTERNAL FLOATED PLASTER SURFACES					
	'Plascon Wall & All' or equally approved paint to exterior new cement plaster, surface to be dry, sound and clean and cured for a minimum of 14 days, with a moisture content measured with a Doser Hygrometer (or equivalent), of BD 2 scale - 8% or less. Prime with one coat Plascon Plaster Primer (UC56) with an overcoating time of 16 hours and finish with two coats Wall & All (WAA 1) with 2 hours drying time between coats, for a maintenance cycle of 10 years in a C3 - industrial environment, for exterior use :					
4	Walls and beams.	m²	251			
5	Upstand beams.	m²	23			
6	Ceilings and beams.	m²	3			
	ON NEW FAIR FACED BRICKWORK					
	Prepare surfaces and remove all loose material, builder's plaster etc with weak spirits of salts (or any other suitable means), wash, dry and apply three coats of Approved Brick / Stone sealer':					
7	On facebrick walls externally. (Provisional).	m²	254			
	ON NEW PLASTERBOARD SURFACES					
	<u>'Plascon Cashmere' or equally approved paint to</u> interior new plasterboard, surface to be dry, sound and free of dirt and loose particles. Wipe down with a damp cloth and allow to dry completely. Prime with one coat Professional Water Based Gypsum Sealer (PGS1) with an overcoating time of 1 hour and finish with two coats Cashmere (CAS 1) with 2 hours drying time between coats, for a maintenance cycle of 10 years in a C1 - inland environment.					
8	Skimmed sloping ceilings and cornices, between steel rafters.	m²	280			
9	Skimmed partition walls at internal eaves closures.	m²	45			
	Carried to Collection Section No. 2 Bill No. 16 Paintwork			R		
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		Unit	Quantity	Rate	Amount	
	ON NEW FIBRE-CEMENT BOARD SURFACES 'Plascon Velvaglo' or equally approved polyurethane enamel paint to new fibre-cement, surface to be dry, sound and clean. Prime with one coat Plascon Plaster Primer (UC56) with an overcoating time of 16 hours and finish with two coats Velvaglo Polyurethane Enamel (VLO) with 2 hours drying time between coats, for a maintenance cycle of 10 years in a C3 - industrial environment, for interior/exterior USE :					
10	Fascias and barge boards not exceeding 300mm girth, including priming metal jointing strips.	m	79			
11	Window cills not exceeding 300mm girth.	m	64			
12	Sliding and hinged duct gates infill panels (both sides measured over the full flat area).	m²	31			
	ON NEW METAL SURFACES 'Plascon Velvaglo' or equally approved polyurethane enamel paint to new metal, surface to be dry, sound and clean. Clean and degrease with Plascon Aquasolve Degreaser GR1, rinse and prime with one coat Plascon Galvogrip Metal Primer, one coat Plascon Merit Universal Undercoat and finish with two coats Plascon Velvaglo Polyurethane Enamel (VLO) with 2 hours drying time between coats, for a maintenance cycle of 10 years in a C3 - industrial environment, for interior/exterior use to galvanised steel :					
13	Columns.	m²	7			
14	Members of exposed sloping roof trusses, rafters, haunchs, etc.	m²	168			
15	Members of varying sizes at exposed steel staircases, etc.	m²	37			
16	Rails, bars, pipes, etc exceeding 300mm girth.	m²	1			
17	Rails, bars, pipes, etc not exceeding 300mm girth to fire protection pipes.	m	6			
	ON NEW WOOD SURFACES					
10	Two coats oil wood primer Backs of frames, linings, etc not exceeding 300mm	m	61			
18	Backs of frames, linings, etc not exceeding 300mm Carried to Collection Section No. 2	m	61	R		
	Bill No. 16 Paintwork					
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		Unit	Quantity	Rate	Amount	
	'Plascon Velvaglo' or equally approved Polyurethane enamel paint to new wood, surface to be dry, sound and clean, wash knots and resinous areas with Lacquer Thinners (ILS 1) and coat with Woodcare Knot Seal (PK2) and apply one coat of Plascon Woodcare Pretreatment (WWP 1), overcoated within 48 hours with a moisture content, measured with a Doser Hygrometer (or equivalent), of BD 2 scale (A1- A5) < 14% or less. Prime with one coat Wood Primer (UC 2) with an overcoating time of 16 hours and finish with two coats Velvaglo Satin (VLO) with 16 hours drying time between coats, for a maintenance cycle of 3 years in a C5 - coastal/marine environment, for interior / exterior use to new wood :					
	Interior / Exterior slatted grooved doors.	m²	59			
20	Door frames, etc.	m²	15			
21	Exterior roof timbers at eaves and verges.	m²	6			
22	Skirtings, rails, etc not exceeding 300mm girth.	m	133			
	Prepare surfaces, sand, clean and apply three coats superior quality polyurethane suede varnish, with light sanding between coats :					
23	Stage flooring and steps.	m²	32			
24	Vertical floor boarding to front of stage.	m²	5			
	Carried to Collection			R		
	Section No. 2 Bill No. 16					
	Paintwork 138					

# TARDI 300 SEATER EXAM HALL SCMU8-22/23-0063

		SCMU8-22/23-0	
		Amount	
BILL NO. 16 PAINTWORK COLLECTION			
	Page No		
Brought Forward from Page	135		
	136 137		
	138		
Carried To Section Summary Section No. 2	R		
Bill No. 16 Paintwork			
139			

# TARDI 300 SEATER EXAM HALL SCMU8-22/23-0063

			SCMU8-22/23-	0063
			Amount	
	SECTION NO. 2			
	BUILDING WORKS			
	SECTION SUMMARY			
Bill No.		Page		
1	EARTHWORKS (PROVISIONAL)	40		
2	CONCRETE, FORMWORK AND REINFORCEMENT	46		
3	MASONRY	52		
4	WATERPROOFING	56		
5	ROOF COVERINGS	63		
6	CARPENTRY AND JOINERY	73		
7	CEILINGS PARTITIONS AND ACCESS FLOORING	80		
8	FLOOR COVERINGS, WALL LININGS, ETC	84		
9	IRONMONGERY	92		
10	STRUCTURAL STEELWORK	98		
11	METALWORK	110		
12	PLASTERING	116		
13	TILING	120		
14	PLUMBING AND DRAINAGE (PROVISIONAL)	133		
15	GLAZING	134		
16	PAINTWORK	139		
	Carried to Final Summary	R		
	Section No. 2 SECTION SUMMARY			
	140			

# **SECTION 3**

# EXTERNAL WORKS (PROVISIONAL)

VOLUME 2 – RETURNABLE DOCUMENTS SCM8-22/23-0063

	Unit	Quantity	Rate	Amount	10
		-			
SECTION NO. 3					
EXTERNAL WORKS (PROVISIONAL)					
BILL NO. 1					
SITE CLEARANCE AND BULK EARTHWORKS					
PREAMBLES					
For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371-A" which shall be read in conjuction with and shall apply to all items in these Bills of Quantities.					
SUPPLEMENTARY PREAMBLES					
Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items,materials or methods of similar quality may be used with prior approval from the Architect/Engineer.					
Note :					
All Earthworks shall be done in accordance with the SANS 1200 specifications.					
Nature of ground:					
The Tenderer must aquaint himself with the nature of the material to be excavated.					
The nature of the ground is assumed to be loose fine to medium sandy material, therefore earth, but possibly interspersed with hard rock or soft rock.					
Carting away of excavated material:					
Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site.					
Dewatering of Excavations					
The Contractor shall allow for removing seepage and other water from subterranean sources from the excavations by pumping , baling or otherwise.					
Accurate records of all such dewatering shall be kept to determine the total volume of water so removed and a clear distinction shall be made between water from subterranean sources and other water.					
Density testing on filling					
Rates of filling, etc shall include for all density and soil type testing to prove that the specified compaction is achieved					
Carried to Collection			R		
Section No. 3					
Bill No. 1 Site Clearance And Bulk Earthworks					
141					

Unit     Quantity     Rate     Amount       When additional testing is done on instruction of the Architect and these tests are successful, they will be paid for additionally.     Image: Contractor will be paid for additionally.     Image: Contractor will be paid for additionally.       Old materials to become the property of the Contractor will be for used or handed over, become the property of the Contractor whor must allow credit for the same in these Bills of Quantities.     Image: Contractor will be addited over, as well as all rubbish, etc., must be regularly carted from the site and not to be allowed to accumulate on or around the site.     Image: Contractor will be addited over, as well as all rubbish, etc., must be regularly carted from the site and not to be allowed to accumulate on or around the site.     Image: Contractor will be addited over, as well as all rubbish, etc., must be regularly carted from the site and not to be allowed to accumulate on or around the site.     Image: Contractor will be the materials or articles are don materials or articles from demolitions or articles are done materials or articles shall be properly stored by the Contractor, until handing over thereor. The Contractor must be inable hold liable to the Client for the full replacement value thereof, which amount will be deducted from any monies due to the Contractor.     Image: I					SCMU8-22/23-	006
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to be confirmed on site.  Carried to Collection  R  R  Section No. 3 Bill No. 1 Site Clearance And Bulk Earthworks						
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Site Clearance And Bulk Earthworks	Section No. 3			n		
142						
	142					

Т			1		SCMU8-22/23	-0063
		Unit	Quantity	Rate	Amount	
	DEMOLITIONS. ETC.					
	Breaking up and removing :					
1	150mm Thick reinforced concrete surface beds, paving, etc on site.	m²	26			
	SITE CLEARANCE, ETC.					
	Site clearance, etc.:					
2	Allow for clearing the area of the site to be built upon of all grass, weeds, shrubs, trees with trunks not exceeding 200mm girth, debris, etc., including grubbing up all roots, scoffling up as required and cart away all vegetation and debris.	m²	1 890			
3	Strip topsoil layer average 150mm thick and stockpile on	3	00.4			
	site.	m³	284			
	REMOVAL OF TREES, ETC.					
	Taking out and removing, grubbing up roots and filling in holes:					
4	Tree stump exceeding 200mm and not exceeding 500mm girth.	No	1			
5	Tree stump exceeding 500mm and not exceeding 1000mm girth.	No	1			
	<u>Cut down and remove, grub up roots and fill in holes:</u>					
6	Tree exceeding 500mm and not exceeding 1000mm girth.	No	1			
7	Tree exceeding 1000mm and not exceeding 1500mm girth.	No	1			
8	Tree exceeding 1500mm and not exceeding 2000mm girth.	No	1			
9	Tree exceeding 2000mm and not exceeding 2500mm girth.	No	1			
	BULK EXCAVATION					
	Open face excavation in earth over sloping site:					
10	Open face excavation over sloping site to reduce levels for platforms including spreading and levelling in areas of fill and depositing excavated material over site including haulage not exceeding 1 km from perimeter of excavations.	m³	257			
	Carried to Collection			R		
	Section No. 3					
	Bill No. 1 Site Clearance And Bulk Earthworks					
	143					

					SCMU8-22/23-	-0063
		Unit	Quantity	Rate	Amount	
	Extra over bulk excavation in earth for excavation in:					
11	Soft rock	m³	30			
12	Hard rock	m³	15			
	CARTING AWAY.					
	Extra over all excavations for loading, carting and dumping surplus excavated material (no allowance made for increase in bulk):					
13	In spoil heaps where directed on site.	m³	257			
14	Off site to a dumping site to be found by the Contractor.	m³	141			
	COMPACTION OF SURFACES					
	Compaction of surfaces:					
15	In - place treatment of existing or filled material by ripping, scarifying for a depth of 150mm, breaking down oversize material, stabilizing soil with and including 4% lime mixed evenly into fill material and compacting to 90% Mod AASHTO density.	m²	1 890			
	EARTH FILLING, ETC.					
	Filling with material from the excavations, cut to fill, spread and levelled and compacted to a density of at least 93% Mod. AASHTO maximum density:					
16	Over site for platforms.	т³	116			
	Filling with approved G5 sub-base quality material carted onto site by the Contractor, compacted to a density of at least 93% Mod. AASHTO maximum density in 150mm layers:					
17	Over site for platforms.	m³	129			
	KEEPING EXCAVATIONS FREE OF WATER					
	Keeping excavations free of water:					
18	Keeping excavations free of all water other than subterranean water.	Item				
	<u>TESTS</u>					
	Rates of filling, etc shall include for all density and soil type testing to prove that the specified compaction is achieved.					
	When additional testing is done on instruction of the Architect and these tests are successful, they will be paid for additionally.					
	Carried to Collection			R		
	Section No. 3					
	Bill No. 1					
	Site Clearance And Bulk Earthworks					
	144					

					SCMU8-22/23-	0063
		Unit	Quantity	Rate	Amount	
	Prescribed density tests on filling:					
19	Modified AASHTO Density test.	No	5			
20	In-situ dry density (sand replacement) test in accordance with method A10 (a) of TMH 1	No	5			
21	Maximum dry density and optimum moisture content test in accordance with method A7 of TMH 1	No	5			
	GRASSING, ETC.					
	Ground preparation:					
22	Cultivation and preparation of areas to be planted, including general shaping and trimming of ground.	m²	655			
	Topsoil, compost, lime and fertilizer:					
23	Topsoil obtained from prescribed stock piles on site spread and levelled to average 150mm thick to areas around structures where directed and including in-place treatment of filled topsoil material by ripping, scarifying for a depth of 150mm and breaking down oversize material.	m²	655			
	Fertilizing:					
24	Fertilize garden top soil with 3:2:1 super phosphate spread at a rate of 1kg/10m2 including working evenly into top 20mm depth of soil.	m²	655			
	Grassing of Kikuyu grass or equally approved roots in rows over site:					
25	Kikuyu grass or equally approved runners over topsoiled areas including watering and maintanance, etc until Practical Completion of the project, 3 months maintenance period after practical completion elsewhere measured.	m²	655			
	Maintenance:					
26	Maintenance of grassed and ground covered areas for a period of 3 months (total area approximately 655m2), including regularly weeding and irrigating as necessary.	Item				
					<u> </u>	
	Carried to Collection			R		
	Section No. 3 Bill No. 1					
	Site Clearance And Bulk Earthworks					
	145					

# TARDI 300 SEATER EXAM HALL SCMU8-22/23-0063

		1	SCMU8-22/23-	-0063
			Amount	
BILL NO. 1				
SITE CLEARANCE AND BULK EARTHWORKS				
COLLECTION				
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		145		
Carried To Section Summ	ary	R		
Section No. 3	-			<u> </u>
Bill No. 1				
Site Clearance And Bulk Earthworks				
146				

	Unit	Quantity	Rate	Amount
<u>SECTION NO. 3</u> <u>EXTERNAL WORKS (PROVISIONAL)</u> <u>BILL NO. 2</u> <u>ROADWORKS AND PARKING AREAS</u>				
PREAMBLES				
For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371-A" which shall be read in conjuction with and shall apply to all items in these Bills of Quantities.				
SUPPLEMENTARY PREAMBLES				
Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items,materials or methods of similar quality may be used with prior approval from the Architect/Engineer.				
Nature of ground:				
The Tenderer must aquaint himself with the nature of the material to be excavated.				
The nature of the ground is assumed to be loose fine to medium sandy material, therefore earth, but possibly interspersed with hard rock or soft rock.				
Carting away of excavated material:				
Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site.				
Dewatering of Excavations				
The Contractor shall allow for removing seepage and other water from subterranean sources from the excavations by pumping , baling or otherwise.				
Accurate records of all such dewatering shall be kept to determine the total volume of water so removed and a clear distinction shall be made between water from subterranean sources and other water.				
Density testing on filling				
Rates of filling, etc shall include for all density and soil type testing to prove that the specified compaction is achieved				
When additional testing is done on instruction of the Architect/Engineer and these tests are successful, they will be paid for additionally.				
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Carried to Collection Section No. 3			R	
Bill No. 2				
Roadworks And Parking Areas				
147				

