

**BID NUMBER: LDPWRI-B/20288** 

APPOINTMENT OF A CONTRACTOR FOR DEMOLITION OF 12 CLASSROOMS, OFFICES AND PIT 4 PIT TOILETS, REFURBISHMENT OF 10 CLASSROOMS, GUARD HOUSE AND 27 SEATER ENVIROLOO TOILETS, CONSTRUCTION OF 20 CLASSROOMS, MEDIUM ADMINISTRATION BLOCK, NEW 20 SEATER ENVIROLOO TOILETS, STEEL PALISADE FENCE AND EXTERNAL WORKS AT CHITA KEKANA SECONDARY SCHOOL IN MOLETLANE VILLAGE, CAPRICON DISTRICT.

for

#### LIMPOPO DEPARTMENT OF EDUCATIONECON (LDOE),

#### LIMPOPO PROVINCE

### FRAMEWORK CATEGORY A (7GB AND ABOVE)

#### Issued by:

Limpopo Department of Public Works, Roads and Infrastructure Works Towers Building 43 Church Street Polokwane 0700

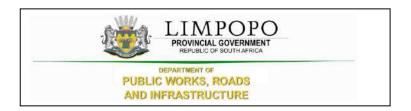
Contact Person: General Queries
Name : Mr NJ Motsopye,
Tel No. : 015 284 7126

Email : motsopyen@dpw.limpopo.gov.za

**Technical: Technical Queries**Name : Mr K Modjadji
Tel No. : 083 673 5436

Email : ModjadjiM@dpw.limpopo.gov.za

Name of the Bidder:



#### **CONTENTS**

#### **THE TENDER**

Part T1: Tendering procedures

T1.1 Tender notice and invitation to tender

T1.2 Tender data

Part T2: Returnable documents

T2.1 List of returnable documents

T2.2 Returnable schedules

#### THE CONTRACT

Part C1: Agreements and Contract data

C1.1 Form of offer and acceptance

C1.2 Contract data

Joint Venture Agreement (If Applicable)

Part C2: Pricing data

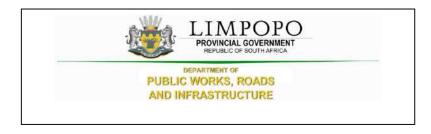
C2.1 Part 1 - Pricing Instructions C2.2 Part 2 - Bills of Quantities

Part C3: Scope of Works

C3.1 Special Notes to Bidders C3.2 OHS Specifications

Part C4 Drawings

CONTRACT No. LDPWRI-B/20288



# **PART T1: TENDERING PROCEDURE**

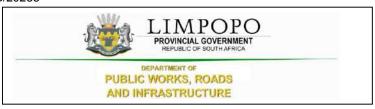
#### T1.1 Tender Notice and Invitation to Tender

The Limpopo Department of Public Works, Roads and Infrastructure invites tenderers from contractors appointed on the framework agreement on category A for APPOINTMENT OF A CONTRACTOR FOR DEMOLITION OF 12 CLASSROOMS, OFFICES AND PIT 4 PIT TOILETS, REFURBISHMENT OF 10 CLASSROOMS, GUARD HOUSE AND 27 SEATER ENVIROLOO TOILETS, CONSTRUCTION OF 20 CLASSROOMS, MEDIUM ADMINISTRATION BLOCK, NEW 20 SEATER ENVIROLOO TOILETS, STEEL PALISADE FENCE AND EXTERNAL WORKS AT CHITA KEKANA SECONDARY SCHOOL IN MOLETLANE VILLAGE, CAPRICON DISTRICT for a period of 24 months. It is estimated that tenderers must have a CIDB contractor grading designation of 7 GB or higher.

The conditions of the CIDB Standard for for Indirect Targeting for Enterprise Development through Construction Works Contracts **Gazette Notice No. 36190 of 25 February 2013** will be applicable on this project

APPOINTMENT OF A CONTRACTOR FOR DEMOLITION OF 12 CLASSROOMS, OFFICES AND PIT 4 PIT TOILETS, REFURBISHMENT OF 10 CLASSROOMS, GUARD HOUSE AND 27 SEATER ENVIROLOO TOILETS, CONSTRUCTION OF 20 CLASSROOMS, MEDIUM ADMINISTRATION BLOCK, NEW 20 SEATER ENVIROLOO TOILETS, STEEL PALISADE FENCE AND EXTERNAL WORKS AT CHITA KEKANA SECONDARY SCHOOL IN MOLETLANE VILLAGE, CAPRICON DISTRICT.					
	(D.1); W. I. D. I. II. (. ). I. ''.				
	of Public Works, Roads and Infrastructure website				
DEPARTMENT OF PU	JBLIC WORKS, ROADS & INFRASTRUCTURE.				
Physical address: Corr	ner River and Blaauwberg Streets, Ladanna, 0699.				
As per Tender invite					
As per Tender invite					
Yes ⋈ No □					
Meeting venue	As per Tender invite				
Date	As per Tender invite				
Time:	As per Tender invite				
Compliance with mandatory or compulsory requirements     Risk assessment on current projects     Price     Preference					
Only tenderers who are appointed on category A registered with the Construction Industry Development Board (CIDB) with designation of 7 GB or higher than a contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations are eligible to have their tenders evaluated Priced Bills of Quantities  SBD 1.  Declaration on the status of Administration compliance.  Completed and signed Form of Offer					
	OFFICES AND PIT 4 PIT GUARD HOUSE AND 27 20 CLASSROOMS, MED ENVIROLOO TOILETS, SCHITA KEKANA SECONDISTRICT.  LDPWRI- B/20288  Limpopo Department of DEPARTMENT OF PUBLICATION				

CONTRACT No. LDPWRI-B/20288



### T1.2 Tender Data

Clause number	Tender Data
	The conditions of tender are the Standard Conditions of Tender as contained in Annex C of Board Notice 423 of 2019 in Government Gazette No. 42622 of 08 August 2019, Construction Industry Development Board (CIDB) Standard for Uniformity in Construction Procurement. (See www.cidb.org.za) which are reproduced without amendment or alteration for the convenience of tenderers as an Annexure to this Tender Data.
	The Standard Conditions of Tender make several references to the Tender Data for details that apply specifically to this tender. The Tender Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the standard conditions of tender. Each item of data given below is cross-referenced to the clause in the Standard Conditions of Tender to which it mainly applies.
	The contractor shall achieve in the performance of the contract the Contract Participation Goals (CPG) relating to the engagement of targeted enterprises as established in the CIDB Standard for Indirect Targeting for Enterprise Development through Construction Works Contracts Gazette Notice <i>No. 36190 of 25 February 2013</i> . In this case, contractor shall provide a <i>minimum Contract Participation Goal (CPG) of 5%</i> of the total project value and develop targeted enterprises stated under C3 of this document.
	The following variations, amendments and additions to the Standard Conditions of Tender as set out in the Tender Data below shall apply to this tender. Add the following to clauses in Standard Conditions of Tender:
C.1.1	The Employer is the Department of Public Works, Roads and Infrastructure

CONTR	ACT No. LDPWRI-B/20288
C.1.2	The Tender Part T1: Tendering procedures T1.1 Tender notice and invitation to tender T1.2 Tender data
	Part T2: Returnable documents T2.1 List of returnable documents T2.2 Returnable schedules
	The Contract Part C1: Agreements and contract data C1.1 Form of offer and acceptance C1.2 Contract data C1.3 Joint Venture Agreement (If Applicable)
	The Contract Part C2: Pricing data C2.1 Pricing instructions C2.2 Bills of Quantities
	Part 3: Scope of work C3.1 Special Notes to Bidders C3.2 OHS Specifications
	Part 4: Site information C4 Drawings
C.1.4	The employer's representative is:
	Name : Mr K Modjadji Tel No. : 083 673 5436 Email : ModjadjiM@dpw.limpopo.gov.za
	However, all communications related to this bid should be directed to the persons indicated under Enquires on this tender document.
	Attention is also drawn to the fact that verbal information, given by the Employer's agent during site visits/clarification meetings or at any other time prior to the award of the Contract, will not be regarded as binding on the Employer. Only information issued formally by the Employer in writing to Tenderers will be regarded as amending the Tender Documents.
C.1.5	The employer reserve to cancel the tender prior to the award of the tender.
C1.6.2	A competitive negotiation procedure will not be followed.
C1.6.3	A two-stage system will not be followed.
C.2.1	Eligibility in respect of CIDB grading
	Only tenderers who are appointed on framework agreement category A and registered with the Construction Industry Development Board (CIDB) with designation of 7 GB or higher than a contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations, are eligible to have their tenders evaluated.
C2.2	Cost of tendering
	The tenderer accept that, unless otherwise stated in the tender data, the employer will not compensate the tenderer for any costs incurred in the preparation and submission of a tender offer, including the costs of any testing necessary to demonstrate that aspects of the offer complies with requirements.