1					SCMU8-22/23	3-0063
		Unit	Quantity	Rate	Amount	
	Note:					
	All Earthworks shall be done in accordance with the SANS 1200 specifications.					
	Refer to the relevant sections in SANS 1200 Mk for the specification of roadworks which will apply in this Bill.					
	ROADWORKS, ETC. SITE CLEARANCE, ETC.					
	Site clearance, etc.:					
1	Allow for clearing the area of the site to be built upon of all grass, weeds, shrubs, trees with trunks not exceeding 200mm girth, debris, etc., including grubbing up all roots, scoffling up as required and cart away all vegetation and debris.	m²	850			
~	Strip tanggil lawar avarage 150mm thick and stackhile an					
2	Strip topsoil layer average 150mm thick and stockpile on site.	m³	128			
	EXCAVATIONS, ETC.					
	Open face excavation in earth over sloping site:					
3	Open face excavation under roads and parking areas to reduce levels including spreading and levelling in areas of fill and depositing excavated material over site including haulage not exceeding 1 km from perimeter of excavations.	m ³	260			
	Following the second line is worth from					
	Extra over open face excavation in earth for excavation in:					
4	Soft rock	m³	30			
5	Hard rock	m³	15			
	CARTING AWAY.					
	Extra over all excavations for loading, carting and dumping surplus excavated material (no allowance made for increase in bulk):					
6	In spoil heaps where directed on site.	m³	260			
7	Off site to a dumping site to be found by the Contractor.	m³	190			
	COMPACTION OF SURFACES					
	Compaction of surfaces:					
8	In - place treatment of existing cut or filled material by ripping, scarifying for a depth of 150mm, breaking down oversize material and compacting to 90% Mod AASHTO					
	density:	m²	850			
	Carried to Collection			R		
	Section No. 3					
	Bill No. 2					
	Roadworks And Parking Areas					
	148					