C.2.7	Compulsory site briefing
	A compulsory briefing meeting will be held as per Tender invite
	Tenderers must sign the attendance list in the name of the tendering entity. Addenda (if any) will be issued only to those tendering entities appearing on the attendance list.
C.2.11	Alterations to the documents
	Bidders are required to not make any alterations or additions to the tender documents, except to comply with instructions issued by the employer, or necessary to correct errors made by the tenderer. All signatories to the tender offer shall initial all such alterations
C.2.12	Alternative tender offer
	No alternative tender offer is permitted in this tender.
C.2.13.2	Replace sub-clause C.2.13.2 with the following; Return all returnable documents to the employer after completing them in their entirety by writing in non-erasable black ink (Black pen)
C.2.13.3	Parts of each tender offer communicated on paper shall be submitted as an original
C.2.13.4	The tender shall be signed by a person duly authorized to do so.
C.2.13.5	The employer's details and address for delivery of tender offers and identification details that are to be shown on each tender offer package are:
	Location of tender box: DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE. Physical address: Corner River and Blaauwberg Streets, Ladanna, 0699 Identification details: Sealed Tender with Tender reference number, Title of Tender and the closing date and time of the tender.
C.2.15.1	The closing time for submission of tender offers is as stated in the Tender Notice and Invitation to Tender. Telephonic, telegraphic, telex, facsimile or e-mailed tender offers will not be accepted.
C.2.16.1	The tender offer validity period is 12 weeks or 90 days.
C.2.16.2	The tender accepts that a tender submission that has been submitted to the employer may only be withdrawn or substituted by giving the employer's agent written notice before the closing time for tenders that a tender is to be withdrawn or substituted. If the validity period stated in C.2.16.1 lapses before the employer evaluating tender, the contractor reserves the right to review the price based on Consumer Price Index (CPI).
C.3.1	The tenderer is required to indicate how they claim points for each preference point system and attached relevant supporting documents. The specific goals for claiming of preference points include the following:  - Persons who had no franchise in national elections prior to 1983 and 1993  - Women  - Disabled persons - Promotion of SMMEs - Enterprises located in Limpopo Province - Promotion of youth - South African owned enterprises

001111	CIDB Gradi	ing Certificate					
	Tenders are the category	e required to provide proof of registration with the CIDB register of contractors indicating y of registration, grading as well as the CRS number of the tenderer.  ood Standing					
		are required to submit, bound with the tender submission, a letter of good standing from sation commissioner indicating that the bidder is in good standing.					
C3.2	deemed to h	ding any requests for confirmation of receipt of Addenda issued, the tenderer shall be have received such addenda if the employer can show proof of transmission thereof (or espect thereof) via electronic mail, facsimile or registered post.					
C.3.4.1	Tenders will	I <b>not</b> be opened immediately after the closing time for tenders.					
C.3.11	(i) (ii) (iii)	ers will be evaluated in four stages Stage 1: Compliance with mandatory requirements as stated in Part T1.1 Stage 2: Risk assessment on current projects Stage 3: Price Stage 4: Preference					
	evaluation of staff and ar contractor s have similar contractors	cal capacity (functionality) of the contractors will not be evaluated any further during of the RFQ. However, the contractors will be required to declare the status of their key by administrative compliance. In cases where there are changes in the key staff, the hould provide CVs and qualifications of the new staff to LDPWR&I. The new staff should reskills, qualifications and experience as the staff submitted during tender. Similarly, the will be expected to provide an update on any changes in their administrative compliances disubmit the required SBD document/forms in such cases.					
	The award will only be issued to contractors with valid Tax Clearance certificates, active CIDB grading and the contractor who meets all the legislative requirement – this shall be verified by SCM in line with the departmental SCM Policy.						
	The total value of current projects for a contractor under consideration cannot exceed twice the maximum value of their relevant CIDB grade. <sup>1</sup>						
	a)	Stage 1: Administrative Compliance: The Compliance or compulsory documents and returnables are detailed in Section T.2.1 of this tender document. Failure to submit, complete or comply with these requirements will lead to automatic disqualification.					
	b)	Stage 2: Risk assessment on current projects					
		The total value of current projects for a contractor under consideration cannot exceed twice the maximum value of their relevant CIDB grade.					

#### Stage 3 and 4:

The procedure for final evaluation of responsive tenders is Method 2 (Financial offer and preference). The total number of tender evaluation points ( $T_{EV}$ ) shall be determined in accordance with the following formula.

$$T_{EV} = N_{FO} + N_P$$

a)  $N_{FO}$  is the number of tender evaluation points awarded for the financial offer made. The score for financial offer is calculated using the following formula:

$$P = A * (1 - \frac{(P_o - P_m)}{P_m})$$

Where:

A is 80 since the estimated financial value of works inclusive of VAT is equals or is less than R 50,000,000.00.

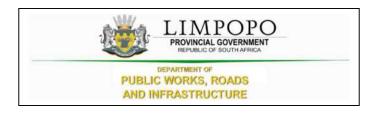
P is the points awarded to the bid under consideration

 $P_m$  is the lowest Comparative bid price

 $P_o$  is the comparative price under consideration

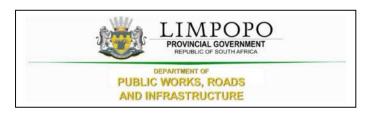
b)  $N_P$  is the number of tender evaluation points awarded for preferences claimed in accordance with the Preferencing Schedule in 3.18

CONTRACT No. LDPWRI-B/20288



# **PART T2: RETURNABLE DOCUMENTS**

CONTRACT No. LDPWRI-B/20288



#### **T2.1: LIST OF RETURNABLE DOCUMENTS**

The following documents will form part of the documents submitted to the Contractors as part of the Request for Proposals:

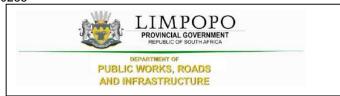
- 2.1 Fully completed Form of Offer
- 2.2 Bills of Quantities
- 2.3 Record of Addenda to tender documents (if applicable)
- 2.4 Proposed amendments and qualifications (if applicable)
- 2.5 Proof of specific goal for award of the preference points as determined on the Request for Proposal
- 2.6 SBD 1.
- 2.7 SBD 6.1
- 2.8 Declaration on the status of Administration compliance.
- 2.9 CIDB grading certificate
- 2.10 CSD Report
- 2.11 Tax clearance certificate
- 2.12 Declaration of current projects

Failure by the service provider to submit or complete item 2.1, 2.2, 2.3, 2.4, 2.6, 2.8, and 2.12 will render their proposal not responsive and will not be considered.

Failure by the service provider to fully complete SBD 6.1 item 4.3 to 4.6 (Declaration with regard to company/firm) will render their proposal not responsive and will not be considered.

The bidder should also not appear on the National Treasury's list of black listed entities.

CONTRACT No. LDPWRI-B/20288



### T 2.2: RETURNABLE SCHEDULE

	Document Name	Returnable document			
1.	Fully completed Form of Offer	□Yes □ No			
2.	Priced Bills of Quantities	□Yes □ No			
3.	Record of Addenda to tender documents (if applicable)	□Yes □ No			
4.	Proposed amendments and qualifications (if applicable)	□Yes □ No			
5.	Proof of specific goals for award of the preference points	□Yes □ No			
6.	SBD 1. Invitation to Tender	□Yes □ No			
7.	SBD 6.1: Reference Points claim form in terms of the Preferential Procurement Regulations 2022 or amended	□Yes □ No			
8.	Declaration on the status of Administration compliance.	□Yes □ No			
9.	Proof of CIDB class grading: 7GB or higher.	□Yes □ No			
10.	CSD Summary report	□Yes □ No			
11.	Original tax clearance certificate or tax pin	□Yes □ No			
12.	Declaration of current projects	□Yes □ No			

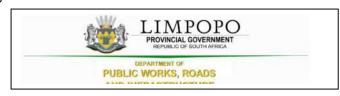
CONTRACT No. LDPWRI-B/20288



### Declaration on the status of administrative compliance

_	riease indic	cate, by	circling eline	er <b>res or i</b> v	io, whethe	er the	aumi	nistrati	ve iniom	ialioi	1 Submill	lea wi	ın ine	origina	I
fr	amework	tender	documents	have chan	iged or n	ot. If	yes,	kindly	provide	the	particula	rs be	low w	ith any	,
SI	upporting o	docume	ents.												
•										• • • • •					
•															
	Signed					Date	9								
						-				-					
	Name					Posi	ition								
	Entorprise														
	Enterprise	<del>;</del>													

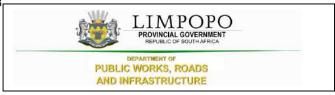
CONTRACT No. LDPWRI-B/20288



### **Record of Addenda to tender documents**

We confirm that the following communications received from the Employer before the submission of this tender offer, amending the tender documents, have been taken into account in this tender offer:							
	Date	Title or Details					
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							
Attach	additional pages if more sp	ace is required.					
Signe	d	Date					
Name		Position					
Tende	erer						

CONTRACT No. LDPWRI-B/20288



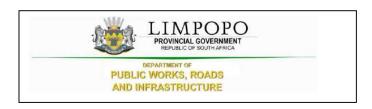
#### Proposed amendments and qualifications

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 5.8 of SANS 10845-3 regarding the employer's handling of material deviations and qualifications.

Page	Clause or item	Proposal
Sign	ed	Date
Nam	e	Position
Tend	lerer	

CONTRACT No. LDPWRI-B/20288



# SBD 1 PART A: INVITATION TO BID

INFRASTRUCTU	eby invited to bi Jre	D FOR REQUIRE				OF PU	BLIC WORKS,		
			CLOSING	DATE	As per Tender			As per Tender	
BID NUMBER:	LDPWRI-B/20288				Advert		NGTIME:	Advert	
DESCRIPTION REFURBISHMENT AND ADDITIONS AT CHITA KEKANA SECONDARY SCHOOL IN MOLETLANE VILLAGE, CAPRICON DISTRICT.									
	BID RESPONSE DOCUMENTS MAY BE DEPOSITED IN THE BID BOX SITUATED AT (STREET ADDRESS)								
DEPARTMEN	T OF PUBLIC WO	ORKS, ROADS &	k INFRAST	RUCTURE		•			
Physical address: Corner River and Blaauwberg Streets, Ladanna, 0699.									
BIDDING PROC	EDURE ENQUIRIES I	MAY BE DIRECTED	то						
CONTACT PERS	SON	Mr. NJ Motsopye							
TELEPHONE NU	IMBER	0152847126	E-MAIL A	DDRESS		motsop	yen@dpw.limpo	po.gov.za	
CONTACT PERS	SON (TECHNICAL)	Mr. K Modjadji							
TELEPHONE NU		083 673 5436	E-MAIL A	DDRESS		Modjad	jiM@dpw.limpor	oo.gov.za	
SUPPLIER INFO	-	1							
NAME OF BIDDE	R								
POSTAL ADDRE	SS								
STREET ADDRE	SS		ı				T		
TELEPHONE NU	IMBER	CODE			NUMBER				
CELLPHONE NU	IMBER								
E-MAIL ADDRES	SS								
VAT REGISTRAT			T	1	T				
SUPPLIER COM	PLIANCE STATUS	TAX COMPLIANCE SYSTEM PIN:		OR	CENTRAL SUPPLIER DATABASE No:	: MA	AΑ		
	E ACCREDITED				J A FOREIGN				
REPRESENTA		□Yes	□No		SUPPLIER FOR		Yes	□No	
SOUTH AFRIC	VICES /WORKS		_	OFFERE	SERVICES /WO	ORKS	[IF YES, ANS\		
OFFERED?	VIOLO/VVOINIO	[IF YES ENCLOS	E PROOF]		D:		QUESTIONNA	AIRE BELOW]	
	ETO BIDDING FORE	EIGN SUPPLIERS		1					
IS THE ENTITY A	A RESIDENT OF THE	REPUBLIC OF SO	UTH AFRICA	(RSA)?				YES NO	
	DOES THE ENTITY HAVE A BRANCH IN THE RSA?								
DOES THE ENTI	ITY HAVE A PERMAN	IENT ESTABLISHM	ENT IN THE	RSA?				YES NO	
DOES THE ENTI	TY HAVE ANY SOUR	CE OF INCOME IN	THE RSA?				_	YES NO	
	LIABLE IN THE RSA F						_	YES NO	
						D FOD 4	_	_	
	RIS "NO" TO ALL OF DDE FROM THE SOU								

CONTRACT No. LDPWRI-B/20288

#### 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.
- 12 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. THIS BID IS SUBJECT TO THE PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT, 2000 AND THE PREFERENTIAL PROCUREMENT REGULATIONS, 2022, THE GENERAL CONDITIONS OF CONTRACT (GCC) AND, IF APPLICABLE, ANY OTHER SPECIAL CONDITIONS OF CONTRACT.
- 14. THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FILL IN AND SIGN A WRITTEN CONTRACT FORM.

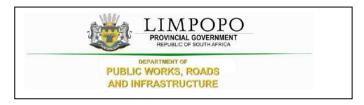
#### 2. TAX COMPLIANCE REQUIREMENTS

- 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 PIN 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:	

CONTRACT No. LDPWRI-B/20288



**SBD 6.1** 

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

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

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

#### 1. GENERAL CONDITIONS

- 1.1 The following preference point systems are applicable to invitations to tender:
  - the 80/20 system for requirements with a Rand value of up to R50 000 000 (all applicable taxes included); and
  - the 90/10 system for requirements with a Rand value above R50 000 000 (all applicable taxes included).

#### 1.2 To be completed by the organ of state

(delete whichever is not applicable for this tender).

- a) The applicable preference point system for this tender is the 90/10 preference point system.
- b) The applicable preference point system for this tender is the 80/20 preference point system.
- c) Either the 90/10 or 80/20 preference point system will be applicable in this tender. The lowest/ highest acceptable tender will be used to determine the accurate system once tenders are received.
- 1.3 Points for this tender (even in the case of a tender for income-generating contracts) shall be awarded for:
  - (a) Price; and
  - (b) Specific Goals.

#### 1.4 To be completed by the organ of state:

The maximum points for this tender are allocated as follows:

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

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

#### 2. **DEFINITIONS**

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

#### 3. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

#### 3.1. POINTS AWARDED FOR PRICE

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

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

80/20 or 90/10

$$Ps = 80(1 - \frac{Pt-Pmin}{Pmin})$$
 or 
$$Ps = 90(1 - \frac{Pt-Pmin}{Pmin})$$

Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration
Pmin = Price of lowest acceptable tender

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

#### 3.2.1. POINTS AWARDED FOR PRICE

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

$$Ps=80(1+rac{Pt-Pmax}{Pmax})$$
 or  $Ps=90(1+rac{Pt-Pmax}{Pmax})$ 

Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmax = Price of highest acceptable tender

#### 4. POINTS AWARDED FOR SPECIFIC GOALS

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

4.3.

(a) an invitation for tender for income-generating contracts, that either the 80/20 or 90/10 preference point system will apply and that the highest acceptable tender will be used to determine the applicable preference point system; or

(b) any other invitation for tender, that either the 80/20 or 90/10 preference point system will apply and that the lowest acceptable tender will be used to determine the applicable preference point system,

then the organ of state must indicate the points allocated for specific goals for both the 90/10 and 80/20 preference point system.

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

(Note to organs of state: Where either the 90/10 or 80/20 preference point system is applicable, corresponding points must also be indicated as such.

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

system.)				
The specific goals allocated points in terms of this tender	Number of points allocated (90/10 system) (To be completed by the organ of state)	Number of points allocated (80/20 system) (To be completed by the organ of state)	Number of points claimed (90/10 system) (To be completed by the tenderer)	Number of points claimed (80/20 system) (To be completed by the tenderer)
Persons who had no franchise in national elections prior to 1983 and 1993 (Attach certified copy of South African ID as proof)	2	6		
Women (Attach Director's certified copy of South African ID as proof + company registration documents)	1	3		
Disabled persons (Attach letter from a Health Professional as proof)	1	2		
Promotion of SMMEs (Attach latest financial statement as proof)	1	2		
Enterprises located in Limpopo Province (Attach proof of address / Lease agreement as proof)	2	4		
Promotion of youth (Attach Director's certified copy of South African ID as proof)	1	1		
South African owned enterprises (Attach Director's certified copy of South African ID as proof + company registration documents)	2	2		

#### **DECLARATION WITH REGARD TO COMPANY/FIRM**

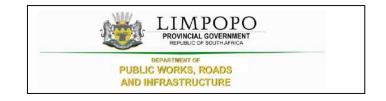
4.4.	Name of company/firm				
4.5.	Company registration number:				
4.6.	TYPE OF COMPANY/ FIRM				
	<ul> <li>□ Partnership/Joint Venture / Consortium</li> <li>□ One-person business/sole propriety</li> <li>□ Close corporation</li> <li>□ Public Company</li> <li>□ Personal Liability Company</li> <li>□ (Pty) Limited</li> <li>□ Non-Profit Company</li> <li>□ State Owned Company</li> <li>[TICK APPLICABLE BOX]</li> </ul>				

- 4.7. I, the undersigned, who is duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the specific goals as advised in the tender, qualifies the company/ firm for the preference(s) shown and I acknowledge that:
  - i) The information furnished is true and correct;
  - ii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;
  - iii) In the event of a contract being awarded as a result of points claimed as shown in paragraphs 1.4 and 4.2, the contractor may be required to furnish documentary proof to the satisfaction of the organ of state that the claims are correct;
  - iv) If the specific goals have been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the organ of state may, in addition to any other remedy it may have
    - (a) disqualify the person from the tendering process;
    - (b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;
    - (c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation;
    - (d) recommend that the tenderer or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted from obtaining business from any organ of state for a period not exceeding 10 years, after the audi alteram partem (hear the other side) rule has been applied; and

CONTRACT No. LDPWRI-B/20288

(e) forward the matter for criminal prosecution, if deemed necessary.

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



#### **DECLARATION OF CURRENT PROJECTS**

Current value refers to current value of projects for both General Building (GB) and Civil Engineering (CE).

Please list the current projects which your company is busy executing in the table below.

If no projects at the moment the tender must indicate/write on this table.

Misrepresentation of facts will render your bid non-responsive.

#### Table 1 List of current projects executed by the bidder

- 1. Do you have the current projects being executed Yes/No?
- 2. Please note that it is compulsory to answer the question above and if the answer is yes, complete the table below. Failure by the service provider/tenderer to answer the question above or complete the table below will render their proposal not responsive and will not be considered.

Project Description	Project Value	Start date	Planned end date	Client Name	Contact Person number

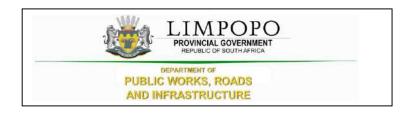
Signed	 Date	
Name	 Position	
Enterprise		



# THE CONTRACT



# **PART C1: AGREEMENT AND CONTRACT DATA**



#### C1.1. FORM OF OFFER AND ACCEPTANCE

#### Offer

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

# REFURBISHMENT AND ADDITIONS AT CHITA KEKANA SECONDARY SCHOOL IN MOLETLANE VILLAGE, CAPRICON DISTRICT.

The tenderer, identified in the offer signature block, has examined the documents listed in the tender data and addenda thereto as listed in the tender schedules, and by submitting this offer has accepted the conditions of tender.

By the representative of the tenderer, deemed to be duly authorized, signing this part of the 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 PRICE INCLUSIVE OF VALUE ADDED TAX IS (CONTRACT PRICE)

Rand (in words); R	
(in figures) R	
This offer may be accepted by the employer by signing the accepted returning one copy of this document to the tenderer bettender data, whereupon the tenderer becomes the party nanidentified in the contract data.	fore the end of the period of validity stated in the
Signature(s)	
Name(s)	
Capacity	
For the tenderer:	
Name & signature of witness	Date

### **Acceptance** (To be completed by the employer – not the bidder)

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 Consultant 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 Form of Offer and Acceptance)

Part C2 Pricing Data

Part C3 Scope of Work

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 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.

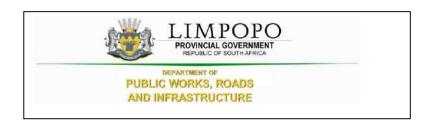
The tenderer shall within two weeks of receiving a completed copy of this agreement, including the Schedule of Deviations (if any), contact the *Employer's* agent (whose details are given in the Contract Data) to arrange the delivery of any securities, bonds, guarantees, proof of insurance and any other 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 *Consultant*) within five working days of the date of such receipt notifies the *Employer* in writing of any reason why he cannot accept the contents of this agreement, this agreement shall constitute a binding contract between the Parties.