					SCMU8-22/23	8-006
		Unit	Quantity	Rate	Amount	
	EARTH FILLING, ETC.					
	Filling with selected excavated material from excavations on the site, cut to fill, spread and levelled and compacted to a density of at least 93%					
	Mod. AASHTO maximum density in 150mm layers:					
9	Under roadways and parking.	m³	70			
10	In backfilling behind Kerbing and Edging on sides of roadways.	m³	33			
	Filling with approved G7 Sub-Base Course material (SABS 1200) supplied and carted onto site by the Contractor, under roadways and parking, and compacted to a density of at least 93% Mod. AASHTO maximum density:					
11	150mm Thick layer under roadways and parking.	m³	149			
	Filling with approved G5 Sub-Base Course material (SABS 1200) supplied and carted onto site by the Contractor, under roadways and parking, and compacted to a density of at least 95% Mod. AASHTO maximum density:					
12	150mm Thick layer under roadways and parking.	m³	149			
	KEEPING EXCAVATIONS FREE OF WATER					
	Keeping excavations free of water:					
13	Keeping excavations free of all water other than subterranean water.	Item				
	<u>TESTS</u>					
	Note:					
	Control testing to be undertaken by the Contractor will be required to prove that the works have been executed in accordance with the Specification and Drawings.					
	The Engineer will execute a certain number of check tests to monitor the control testing results submitted by the Contractor. Payment for these check tests will be made from the Provisional quantity allowed in the Bill of Quantities, if they are succesful.					
	Rates of filling, etc shall include for all density and soil type testing to prove that the specified compaction is achieved.					
	When additional testing is done on instruction of the Architect and these tests are successful, they will be paid for additionally.					
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	Prescribed density tests on filling:					
14	Modified AASHTO Density test.	No	5			
15	Natural CBR test.	No	5			
16	Indicator test.	No	5			
17	In-situ dry density (sand replacement) test in accordance with method A10 (a) of TMH 1	No	5			
18	Nuclear In-situ density test	No	10			
	SOIL POISONING					
	Approved brand of weedkiller mixed and applied strictly in accordance with the manufacturer's instructions :					
19	Under paving, to delivery access road and parking area, etc.	m²	975			
	BOND AND INTERLOCKING CONCRETE BLOCK PAVERS					
	Block paving to be manufactured in accordance with SABS Specification 1058 to the following compressive strength:					
	Class 25 or 35MPa or as specified by the Engineer.					
	Paving to be laid in accordance with SANS 1200MJ, SABS 1058 and the Concrete Manufacturers Association's specifications.					
	Clean dry bedding sand complying with SANS 1200D to be laid under paving.					
	Clean dry jointing sand complying with SANS 1200MJ is to be swept into joints between roadstones.					
	Paving to be installed with a minimum longitudinal fall of 1% and a transverse fall of at least 2%.					
	All block paving to be inspected and resanded after 3 months.					
	<u>'Inca' or equally approved paving of 80mm thick</u> <u>Type S-A approved Precast Concrete 'Weathered</u> <u>Charcoal' coloured interlocking paving blocks, size</u> <u>200 x 100 x 80mm Thick, laid in herringbone pattern</u> <u>on and including 25mm thick compacted river sand</u> <u>bed with fine dry filler jointing sand swept and</u> <u>vibrated into joints all laid on subgrade (elsewhere</u> <u>measured conforming to SABS 1200D degree of</u> <u>accuracy I :</u>					
20	Paving to delivery access road and parking areas to	m²	975			
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		Unit	Quantity	Rate	Amount
21	Fair circular cutting and waste to paving.	m	25		
	CONCRETE EDGE BEAM, ETC.				
	Excavation not exceeding 2m deep:				
22	For edge beam to roadways.	m³	1		
	Extra over all excavations for carting away				
23	Surplus material from excavations to a dumping site to be located by the contractor.	m³	1		
	30MPa/19mm Reinforced concrete:				
24	In edge beams to roadways.	m³	1		
	Finishing top surfaces of concrete with a wood float:				
25	Top of edge beams.	m²	4		
	Rough formwork:				
26	Edges not exceeding 300mm high.	m	26		
	Fabric reinforcement :				
27	Type 193 fabric reinforcement in concrete edge beams, etc.	m²	4		
	KERBING CHANNELS, ETC.				
	Precast concrete kerbing finished smooth on exposed surfaces including bedding, jointing and pointing, etc.				
28	Standard Kerb (SABS 927-1969 Fig 3) 150 x 300mm high overall laid upright on and including 200 x 50mm thick unreinforced 15/19Mpa concrete bedding, with 150 x 300mm unreinforced concrete haunching at back of each joint in kerbing, including all excavation, backfilling,				
	etc.	m	195		
29	Ditto but circular on plan not exceeding 4m radius formed with short lengths of straight kerbing including all				
	excavations, backfilling, etc.	m	4		
30	Ditto but circular on plan exceeding 4m radius.	m	21		
31	Standard Channel (SABS 927-1969 Fig 14) 300 x 125mm high overall laid horizontally to falls at edge of paved roadways and laid together with Fig 3 kerbing (elsewhere measured) to form water channel, including				
	all excavation, backfilling, etc. (Provisional).	m	115		
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		Unit	Quantity	Rate	Amount	
32	Ditto but circular on plan not exceeding 4m radius formed with short lengths of straight channels including all excavations, backfilling, etc. (Provisional).	m	4			
	PAINTING, ETC.					
	Prepare surfaces, wash thoroughly, remove loose material, leave to dry and apply two coats Road Marking' acrylic road marking paint to roadways and parking areas all in accordance with Standard Provincial Road Practice including all setting out to:					
33	100mm Wide solid white line to precast concrete paved roadways and parking.	m	130			
34	Standard "STOP" sign markings to precast concrete paved roadways and parking.	No	1			
35	Standard "DISABLED" sign markings to precast concrete paved roadways and parking.	No	1			
	ROAD SIGNAGE					
	Traffic sign to Standard Roads Department Specification (SARTSM) comprising reflective face on aluminium reinforced backing fixed to and including 125 -150mm diameter bitumen impregnated creosote pole 3 900mm long with and including stainless steel strapping 16mm wide to top and bottom of pole and including two 40mm diameter breakaway holes drilled through 150mm creosote pole one at 150mm and other at 450mm above finished ground level. Pole to be set in compacted stabilized selected backfill material with 1:12 cement, soil ratio compacted in 100mm layers to 90% Mod. AASHTO maximum density in base size 900mm diameter x 700mm deep with and including all excavations and removal of surplus excavated material from site.					
36	"10 Km\h Speed Limit" Prohibition sign as R201	No	1			
37	"No Trucks" Prohibition sign as R229	No	1			
38	"Parking" Reservation sign as R305P	No	1			
39	"Stop" Controll sign as R1	No	1			
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	Unit	Quantity	Rate	Amount	-
<u>SECTION NO. 3</u> EXTERNAL WORKS (PROVISIONAL) BILL NO. 3 STORMWATER DRAINAGE					
PREAMBLES					
For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371-A" which shall be read in conjuction with and shall apply to all items in these Bills of Quantities.					
SUPPLEMENTARY PREAMBLES					
Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items,materials or methods of similar quality may be used with prior approval from the Architect/Engineer.					
Note:					
All Stormwater Drainage shall be done in accordance with the SANS 1200 DB, LB and LE specifications.					
All plastic pipe diameters are nominal external.					
All pipes shall be jointed and fixed strictly in accordance with the manufacturers instructions.					
uPVC pipes and fittings:					
Soil, waste and vent pipes and fittings shall be solvent weld jointed.					
Concrete pipes:					
Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rings.					
Exposed concrete surfaces:					
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.					
Excavations:					
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'.					
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		Unit	Quantity	Rate	Amount	
	Laying, backfilling, bedding, etc of pipes:					
	Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions.					
	Where no manufacturers' instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following: SANS 1200 L : Medium pressure pipelines LD : Sewers LE : Stormwater drainage Pipe trenches etc shall be backfilled in accordance with clause 3, 5.5, 5.6, 5.7 and 7 of SANS 1200.					
	STORMWATER DRAINAGE					
	uPVC SABS approved underground stormwater pipes with interlocking socket joints and short lengths to falls in ground, including excavating, backfilling, compacting to 93% modified AASHTO dry density and including all nessasary risk of collapse and dewatering of trenches:					
1	200mm Diameter stormwater pipes laid in and including trenches exceeding 1m and not exceeding 2m deep including 100mm selected grandular material bedding below and 300mm selected fill material above pipe					
	crown.	m	49			
2	Extra on uPVC stormwater pipes for 200 x 200 x 200mm equal tee fitting.	No	1			
	Class 100D concrete pipes:					
	Reinforced precast concrete SABS (Class 100D) pipes including spigot socket joints and short lengths to falls in ground, including excavating, backfilling, compacting to 93% modified AASHTO dry density and including all nessasary risk of collapse and dewatering of trenches:					
3	300mm Diameter Type D Pipes laid in and including trenches exceeding 1m not exceeding 2m deep including 100mm selected grandular material bedding below and 300mm selected fill material above pipe					
		m	37			
4	Ditto, but exceeding 2m not exceeding 3m deep.	m	20			
5	450mm Diameter Type D Pipes laid in and including trenches exceeding 1m not exceeding 2m deep including 100mm selected grandular material bedding below and 300mm selected fill material above pipe					
		m	47			
6	Ditto, but exceeding 2m not exceeding 3m deep.	m	24			
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7	600mm Diameter Type D Pipes laid in and including trenches exceeding 1m not exceeding 2m deep including 100mm selected grandular material bedding below and 300mm selected fill material above pipe	m	41			
8	Ditto, but exceeding 2m not exceeding 3m deep.	m	21			
	Sumps, catchpits, inspection chambers, manholes etc (gratings and covers elsewhere):					
9	Excavate for and build stormwater catchpit complete exceeding 1000mm not exceeding 2000mm deep to form inlet to stormwater reticulation size 1150 x 1150mm wide overall including 150mm thick 20/19Mpa concrete bottom base with mesh 193 centrally, 220mm brickwork in stocks size 850 x 850mm overall, with 10mm internal plaster, benching to bottom of pit, building in 200mm diameter stormwater pipe and 150mm thick 20/19Mpa concrete cover slab over with mesh 193 centrally, slab to receive 450 x 450mm square dished grating (elsewhere measured) and including all formwork, reinforcement, backfilling, compaction etc . (See Stormwater Catchpit Detail as per Engineering Standard Details Drawing 34435-DET-1 - Stormwater Catchpit Detail).	No	5			
10	Ditto, but exceeding 2000mm not exceeding 3000mm deep.	No	3			
11	Excavate for and build stormwater catchpit/grid inlet to roadways complete exceeding 1000mm deep not exceeding 2000mm deep to form inlet to stormwater reticulation at roadway size 1900 x 1560mm wide overall, including 150mm thick 25/19Mpa concrete bottom base with mesh 245 centrally, 230mm brickwork in stocks size 1600 x 1260mm overall, with 10mm internal plaster, benching to bottom of pit, building in 300mm/450mm or 600mm diameter concrete stormwater pipe to two sides and 150mm thick 25/19Mpa reinforced concrete cover slab over to receive two (2) Table 8 rectangular curved gully gratings and frames to SABS 1115 (elsewhere measured) all built into slab with and including two 1m long inlet kerbs built in and all including all excavations, formwork, reinforcement, backfilling, compaction etc . (See Stormwater Grid Inlet Detail as per Engineering Standard Details Drawing 34435-DET-1 - Stormwater Grid Inlet Detail).	No	5			
12	Ditto, but exceeding 2000mm not exceeding 3000mm deep.	No	4			
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	<u>Gratings, covers, etc:</u>					
13	450 x 450mm Light duty square dished grating and frame cast into concrete cover slab.	No	8			
14	S.A.B.S. 1115 Table 8 rectangular curved gully grate and frame, cast into concrete.	No	18			
	STORMWATER HEADWALLS, OUTLETS, ETC.					
	The following in Stormwater Headwalls / Outlets, etc : (See Stormwater Outlet & Headwall Detail as per Engineering Standard Details Drawing 34435- DET-1 - Stormwater Outlet & Headwall Detail).					
15	Excavation in open face to reduce levels for stormwater headwalls and outlets.	m³	1			
16	Excavation not exceeding 2m deep for trenches below reduced level.	m³	1			
17	Compaction of ground surfaces under concrete surface beds etc, including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density.	m²	2			
18	Risk of collapse to sides of excavations not exceeding		_			
	1500mm deep.	m²	5			
19	25 Mpa/19mm Reinforced concrete in surface beds.	m³	1			
20	25 Mpa/19mm Reinforced concrete in ground beams.	m³	1			
21	25 Mpa/19mm Reinforced concrete in headwall walls.	m³	1			
22	Smooth formwork to sides of walls not exceeding 3.5m high.	m²	8			
23	Finishing top surfaces of concrete smooth with a steel trowel.	m²	2			
24	10mm Diameter high tensile bar reinforcing.	Tonnes	0,24			
	GABIONS, ETC.					
	Excavation in earth not exceeding 2m deep:					
25	To reduce levels for gabion reno matress.	m³	1			
	Extra over all excavations for loading, carting and dumping surplus excavated material (no allowance made for increase in bulk):					
26	Off site to a dumping site to be found by the Contractor.	m³	1			
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27	Gabions of PVC coated galvanised wire boxes laced together and filled with max size 50/75mm broken hard and durable stone all in accordance with the ' Standard Specifications for Road and Bridge Works for State Road Authorities 1998'.2635 x 1500 x 200mm Thick Reno mattress properly bonded.FILTER FABRIC Kaymat U24 or equally approved non-woven continuous filament needle punch polyester filter fabric with 200mm laps (Subject to Engineers approval prior to ordering):	m³	1			
28	Under stone filled gabions, reno matresses, etc, including dressing up sides of excavations to cover full area in continuous layer, and including preparing ground surface.	m²	6			
	<u>SUNDRIES</u>					
	Sundries:					
29	Extra over excavation in earth for pipe trenches, chambers, etc for excavation in soft rock.	m³	25			
30	Extra over excavation in earth for pipe trenches, chambers, etc for excavation in hard rock.	m³	12			
31	Extra over excavation for pipe trenches, chambers, etc for carting away surplus material to a dumping site to be located by the Contractor.	m³	37			
32	Extra over backfilling to drain trenches, chambers, etc for imported earth G5 backfilling material supplied by the Contractor.	m³	37			
	TESTING Testing :					
33	Testing complete stormwater drainage pipe system.	Item				
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EXTERNAL WORKS (PROVISIONAL)				
BILL NO. 4 SOIL DRAINAGE AND SEWER RETICULATION				
PREAMBLES				
For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371-A" which shall be read in conjuction with and shall apply to all items in these Bills of Quantities.				
SUPPLEMENTARY PREAMBLES				
Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items,materials or methods of similar quality may be used with prior approval from the Architect/Engineer.				
Note:				
All plastic pipe diameters are nominal external.				
All pipes shall be jointed and fixed strictly in accordance with the manufacturers instructions.				
uPVC pipes and fittings:				
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.				
uPVC pressure pipes and fittings:				
All pipes 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 push-in type joints.				
Exposed concrete surfaces:				
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.				
Excavations:				
No claim for rock excavation will be entertained unless the Contractor has timeously notified the quantity surveyor thereof prior to backfilling.				
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		Unit	Quantity	Rate	Amount	
	'Soft rock' and 'hard rock' shall be as defined in					
	'Earthworks'.					
	Laying, backfilling, bedding, etc of pipes:					
	Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions.					
	Where no manufacturers' instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following: SANS 1200 L : Medium pressure pipelines LD : Sewers LE : Stormwater drainage Pipe trenches etc shall be backfilled in accordance with clause 3, 5.5, 5.6, 5.7 and 7 of SANS 1200.					
	SOIL DRAINAGE, SEWER RETICULATION, ETC.					
	EXISTING SEWER RETICULATION					
	Cleaning of existing sewer reticulation pipeline and manholes:					
1	Cleaning of existing 110mm or 160mm diameter uPVC sewer reticulation pipeline, by hand, winching or high pressure jetting, to get pipeline into full working condition and all to Engineers approval.	m	65			
2	Cleaning of existing 1000 x 1000mm x approximately 2m deep sewer manhole, by hand or other means, to get manhole into full working condition and all to Engineers approval.	No	2			
	Removal of existing sewer reticulation pipeline and manholes:					
3	Locate and remove existing 110mm or 160mm diameter uPVC sewer pipeline to be replaced by new re-routed pipeline, not exceeding 2m deep, including excavations, backfilling with suitable material, carting away surplus material to dump site by contractor and compacting to required density, etc.	m	40			
4	Locate, break up and remove existing sewer manhole approximate size 1m x 1m not exceeding 2m deep, including excavations, removal of brick structure and concrete base and slab, carting away material to a dump site by contractor, backfilling with suitable material and compacting to required density, etc.	No	1			
	NEW SEWER RETICULATION					
	uPVC Class 34 sewer pipes:					
5	110mm Pipes vertically or ramped to cleaning eyes etc (no excavation).	m	5			
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		Unit	Quantity	Rate	Amount	
6	110mm Pipes laid in and including trenches not exceeding 1m deep.	m	20			
7	110mm Pipes laid in and including trenches exceeding 1m not exceeding 2m deep.	m	43			
8	160mm Pipes laid in and including trenches not exceeding 1m deep.	m	10			
9	160mm Pipes laid in and including trenches exceeding 1m deep and not exceeding 2m deep.	m	58			
	Extra over uPVC Class 34 pipes for fittings:					
10	110mm Bend.	No	5			
11	110mm Access Bend.	No	3			
12	110mm Junction.	No	2			
13	110mm Access junction.	No	3			
14	110mm Access double junction.	No	2			
15	160 x 110mm Y Junction.	No	2			
16	160mm Bend.	No	2			
17	160mm Tee.	No	2			
	<u>Gulleys:</u>					
18	Precast concrete dished gulley surround including 110mm 'P' trap PVC gulley head and grating, complete, not exceeding 1000mm deep.	No	3			
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		Unit	Quantity	Rate	Amount	
	MANHOLES, INSPECTION CHAMBERS, ETC.					
	Sewer Manholes and Inspection Chambers :					
19	Manhole size 1760 x 1760mm wide overall and not exceeding 750mm deep internally to invert level formed of 230mm brick wall sides in 1:3 cement mortar with and including brickforce every third course all round on and including 150mm thick 25/19Mpa concrete base projecting 150mm beyond sides with and including mesh ref 193 placed centrally and mass concrete (25 Mpa at 28 days in 12mm stone) benching, rendered internally in 1:5 cement plaster 10mm thick and with 150mm thick 30/19Mpa reinforced concrete surround slab on top including all reinforcing, rebated for and fitted with and including cast iron double seal manhole cover and frame type 4A in accordance with SABS 558, bedded in 1:3 cement mortar and sealed in tallow including all necessary channels and fittings, excavations, filling, formwork, holes through sides for pipes, concrete encasing around pipes through side of manhole, etc. (See Sewer Manhole Details as per Engineering Standard Details Drawing 34435-DET-1 - Sewer Manhole Details).	No	2			
20	Ditto, but exceeding 750mm deep and not exceeding 1500mm deep.	No	3			
21	Ditto, but exceeding 1500mm deep and not exceeding 2250mm deep.	No	3			
	<u>SUNDRIES</u>					
	Sundries:					
22	110mm PVC straight or skew rodding eye with removable plate cover jointed to 110mm uPVC pipe and set in and including concrete Class 15 Mpa surround size 300 x 500 x 150mm thick with exposed surface trowelled smooth.	No	2			
23	Precast concrete (Class 15 Mpa) block size 500 x 500 x 75mm thick finished smooth on top and four edges with letters "I.E." formed in top, set in ground over top of inspection fitting.					
	inspection nung.	No	2			
24	Extra over excavation in earth for pipe trenches, manholes, etc for excavation in soft rock.	m³	6			
25	Extra over excavation in earth for pipe trenches, manholes, etc for excavation in hard rock.	m³	3			
26	Extra over backfilling to drain pipe trenches, manholes, etc for selected approved imported earth backfilling, supplied by the Contractor.	m³	9			
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		Unit	Quantity	Rate	Amount	
27	Extra over excavation for pipe trenches, manholes, etc for carting away surplus material (where imported filling used) to a dumping site to be located by the Contractor.	m³	9			
28	Unreinforced concrete class 'B' encasing to 110mm horizontal pipe in ground.	m	58			
29	Cutting into side of existing manhole for and connecting 160mm pipe including inserting 160mm channel junction and making good concrete benching and manhole sides.	No	2			
30	Locating, excavating and cutting into existing 160mm diameter sewer main and preparing pipe for new manhole (manhole elsewhere measured).	No	2			
31	Standard 150 x 150mm precast reinforced concrete pipeline route markers tapering to 100 x 100mm at top, 1500mm long overall, complete with pipeline lable lettering, marker set 750mm deep in ground and cast into mass concrete base size 550 x 550 x 600mm high and protruding 750mm above ground level, to route of underground pipes, including all excavations, backfilling, carting away, etc. and painted above ground with one coat primer and two coats enamel based paint once erected. TESTING Testing -	No	12			
32	<u>Testing :</u> Testing drainage pipe system, complete.	Item				
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SECTION NO. 3 EXTERNAL WORKS (PROVISIONAL) BILL NO. 5 WATER AND FIRE RETICULATION					
PREAMBLES					
For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371-A" which shall be read in conjuction with and shall apply to all items in these Bills of Quantities.					
SUPPLEMENTARY PREAMBLES					
Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items,materials or methods of similar quality may be used with prior approval from the Architect/Engineer.					
uPVC pressure pipes and fittings:					
Pipes for water supply shall be of the class stated.					
Pipes of 50mm diameter and greater shall be to SABS 966 and 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 or cast steel as recommended by the manufacturer of the pipe, all with similar push-in type joints.					
Reducing fittings:					
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.					
Corrosion Protection:					
External protection of all underground steel pipes, flanges, joints and couplings shall be by means of a 300 micron layer of coaltar epoxy of an approved make. External protection of all above ground steel pipes, flanges, jounts and couplings shall be by means of a zinc coating. The finished surface shall be clean and uniform any excess being removed. The zinc deposit shall exceed 0.735 kg/m3.					
Joints, Bolts, Nuts and Washers:					
"Bolts, nuts and washers shall be treated as follows:					
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	Unit	Quantity	Rate	Amount	
Bolts and nuts shall be cadmium plated to BS 1706 and shall conform to grade 4.6 of SABS 135 and BS 916.					
Plain and tapered washers for use with mild steel bolts and nuts shall comply with BS 4320 and will be electro- galvanised to BS 1706.					
Plain and tapered washers for use with high rensile steel bolts and nuts shall be case hardened with a minimum hardness of Rockwell C-35.					
Corrosive Soil:					
All buried steel pipework and connections to be "DENSO" wrapped.					
"Fittings and joints shall be protected with 'Denso Tape' or similar approved material.					
After the joints and fittings have been tasted, they shall be liberally and completely coated with 'Denso Paste' and immediately thereafter wrapped with 'Denso Tape'. Wrapping shall commence at a point at least 50mm heyond the opposite side of the joint or fitting. An overlap of at least 25mm shall be given on each turn.					
Care shall be taken to smooth down the tape so as to avoid air pockets and gaps through which water could penetrate. Any turned or damaged tape shall be replaced or patched to the satisfaction of the Engineer's Representative. The Contractor shall ensure that the wrapping is not damaged during backfilling.					
<u>Galvanising:</u>					
"Galvanised steel pipework, fittings, specials etc. Shall comply with SABS 934 and 763 and be entirely coated with zinc after fabrication by complete immersion in a zinc bath. The finished surface shall be clean and uniform and any excess being removed. The zinc deposit shall exceed the following.					
Coastal areas 0.735 kg/m3					
Inland areas 0.400 kg/m3					
"Coastal areas' shall apply to this contract."					
Pipeline Markers					
Where so instructed by the Engineer or as shown on the drawings, the Contractor shall erect pipeline markers. These markers will be precast concrete units manufactured out of 25 Mpa concrete to the dimensions shown on the drawings and shall comply with SABS 1200 GA Concrete.					
All markers to receive one primer coat followed by two coats of enamel based paint, colour blue, once erected.					
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	Unit	Quantity	Rate	Amount	
Markers are to be erected 300mm off the edge of the pipe trench to the left of the trench and at right angles to the trench centre line at the points as indicated on the pipe longsections.					
At bends the marker will be erected at the P.I. Point of these 300 mm offset lines.					
Depth and Cover:					
Depth of excavation for pipe trenches shall be as per the drawing. The minimum required cover to the top of collars shall be 600mm.					
Testing:					
General					
Pipes shall be tested in convenient lengths not exceeding 500m per each test.					
Testing of Valves					
All valves shall be pressure tested according to SABS 664 or other applicable code at the appropriate test pressure.					
No separate payment shall be made for testing of valves and hydrants and the scheduled rates for the supply and installation of valves shall include for all costs in respect of testing.					
Disinfecting:					
All pipes are to be disinfected to a free chlorine count of 8 parts per million.					
No separate payment shall be made for disinfecting pipes and scheduled rates for piping shall include for all costs in respect of disinfecting.					
Excavations:					
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'.					
Laying, backfilling, bedding, etc of pipes:					
Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' and Engineers instructions.					
Where no manufacturers' instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following: SANS 1200 L : Medium pressure pipelines LD : Sewers LE : Stormwater drainage Pipe trenches etc shall be backfilled in accordance with clause 3, 5.5, 5.6, 5.7 and 7 of SANS 1200.					
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		Unit	Quantity	Rate	Amount	
	WATER AND FIRE SUPPLIES, ETC.					
	HDPE WATER PIPES					
	Class 10 HDPE water pipes :					
1	40mm Diameter pipes laid in and including trenches not exceeding 1m deep.	m	20			
2	40mm Diameter pipes laid in and including trenches exceeding 1m not exceeding 2 m deep.	m	6			
	Extra over Class 10 HDPE pipes for HDPE pressure fittings :					
3	40mm Reducer.	No	3			
4	40mm Bend.	No	6			
5	40mm Threaded adaptor.	No	3			
6	40mm Equal Tee.	No	1			
	UPVC PRESSURE WATER PIPES					
	Class 9 uPVC pressure water pipes with flexible					
-	<u>couplings:</u>					
7	75mm Diameter pipes laid in and including trenches not exceeding 1m deep.	m	30			
8	75mm Diameter pipes laid in and including trenches exceeding 1m not exceeding 2 m deep.	m	5			
	Extra over Class 9 uPVC pressure pipes for solvent welded pressure fittings:					
9	75mm Bend.	No	2			
	Extra over Class 9 uPVC pressure pipes for cast iron pressure fittings:					
10	75 x 40mm Reducing Tee.	No	3			
11	75mm Saddle including nuts and bolts and drilling boss and pipe.	No	2			
12	75mm Cast iron to PVC flange adaptor drilled to table including connecting bolts, gaskets, etc.	No	1			
13	75mm Cast iron Hydrant tee drilled to table 10 SABS 1123 including connecting bolts, gaskets, etc.	No	1			
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		Unit	Quantity	Rate	Amount	
	WATER METER AND PIPE FITTINGS					
	80mm Diameter water meter and pipe fittings installation within and around the meter chamber, all in accordance with Engineers Drawing No 34435- CIV-2 - Water Meter & Isolating Valve Detail :					
14	125mm Diameter VJ Flanged adaptor stepped coupling to suit 75mm Municipal main, bolted on.	No	2			
15	110mm Diameter stainless steel Grade 304 equal tee, flanged all ends to SABS 1123 T16.	No	1			
16	438mm Long x 110mm diameter stainless steel Grade 304 extension piece flanged both ends.	No	2			
17	Denzo wrapped pipe protection to 110mm pipe 220mm long through one brick wall.	No	2			
18	100mm Ø Class 16 RSV SABS 664 Gate valve right hand closing with valve cap flanged to SABS 1123 T16.	No	1			
19	100 x 80mm Diameter S/S Grade 304 Eccentric reducer flanged both ends to SABS 1123 T16.	No	2			
20	80mm Diameter Flanged adaptor flanges to SABS 1123 T16.	No	1			
21	640mm Long x 80mm diameter stainless steel Grade 304 extension piece flanged both ends to SABS 1123 T16.	No	1			
22	80mm Diameter bulk water meter 'Helix 4000' or equally approved, with pulse output flanged both ends to SABS 1123 T16.	No	1			
23	235mm Long x 80mm diameter stainless steel Grade 304 extension piece flanged both ends to SABS 1123 T16.	No	1			
24	100mm Diameter cast iron swing type Non-Return Valve.	No	1			
25	110mm Diameter VJ Flanged adaptor to suit 75mm main pipeline, bolted on.	No	1			
26	15Mpa Concrete haunching support under water meter and valves, etc.	No	3			
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		Unit	Quantity	Rate	Amount	
27	Water Meter Chamber/Manhole for water meter and isolating valve, size 2490 x 1340mm wide overall x 1100mm deep, formed of 220mm brick wall sides in 1:3 cement mortar with and including brickforce every second course all round on and including 150mm thick 25/19Mpa concrete base with and including mesh ref 245 placed centrally, rendered internally in 1:5 cement plaster 10mm thick and with 150mm thick 30/19Mpa reinforced concrete surround slab on top including all reinforcing, rebated for and fitted with and including 2 Off Type 1B manhole covers and frames complete with locking devices as per Municipal details, all in accordance with SABS 558, bedded in 1:3 cement mortar and sealed in tallow including all necessary channels and fittings, excavations, filling, formwork, holes through sides for pipes, concrete encasing around pipes through side of manhole, etc. (See 80mm Water Meter Installation Details as per Engineering Standard Details Drawing 34435-CIV-2 - Water Meter & Isolating Valve Chamber Details).	Νο	1			
28	Extra for 200mm Diameter drain to water meter manhole base with 13mm No-fines concrete.	No	1			
	ISOLATION VALVES AND FITTINGS					
	'Valves, etc':					
	Note:					
	All valves shall be coated and lined by means of a powder (sintered) epoxy coating with a dry film thickness of at least 250 micron without holidays.					
	All valves, connecting pipe specials and fittings that show any surface corrosion shall be cleaned and protected to the Engineer's satisfaction.					
	Sluice Valves shall be the resilient seal type water works pattern gate valve able to operate successfully under a maximum unbalanced static pressure of 1.6MPa. The valve body and other components shall comply with SABS 664/665, the valve shall be of the nonrising spindle type with clockwise closing and generally plain ended for installation in uPVC pipe lines.					
	Valves shall all be provided with spindle caps for use with keys unless stated or indicated to the contrary.					
	The valve gate shall be covered with a Nitrile rubber resilient seal. Spindles shall be manufactured from heat treated stainless steel grade 420S29, bonnet and gate shall be manufactured out of Spheroidal Graphite Iron Grade 420/12.					
	All graphite iron and steel surfaces to be epoxy powder coated.					
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		Unit	Quantity	Rate	Amount
	<u>Valves, etc.</u>				
29	50mm Diameter RSV flanged cast iron gate valve Class 16 Right hand closing including installation on concrete support pad, joints, including cutting pipes where necessary.	No	3		
	Valve Chambers, etc.				
30	Valve chambers for Isolating Gate Valves size 810 x 810mm overall not exceeding 1m deep, consisting of SABS 558 Type 3A cast iron valve cover size 100 x 230 x 300mm, on 230mm brick footing on well compacted filling and corbelled 115mm brickwork with mortar, including excavations, backfilling, carting away surplus material, etc (See Isolating Valve Details as per Engineering Standard Details Drawing 34435-CIV-2 - Water Meter & Isolating Valve Chamber Details).	No	3		
	PIPE SLEEVES UNDER ROAD FOR WATER SUPPLY				
	Class 16 mPVC sleeve pipes:				
31	110mm Pipe sleeve, for 75mm pipes, laid in and including trenches not exceeding 2m deep across roads (trenches measured elsewhere under water pipes).	m	6		
	FIRE HYDRANTS, ETC.				
	Fire Hydrants, etc:				
32	80mm Diameter Fire Hydrant complete, including 80 x 65mm Brass right angle shielded spindle fire hydrant Woodlands type valve with cap and chain, 80 x 63mm diameter brass reducer and transition coupler with brass male thread and brass reducer bush to suit fire hydrant, 80mm tapered thread for B.S.P, including 80mm diameter galvanised pipework approximately 1500mm high with 80mm diameter galvanised long radius bend, approximately 1000mm long 80mm diameter pipework in ground Denso wrapped and fitted to main pipeline with hydrant tee (elsewhere measured), fitted to or encased in concrete hydrant pedestal (elsewhere measured), all as per SABS 1128-2/SANS 1128-2 (See Fire Hydrant Details as per Engineering Standard Details Drawing 34435-DET-1 - Fire Hydrant).	No	1		
33	Extra for supplying hydrant keys to suit.	No	3		
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		Unit	Quantity	Rate	Amount	
	Fire hydrant pedestals:					
34	Reinforced concrete 25Mpa/19mm hydrant pedestal 700mm high above ground, cast around vertical 80mm diameter galvanised water pipe with bottom 1000mm minimum below ground level, 440 x 440mm square at base and tapering to octagonal shaped top 240 x 240mm overall including all necessary excavation, smooth off shutter formwork, concrete, 4 x Y12 reinforcing bars vertically, finished smooth off shutter and painted two coats of approved golden yellow B.S.S. 356 paint to exposed surfaces (See Fire Hydrant Details as per Engineering Standard Details Drawing 34435-DET-1 - Fire Hydrant).	No	1			
	SUNDRIES					
35	Sundries: Extra over excavation in earth for pipe trenches,					
00	manholes, etc for excavation in soft rock.	m³	4			
36	Extra over excavation in earth for pipe trenches, manholes, etc for excavation in hard rock.	m³	2			
37	Extra over backfilling to drain pipe trenches, manholes, etc for selected approved imported earth backfilling, supplied by the Contractor.	m³	6			
38	Extra over excavation for pipe trenches, manholes, etc for carting away surplus material (where imported filling used) to a dumping site to be located by the Contractor.	m³	6			
39	Standard 200 x 200 x 40mm Thick 25/13Mpa precast concrete pipeline route markers complete with 150 x 150mm recessed section for and including 35 x 50mm High pipeline lable lettering, marker set level in ground, to route of underground pipes, including all excavations, backfilling, carting away, etc. and painted above ground with one coat primer and two coats enamel based paint once erected (See Pipeline Marker Set in Concrete Surface Details as per Engineering Standard Details Drawing 34435-CIV-2 - Water Meter & Isolating Valve Chamber Details).	No	10			
40	Supply of valve key with 1200mm extension.	No	3			
41	15Mpa Concrete encasement to pipes or thrustblocks including formwork, etc.	m³	1			
42	Locating, exposing and cutting into existing 75mm class 19 uPVC water reticulation main line and connecting new 75mm uPVC pipe line including making good, etc.	ltem				
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		Unit	Quantity	Rate	Amount	
	TECTING					
	TESTING					
	Testing:					
43	Testing complete water and fire pipe line systems.	Item				
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2       ROADWORKS AND PARKING AREAS       153         3       STORMWATER DRAINAGE       159         4       SOIL DRAINAGE AND SEWER RETICULATION       165         5       WATER AND FIRE RETICULATION       175          WATER AND FIRE RETICULATION       175		SITE CLEABANCE AND BUILK EABTHWOBKS			
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# **SECTION 4**