For the Em	ployer					
Signature						
Name						
Capacity						
Name and address of organization						
Signature a	Signature and Name of Witness					
Signature						
Name						
Capacity						

## **Schedule of Deviations**

1 Subject
Details
2 Subject
Details
3 Subject
Details
4 Subject
Details
By the duly authorised representatives signing this agreement, the <i>Employer</i> 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 th
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 a meaning or effect in the contract between the parties arising from this agreement.



#### **C2.1 CONTRACT DATA**

The Conditions of Contract are clauses 1 to 41 of the **JBCC Series 2000 Principal Building Agreement (Edition 4.1 of March 2005)** published by the Joint Building Contracts Committee.

Copies of these conditions of contract may be obtained from the Association of South African Quantity Surveyors (011-3154140), Master Builders Association (011-205-9000; 057- 3526269) South African Association of Consulting Engineers (011-4632022) or South African Institute of Architects (051-4474909; 011-4860684; 053-8312003;)

The JBCC Principal Building Agreement makes several references to the Contract Data for specific data, which together with these conditions collectively describe the risks, liabilities, and obligations of the contracting parties and the procedures for the administration of the Contract. The Contract Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the JBCC Principal Building Agreement.

The contractor shall achieve in the performance of the contract the Contract Participation Goals (CPG) relating to the engagement of targeted enterprises as established in the CIDB Standard for Indirect Targeting for Enterprise Development through Construction Works Contracts Gazette Notice No. 36190 of 25 February 2013."



### **PART C2: PRICING DATA**

### **C2.1 Pricing instruction**

- The Bills of Quantities have been drawn up in accordance with the Standard System of Measuring Building Work in accordance with the provisions of the Model Bills of Quantities or Electrical Work, published by the South African Association of Quantity Surveyors, (July, 2005).
- The agreement is under the JBCC N/S Subcontractor Agreement for use with the JBCC PBA (Edition 4.1 code 2101 March 2005) form of contract with Preliminaries (Code 2103 May 2005) incorporating the State Provisions of cl 41.0.
- It will be assumed that prices included in the Bills of Quantities are based on Acts, Ordinances, Regulations, By-laws, International Standards and National Standards that were published 28 days before the closing date for tenders.
- 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.
- 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.
- The Contract Data and the standard form of contract referenced therein must be studied for the full extent and meaning of each and every clause set out in Section 1 (Preliminaries) of the Bills of Quantities.
- The Bills of Quantities is not intended for the ordering of materials. Any ordering of materials, based on the Bills of Quantities, is at the Contractor's risk.
- The bidder shall set aside a minimum of 5 % of the project value for sub-contractor/s and determine the amount to be paid for the Contract Participation Goal (CPG).



# **PART C2.2: BILLS OF QUANTITIES**

Item No

### **SECTION NO.1 BILL NO.1 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 Edition 4.1 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**

Section No. 1 PRELIMINARIES

Bill No. 1

**Carried to Collection** 

DE	-INITIONS		
<b>A1</b>	DEFINITIONS AND INTERPRETATIONS		
Clau	se 1.0 Clause		
1.1	Definition of "Commencement Date" is added:		
agre	MMENCEMENT DATE" means the date that the eement, made in terms of the Form of Offer and eptance, comes into effect.		
	se 1.1 Definition of <b>"Construction Period"</b> is amended by acing it with the following:		
on th	<b>NSTRUCTION PERIOD"</b> means the period commencing ne commencement date and ending on the date of practical pletion.		
	se 1.1 Definition of <b>"Interest"</b> is amended by replacing it the following:		
whet be in	EREST means the interest rates applicable on this contract, ther specifically indicated in the relevant clauses or not, will a terms of the legislation of the Republic of South Africa, in particular.		
(a)	In respect of interest owed by the employer, the interest rate as determined by the Minister of Justice and Constitutional Development, from time to time, in terms of section 1(2) of the Prescribed Rate of Interest Act, 1975 (Act No. 55 of 1975), will apply; and		
(b)	in respect of interest owed to the <b>employer</b> , the interest 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), will apply.		
Clau	Clause 1.6.4 is amended by replacing it with the following:		
	Carried to Collection	P	ľ

Section No. 1 PRELIMINARIES Bill No. 1

1

		_	_	_
	No clause			
	Fixed:Value related: Time related:	item		
	Time relaced.	licin		
	OBJECTIVE AND PREPARATION			
2	A2 OFFER, ACCEPTANCE AND PERFORMANCE			
	Clause 2.0			
	Fixed:Value related:			
	Time related:	item		
3	A3 DOCUMENTS			
	Clause 3.0			
	Clause 3.7 is amended by the addition of the following:			
	The contractor shall supply and keep a copy of the JBCC Series			
	2000 Principal Building Agreement and Preliminaries applicable			
	to this contract on the site, to which the employer, principal agent and agents shall have access at all times			
	Fixed:Value related:			
	Time related:	item		
4	A4 DESIGN RESPONSIBILITY			
	Clause 4.0			
	Fixed:Value related:			
	Time related:	item		
5	A5 EMPLOYEES AGENTS			
	Clause 5.0			
	Clause 5.1.2 is amended to include clauses 32.6.3,34.3 and 34.4			
	Fixed:Value related:			
	Time related:	item		
	Carried to Collection	P		

Section No. 1 PRELIMINARIES Bill No. 1

		1	i i	l I
6	A6 SITE REPRESENTATIVE			
	Clause 6.0			
	Fixed:Value related: Time related:	item		
7				
/	A7 COMPLIANCE WITH REGULATION			
	Clause 7.0			
	Note: The provisions herein include inter alia, 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  See also clause C10 of Section C - Specific Preliminaries			
	Fixed:Value related: Time related:	item		
8	A8 WORKS RISK			
	Clause 8.0			
	Fixed:Value related:			
	Time related:	item		
9	A9 INDEMNITIES			
	Clause 9.0			
	Fixed:Value related:			
	Time related:	item		
LO	A10 WORKS INSURANCES			
	Fixed:Value related:			
	Clause 10.0			
	Clause 10.0 is amended by the addition of the following clauses:	item		
	Carried to Collection	R		

(u)	contract, the <b>contractor</b> shall, if requested to do so, reinstate any damage or destroyed portions of the <b>works</b> and the costs of such reinstatement shall be measured and valued in terms of 32.0 hereof		
(d)	as set out in 10.6  Where the <b>employer</b> bears the risk in terms of this		
( c)	The <b>employer</b> shall carry the risk of damage to or destruction of the <b>works</b> and material paid for by the <b>employer</b> that is the result of the excepted risks		
	and to rebuild, restore, replace and/or repair of works		
(b)	The <b>contractor</b> shall at all times proceed immediately to remove or dispose of any debris arising from damage to or destruction of the <b>works</b>		
	security measures and other steps for the protection and security of the <b>works</b> as the <b>contractor</b> may deem necessary		
	of the <b>works</b> by whatever cause during construction of the <b>works</b> and hereby indemnifies and holds harmless the <b>employer</b> against any such damage.  The <b>contractor</b> shall take such precautions and		
(a)	Without in any way limiting the <b>contractors</b> obligations in terms of the contract, the <b>contractor</b> shall bear the full risk of damage to and/or destruction		
10.5	Damage to the Works		

10.6 Iı	njury to Persons or loss of or damage to Properties		
(a)	The <b>contractor</b> shall be liable for and hereby indemnifies the <b>employer</b> against any liability, loss, claim or proceeding whether arising in common law or by statute, consequent upon personal injuries to or the death of any person whomsoever arising out of or in the course of or caused by the execution of the <b>works</b> unless due to any act or neglect of any person for whose actions the <b>employer</b> is legally liable		
(b)	The <b>contractor</b> shall be liable for any hereby indemnifies the <b>employer</b> 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 <b>site</b> , whether belonging to or under the control of the <b>employer</b> or any other body or person, arising out of or in the course of or by reason of the execution of the <b>works</b> unless due to any act or neglect of any person for whose actions the <b>employer</b> is legally liable		
(c)	The <b>contractor</b> shall, upon receiving a <b>contract instruction</b> from the <b>principal agent</b> , cause the same to be made good in a perfect and workmanlike manner at his own cost and in default therefore the <b>employer</b> shall be entitled to cause it to be made good and to recover the cost thereof from the <b>contractor</b> or to deduct the same from amounts due to the <b>contractor</b>		
(d)	The <b>contractor</b> shall be responsible for the protection and safety of such portions of the premises placed under his control by the <b>employer</b> for the purpose of executing the <b>works</b> until the issue of the <b>certificate of practical completion</b>		
(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 <b>contractor</b> shall and will remain adequately insured or insured 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 <b>works</b> has been completed		
	Carried to Collection	R	

		orma rion
(f)	The <b>contractor</b> 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 <b>works</b>	
10.7	High risk insurance	
classified a to highly of catastroph	ent of the project being executed in a geological area as a High Risk Area, that is an area which is subject unstable subsurface conditions that might result in hic ground movement evident by sinkhole or doline the following will apply:	
10.7.1	Damage to the works	
works unbear the fithe employers comentioned and securioned	ractor shall, from the commencement date of the ntil the date of the certificate of practical completion full risk of and hereby indemnifies and holds harmless loyer against any damage to and/or destruction of the onsequent upon a catastrophic ground movement as d above. The contractor shall take such precautions rity measures and other steps for the protection of the she may deem necessary	
shall proc debris aris to rebuild	instructed to do so by the principal agent, the contractor seed immediately to remove and/or dispose of any sing from damage to or destruction of the works and , restore, replace and/or repair the works at the r's own costs	
10.7.2	Injury to persons or loss of or damage to property	
holds hard proceeding whether a personal in resulting to	ractor shall be liable for and hereby indemnifies and mless the <b>employer</b> against any liability, loss, claim or ng arising at any time during the period of the contract arising in common law or by statute, consequent upon injuries to or the death of any person whomsoever from, arising out of or caused by a catastrophic ground it as mentioned above	
employe conseque immovable whether bother bother bother	ractor shall be liable for and hereby indemnifies the er against any and all liability, loss, claim or proceeding ent upon loss of or damage to any moveable or e or personal property or property contiguous to the site, belonging to or under the control of the employer or any dy or person whomsoever arising out of or caused by a hic ground movement, as mentioned above, which during the period of the contract	

**Carried to Collection** 

	1	•	•	п
	<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>contractors</b>			
	obligations in terms of the contract, the <b>contractor</b> shall, within			
	twenty-one (21) calendar days of the commencement date			
	but before commencement of the <b>works</b> , submit to the <b>employer</b>			
	proof of such insurance policy, if requested to do so			
	10.7.4 The employer shall be entitled to recover any and all			
	losses and/or damages of whatever nature suffered or incurred			
	consequent upon the <b>contractors</b> default of his obligations as			
	set out in 10.7.1; 10.7.2 and 10.7.3. Such losses or damages			
	may be recovered from the <b>contractor</b> or by deducting the same			
	from any amount still due under this contract or under any other			
	contract presently or hereafter existing between the <b>employer</b>			
	and the <b>contractor</b> and for this purpose all these contracts shall			
	be considered one indivisible whole			
	Fixed:Value related:			
	Time related:	item		
11	A11 LIABILITY INSURANCES			
	Clause 11.0			
	Fixed: Value related:			
	Fixed:Value related:	itom		
	Time related	item		
12	A12 EFFECTING INSURANCES			
	Clause 12.0			
	Fixed: Value valeted:			
	Fixed:Value related:	itom		
	Time related:	item		
13	A13.0 No clause			
IJ	Als.0 No clause			
14	A14 SECURITY			
	Clause 14.0			
	Clause 14.1 14.0 and amounted by variations them with the			
	Clause 14.1 - 14.8 are amended by replacing them with the			
	following:			
	14.1. In respect of contracts with a <b>contract sum</b> up to R1			
	million, the <b>security</b> to be submitted by the <b>contractor</b> to the			
	<b>employer</b> will be as a payment reduction of five per cent (5%)			
	of the value certified in the <b>payment certificate</b> (excluding VAT)			
	o. a.s raids on allow in the payment sentimeter (choldening 1711)			
	Carried to Collection	R		II

	1	Ì	Ī
14.1.1. The payment reduction of the value certified in a <b>payment certificate</b> shall be <i>mutatis mutandi</i> in terms of 31.8(A)			
14.1.2. The <b>employer</b> shall be entitled to recover expense and loss from the payment reduction in terms of 33.0 provided that the <b>employer</b> complies with the provisions of 33.4 in which event the <b>employers</b> entitlement shall take precedence over his obligations to refund the payment reduction security or portions thereof to the <b>contractor</b>			
14.2. In respect of contracts with a <b>contract sum</b> above R1 million, the <b>contractor</b> shall have the right to select the <b>security</b> to be provided in terms of 14.3, 14.4, 14.5, 14.6, or 14.7 as stated in the <b>schedule</b> . Such <b>security</b> shall be provided to the <b>employer</b> within twenty-one (21) <b>calendar days</b> from <b>commencement date</b> . Should the <b>contractor</b> fail to select the <b>security</b> to be provided or should the <b>contractor</b> fail to provide the <b>employer</b> with the selected <b>security</b> within twenty-one (21) <b>calendar days</b> from <b>commencement date</b> , the <b>security</b> in terms of 14.7 shall be deemed to have selected.			
14.3. Where <b>security</b> as a cash deposit of ten per cent (10%) of the <b>contract sum</b> (excluding VAT) has been selected:			
14.3.1. The <b>contractor</b> shall furnish the <b>employer</b> with a cash deposit equal in value of ten per cent (10%) of the <b>contract sum</b> (excluding VAT) within twenty-one (21) <b>calendar days</b> from <b>commencement date</b>			
14.3.2. Within twenty-one (21) <b>calendar days</b> of the date of <b>practical completion</b> of the <b>works</b> the <b>employer</b> shall reduce the cash deposit to an amount equal to three per cent (3%) of the <b>contract value</b> (excluding VAT), and refund the balance to the <b>contractor</b>			
14.3.3. Within twenty-one (21) <b>calendar days</b> of the date of <b>final completion</b> of the <b>works</b> the <b>employer</b> shall reduce the cash deposit to an amount equal to one per cent (1%) of the <b>contract value</b> (excluding VAT) and refund the balance to the <b>contractor</b>			
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			
Carried to Collection	R		

14.3.5. The <b>employer</b> shall be entitled to recover expense and loss from the cash deposit in terms of 33.0 provided that the <b>employer</b> complies with the provisions of 33.4 in which event the <b>employers</b> entitlement shall take precedence over his obligations to refund the cash deposit <b>security</b> or portions thereof to the <b>contractor</b> 14.3.6. The parties expressly agree that neither the <b>employer</b> nor the <b>contractor</b> shall be entitled to cede the rights to the deposit to any third party		
14.4. Where <b>security</b> as a variable construction guarantee of ten percent (10%) of the <b>contract sum</b> (excluding VAT) has been selected. 14.4.1. The <b>contractor</b> shall furnish the <b>employer</b> with an acceptable variable construction guarantee equal in value to ten percent (10%) of the <b>contract sum</b> (excluding VAT) within twenty-one (21) <b>calendar days</b> from <b>commencement date</b>		
14.4.2. The variable construction guarantee shall reduce and expire in terms of the Variable Construction Guarantee form include in the invitation to tender		
14.4.3. The <b>employer</b> shall return the variable construction guarantee to the <b>contractor</b> within fourteen (14) <b>calendar days</b> of it expiring		
14.4.4. Where the <b>employer</b> has a right of recovery against the <b>contractor</b> in terms of 33.0, the <b>employer</b> shall issue a written demand in terms of the variable construction guarantee		
14.5. Where <b>security</b> as a fixed construction guarantee of five per cent (5%) of the <b>contract sum</b> (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 <b>contractor</b> shall furnish a fixed construction guarantee to the <b>employer</b> equal in value to five per cent (5%) of the <b>contract sum</b> (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 <b>practical completion</b>		
14.5.3. The <b>employer</b> shall return the fixed construction guarantee to the <b>contractor</b> within fourteen (14) <b>calendar days</b> of it expiring		
14.5.4. The payment reduction of the value certified in a <b>payment certificate</b> shall be in terms of 31.8 (A) and 34.8		

**Carried to Collection** 

Carried to Collection	R		
14.8. Payments made by the guarantor to the <b>employer</b> in terms of the fixed or variable construction guarantee shall not prejudice the rights of the <b>employer</b> or <b>contractor</b> in terms of this <b>agreement</b>			
14.7.2. The <b>employer</b> shall be entitled to recover expenses and loss from the payment reduction in terms of 33.0 provided that the <b>employer</b> complies with the provisions of 33.4 in which event the <b>employers</b> entitlement shall take precedence over his obligations to refund the payment reduction or portions thereof to the <b>contractor</b>			
14.7.1. The payment reduction of the value certified in a <b>payment certificate</b> shall be <i>mutatis mutandi</i> in terms of 31.8(B)			
14.7. Where <b>security</b> as a payment reduction of ten per cent (10%) of the value certified in the <b>payment certificate</b> (excluding VAT) has been selected:			
14.6.4. Where the <b>employer</b> has a right of recovery against the <b>contractor</b> in terms of 33.0, the <b>employer</b> may issue a written notice in terms of 33.4 or may recover from the payment reduction or may do both			
14.6.3. The payment reduction of the value certified in a <b>payment certificate</b> shall be <i>mutatis mutandi</i> in terms of 31.8(A)			
14.6.2. Within twenty-one (21) <b>calendar days</b> of the date of <b>practical completion</b> of the <b>works</b> the <b>employer</b> shall refund the cash deposit in total to the <b>contractor</b>			
14.6.1. The <b>contractor</b> shall furnish the <b>employer</b> with a cash deposit equal in value to five per cent (5%) of the <b>contract sum</b> (excluding VAT) within twenty-one (21) <b>calendar days</b> from <b>commencement date</b>			
14.6. Where <b>security</b> as a cash deposit of five per cent (5%) of the <b>contract sum</b> (excluding VAT) and a payment reduction of five per cent (5%) of the value certified in the <b>payment certificate</b> (excluding VAT) has been selected:			
14.5.5. Where the <b>employer</b> has a right of recovery against the <b>contractor</b> in terms of 33.0, the <b>employer</b> 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			
	1	I	1

	<b>I</b>	1	1	ı
15	14.9. Should the <b>contractor</b> fail to furnish the <b>security</b> in terms of 14.2, the <b>employer</b> , in his sole discretion and without notification to the <b>contractors</b> selected form the <b>security</b> to that of a ten per cent (10%) payment reduction of the value certificate in the payment certificate (excluding VAT), whereafter 14.7 shall be applicable  Fixed:	item		
	Clause 15.0			
	Clause 15.1.1 is amended by replacing it with:  No Clause 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), with 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 15.1.2 and 15.1.4  Fixed:			
	Time related:	item		
16	A16 ACCESS TO THE WORKS  Clause 16.0  Fixed:Value related:			
	Time related:	item		
17	A17 CONTRACT INSTRUCTIONS			
	Clause 17.0  Fixed:Value related:  Time related:	item		
	Carried to Collection	R		

18	A18 SETTING OUT OF THE WORKS		
	Clause 18.0		
	Fixed:Value related:	item	
19	A19 ASSIGNMENT		
	Clause 19.0		
	Fixed:Value related: Time related:	item	
20	A20 NOMINATED SUB-CONTRACTORS		
	Clause 20.0		
	Clause 20.1.3 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		
	Fixed:Value related:		
	Time related:	item	
21	A21 SELECTED SUBCONTRACTORS		
	Clause 21.0		
	Clause 21 is amended by replacing with:		
	No Clause		
	Fixed:Value related: Time related:	item	
	Carried to Collection	l R	II .