## ELECTRICAL WORKS (PROVISIONAL)

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	Unit	Quantity	Rate	Amount
<u>SECTION NO. 4</u> <u>ELECTRICAL WORKS (PROVISIONAL)</u> <u>BILL NO. 1</u> <u>LV DISTRIBUTION BOARDS</u>				
PREAMBLES				
For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371-A" which shall be read in conjuction with and shall apply to all items in these Bills of Quantities.				
SUPPLEMENTARY PREAMBLES				
The Specification for Comprehensive Services Incorporating Electrical Installations document attached under the Drawings and Specifications Section of these Bills of Quantities covers the complete Electrical Installation for the project and forms the total scope of work under the Electrical Contract. It shall be used in conjunction with the Standard Electrical Specification which has the following Sections:				
Section A: Preamble to Standard Specifications				
Section B: Installation Specifications				
Section C: Quality Specification from the Department of Public Works for Materials and Equipment of Electrical Installations.				
The following bill of quantities must be read in conjunction with the foregoing specifications as well as the attached Electrical Engineer's drawings and Specifications. Contractors attention is specifically drawn to the guarantee against defects, servicing and maintenance period and the testing and commissioning clauses, which is applicable to the whole installation. The contractor has to allow for these costs in his/her unit rates.				
Although shortened descriptions had been used in this bill, the Contractor must carefully read the specifications to acquint themselves with the full description and specifications of the equipment.				
Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items,materials or methods of similar quality may be used with prior approval from the Architect/Engineer.				
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Compliance, Preliminaries, etc.					
The Electrical Contractor responsible for the works is to note that the works will be done as a Domestic sub- contract to the Main Contractor. There is no separate preliminaries and compliance Bill for the sub-contractor and the Electrical Sub-Contractor is therefore to make provision in their tendered rates for all necessary Preliminaries and Compliance items applicable to this scope of works, including but not limited to :					
1) Provision of a Sub-Contract Construction Guarantee					
<ol> <li>Provision of an Advanced Payment Guarantee for materials on/off site</li> </ol>					
3) Provision of Contract Works, Special, Supplementary, Public Liability Insurances, etc.					
<ol> <li>Allowance for compliance with Construction Regulations, OH&amp;S Specification &amp; Act</li> </ol>					
5) Allowance for compliance with Construction Regulations - Construction Environment Management Plan					
<ol> <li>Allow for Warranty of the Sub-contract works for defects liability period</li> </ol>					
7) Allow for servicing & routine maintenance of Sub- contract works for defects liability period					
8) Allow for provision of all applicable Test Certificates and/or Compliance Certificates					
9) Other contractual items not listed above					
10) Project Supervision					
11) Project Administration					
12) Other Overheads (Travel, Accommodation)					
13) Provision of Programme for sub-contract works					
14) Completion of necessary commencement, compliance and completion forms					
15) Providing a 'Master Installation Electrician' for overseeing electrical installations					
<ol> <li>Provision of all necessary forms of access, ie scaffolding, cherry pickers, etc.</li> </ol>					
17) Carrying out all testing of the complete sub-contract works and commissioning thereof					
18) Training of Clients representative at practical completion					
19) Training of Clients representative at end of defects liability period					
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	<ul> <li>20) 2 Year Service during Guarantee period</li> <li>21) Provision of record drawings</li> <li>22) Provision of operating and maintenance manuals</li> <li>LV DISTRIBUTION BOARDS</li> <li>The supply, installation and commissioning of distribution boards, complete, in accordance with SANS 10142, as specified &amp; as per the attached drawings and to standard specifications, with sheetmetal tray, frames and sub-frames, and including all busbars, switchgear, circuit breakers, legend card, fuses, relay, volt-meter, ammeter,</li> </ul>					
1	transformer, earth leakage unit, time switch, etc. and including all transport to site, safe storage, minor consumables, etc. Distribution board DB-0.1 40A Three Phase as shown on					
	Drawing No. D34335.00-312-01. LABELLING OF CIRCUITS AND DISTRIBUTION BOARDS	No	1			
	Marking and Engraved Labelling of Circuits and Distribution Boards					
2	Distribution boards shall be properly labelled and marked as indicated in the drawings and outlined in the specifications. Cables (Marked and Labelled on the Exit and Entry Point of Kiosks, MDBs and SDBs with PVC Markers).	Item				
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Lv Distribution Boards				
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SECTION NO. 4 ELECTRICAL WORKS (PROVISIONAL) BILL NO. 2 MAINS CABLES & SUBMAINS WIRING					
PREAMBLES					
For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371-A" which shall be read in conjuction with and shall apply to all items in these Bills of Quantities.					
SUPPLEMENTARY PREAMBLES					
The Specification for Comprehensive Services Incorporating Electrical Installations document attached under the Drawings and Specifications Section of these Bills of Quantities covers the complete Electrical Installation for the project and forms the total scope of work under the Electrical Contract. It shall be used in conjunction with the Standard Electrical Specification which has the following Sections:					
Section A: Preamble to Standard Specifications					
Section B: Installation Specifications					
Section C: Quality Specification from the Department of Public Works for Materials and Equipment of Electrical Installations.					
The following bill of quantities must be read in conjunction with the foregoing specifications as well as the attached Electrical Engineer's drawings and Specifications. Contractors attention is specifically drawn to the guarantee against defects, servicing and maintenance period and the testing and commissioning clauses, which is applicable to the whole installation. The contractor has to allow for these costs in his/her unit rates.					
Although shortened descriptions had been used in this bill, the Contractor must carefully read the specifications to acquint themselves with the full description and specifications of the equipment.					
Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items,materials or methods of similar quality may be used with prior approval from the Architect/Engineer.					
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Compliance, Preliminaries, etc.					
The Electrical Contractor responsible for the works is to note that the works will be done as a Domestic sub- contract to the Main Contractor. There is no separate preliminaries and compliance Bill for the sub-contractor and the Electrical Sub-Contractor is therefore to make provision in their tendered rates for all necessary Preliminaries and Compliance items applicable to this scope of works, including but not limited to :					
1) Provision of a Sub-Contract Construction Guarantee					
<ol><li>Provision of an Advanced Payment Guarantee for materials on/off site</li></ol>					
<ol> <li>Provision of Contract Works, Special, Supplementary, Public Liability Insurances, etc.</li> </ol>					
<ol> <li>Allowance for compliance with Construction Regulations, OH&amp;S Specification &amp; Act</li> </ol>					
5) Allowance for compliance with Construction Regulations - Construction Environment Management Plan					
<ol> <li>Allow for Warranty of the Sub-contract works for defects liability period</li> </ol>					
7) Allow for servicing & routine maintenance of Sub- contract works for defects liability period					
8) Allow for provision of all applicable Test Certificates and/or Compliance Certificates					
9) Other contractual items not listed above					
10) Project Supervision					
11) Project Administration					
12) Other Overheads (Travel, Accommodation)					
13) Provision of Programme for sub-contract works					
14) Completion of necessary commencement, compliance and completion forms					
15) Providing a 'Master Installation Electrician' for overseeing electrical installations					
16) Provision of all necessary forms of access, ie scaffolding, cherry pickers, etc.					
17) Carrying out all testing of the complete sub-contract works and commissioning thereof					
18) Training of Clients representative at practical completion					
19) Training of Clients representative at end of defects liability period					
Carried to Collection			R		
Section No. 4					
Bill No. 2					
Mains Cables & Submains Wiring					
182					