22	A22 EMPLOYERS DIRECT CONTRACTORS		
	Clause 22.0		
	Fixed:Value related:	item	
23	A23 CONTRACTOR'S DOMESTIC SUBCONTRACTORS		
	Fixed:Value related: Time related:		
24	A24 PRACTICAL COMPLETION		
	Clause 24.0		
	Fixed:Value related: Time related:		
25	A25 WORK'S COMPLETION		
	Clause 25.0		
	Fixed:Value related: Time related:	item	
26	A26 FINAL COMPLETION	ltem	
20	Clause 26.0		
	Fixed:Value related:		
27	Time related:	item	
27	A27 LATENT DEFECTS LIABILITY PERIOD  Clause 27.0		
	Fixed:Value related:		
	Time related:	item	
28	A27 SECTIONAL COMPLETION		
	Clause 28.0		
	Fixed:Value related: Time related:	item	
		<u></u>	
	Carried to Collection	R	

29	A29	REVISION OF DATE FOR PRACTICAL COMPLETION		
	Clause 29	9.0		
	Fixed:	Value related:		
	Time rela	ated:	item	
30	A30	PENALTY FOR NON-COMPLETION		
		Value related:		
	Time rela	ated:	item	
	PAYME	ENT		
31	A31	INTERIM PAYMENT TO THE CONTRACTOR		
	Clause 3	1.0		
		1.8 is amended by replacing it with the following two ve clauses:		
	Alterna	tive A		
	14.6, the <b>and goo</b>	1 Where a <b>security</b> is selected in terms of 14.1, 14.5 or evalue of the <b>works</b> in terms of 31.4.1 and <b>materials</b> ods in terms of 31.4.2 shall be certified in full. The value shall be subject to the following percentage adjustments:		
	paymer	2 Ninety-seven per cent (97%) of such value in interim nt certificates issued on the date of practical tion and up to but excluding the date of final completion		
	paymer	3 Ninety-nine per cent (99%) of such value in interim nt certificates issued on the date of final completion to but excluding the final payment certificate in terms		
	final <b>pay</b> amount of the payn	4 One hundred per cent (100%) of such value in the		
		Carried to Collection	R	

	1	I
Alternative B		
31.8(B) Where <b>security</b> is a payment reduction in terms of 14.7		
the value of the <b>works</b> in terms of 31.4.1 and <b>materials and</b>		
<b>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		
payment certificates issued up to the date of practical		
completion		
completion		
31.8(B).1 Ninety-seven per cent (97%) of such value in interim		
payment certificates issued on the date of practical		
completion and up to but excluding the date of final completion		
tompletion and up to but oxedually are date of initial completion		
31.8(B).3 Ninety-nine per cent (99%) of such value in interim		
payment certificates issued on the date of final completion		
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		
payment certificate 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		
a ax invoice for the amount due		
Fixed:Value related:		
Time related:	item	
A32 ADJUSTMENT TO THE CONTRACT VALUE		
Clause 32.0		
Clauses 32.5.1, 32.5.7 are amended by the addition of the		
following at the end of the sentence:		
-		
"due to no fault of the <b>contractor</b> "		
Fixed:Value related:		
Time related:	item	
Carried to Collection	R	

32

33	A33 RECOVERY OF EXPENSE AND LOSS		
	Clause 33.0 Clause 33.2 is amended by adding the following clauses:		
	33.2.9 the <b>contractors</b> failure or neglect to commence with the <b>works</b> on the dates prescribed in the contract		
	33.2.10 the <b>contractors</b> failure or neglect to proceed with the <b>works</b> in terms of the contract		
	33.2.11 the <b>contractors</b> failure or neglect for any reason to complete the <b>works</b> in accordance with the contract		
	33.2.12 the <b>contractors</b> refusal or neglect to comply strictly with any of the conditions of contract or any <b>contract instructions</b> and/or orders in writing given in terms of the contract		
	33.2.13 the <b>contractors</b> estate being sequestrated, liquidated or surrendered in terms of the insolvency laws in force within the Republic of South Africa		
	Fixed:Value related: Time related:	item	
34	A34 FINAL ACCOUNT AND FINAL PAYMENT		
	Clause 34.0		
	Clause 34.13 is amended by replacing seven (7) <b>calendar days</b> with twenty-one (21) <b>calendar days</b> and deleting the words subject to the <b>employer</b> giving the <b>contractor</b> a tax invoice for the amount due		
	Fixed:Value related:	:	
	Time related:	item	
35	A35 PAYMENT TO OTHER PARTIES		
	Clause 35.0		
	Fixed:Value related: Time related:	item	
	Carried to Collection	R	

CANCELLATION		
A36 CANCELLATION BY EMPLOYER - CONTRACTORS DEFAULT		
Clause 36.0		
Clause 36.3 is amended by removing the reference to No clause and replacing the words <b>principal agent</b> with <b>employer</b>		
Clause 36.0 is amended by the addition of the following clause:		
36.7 Nothwistanding any clause to the contrary, on cancellation of this <b>agreement</b> either by the <b>employer</b> or the <b>contractor</b> ; or for any reason whatsoever, the <b>contractor</b> shall on written instruction, discontinue with the <b>works</b> on a date stated and withdraw himself from the <b>site</b> . The <b>contractor</b> shall not be entitled to refuse to withdraw from the <b>works</b> on the grounds of any lien or right of retention or on the grounds of any other right whatsoever		
Fixed:Value related: Time related:	item	
A37 CANCELLATION BY EMPLOYER - LOSS AND DAMAGE		
Clause 37.0		
Clause 37.0 is amended by the addition of the following clause:		
37.5 Notwithstanding any clause to the contrary, on cancellation of this <b>agreement</b> either by the <b>employer</b> or the <b>contractor</b> ; or for any reason whatsoever, the <b>contractor</b> shall on written instruction, discontinue with the <b>works</b> on a date stated and withdraw himself from the <b>site</b> . The <b>contractor</b> shall not be entitled to refuse to withdraw from the <b>works</b> on the grounds of any lien or right of retention or on the grounds of any other right whatsoever		
Fixed:Value related:	item	
A38 CANCELLATION BY CONTRACTOR - EMPLOYERS DEFAULT	lean	
Clause 38.0		
Carried to Collection	R	

	1	•	
	Clause 38.0 is amended by the addition of the following clause:		
	38.7 Notwithstanding any clause to the contrary, on cancellation of this <b>agreement</b> either by the <b>employer</b> or the <b>contractor</b> ; or for any reason whatsoever, the <b>contractor</b> shall on written instruction, discontinue with the <b>works</b> on a date stated and withdraw himself from the <b>site</b> . The <b>contractor</b> shall not be entitled to refuse to withdraw from the <b>works</b> on the grounds of any lien or right of retention or on the grounds of any other right whatsoever		
	Fixed:Value related: Time related:	item	
38	A39 CESSATION- CANCELLATION OF THE WORKS		
	Clause 39.0		
	Fixed:Value related:		
	Time related:	item	
39	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 additions of the following		
	Whether or not mediation resolves the dispute, the parties shall bear their own cost concerning the mediation and equally share the costs of the mediator and related costs		
	Fixed:Value related:		
	Time related:	item	
	Carried to Collection	R	

	SUBSTITUTE PROVISIONS		
40	A41 STATE CLAUSES		
40	Clause 41.0		
	Fixed:Value related: Time related:	item	
	CONTRACT VARIABLES		
	THE SCHEDULE (DPW04EC)		
41	A42 PRE-TENDER INFORMATION		
	Clause 42.0		
	Tenderers are referred to the document C1.2 Contract Data DPW04(EC) for variables pertaining to this contract		
	Fixed:Value related:		
	Time related:	item	
	SECTION B: JBCC PRELIMINARIES		
	DEFINITIONS AND INTERPRETATION		
42	Definitions and interpretation		
	Fixed:Value related:		
	Time related:	item	
	DOCUMENTS		
43	Checking of documents		
	Fixed:Value related:		
	Time related:	item	
44	Provisional bills of quantities		
	Fixed:Value related: Time related:	item	
	Time redect	icin	
		_	
	Carried to Collection	R	

		1	
45	Availability of construction documentation		
	Fixed:Value related:		
	Time related:	item	
46	Interests of agents		
	Fixed:Value related:		
	Time related:	item	
47	Priced documents		
	Fixed:Value related:		
	Time related:	item	
48	Tender submission		
	Clause 2.6 is amended by replacing JBCC Form of Tender with Form of Offer and Acceptance		
	Fixed:Value related: Time related:	item	
	THE SITE		
49	Defined works area		
	Fixed:Value related:		
	Time related:	item	
50	Geotechnical investigation		
	Fixed:Value related:		
	Time related:	item	
51	Inspection of the site		
	Tenderers shall complete the Site Inspection Certificate		
	included in the tender documents and return the same with the		
	tender submission.		
	Fixed:Value related:		
	Time related:	item	
	Carried to Collection	ь	

Existing premised occupied		
Existing premised occupied		
Fixed:Value related:		
Time related:	item	
Previous work dimensional accuracy		
Fixed:Value related:		
Time related:	item	
Previous work defects		
Fixed:Value related:		
Time related:	item	
Services known		
Fixed:Value related:		
Time related:	item	
Services unknown		
Fixed:Value related:		
Time related:	item	
Protection of trees		
Fixed:Value related:		
Time related:	item	
Articles of value		
Fixed:Value related:		
Time related:	item	
Inspection of adjoining properties		
Fixed:Value related:		
Time related:	item	
Carried to Collection	R	

	I	Ì	1	l i
	MANAGEMENT OF CONTRACT			
60	Management of the works			
	Fixed:Value related:	item		
61	Programme for the works			
	Fixed:Value related:	item		
62	Progress meetings			
	Fixed:Value related:	item		
63	Technical meetings			
	Fixed:Value related:	item		
64	Labour and plant records			
	Fixed:Value related: Time related:	item		
	SAMPLES, SHOP DRAWINGS AND MANUFACTURERS' INSTRUCTIONS			
65	Samples of materials			
	Fixed:Value related:	item		
66	Workmanship samples			
	Fixed:Value related: Time related:	item		
67	Shop drawings			
	Fixed:Value related:	item		
	Carried to Collection	R		

TEMPORARY WORKS AND PLANT		
Deposits and fees		
Fixed:Value related:	item	
Enclosure of the works		
Fixed:Value related: Time related:	item	
Advertising		
Fixed:Value related: Time related:	item	
Plant, equipment, sheds and offices		
Fixed:Value related: Time related:	item	
Main notice board		
Fixed:Value related: Time related:	item	
Subcontractors notice board		
Fixed:Value related:	item	
TEMPORARY SERVICES		
Location		
Fixed:Value related: Time related:	item	
Water		
Fixed:Value related: Time related:	item	
Electricity		
Fixed:Value related: Time related:	item	
Carried to Collection	R	

70			
78	Telecommunication facilities		
	Fixed:Value related:	itana	
	Time related:	item	
79	Ablution facilities		
	Fixed:Value related:		
	Time related:	item	
	PRIME COSTS AMOUNTS		
80	Responsibility for prime cost amounts		
	Fixed:Value related:		
	Time related:	item	
	ATTENDANCE ON N/S SUBCONTRACTORS		
81	General attendance		
	The schedule rates providing for attendance on <b>nominated</b>		
	<b>subcontractors</b> and other <b>contractors</b> , will be adjusted only if the scope of the work has changed		
	Fixed:Value related:	item	
		item	
82	Special attendance		
	Fixed:Value related:		
	Time related:	item	
83	Commissioning fuel, water and electricity		
	Fixed:Value related:		
	Time related:	item	
	Carried to Collection	R	

	1		Ī	II I
	ETNIANCIAL ACRECTO			
	FINANCIAL ASPECTS			
84	Statutory taxes, duties and levies			
	Fixed:Value related:			
	Time related:	item		
0.	Bound for motive in a in-			
85	Payment for preliminaries			
	Fixed:Value related:			
	Time related:	item		
86	Adjustment of preliminaries			
	Fixed:Value related:			
	Time related:	item		
87	Payment certificate cash flow			
07	Payment Certificate Cash now			
	Fixed:Value related:			
	Time related:	item		
	GENERAL			
88	Protection of the works			
	Fixed:Value related:			
	Time related:	item		
89	Protection / isolation of existing / sectionally occupied works			
	WOIKS			
	Fixed:Value related:			
	Time related:	item		
90	Security of the works			
	Fixed:Value related:			
	Time related:	item		
91	Notice before covering work			
	Fixed:Value related:			
	Time related:	item		
	Carried to Collection	R		

2	Disturbance		
	Fixed:Value related:	item	
3	Environmental disturbance	item	
	Fixed:Value related:		
94	Time related:  Works cleaning and clearing	item	
14			
	Fixed:Value related: Time related:	item	
95	Vermin		
	Fixed:Value related:	item	
96	Overhand work		
	Fixed:Value related:	item	
97	Instruction manuals and guarantees		
	Fixed:Value related:	item	
98			
	Fixed:Value related:	item	
99	Tenant installations		
	Fixed:Value related:	item	
	Carried to Collection	D	

ĺ		Ī	1	I I
	SCHEDULE OF VARIABLES			
100	Pre-tender information			
	Fixed: Value related:			
	Time related:	item		
	Fixed:	item		
	Carried to Collection	R		

12.1	PRE-TENDER INFORMATION		
12.1.1	Provisional Bills of Quantities		
[2.2]	The quantities are provisional  NO		
12.1.2 <i>[2.3]</i>	Availability of construction documentation  Construction documentation is complete		
[]	YES		
12.1.3	Interest of agent		
[2.4]	Details:		
	Employer: Limpopo Department of of Roads & Infrastructure		
	43 Church Street		
	Private Bag X9490		
	POLOKWANE, 0700		
	Tel: [015] 284 7000/1 Cell: 082 460 6271		
	Architect and Principal Agent:		
	Ruben Reddy Architects		
	4 Ismini Office Park,		
	POLOKWANE		
	Tel: [015] 065 0645 Fax: [011] 475 8364		
	Email : Geshim.Francis@rubenreddyarch.co.za		
	Quantity Surveyor:		
	Phahlana-Hunadi QS		
	2760 Zone B		
	LEBOWAKGOMO , 0737 Tel: [015] 633 6535 Fax: [015] 633 6477		
	Email: 'info@phqs.co.za		
	Linaii . iiiio@piiq3.coza		
	Civil/Structural:		
	Muteo Consulting		
	39 Grobler Street		
	POLOKWANE Tel: [015] 291 4065 Fax: 015 291 4043		
	Email: vonganim@muteo.co.za		
	Electrical/Mechanical Engineers:		
	NSKECM		
	38 Burger Street Polokwane 0700		
	Tel: 015 295 2104 Fax: 015 295 2104		
	Email: mark@nskecm.co.za		
	_		
	Carried to Collection	R	

1		ĺ	1	I
12.1.4	Defined works area			
[3.1]	Details:			
	Site as per land surveyor			
12.1.5	Geotechnical investigation			
[3.2]	Details:			
	Refer to Principal Agent			
12.1.6 <i>[3.4]</i>	Existing premises occupies Specific requirements:			
	N/A			
12.1.7 <i>[3.5]</i>	Previous work - dimensional accuracy Details			
	N/A			
12.1.8	Previous work - defects			
[3.6]	Details:			
	N/A			
12.1.9	Services - known			
<i>[3.7]</i>	Details:			
	N/A			
12.1.10	Protection of trees			
[3.9]	Specific requirements:			
12.1.11	Inspection of adjoining properties			
[3.11]	Specific requirements:			
12.1.12	Enclosure of the works			
6.2]	Specific requirements:			
12.1.13	Offices			
[6.4.3]	Specific requirements: 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 x 3 x 3m high			
	internally, suitable 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.			
	Carried to Collection	R		

Specific requirements: The contractor shall provide, erect where directed, maintain and remove on completion of the works a notice board size 3 x 3m as type Drawing GEN 063, constructed of suitable boarding with flat smooth surface and with edging bead 19mm thick around outer edges and projecting 12mm from face of boarding and rounded on front edge. 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 ivory white and the bead and 12mm wide dividing lines dark green. All wording shall be inscribed in dark green as per the coat of arms of SA. All working shall be inscribed in dark green painted sans serif lettering.  12.1.15  Subcontractor's notice board  Specific requirements:  YES/NO  Water  Option A (by contractor)  YES  Option B (by employer - free of charge)  NO  Option C (by employer - metered)  NO  12.1.16  Telectricity  Option A (by contractor)  YES  Option B (by employer - metered)  NO  12.1.18  Telecommunications  Telephone  YES  Facsimile  YES  Facsimile  YES  Facsimile  YES  Option A (by contractor)  YES  Option B (by employer)  NO  Protection of existing/sectionally occupied works  Protection is required				1	
Specific requirements:   YES/NO     12.1.16   Water   Option A (by contractor)   YES     Option B (by employer - free of charge)   NO   NO     Option C (by employer - metered)   NO     12.1.17   Electricity   Option A (by contractor)   YES     Option B (by employer - free of charge)   NO   NO     Option C (by employer - metered)   NO   NO     12.1.18   Telecommunications   Telephone   YES     Facsimile   YES     E-mail   YES     12.1.19   Ablution facilities   Option A (by contractor)   YES     Option B (by employer)   NO     12.1.20   Protection of existing/sectionally occupied works     Protection is required   NO   NO     NO   Protection is required   NO     NO   Protection is required   NO     NO   Protection of existing/sectionally occupied works	12.1.14 [6.5]	Specific requirements: The contractor shall provide, erect where dirmaintain and remove on completion of the winotice board size 3 x 3m as type Drawing GE constructed of suitable boarding with flat smusurface and with edging bead 19mm thick are edges and projecting 12mm from face of boar rounded on front edge. The board shall be fixed to hoarding, where hoarding is provide to and including a suitable supporting struct or tubular posts and braces. The board is to ivory white and the bead and 12mm wide divider dark green. All wording shall be inscribed in as per the coat of arms of SA. All working shall	orks a N 063, both round outer arding and securely ed, or fixed sure of timber be painted riding lines a dark green all be		
12.1.16 Water [7.2] Option A (by contractor)  Option B (by employer - free of charge)  Option C (by employer - metered)  NO  12.1.17 Electricity  [7.3] Option A (by contractor)  Option B (by employer - free of charge)  Option B (by employer - free of charge)  Option C (by employer - metered)  NO  12.1.18 Telecommunications  Telephone  YES  Facsimile  YES  E-mail  YES  12.1.19 Ablution facilities  Option A (by contractor)  YES  Option B (by employer)  NO  12.1.20 Protection of existing/sectionally occupied works  Protection is required  NO	12.1.15 <i>[6.6]</i>		VFS/NO		
Option A (by contractor)  Option B (by employer - free of charge)  Option C (by employer - metered)  NO  12.1.17	12.1.16	Water	123/140		
Option B (by employer - free of charge)  Option C (by employer - metered)  NO  12.1.17	[7.2]		VEC		
Option C (by employer - metered)  NO  12.1.17		Option B (by employer - free of charge)			
Option A (by contractor)  YES  Option B (by employer - free of charge)  NO  Option C (by employer - metered)  NO  12.1.18  Telecommunications  Telephone  YES  Facsimile  E-mail  YES  12.1.19  Ablution facilities  Option A (by contractor)  YES  Option B (by employer)  NO  12.1.20  Protection of existing/sectionally occupied works  Protection is required  NO		Option C (by employer - metered)			
Option B (by employer - free of charge)  NO Option C (by employer - metered)  NO  12.1.18 Telecommunications  [7.4] Telephone  YES Facsimile  YES E-mail  YES  12.1.19 Ablution facilities [7.5] Option A (by contractor)  YES Option B (by employer)  NO  12.1.20 Protection of existing/sectionally occupied works [11.2] NO	12.1.17				
Option C (by employer - metered)  NO  12.1.18 Telecommunications  [7.4] Telephone  YES  Facsimile  YES  E-mail  YES  12.1.19 Ablution facilities  [7.5] Option A (by contractor)  YES  Option B (by employer)  NO  12.1.20 Protection of existing/sectionally occupied works  [11.2] NO	[/.3]		YES		
12.1.18 Telecommunications  [7.4] Telephone  YES  Facsimile  E-mail  YES  12.1.19 Ablution facilities  [7.5] Option A (by contractor)  YES  Option B (by employer)  NO  12.1.20 Protection of existing/sectionally occupied works  [11.2] NO			NO		
[7.4] Telephone YES Facsimile YES E-mail YES  12.1.19 Ablution facilities [7.5] Option A (by contractor) YES Option B (by employer) NO  12.1.20 Protection of existing/sectionally occupied works [11.2] Protection is required NO		option c (by employer - metereu)	NO		
Facsimile  YES  E-mail  YES  12.1.19 Ablution facilities  [7.5] Option A (by contractor)  YES  Option B (by employer)  NO  12.1.20 Protection of existing/sectionally occupied works  [11.2] Protection is required  NO	12.1.18				
Facsimile  YES  E-mail  YES  12.1.19 Ablution facilities  [7.5] Option A (by contractor)  YES  Option B (by employer)  NO  12.1.20 Protection of existing/sectionally occupied works  [11.2] Protection is required  NO	[/. <del>4</del> ]	геерпопе	YES		
E-mail  YES  12.1.19 Ablution facilities  [7.5] Option A (by contractor)  YES  Option B (by employer)  NO  12.1.20 Protection of existing/sectionally occupied works  [11.2] Protection is required  NO		Facsimile			
12.1.19 Ablution facilities [7.5] Option A (by contractor)  YES  Option B (by employer)  NO  12.1.20 Protection of existing/sectionally occupied works [11.2] Protection is required  NO		F-mail	YES		
[7.5] Option A (by contractor)  YES  Option B (by employer)  NO  12.1.20 Protection of existing/sectionally occupied works  [11.2] Protection is required  NO			YES		
Option B (by employer)  NO  12.1.20 Protection of existing/sectionally occupied works [11.2] Protection is required  NO	12.1.19				
Option B (by employer)  NO  12.1.20 Protection of existing/sectionally occupied works  [11.2] Protection is required  NO	[7.5]	Opuon A (by contractor)	YES		
12.1.20 Protection of existing/sectionally occupied works [11.2] Protection is required  NO		Option B (by employer)			
[11.2] Protection is required NO	12.1.20	Protection of existing/sectionally occur			
	[11.2]				
Carried to Collection R			NO		
Carried to Collection R					
		Carried to Collecti	on	R	