					SCMU8-22/23	-006
		Unit	Quantity	Rate	Amount	
	20) 2 Year Service during Guarantee period					
	21) Provision of record drawings					
	22) Provision of operating and maintenance manuals					
	MAINS CABLES & SUB-MAINS WIRING					
	PVC PVC SWA PVC CABLES					
	The supply and Installation of cables, drawn through					
	horizontal ducting, cable sleeves in trenches (sleeves and trenches elsewhere measured) or laid on cable tray racks and fixed at 1,5m centres (cable					
	racks measured elsewhere).					
1	Supply and install 4mm ² 1-Phase 2-Core + ECC SWA CU cable compatible with SANS 1507-3.	m	45			
2	Supply and install $6$ mm ² 1-Phase 2-Core + ECC SWA CU cable compatible with SANS 1507-3.	m	231			
3	Supply and install 10mm ² 3-Phase 4-Core + ECC SWA CU cable compatible with SANS 1507-3.	m	110			
	CABLE TERMINATIONS					
	Termination and connection of cables :					
4	Supply and install cable terminations set for 6mm ² 3					
	Core Cu cable.	No	8			
5	Supply and install cable terminations set for 10mm ² 5 Core Cu cable.	No	2			
	CABLE TRAYS					
	Supply and Installation of galvanised perforated heavy duty cable tray complete, including short lengths and fixed in ducts, complete with fixing brackets, droppers, bends, tee pieces, and all other ancillary accessories.					
6	50mm Wide light duty cable tray.	m	22			
	CABLE SLEEVES					
7	Supply and install M110 PVC Sleeves for DB's	m	110			
,						
0	TRENCHING AND CHASING		70			
8	Chasing 50mm wide x 40mm deep, and make good.	m	76			
9	Trenching for Power M110 PVC- 100mm wide x 500mm deep, including bedding soil and backfill, carting away,					
	etc.	m	110			
10	Supply and install 600mm x 600mm electrical manhole, complete.	No	4			
	Carried to Collection			R		
	Section No. 4					
	Bill No. 2					
	Mains Cables & Submains Wiring 183					
ļ	183					

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			Amount	
BILL NO. 2				
MAINS CABLES & SUBMAINS WIRING				
COLLECTION				
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	Durable Francisk (see David	101		
	Brought Forward from Page	181		
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	ction Summary	R		<u> </u>
Section No. 4				
Bill No. 2				
Mains Cables & Submains Wiring				
-	184			
		1 I	1	1

	Unit	Quantity	Rate	Amount	
<u>SECTION NO. 4</u> ELECTRICAL WORKS (PROVISIONAL) BILL NO. 3 GENERAL LIGHTING					
PREAMBLES					1
For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371-A" which shall be read in conjuction with and shall apply to all items in these Bills of Quantities.					
SUPPLEMENTARY PREAMBLES					I
The Specification for Comprehensive Services Incorporating Electrical Installations document attached under the Drawings and Specifications Section of these Bills of Quantities covers the complete Electrical Installation for the project and forms the total scope of work under the Electrical Contract. It shall be used in conjunction with the Standard Electrical Specification which has the following Sections:					
Section A: Preamble to Standard Specifications					I
Section B: Installation Specifications					I
Section C: Quality Specification from the Department of Public Works for Materials and Equipment of Electrical Installations.					
The following bill of quantities must be read in conjunction with the foregoing specifications as well as the attached Electrical Engineer's drawings and Specifications. Contractors attention is specifically drawn to the guarantee against defects, servicing and maintenance period and the testing and commissioning clauses, which is applicable to the whole installation. The contractor has to allow for these costs in his/her unit rates.					
Although shortened descriptions had been used in this bill, the Contractor must carefully read the specifications to acquint themselves with the full description and specifications of the equipment.					
Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items,materials or methods of similar quality may be used with prior approval from the Architect/Engineer.					
Carried to Collection			R		
Section No. 4 Bill No. 3 General Lighting					
185					ı

	1	1		SCMU8-22/23-	006
	Unit	Quantity	Rate	Amount	
Compliance, Preliminaries, etc.					
The Electrical Contractor responsible for the works is to note that the works will be done as a Domestic sub- contract to the Main Contractor. There is no separate preliminaries and compliance Bill for the sub-contractor and the Electrical Sub-Contractor is therefore to make provision in their tendered rates for all necessary Preliminaries and Compliance items applicable to this scope of works, including but not limited to :					
1) Provision of a Sub-Contract Construction Guarantee					
<ol> <li>Provision of an Advanced Payment Guarantee for materials on/off site</li> </ol>					
<ol> <li>Provision of Contract Works, Special, Supplementary, Public Liability Insurances, etc.</li> </ol>					
<ol> <li>Allowance for compliance with Construction Regulations, OH&amp;S Specification &amp; Act</li> </ol>					
5) Allowance for compliance with Construction Regulations - Construction Environment Management Plan					
<ol><li>Allow for Warranty of the Sub-contract works for defects liability period</li></ol>					
<ol> <li>Allow for servicing &amp; routine maintenance of Sub- contract works for defects liability period</li> </ol>					
8) Allow for provision of all applicable Test Certificates and/or Compliance Certificates					
9) Other contractual items not listed above					
10) Project Supervision					
11) Project Administration					
12) Other Overheads (Travel, Accommodation)					
13) Provision of Programme for sub-contract works					
<ol> <li>Completion of necessary commencement, compliance and completion forms</li> </ol>					
15) Providing a 'Master Installation Electrician' for overseeing electrical installations					
<ol> <li>Provision of all necessary forms of access, ie scaffolding, cherry pickers, etc.</li> </ol>					
17) Carrying out all testing of the complete sub-contract works and commissioning thereof					
18) Training of Clients representative at practical completion					
19) Training of Clients representative at end of defects liability period					
Carried to Collection			R		
Section No. 4					
Bill No. 3					
General Lighting					
186					

1				1	SCMU8-22/23-	0063
		Unit	Quantity	Rate	Amount	
	20) 2 Year Service during Guarantee period					
	21) Provision of record drawings					
	22) Provision of operating and maintenance manuals					
	GENERAL LIGHTING					
	CONDUITS, ETC.					
	Supply and Installation of M20 PVC conduits					
	including cutting, draw boxes and fixing materials cast in concrete, on surface, in roof space, built into brickwork, dry walls, fitted to trusses, etc. All conduit and accessories to be M20 PVC.					
1	M20 PVC conduit complete with elbows, juction boxes, clamps and fittings.	m	661			
	<u>CONDUCTORS</u>					
	Supply and Installation of PVC insulated single core stranded copper conductors drawn into conduits :					
2	2,5mm2 GP wire.	m	1 888			
	LIGHT SWITCHES, EQUIPMENT AND CONTROL GEAR					
	Supply and installation of equipment and control gear :					
3	1-lever 1-way switch, 100x50mm with cover plate, white	No	6			
4	3-lever 1-way switch, 100x50mm with cover plate, white	No	1			
5	2-lever 2way switch, 100x50mm with cover plate, white	No	2			
6	DALI dimmer switch, 100x50mm with cover plate, white	No	6			
7	5A plugs for light fitting	No	30			
8	4x2 PVC boxes complete with fittings	No	9			
9	Supply and installation of Daylight photo sensors, for the control of outdoor lighting circuits. Switch LS10C Photo sensor-10A, IP56, or similar.	No	3			
10	Supply and installation of Passive infrared Occupancy sensors complete with power packs and auxiliary relays, for control of lighting circuits	No	5			
11	Powdercoated Galvanised Steel pole 114/76mm with spigot	No	5			
12	3m 3 Phase Track Black	No	2			
13	2m 3 Phase Track Black	No	1			
	Carried to Collection			R		
	Section No. 4 Bill No. 3					
	General Lighting					
	187					
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		Unit	Quantity	Rate	Amount	-0083
14	3 Phase End Live End Cap Black	No	1			
15	3 Phase Live End Straight Joint Black	No	1			
16	3 Phase Mini Straight Joint Black	No	1			
	TESTING AND COMMISSIONING					
17	Testing and Commissioning of Lighting Installation	Item				
	Carried to Collection Section No. 4			R		
	Bill No. 3					
	General Lighting					
	188					

			SCMU8-22/23-0063
			Amount
BILL NO. 3			
<b>GENERAL LIGHTING</b>			
<b>COLLECTION</b>			
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	Carried To Section Summary	R	
Section No. 4	· · · · · · · · · · · · · · · · · · ·		
Bill No. 3			
General Lighting			
	189		

	Unit	Quantity	Rate	Amount
<u>SECTION NO. 4</u> <u>ELECTRICAL WORKS (PROVISIONAL)</u> <u>BILL NO. 4</u> <u>LUMINAIRES</u>				
PREAMBLES				
For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371-A" which shall be read in conjuction with and shall apply to all items in these Bills of Quantities.				
SUPPLEMENTARY PREAMBLES				
The Specification for Comprehensive Services Incorporating Electrical Installations document attached under the Drawings and Specifications Section of these Bills of Quantities covers the complete Electrical Installation for the project and forms the total scope of work under the Electrical Contract. It shall be used in conjunction with the Standard Electrical Specification which has the following Sections:				
Section A: Preamble to Standard Specifications				
Section B: Installation Specifications				
Section C: Quality Specification from the Department of Public Works for Materials and Equipment of Electrical Installations.				
The following bill of quantities must be read in conjunction with the foregoing specifications as well as the attached Electrical Engineer's drawings and Specifications. Contractors attention is specifically drawn to the guarantee against defects, servicing and maintenance period and the testing and commissioning clauses, which is applicable to the whole installation. The contractor has to allow for these costs in his/her unit rates.				
Although shortened descriptions had been used in this bill, the Contractor must carefully read the specifications to acquint themselves with the full description and specifications of the equipment.				
Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items,materials or methods of similar quality may be used with prior approval from the Architect/Engineer.				
Carried to Collection			R	
Section No. 4 Bill No. 4 Luminaires				
190				

	1			SCMU8-22/23-	-006
	Unit	Quantity	Rate	Amount	
Compliance, Preliminaries, etc.					
The Electrical Contractor responsible for the works is to note that the works will be done as a Domestic sub- contract to the Main Contractor. There is no separate preliminaries and compliance Bill for the sub-contractor and the Electrical Sub-Contractor is therefore to make provision in their tendered rates for all necessary Preliminaries and Compliance items applicable to this scope of works, including but not limited to :					
1) Provision of a Sub-Contract Construction Guarantee					
<ol> <li>Provision of an Advanced Payment Guarantee for materials on/off site</li> </ol>					
3) Provision of Contract Works, Special, Supplementary, Public Liability Insurances, etc.					
<ol> <li>Allowance for compliance with Construction Regulations, OH&amp;S Specification &amp; Act</li> </ol>					
5) Allowance for compliance with Construction Regulations - Construction Environment Management Plan					
<ol><li>Allow for Warranty of the Sub-contract works for defects liability period</li></ol>					
7) Allow for servicing & routine maintenance of Sub- contract works for defects liability period					
8) Allow for provision of all applicable Test Certificates and/or Compliance Certificates					
9) Other contractual items not listed above					
10) Project Supervision					
11) Project Administration					
12) Other Overheads (Travel, Accommodation)					
13) Provision of Programme for sub-contract works					
14) Completion of necessary commencement, compliance and completion forms					
15) Providing a 'Master Installation Electrician' for overseeing electrical installations					
16) Provision of all necessary forms of access, ie scaffolding, cherry pickers, etc.					
17) Carrying out all testing of the complete sub-contract works and commissioning thereof					
18) Training of Clients representative at practical completion					
19) Training of Clients representative at end of defects liability period					
Carried to Collection			R		
Section No. 4					
Bill No. 4					
Luminaires					
191					

1			1		SCMU8-22/23	-006
		Unit	Quantity	Rate	Amount	
	20) 2 Year Service during Guarantee period					
	21) Provision of record drawings					
	22) Provision of operating and maintenance manuals					
	LUMINAIRES, ETC.					
	Supply, take delivery, unpack, test fittings, including installation, materials, connections, fluorescent and incandescent lamps, complete as indicated on the drawings & in accordance with the attached detailed specifications.					
1	Type A (12W LED Bulkhead)	No	52			
2	Type B (32W LED Spot Light)	No	4			
3	Type C (58W LED Pendant)	No	6			
4	Type D (35W 1150mm LED Linear)	No	12			
5	Type E (24W 800mm LED Façade)	No	1			
6	Type F (55W 1500mm LED Linear recessed)	No	60			
7	Type F (55W 1500mm LED Linear suspended)	No	8			
8	Type G (4W LED Wall Mounted)	No	11			
9	Type H (5.3W LED Downlighter IP65)	No	2			
10	Type I (18W LED Wall Mounted)	No	4			
11	Type J (50W LED Pole Mounted)	No	5			
	Carried to Collection Section No. 4 Bill No. 4 Luminaires 192			R		
	132				I	I

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<u>BILL NO. 4</u> LUMINAIRES COLLECTION			Amount	
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Section No. 4	Carried To Section Summary	R		
Bill No. 4 Luminaires	193			

	Unit	Quantity	Rate	Amount	.0
<u>SECTION NO. 4</u> <u>ELECTRICAL WORKS (PROVISIONAL)</u> <u>BILL NO. 5</u> <u>POWER</u>					
PREAMBLES					
For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371-A" which shall be read in conjuction with and shall apply to all items in these Bills of Quantities.					
SUPPLEMENTARY PREAMBLES					
The Specification for Comprehensive Services Incorporating Electrical Installations document attached under the Drawings and Specifications Section of these Bills of Quantities covers the complete Electrical Installation for the project and forms the total scope of work under the Electrical Contract. It shall be used in conjunction with the Standard Electrical Specification which has the following Sections:					
Section A: Preamble to Standard Specifications					
Section B: Installation Specifications					
Section C: Quality Specification from the Department of Public Works for Materials and Equipment of Electrical Installations.					
The following bill of quantities must be read in conjunction with the foregoing specifications as well as the attached Electrical Engineer's drawings and Specifications. Contractors attention is specifically drawn to the guarantee against defects, servicing and maintenance period and the testing and commissioning clauses, which is applicable to the whole installation. The contractor has to allow for these costs in his/her unit rates.					
Although shortened descriptions had been used in this bill, the Contractor must carefully read the specifications to acquint themselves with the full description and specifications of the equipment.					
Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items,materials or methods of similar quality may be used with prior approval from the Architect/Engineer.					
Carried to Collection			R		
Section No. 4 Bill No. 5 Power					
194					

	I	. · ·		SCMU8-22/23-	006
	Unit	Quantity	Rate	Amount	
Compliance, Preliminaries, etc.					
The Electrical Contractor responsible for the works is to note that the works will be done as a Domestic sub- contract to the Main Contractor. There is no separate preliminaries and compliance Bill for the sub-contractor and the Electrical Sub-Contractor is therefore to make provision in their tendered rates for all necessary Preliminaries and Compliance items applicable to this scope of works, including but not limited to :					
1) Provision of a Sub-Contract Construction Guarantee					
<ol> <li>Provision of an Advanced Payment Guarantee for materials on/off site</li> </ol>					
<ol> <li>Provision of Contract Works, Special, Supplementary, Public Liability Insurances, etc.</li> </ol>					
<ol> <li>Allowance for compliance with Construction Regulations, OH&amp;S Specification &amp; Act</li> </ol>					
5) Allowance for compliance with Construction Regulations - Construction Environment Management Plan					
<ol><li>Allow for Warranty of the Sub-contract works for defects liability period</li></ol>					
7) Allow for servicing & routine maintenance of Sub- contract works for defects liability period					
8) Allow for provision of all applicable Test Certificates and/or Compliance Certificates					
9) Other contractual items not listed above					
10) Project Supervision					
11) Project Administration					
12) Other Overheads (Travel, Accommodation)					
13) Provision of Programme for sub-contract works					
14) Completion of necessary commencement, compliance and completion forms					
15) Providing a 'Master Installation Electrician' for overseeing electrical installations					
16) Provision of all necessary forms of access, ie scaffolding, cherry pickers, etc.					
17) Carrying out all testing of the complete sub-contract works and commissioning thereof					
18) Training of Clients representative at practical completion					
19) Training of Clients representative at end of defects liability period					
Carried to Collection			R		
Section No. 4					
Bill No. 5					
Power 105					
195					

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		Unit	Quantity	Rate	Amount	
	20) 2 Year Service during Guarantee period					
	21) Provision of record drawings					
	22) Provision of operating and maintenance manuals					
	POWER, ETC.					
	CONDUITS, ETC.					
	Supply and Installation of M25 PVC conduits including cutting, draw boxes and fixing materials cast in concrete, on surface, in roof space, built into brickwork, dry walls, fitted to trusses, etc. All conduit and accessories to be M25 PVC.					
1	M25 PVC conduit complete with elbows, juction boxes, clamps and fittings.	m	285			
	CONDUCTORS, ETC.					
	Supply and Installation of PVC insulated single core stranded copper conductors drawn into conduits :					
2	4mm2 GP wire.	m	1 180			
	EQUIPMENT AND CONTROL					
	The supply and installation of Equipment and Controls :					
3	SSO, 16A switchable 3-pin outlet with cover plate, white (flush mounted)	No	2			
4	DSO, 16A switchable 3-pin plus euro socket outlet with cover plate, white (flush mounted)	No	20			
5	DSO, 16A switchable 3-pin plus euro socket outlet with cover plate, white (flush mounted) - weatherproof	No	2			
6	10A Single phase Isolator	No	2			
7	20A Single phase Isolator	No	2			
8	4x4 PVC boxes complete with fittings	No	20			
	TESTING AND COMMISSIONING					
9	Testing and Commissioning of Small Power Installation	Item				
				-		
	Carried to Collection Section No. 4			R		
	Bill No. 5					
	Power					
	196					

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			Amount	
BILL NO. 5				
POWER				
COLLECTION				
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	Carried To Section Summary	R		
Section No. 4				
Bill No. 5				
Power				
	197			

	Unit	Quantity	Rate	Amount	
<u>SECTION NO. 4</u> ELECTRICAL WORKS (PROVISIONAL) BILL NO. 6 LIGHTNING PROTECTION					
PREAMBLES					
For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371-A" which shall be read in conjuction with and shall apply to all items in these Bills of Quantities.					
SUPPLEMENTARY PREAMBLES					
The Specification for Comprehensive Services Incorporating Electrical Installations document attached under the Drawings and Specifications Section of these Bills of Quantities covers the complete Electrical Installation for the project and forms the total scope of work under the Electrical Contract. It shall be used in conjunction with the Standard Electrical Specification which has the following Sections:					
Section A: Preamble to Standard Specifications					
Section B: Installation Specifications					
Section C: Quality Specification from the Department of Public Works for Materials and Equipment of Electrical Installations.					
The following bill of quantities must be read in conjunction with the foregoing specifications as well as the attached Electrical Engineer's drawings and Specifications. Contractors attention is specifically drawn to the guarantee against defects, servicing and maintenance period and the testing and commissioning clauses, which is applicable to the whole installation. The contractor has to allow for these costs in his/her unit rates.					
Although shortened descriptions had been used in this bill, the Contractor must carefully read the specifications to acqaint themselves with the full description and specifications of the equipment.					
Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items,materials or methods of similar quality may be used with prior approval from the Architect/Engineer.					
Carried to Collection			В		
Section No. 4 Bill No. 6 Lightning Protection					
198					

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	Unit	Quantity	Rate	Amount	
Compliance, Preliminaries, etc.					
The Electrical Contractor responsible for the works is to note that the works will be done as a Domestic sub- contract to the Main Contractor. There is no separate preliminaries and compliance Bill for the sub-contractor and the Electrical Sub-Contractor is therefore to make provision in their tendered rates for all necessary Preliminaries and Compliance items applicable to this scope of works, including but not limited to :					
1) Provision of a Sub-Contract Construction Guarantee					
2) Provision of an Advanced Payment Guarantee for materials on/off site					
3) Provision of Contract Works, Special, Supplementary, Public Liability Insurances, etc.					
<ol> <li>Allowance for compliance with Construction Regulations, OH&amp;S Specification &amp; Act</li> </ol>					
5) Allowance for compliance with Construction Regulations - Construction Environment Management Plan					
6) Allow for Warranty of the Sub-contract works for defects liability period					
<ol> <li>Allow for servicing &amp; routine maintenance of Sub- contract works for defects liability period</li> </ol>					
8) Allow for provision of all applicable Test Certificates and/or Compliance Certificates					
9) Other contractual items not listed above					
10) Project Supervision					
11) Project Administration					
12) Other Overheads (Travel, Accommodation)					
13) Provision of Programme for sub-contract works					
14) Completion of necessary commencement, compliance and completion forms					
15) Providing a 'Master Installation Electrician' for overseeing electrical installations					
16) Provision of all necessary forms of access, ie scaffolding, cherry pickers, etc.					
17) Carrying out all testing of the complete sub-contract works and commissioning thereof					
18) Training of Clients representative at practical completion					
19) Training of Clients representative at end of defects liability period					
Carried to Collection			R		
Section No. 4					·
Bill No. 6					
Lightning Protection					
199					

					SCMU8-22/23	3-006
		Unit	Quantity	Rate	Amount	
	20) 2 Year Service during Guarantee period					
	21) Provision of record drawings					
	22) Provision of operating and maintenance manuals					
	LIGHTNING PROTECTION, ETC.					
	Note: The following bill of quantities must be read in conjunction with the foregoing specifications as well as the attached Electrical Engineer's drawings and Specifications.					
	Down conductors are not to be installed inside the gutters.					
	Lightning Protection System earthing must be bonded to the fixed electrical installation.					
	Lightning Protection System to SANS Code of Practice 10313 as amended used in conjunction with SANS 62305 and all other applicable standards. The Contractor to employ a lightning protection specialist for the complete installation and testing of the system for building and lighting structures, complete, as per the items measured in this bill of quantities and in accordance with the attached detailed specification.					
1	Bonding Points	No	9			
2	Earth Test Points	No	9			
3	10mm2 Insulated Aluminium down conductor	m	78			
4	50mm2 BCEW cable	m	137			
5	10mm2 Bare Aluminium conductor	m	156			
6	1.5m Long Copper Earth Rods	No	42			
7	Excavate for 300mm wide x 600mm deep trenching, including backfilling, carting away, etc.	m	137			
	SUNDRIES					
	Testing & Installation Safety Report :					
8	Testing of complete installation in terms of the regulations.	Item				
9	Provide Safety Report.	Item				
10	Provide 'As-built' drawings & documentation.	Item				
	Carried to Collection			R		
	Section No. 4					
	Bill No. 6					
	Lightning Protection 200					

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			Amount	
BILL NO. 6				
LIGHTNING PROTECTION				
COLLECTION				
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Section No. 4				
Bill No. 6				
Lightning Protection	004			
1	201			

	Unit	Quantity	Rate	Amount	
<u>SECTION NO. 4</u> <u>ELECTRICAL WORKS (PROVISIONAL)</u> <u>BILL NO. 7</u> <u>FIRE DETECTION</u>					
PREAMBLES					
For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371-A" which shall be read in conjuction with and shall apply to all items in these Bills of Quantities.					
SUPPLEMENTARY PREAMBLES					
The Specification for Comprehensive Services Incorporating Electrical Installations document attached under the Drawings and Specifications Section of these Bills of Quantities covers the complete Electrical Installation for the project and forms the total scope of work under the Electrical Contract. It shall be used in conjunction with the Standard Electrical Specification which has the following Sections:					
Section A: Preamble to Standard Specifications					
Section B: Installation Specifications					
Section C: Quality Specification from the Department of Public Works for Materials and Equipment of Electrical Installations.					
The following bill of quantities must be read in conjunction with the foregoing specifications as well as the attached Electrical Engineer's drawings and Specifications. Contractors attention is specifically drawn to the guarantee against defects, servicing and maintenance period and the testing and commissioning clauses, which is applicable to the whole installation. The contractor has to allow for these costs in his/her unit rates.					
Although shortened descriptions had been used in this bill, the Contractor must carefully read the specifications to acqaint themselves with the full description and specifications of the equipment.					
Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items,materials or methods of similar quality may be used with prior approval from the Architect/Engineer.					
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Carried to Collection			В		
Section No. 4 Bill No. 7 Fire Detection					
202					

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	Unit	Quantity	Rate	Amount	
Compliance, Preliminaries, etc.					
The Electrical Contractor responsible for the works is to note that the works will be done as a Domestic sub- contract to the Main Contractor. There is no separate preliminaries and compliance Bill for the sub-contractor and the Electrical Sub-Contractor is therefore to make provision in their tendered rates for all necessary Preliminaries and Compliance items applicable to this scope of works, including but not limited to :					
1) Provision of a Sub-Contract Construction Guarantee					
<ol> <li>Provision of an Advanced Payment Guarantee for materials on/off site</li> </ol>					
<ol> <li>Provision of Contract Works, Special, Supplementary, Public Liability Insurances, etc.</li> </ol>					
<ol> <li>Allowance for compliance with Construction Regulations, OH&amp;S Specification &amp; Act</li> </ol>					
5) Allowance for compliance with Construction Regulations - Construction Environment Management Plan					
<ol><li>Allow for Warranty of the Sub-contract works for defects liability period</li></ol>					
<ol> <li>Allow for servicing &amp; routine maintenance of Sub- contract works for defects liability period</li> </ol>					
8) Allow for provision of all applicable Test Certificates and/or Compliance Certificates					
9) Other contractual items not listed above					
10) Project Supervision					
11) Project Administration					
12) Other Overheads (Travel, Accommodation)					
13) Provision of Programme for sub-contract works					
<ol> <li>Completion of necessary commencement, compliance and completion forms</li> </ol>					
15) Providing a 'Master Installation Electrician' for overseeing electrical installations					
<ol> <li>Provision of all necessary forms of access, ie scaffolding, cherry pickers, etc.</li> </ol>					
17) Carrying out all testing of the complete sub-contract works and commissioning thereof					
18) Training of Clients representative at practical completion					
19) Training of Clients representative at end of defects liability period					
Carried to Collection			R		
Section No. 4					$\square$
Bill No. 7					
Fire Detection					
203					

					SCMU8-22/23-	006
		Unit	Quantity	Rate	Amount	
	<ul><li>20) 2 Year Service during Guarantee period</li><li>21) Provision of record drawings</li></ul>					
	22) Provision of operating and maintenance manuals					
	FIRE DETECTION					
	PRELIMINARY AND GENERAL					
1	Preliminary and General					
	a) Registration as Contractor					
	b) Insurance	Item				
	SITE SUPERVISION					
2	Site Supervision					
	a) Site Supervision by an accredited person					
	b) Quality Assurance	Item				
	TEST AND COMMISSION					
3	Test and Commission					
	Provision of calibrated test equipment, and Certificate of Compliance (Electronic Work). Including testing with NSCR and recording references.	Item				
	SOFTWARE					
4	Software					
	As builts to have Installation, Operating and Owner's manuals supplied. Mimic layout, zone allocation, asset register, test ref's and report supplied. All to be on software equal to manuals produced.	Item				
	MANUALS AND DRAWINGS					
5	Manuals and Drawings					
	Manuals - Operating, Installation and Maintenance and Updated drawings of as built to be supplied. This includes the asset register, zone and wring diagrams as well as test refs and test reports.	Item				
	TRAINING					
6	Training					
	Training of operator, client, maintenance staff as required.	Item				
	LABELLING AND NUMBERING					
7	Labelling and Numbering					
				_	 	
	Carried to Collection Section No. 4			R		
	Bill No. 7					
	Fire Detection					
	204					

					SCMU8-22/23	3-0063
		Unit	Quantity	Rate	Amount	
	All labelling and numbering to be properly done. Legend updated.	ltem				
	GUARANTEE					
8	Guarantee					
	Guarantee for the next 12 months including quarterly maintenance checks.	Item				
	ELECTRICAL COC					
9	Electrical COC					
	Issuing of an electrical COC for all electrical work done	Item				
	FIRE DETECTION EQUIPMENT					
	Supply and Installation of the following fire detection equipment, complete, all in accordance with Engineers detailed specification and drawings and in strict accordance with manufacturers specifications and instructions.					
10	Aritech FP 1200 series 2 loop panel	No	1			
11	Aritech NE2011 RS485 Network Card	No	1			
	Apollo XP95 series devices or equally approved					
12	Ionization	No	10			
13	Optical	No	5			
14	Multi Criteria	No	1			
15	Detector base	No	16			
16	Input / Output module	No	1			
17	Switch monitor (Single channel)	No	1			
18	Loop Isolator	No	1			
19	Loop Isolator base	No	1			
20	Manual Call point break-glass unit	No	7			
	General pheripheral devices or equally approved					
21	Red Strobe Light 24VDC	No	2			
22	Apollo XP95A Sounder Beacon (Sounder 24VDC 10W)	No	2			
23	Blue Ginger Power Supply 3A 12VDC suitable for harsh environments c/w over voltage protection and spike arrestors.	No	1			
	Carried to Collection			R		
	Section No. 4					
	Bill No. 7 Eiro Detection					
	Fire Detection 205					
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		L			SCMU8-22/23-	006
		Unit	Quantity	Rate	Amount	
24	Logbook holder (see standard fire drawings)	No	1			
	CABLE					
25	PH 120	m	176			
26	Cabtyre (Power Cable) 1,5mm2	m	5			
	Galvanised Conduit & Accessories					
27	25 mm Conduit	m	176			
28	25 mm Copex (PVC covered sprague)	m	5			
	Batteries					
29	Battery - 12 VDC 7,0 AH REMCO deep discharge	No	2			
	Carried to Collection Section No. 4			R	<u> </u>	
	Bill No. 7					
	Fire Detection					
	206					

			SCMU8-22/23-00	
			Amount	
BILL NO. 7				
FIRE DETECTION				
COLLECTION				
		Page No		
	Brought Forward from Page	202		
		203		
		204		
		205		
		206		
		200		
	Carried To Section Summary	R		
Section No. 4	-			
Bill No. 7				
Fire Detection	207			
	207			

	Unit	Quantity	Rate	Amount	
<u>SECTION NO. 4</u> <u>ELECTRICAL WORKS (PROVISIONAL)</u> <u>BILL NO. 8</u> <u>POWER SUPPLY</u>					
PREAMBLES					
For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371-A" which shall be read in conjuction with and shall apply to all items in these Bills of Quantities.					
SUPPLEMENTARY PREAMBLES					
The Specification for Comprehensive Services Incorporating Electrical Installations document attached under the Drawings and Specifications Section of these Bills of Quantities covers the complete Electrical Installation for the project and forms the total scope of work under the Electrical Contract. It shall be used in conjunction with the Standard Electrical Specification which has the following Sections:					
Section A: Preamble to Standard Specifications					
Section B: Installation Specifications					
Section C: Quality Specification from the Department of Public Works for Materials and Equipment of Electrical Installations.					
The following bill of quantities must be read in conjunction with the foregoing specifications as well as the attached Electrical Engineer's drawings and Specifications. Contractors attention is specifically drawn to the guarantee against defects, servicing and maintenance period and the testing and commissioning clauses, which is applicable to the whole installation. The contractor has to allow for these costs in his/her unit rates.					
Although shortened descriptions had been used in this bill, the Contractor must carefully read the specifications to acquint themselves with the full description and specifications of the equipment.					
Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items,materials or methods of similar quality may be used with prior approval from the Architect/Engineer.					
Carried to Collection			R		
Section No. 4 Bill No. 8 Power Supply					
208					

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	Unit	Quantity	Rate	Amount	
Compliance, Preliminaries, etc.					
The Electrical Contractor responsible for the works is to note that the works will be done as a Domestic sub- contract to the Main Contractor. There is no separate preliminaries and compliance Bill for the sub-contractor and the Electrical Sub-Contractor is therefore to make provision in their tendered rates for all necessary Preliminaries and Compliance items applicable to this scope of works, including but not limited to :					
1) Provision of a Sub-Contract Construction Guarantee					
<ol><li>Provision of an Advanced Payment Guarantee for materials on/off site</li></ol>					
<ol> <li>Provision of Contract Works, Special, Supplementary, Public Liability Insurances, etc.</li> </ol>					
<ol> <li>Allowance for compliance with Construction Regulations, OH&amp;S Specification &amp; Act</li> </ol>					
5) Allowance for compliance with Construction Regulations - Construction Environment Management Plan					
<ol><li>Allow for Warranty of the Sub-contract works for defects liability period</li></ol>					
<ol> <li>Allow for servicing &amp; routine maintenance of Sub- contract works for defects liability period</li> </ol>					
8) Allow for provision of all applicable Test Certificates and/or Compliance Certificates					
9) Other contractual items not listed above					
10) Project Supervision					
11) Project Administration					
12) Other Overheads (Travel, Accommodation)					
13) Provision of Programme for sub-contract works					
<ol> <li>Completion of necessary commencement, compliance and completion forms</li> </ol>					
15) Providing a 'Master Installation Electrician' for overseeing electrical installations					
<ol> <li>Provision of all necessary forms of access, ie scaffolding, cherry pickers, etc.</li> </ol>					
17) Carrying out all testing of the complete sub-contract works and commissioning thereof					
18) Training of Clients representative at practical completion					
19) Training of Clients representative at end of defects liability period					
Carried to Collection			R		
Section No. 4					+
Bill No. 8					
Power Supply					
209					

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		Unit	Quantity	Rate	Amount	
	<ul> <li>20) 2 Year Service during Guarantee period</li> <li>21) Provision of record drawings</li> <li>22) Provision of appreciating and maintenance manuals</li> </ul>					
	22) Provision of operating and maintenance manuals <b>POWER SUPPLY</b>					
	The following in Power Supply :					
1	25kVA Three phase transformer	No	1			
2	7kVA Solar Supply	No	1			
3	8600W 1 Phase Hybrid Bi-Directional Solar Inverter Built in MPPT[Goodwe]	No	1			
4	3,5kW HV Li-ion Battery pack [Pylontech]	No	4			
5	BMS FC0500 for HV Battery pack [Pylontech]	No	1			
6	325W PV Panel Solar Black	No	40			
7	DC Fuse; Earth Leakage; Surge Arrestor; Earth Spike	No	1			
8	PV mounting rails + clamps	No	1			
9	PV Connectors; 4mm Black & Red Cable; 10mm Black & Red & Earth Cable ;Cable Clips	No	1			
10	Nuts & Bolts; Isulation tapes etc	No	1			
	TESTING AND COMMISSIONING OF POWER SUPPLY					
	Testing and Commissioning, etc. :					
11	Testing and commissioning of the entire power supply installation, complete.	Item				
12	Provision of three sets of operating and maintenance manuals as required.	Item				
13	Provision of 'As-built' drawings, manuals, etc.	ltem				
	SUNDRIES					
	Sundries :					
14	Comprehensive servicing and maintenance during the 12-month guarantee period.	Item				
15	Workshop drawings and equipment schedule submittals for approval prior to ordering for all units.	Item				
16	Training of staff on correct operation of power supply as required.	Item				
	Carried to Collection			R		
	Section No. 4					
	Bill No. 8 Bower Supply					
	Power Supply 210					
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<u>BILL NO. 8</u> POWER SUPPLY			Amount	
COLLECTION		Page No		
	Brought Forward from Page	208 209 210		
Section No. 4	Carried To Section Summary	R		
Bill No. 8 Power Supply	211			

	Unit	Quantity	Rate	Amount	
SECTION NO. 4 ELECTRICAL WORKS (PROVISIONAL) BILL NO. 9 MISCELLANEOUS ITEMS					
PREAMBLES					
For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371-A" which shall be read in conjuction with and shall apply to all items in these Bills of Quantities.					
SUPPLEMENTARY PREAMBLES					
The Specification for Comprehensive Services Incorporating Electrical Installations document attached under the Drawings and Specifications Section of these Bills of Quantities covers the complete Electrical Installation for the project and forms the total scope of work under the Electrical Contract. It shall be used in conjunction with the Standard Electrical Specification which has the following Sections:					
Section A: Preamble to Standard Specifications					
Section B: Installation Specifications					
Section C: Quality Specification from the Department of Public Works for Materials and Equipment of Electrical Installations.					
The following bill of quantities must be read in conjunction with the foregoing specifications as well as the attached Electrical Engineer's drawings and Specifications. Contractors attention is specifically drawn to the guarantee against defects, servicing and maintenance period and the testing and commissioning clauses, which is applicable to the whole installation. The contractor has to allow for these costs in his/her unit rates.					
Although shortened descriptions had been used in this bill, the Contractor must carefully read the specifications to acquint themselves with the full description and specifications of the equipment.					
Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior approval from the Architect/Engineer.					
Carried to Collection			R		
Section No. 4 Bill No. 9 Miscellaneous Items					
212					

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	Unit	Quantity	Rate	Amount	
Compliance Proliminaries etc.					
<b>Compliance, Preliminaries, etc.</b> The Electrical Contractor responsible for the works is to note that the works will be done as a Domestic sub- contract to the Main Contractor. There is no separate preliminaries and compliance Bill for the sub-contractor and the Electrical Sub-Contractor is therefore to make provision in their tendered rates for all necessary Preliminaries and Compliance items applicable to this scope of works, including but not limited to :					
1) Provision of a Sub-Contract Construction Guarantee					
<ol> <li>Provision of an Advanced Payment Guarantee for materials on/off site</li> </ol>					
<ol> <li>Provision of Contract Works, Special, Supplementary, Public Liability Insurances, etc.</li> </ol>					
<ol> <li>Allowance for compliance with Construction Regulations, OH&amp;S Specification &amp; Act</li> </ol>					
5) Allowance for compliance with Construction Regulations - Construction Environment Management Plan					
<ol> <li>Allow for Warranty of the Sub-contract works for defects liability period</li> </ol>					
<ol> <li>Allow for servicing &amp; routine maintenance of Sub- contract works for defects liability period</li> </ol>					
8) Allow for provision of all applicable Test Certificates and/or Compliance Certificates					
9) Other contractual items not listed above					
10) Project Supervision					
11) Project Administration					
12) Other Overheads (Travel, Accommodation)					
13) Provision of Programme for sub-contract works					
14) Completion of necessary commencement, compliance and completion forms					
15) Providing a 'Master Installation Electrician' for overseeing electrical installations					
<ol> <li>Provision of all necessary forms of access, ie scaffolding, cherry pickers, etc.</li> </ol>					
17) Carrying out all testing of the complete sub-contract works and commissioning thereof					
18) Training of Clients representative at practical completion					
19) Training of Clients representative at end of defects liability period					
Carried to Collection			R		
Section No. 4					
Bill No. 9					
Miscellaneous Items 213					
213				11	I

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		Unit	Quantity	Rate	Amount	
	20) 2 Year Service during Guarantee period					
	21) Provision of record drawings					
	22) Provision of operating and maintenance manuals					
	MISCELLANEOUS ITEMS:					
	PRELIMINARY AND GENERAL ITEMS					
	Note: Provision for Preliminaries and General that has not been included into the tendered rates. All items shall be priced for whatever cost may be considered necessary for Preliminary and General items to carry out the Electrical Installation in full, as detailed in the drawings, Specifications and Schedules, which shall include, but shall not be limited, to the following:					
1	Site establishment - including but not limited to latrines, water, generators, fuel, ALL safety aspects, site office, clerks of works. Careful planning will be required from building contractor to ensure that all completion dates are achieved. Make allowance in your price to work after hours and weekends.	ltem				
	HEALTH AND SAFETY					
	Health and Safety :					
2	All Health and Safety related activities such as H&S File, Toolbox Talks, etc.	Item				
	ENVIRONMENTAL ASPECTS					
	Environmental Aspects :					
3	For managing environmental aspects	Item				
	DECOMMISSIONING EXISTING INFRASTRUCTURE					
	Decommissioning Existing Infrastructure :					
4	For stripping, removal and making safe of any damaged existing infrastructure on the site	Item				
	ADDITIONAL BUILDERS WORKS					
	Additional Builders Works :					
5	Any additional builders work over and above main contractors, including make good after chasing, plaster to builders satisfaction.	Item				
	SHOP DRAWINGS, CALCULATIONS, ETC					
	Shop Drawings, Calculations, etc.					
6	Any necessary calculations or drawings requested by the Engineer.	Item				
				_		
	Carried to Collection Section No. 4			R		<u> </u>
	Bill No. 9					
	Miscellaneous Items					
	214					
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ĺ		Unit	Quantity	Rate	Amount	
7	HOUSEKEEPING, LABELS, ETC. Housekeeping Labels, etc. : Coding and labelling of all plant and equipment and wiring, etc.	Item				
	<u>'AS-BUILT' DRAWINGS</u> <u>Supply "AS-BUILT" drawings to the Electrical</u> <u>Engineer at First Delivery/Practical Completion,</u> <u>including recording of all as-built information during</u> the course of the contract.					
8	Record and supply 'AS-BUILT' drawings to Electrical Engineer at Practical Completion.	Item				
	EARTHING, ETC Complete earthing of installation, including all bonding of water pipes, HWC, etc. New copper earth spikes & all other consumables, and including submission of earth test certificates all in accordance with detailed specification.					
9	Provide for the Earthing of the building to wiring code including water mains, etc.	Item				
	TESTING AND COMMISSIONING Complete testing of the installation for compliance with SABS 0142 & submission of Certificate of Compliance for every distribution panel that forms part of the installation and the entire installation.					
10	Testing of the complete installation in terms of the regulations.	Item				
11	Provide Certificate of Compliance for the entire installation.	Item				
	Carried to Collection			R		
	Section No. 4 Bill No. 9 Miscellaneous Items					
	215					

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			Amount
BILL NO. 9			
MISCELLANEOUS ITEM	<u>IS</u>		
COLLECTION			
		Page No	
	Brought Forward from Page	212	
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		215	
	Carried To Section Summary	R	ļ
Section No. 4			
Bill No. 9 Miscellaneous Items			
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			Amount	
	SECTION NO. 4			
	ELECTRICAL WORKS (PROVISIONAL)			
	SECTION SUMMARY			
Bill No.		Page		
1	LV DISTRIBUTION BOARDS	180		
2	MAINS CABLES & SUBMAINS WIRING	184		
3	GENERAL LIGHTING	189		
4	LUMINAIRES	193		
5	POWER	197		
6	LIGHTNING PROTECTION	201		
7	FIRE DETECTION	207		
8	POWER SUPPLY	211		
9	MISCELLANEOUS ITEMS	216		
	Carried to Final Summary	R		
	Section No. 4 SECTION SUMMARY			
	217			

# **SECTION 5**

## MECHANICAL WORKS (PROVISIONAL)

VOLUME 2 – RETURNABLE DOCUMENTS SCM8-22/23-0063

	Unit	Quantity	Rate	Amount	,0
<u>SECTION NO. 5</u> <u>MECHANICAL WORKS (PROVISIONAL)</u> <u>BILL NO. 1</u> <u>HEATING, VENTILATION AND AIRCONDITIONING</u>					
PREAMBLES					
For Preambles refer to "Department of Public Works: Specification of Materials and Methods to be used - PW371-A" which shall be read in conjuction with and shall apply to all items in these Bills of Quantities.					
SUPPLEMENTARY PREAMBLES					
The Specification for Comprehensive Services Incorporating Electrical Installations document attached under the Drawings and Specifications Section of these Bills of Quantities covers the complete Electrical Installation for the project and forms the total scope of work under the Electrical Contract. It shall be used in conjunction with the Standard Electrical Specification which has the following Sections:					
Section A: Preamble to Standard Specifications					
Section B: Installation Specifications					
Section C: Quality Specification from the Department of Public Works for Materials and Equipment of Electrical Installations.					
The following bill of quantities must be read in conjunction with the foregoing specifications as well as the attached Mechanical Engineer's drawings and Specifications. Tenderer's attention is specifically drawn to the guarantee against defects, servicing and maintenance period and the testing and commissioning clauses, which is applicable to the whole of the heating, ventilation and air conditioning installation. The contractor has to allow for these costs in his/her unit rates.					
All equipment as measured shall be deemed to be complete as described in the specifications and include fixing on mounting brackets if so required, connection to water supplies, waste and or overflow pipe work, etc.					
Every system supplied and installed under the Airconditioning shall be gauaranteed for at least one (1) year from the date of Practical Completion against breakdown and/or faulty workmanship and shall be replaced free of charge, irrespective of the manufacturers or suppliers guarantee. All repair and replacement costs shall be borne by the Contractor.					
Electrical work shall be carreid out in accordance with SABS 0142 code of practice as described.					
Carried to Collection			R		
Section No. 5 Bill No. 1					
Heating, Ventilation And Airconditioning					
218					

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	Unit	Quantity	Rate	Amount	
Anti-vibration mountings, supports, hangers, brackets and acessories are to be used where required to the satisfaction of the Engineer.					
Rates are to include for condensate drainage piping from evaporator unit to drains including any necessary PVC sleeves through walls.					
Although shortened descriptions had been used in this bill, tenderers must carefully read the specifications to acqaint themselves with the full description and specifications of the equipment.					
Where brand or trade names are referred to in this bill of quantities, these shall indicate the quality and type of material or fitting required and no substitution of materials so specified will be permitted unless the prior authority of the Engineer has been obtained in writing.					
Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items,materials or methods of similar quality may be used with prior approval from the Architect/Engineer.					
The Mechanical Contractor responsible for the works must have the following pre-qualifications:					
1) Trade Tested					
2) Must have experience in Ventilation Installations					
3) Must be an Accredited Grade 1ME Contractor					
Note : The Work shall at all times, for the duration of the sub-contract, be carried out under the supervision of a competent representative of the AC&V Sub-contractor in terms of the Occupational Health and Safety Act No. 85 of 1993, as amended.					
Compliance, Preliminaries, etc.					
The Mechanical Contractor responsible for the works is to note that the works will be done as a Domestic sub- contract to the Main Contractor. There is no separate preliminaries and compliance Bill for the sub-contractor and the Mechanical Sub-Contractor is therefore to make provision in their tendered rates for all necessary Preliminaries and Compliance items applicable to this scope of works, including but not limited to :					
1) Provision of a Sub-Contract Construction Guarantee					
2) Provision of an Advanced Payment Guarantee for materials on/off site					
3) Provision of Contract Works, Special, Supplementary, Public Liability Insurances, etc.					
Carried to Collection			R		
Section No. 5 Bill No. 1					
Heating, Ventilation And Airconditioning 219					

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	Unit	Quantity	Rate	Amount	
4) Allowance for compliance with Construction Regulations, OH&S Specification & Act					
5) Allowance for compliance with Construction Regulations - Construction Environment Management Plan					
6) Allow for Warranty of the Sub-contract works for defects liability period					
7) Allow for servicing & routine maintenance of Sub- contract works for defects liability period					
8) Allow for provision of all applicable Test Certificates and/or Compliance Certificates					
9) Other contractual items not listed above					
10) Project Supervision					
11) Project Administration					
12) Other Overheads (Travel, Accommodation)					
13) Provision of Programme for sub-contract works					
14) Completion of necessary commencement, compliance and completion forms					
15) Providing a 'Master Installation Electrician' for overseeing electrical installations					
16) Provision of all necessary forms of access, ie scaffolding, cherry pickers, etc.					
17) Carrying out all testing of the complete sub-contract works and commissioning thereof					
18) Training of Clients representative at practical completion					
19) Training of Clients representative at end of defects liability period					
20) 2 Year Service during Guarantee period					
21) Provision of record drawings					
22) Provision of operating and maintenance manuals					
HEATING, VENTILATION AND AIR CONDITIONING INSTALLATIONS, ETC.					
These bills of quantities shall be read with the drawings and project specifications of the tender document. The price submitted in this bill of quantities will deem all installations to be priced for completed and operational installations.					
Carried to Collection			R		
Section No. 5					
Bill No. 1					
Heating, Ventilation And Airconditioning					
220					

					SCMU8-22/23-	006
		Unit	Quantity	Rate	Amount	
	FANS, ETC.					
	Fans - EAF-01 & EAF-02 :					
1	Ø315 AXIAL AIR FAN COMPLETE WITH 2 x 1.5 D podded attenuators & speed controller, duty @ 500L/s, 150 Pa static pressure & 2880rpm	No	2			
	DUCTING					
	Galvanised ducting for low pressure ducting. (Air passage sizes indicated on tender drawings for measurement).					
2	Ducting to include all riser ducts, elbows, transformations, square to round pieces, shoes, spigots, set-up and set-down pieces where reqired.	Item				
	WEATHER LOUVRES / DISC VALVES					
	Weather Louvres / Disc Valves :					
3	Weather Louvres 400 x 350mm, Natural anodised c/w plenum box and filter.	No	2			
4	Weather louvers complete with vermin screen, burgular bars and viledon filter size: 500 x 500mm	No	4			
5	250 x 200mm Extract grille complete with apposed blade damper, colour: White	No	1			
6	Ø200 Disc valve.	No	11			
	DOOR GRILLES					
	Door Grilles :					
7	500 x 300mm Natually anodised door grille, fitted to timber doors.	No	8			
	ROOF RIDGE VENTILATORS					
	<u>'Curvent' or equally approved roof ridge ventilators :</u>					
8	Supply and installation, complete of 'Curvent' or equally approved FK 750 RC ridge ventilator into roof sheeting at ridge.	No	9			
	TESTING AND COMMISSIONING OF VENTILATION INSTALLATION					
	Testing and Commissioning, etc. :					
9	Testing and commissioning of the entire installation, complete.	Item				
10	Provision of three sets of operating and maintenance manuals as required.	Item				
	Carried to Collection			R		
	Section No. 5					
	Bill No. 1					
	Heating, Ventilation And Airconditioning 221					

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12       Comprehensive servicing and maintenance during the 12-month guarantee period.       Item         13       Workshop drawings and equipment schedule submittals for approval prior to ordering for all units.       Item         14       Training of staff on correct operation of units as required.       Item         14       Training of staff on correct operation of units as required.       Item         14       Training of staff on correct operation of units as required.       Item         15       DitLDERS WORKS IN CONNECTION WITH       Approved SAP timber frames in boxing for openings through horikowrk/concrete in builders works for mechanical Installations :       No       2         15       Timber frame for opening size 250 x 250mm through one brick wall.       No       2         16       Timber frame for opening size 400 x 400mm through one brick wall.       No       1         18       Timber frame for opening size 450 x 400mm through one brick wall.       No       2         18       Timber frame for opening size 450 x 400mm through one brick wall.       No       2         18       Team for opening size 450 x 400mm through one brick wall.       No       2         18       Team for opening size 450 x 400mm through one brick wall.       No       2         18       Team for opening size 450 x 400mm through one brick wall.       No       2 <t< td=""><td></td><td></td><td>Unit</td><td>Quantity</td><td>Rate</td><td>Amount</td><td></td></t<>			Unit	Quantity	Rate	Amount	
12       Comprehensive servicing and maintenance during the 12-month guarantee period.       Item         13       Workshop drawings and equipment schedule submittals for approval prior to ordering for all units.       Item         14       Training of staff on correct operation of units as required.       Item         14       Training of staff on correct operation of units as required.       Item         14       Training of staff on correct operation of units as required.       Item         15       DitLDERS WORKS IN CONNECTION WITH       Approved SAP timber frames in boxing for openings through horikowrk/concrete in builders works for mechanical Installations :       No       2         15       Timber frame for opening size 250 x 250mm through one brick wall.       No       2         16       Timber frame for opening size 400 x 400mm through one brick wall.       No       1         18       Timber frame for opening size 450 x 400mm through one brick wall.       No       2         18       Timber frame for opening size 450 x 400mm through one brick wall.       No       2         18       Team for opening size 450 x 400mm through one brick wall.       No       2         18       Team for opening size 450 x 400mm through one brick wall.       No       2         18       Team for opening size 450 x 400mm through one brick wall.       No       2 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>							
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one brick wall.       No       1         18       Timber frame for opening size 450 x 400mm through one brick wall.       No       2         No       2       Image: Section No. 5       Image: Section No. 5         Bill No. 1       Heating, Ventilation And Airconditioning       Image: Section No. 5       Image: Section No. 5	16	Timber frame for opening size 350 x 350mm through one brick wall.	No	2			
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# **SECTION 6**

## **OCCUPATIONAL HEALTH AND SAFETY**

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ĺ		Unit	Quantity	Rate	Amount	
	<u>SECTION NO. 6</u> OCCUPATIONAL HEALTH AND SAFETY BILL NO. 1 OCCUPATIONAL HEALTH AND SAFETY					
	PRICING OF OCCUPATIONAL HEALTH AND SAFETY					
	The Contractor is to take note of and carefully price all Occupational Health and Safety items listed in the Bill below.					
	<b>Note:</b> While every effort has been made with the provisions herein to include <i>inter alia</i> , compliance with all the requirements set out in the Construction Regulations, 2003 issued under the Occupational Health and Safety Act, 1993 (Act No 85 of 1993), and in particular with Regulation 5(1) requiring the compilation of a health and safety plan, as well as Regulation 6(1) requiring the appointment of a construction supervisor, the Contractor is to carefull take note of any obvious omissions and duly make provision for these accordingly in their pricing of this section and the relevant Preliminaries item.					
	Note: Also refer to the relevant item under Preliminaries in the BOQ document which refers to the Occupational Health and Safety Act, Construction Regulations and Health and Safety Specification.					
	This Bill must be read in conjunction with the Project Health & Safety Specification attached together with these bills of quantities and reference should be made to Annexure D (BOQ) which forms part of this specification and which items are included in this bills of quantites for pricing purposes.					
	OCCUPATIONAL HEALTH AND SAFETY					
1	Preparation of the Contractor's site specific Health and Safety Plan including Covid-19 Management.	ltem				
2	Principal Contractor's initial obligations in respect of the Occupational Health and Safety Act and Construction Regulations / Disaster Management Act, of 2002.	Item				
3	Principal Contractor's time related obligations in respect of the Occupational Health and Safety Act and Construction Regulations.	Months	12			
	Provision of Personal Protective Equipment (PPE) :					
4	Reflective vests.	Item				
5	Hard hats.	Item				
6	Protective foot wear.	Item				
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		Unit	Quantity	Rate	Amount	
7	Earplugs	Item				
8	Dust masks	Item				
9	Gloves	Item				
10	High visibility overalls to SARTSM Chapter 13 Level 3. All overalls must be orange with EPWP (30 centimetres) letters on the back of the jacket and company logo on the heart pocket.	ltem				
11	Ear Defenders SABS approved	Item				
12	Overalls	ltem				
13	3 Layer material Face Masks	Item				
14	Face Shields	Item				
15	Latex gloves	Item				
16	Induction Training for Covid-19	Item				
17	Safety Goggles for Screening person	ltem				
	Safety Officers, etc. :					
18	Provision of full time Construction Health and Safety Officer registered with SACPCMP	Months	12			
19	Covid-19 Compliance Officer	Months	12			
	Cost of Medical Certificates and Medical Surveillance :					
20	Initial (baseline) medical examinations.	Item				
21	Periodic and exit examinations.	Item				
22	Contractor's charges to allow for handling costs and profit in respect of above sub items for medical examinations.	ltem				
23	Screening for Employees with COVID-19 Symptoms	Item				
24	Induction training including Covid-19	Item				
25	Provision of First Aid Boxes to GSR requirements.	Item				
	Noise Monitoring :					
26	Establishment of noise zones (plant)	Item				
27	Audiograms (Personnel)	ltem				
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	Health and Safety File :					
28	Submission of Health and Safety File	Item				
	Additional Covid-19 Requirements :					
29	Infra - red scanner - NON CONTACT	ltem				
30	Covid-19 Awareness and warning signage	ltem				
31	Covid-19 Waste Disposal of contaminated material	Item				
32	Hand sanitizers 70% Alcohol	Item				
33	Sanitizing spraying chemical	Item				
34	Cleaning detergents for COVID-19	Item				
35	Ablutions and latrine facilities made COVID-19 safe	ltem				
36	Transport for Construction Site safety for COVID-19	Item				
37	Isolation area for possibly Covid-19 infected persons	ltem				
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# **SECTION 7**

## **PROVISIONAL SUMS AND ALLOWANCES**

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Amount

### **SECTION NO. 7 PROVISIONAL SUMS AND ALLOWANCES PROVISIONAL SUMS AND ALLOWANCES** The following Nominated/Selected Sub-Contract amounts are for work to be carried out by Nominated or Selected Sub-Contractors in terms of the Conditions of Contract : General Work for which budgetary allowances are provided will be measured and valued in accordance with the relevant building agreement/building contract and deducted in whole or in part if not required without any compensation for loss of profit on the said allowances Prime cost amounts and provisional sums are net. Prime cost amounts shall include for delivery to site of all articles concerned. Provisional sums are for material and equipment supplied and installed complete by firms of specialists. NOTE: The Tenderers attention is drawn to the fact that uUnless otherwise descibed all Provisional Amounts stated are NETT and do not include any builders discount. **Profit on Nominated/Selected Subcontractors :** Where stated, the contractor may allow for profit if required General Attendance on Nominated/Selected Subcontractors : The item 'attendance' which follows each provisional sum for nominated/ selected subcontractors' work, shall be deemed to cover all the contractor's costs incurred in providing free of charge to the nominated/ selected subcontractors the contractor's duties as described in clause 12.2 of the JBCC N/S Subcontract Agreement. **Builder's Work :** Builder's work in connection with specialist services is given elsewhere in these bills of quantities NOMINATED / SELECTED SUB-CONTRACTORS SIGNAGE Signage : Provide the amount of R 15 000.00 (Fifteen Thousand Rands) for Internal 1 and External Signage, not measured, to later specification, executed complete. 15 000 00 Item Profit on above item, if required. 2 Item 3 Attend apon the firm executing the installation and make good. Item Carried To Section Summary R Section No. 7 Bill No. 1 **Provisional Sums And Allowances** 230

ĺ			Amount
	LANDSCAPING Landscaping :		
4	Provide the amount of R 25 000.00 (Twenty Five Thousand Rands) for Landscaping to later specification, executed complete.	ltem	25 000 00
5	Profit on above item, if required.	Item	
6	Attend apon the firm executing the installation and make good.	Item	
	ELECTRICAL, ELECTRONIC AND MECHANICAL INSTALLATIONS		
	AUDIO SYSTEM		
	Audio System :		
7	Provide the amount of R 180 000.00 (One Hundred and Eighty Thousand Rands) for Audio System Installations to later specification, by Specialist, executed complete.	ltem	180 000 00
8	Profit on above item, if required.	Item	
9	Attend apon the firm executing the installation and make good.	Item	
	HIGH LEVEL WINDOW ACTUATORS		
	High Level Window Actuators :		
10	Provide the amount of R 120 000.00 (One Hundred and Twenty Thousand Rands) for High Level Window Actuator Installations to later specification, by Specialist, executed complete.	ltem	120 000 00
11	Profit on above item, if required.	Item	
12	Attend apon the firm executing the installation and make good.	Item	
	BUDGETARY ALLOWANCES		
	The following budgetary allowances are for work to be executed by the Contractor and paid for in terms of the Conditions of Contract (work is to be remeasured at Bill rates where-ever possible).		
	Sundry Builders Works :		
13	Provide the amount of R 25 000.00 (Twenty Five Thousand Rand) for Sundry Builders Work to all trades, executed complete.	ltem	25 000 00
	Locate, Expose, Re-route and Maintain Existing Services :		
14	Provide the amount of R 15 000.00 (Fifteen Thousand Rands) to Locate and Expose Existing Services, Re-route and Maintain where nescessary.	ltem	15 000 00
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			Amount	000
	MONETARY ALLOWANCES			
	The following monetary provisions are to be omitted from the contract sum and used as directed below.			
	Contingency Allowance :			
15	Provide the amount of R 980 000.00 (Nine Hundred and Eighty Thousand Rand) for a Contingency Allowance to be used for by the Principal Agent / Project Manager and approved by the Client, in terms of the Principal Building Agreement.	Item	980 000 0	00
	CPAP / Escalation Allowance :			
16	Provide the amount of R 820 000.00 (Eight Hundred and Twenty Thousand Rand) for CPAP / Escalation to be used for Contract Price Adjustment Provisions in terms of the Principal Building Agreement.	Item	820 000 0	00
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# FINAL SUMMARY

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