12.1.21 <i>[9.2]</i>	<b>Special attendance Subcontractor</b> (1) details:			
	<b>Subcontractor</b> (2) details:			
	<b>Subcontractor</b> (3) details:			
	<b>Subcontractor</b> (4) details:			
12.1.22 <i>[11.1]</i>	<b>Protection of works</b> Specific requirements			
12.1.23 <i>[11.5]</i>	Disturbance Specific requirements: The contractor shall keep the site, structure watered during operations to prevent dust provide and erect and remove on completic works all necessary temporary dust screens satisfaction of the principal agent	and shall on of the		
12.1.22 <i>[11.1]</i>	<b>Protection of works</b> Specific requirements			
12.1.23 [11.5]	Disturbance Specific requirements: The contractor shall keep the site, structure watered during operations to prevent dust provide and erect and remove on complete works all necessary temporary dust screens satisfaction of the principal agent	and shall on of the		
12.1.24 <i>[11.6]</i>	<b>Environmental disturbance</b> Specific requirements:			
12.2	POST-TENDER INFORMATION			
12.2.1 <i>[10.2]</i>	Payment of preliminaries Option A (prorated) Option B (calculates)	YES/NO		
		YES/NO		
12.2.2 <i>[10.3]</i>	<b>Adjustment of preliminaries</b> Option A (three categories)	V=2 (1/2		
	Option B (detailed breakdown)	YES/NO		
12.2.3	<b>Additional agreed preliminaries items</b> Details:	YES/NO		
	Carried to Collec	tion	R	ŀ

	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		
101	C1 CONTRACT DRAWINGS		
	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 the acquaint himself with the nature and extend of the works and the manner in which they are to be executed  Should any part of the drawings not be clearly intelligible to the tenderer he shall, before submitting his tender, obtain		
	clarification in writing from the <b>principal agent</b>		
	Fixed:Value related: Time related:	item	
102	C2 GENERAL PREAMBLES		
	The document Specification of Materials and Methods to be used (PW371) is obtainable on request from the head office and all regional offices of the Department, and shall be read in conjunction with the <b>bills of quantities</b> and be referred to for the full descriptions of work to be done and materials to be used		
	Fixed:Value related: Time related:	item	
103	C3 TRADE NAMES		
	Wherever a trade name of any product has been described in the bills of quantities, the tenderers attention is drawn to the fact that any other product of equal quality may be used subject to the written approval of the principal agent being obtained 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		
	Fixed:Value related: Time related:	item	
	Carried to Collection	R	

104	C4 IMPORTED MATERIALS AND EQUIPMENT		
	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 to be completed		
	Nothwistanding 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)		
	Fixed:Value related: Time related:	item	
105	C5 VIEWING THE SITE IN SECURITY AREAS		
	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		
	Fixed:Value related: Time related:	item	
106	C6 COMMENCEMENT OF WORKS IN SECURITY AREAS		
	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>contractors</b> account		
	Fixed:Value related:		
	Time related:	item	
	Carried to Collection	R	

		ĺ	ı I	
107	C7 ENTRANCE PERMITS TO SECURITY AREAS			
	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			
	Fixed:Value related: Time related:	item		
108	C8 SECURITY CHECK OF PERSONNEL			
	The <b>principal agent</b> may require the <b>contractor</b> to have his personnel and workmen, or a certain number of them, security classified  In the event of the <b>principal agent</b> requesting the removal of a person or persons from the <b>works</b> for security reasons, the <b>contractor</b> shall do so forthwith and shall thereafter ensure that			
	such person or persons are denied access to the <b>works</b> and the <b>site</b> and/or to any document or information relating to the <b>works</b>			
	Fixed:Value related:Time related:	item		
109	C9 PROHIBITION ON TAKING OF PHOTOGRAPHS			
	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 civic 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.			
	Fixed:Value related: Time related:	item		
	Time reduced.	icen		
	Carried to Collection	R		

C10 HIV/AIDS AW	/ARENESS		
Specification of the Departr together with and is deemed Section of the Bills of Quant Provision for pricing of HIV C10.1 TO C10.5 hereafter at requirements of the aforemand be priced hereunder, as the	d to be incorporated under this ities.  /AIDS awareness is made under items and it is explicity pointed out that all entioned specification are deemed to e said items represent the only method ditional items or extras to the contract		
Specification is compulsory. compliance, the <b>principal</b> a of Clause A 31 of Section A: Preliminaries (Section A) or reserves the right to delay in <b>certificate</b> until the <b>contract</b> compliance. The <b>contract</b>	In the event of partial or total non- agent, notwithstanding the provisions any other clause to the contrary, ssuing any progress payment actor provides satisfactory proof of or shall not be entitled to any r nature, including interest, due to		
Awareness Champion include all in accordance with the H	efing and making available of an ling provision of all relevant services, IIV/AIDS Specification		
Fixed:Value re Time related:	elated:	item	
approved by the <b>principal</b> Workshop Plan and a suital workshops by means of trac techniques, including follow	of a completed Services Provider  agent, provision of a Service Provider ble venue, conducting of awareness ditional and/or modern multi-media u-up courses, making available all hing assessment procedures, all in IDS Specification		
Time related:		item	
	Carried to Collection	R	

112	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 <b>construction period</b> , all in accordance with the HIV/AIDS Specification		
	Fixed:Value related:	21	
	Time related:	item	
113	C10.4 ACCESS TO CONDOMS		
	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 <b>construction period</b> , all in accordance with the HIV/AIDS Specification		
	Fixed:Value related:		
	Time related:	item	
114	C10.5 MONITORING		
	Monitoring HIV/AIDS awareness of workers, providing the <b>Principal Agent</b> with access to information including making available all reports, thoroughly completed and reflecting the correct information, for the duration of the <b>construction period</b> and close out, all in accordance with the HIV/AIDS Specification		
	Fixed:Value related:		
	Time related:	item	
	Carried to Collection	R	

		 	l I
Section No.1			
PRELIMINARIES			
Bill No.1			
COLLECTION			
	Page No		
Total Brought Forward from Page No.	1		
	2		
	3		
	4		
	5		
	6		
	7		
	8		
	9		
	10		
	11		
	12		
	13		
	14		
	15		
	16		
	17		
	18		
Carried Forward			

		1	I	I
Section No.1				
PRELIMINARIES				
Bill No.1				
COLLECTION				
		Page No		
	Brought Forward			
Total Brought Forward from Page No.		19		
		20		
		21		
		22		
		23		
		24		
		25		
		26		
		27		
		28		
		29		
		30		
		31		
		32		
		33		
		34		
		35		
		36		
	Carried Forward			
Section No. 1	Carrieu Forward	I	l	II

PRELIMINARIES Bill No. 1

PRELIMINARIES			
Bill No.1			
COLLECTION			
		Page No	
	Brought Forward	40	
Total Brought Forward from Page No.		37	
		38	
Section No. 1 Ca	arried to Final Summary		

Bill No. 1

## SECTION NO. 2

## **Demolitions and Renovations**

		Unit	Quantity	Rate	. Amount	a SS
		Offic	Quartity	ixate	Amount	
	SECTION NO. 2					
	<u>Demolitions and Renovations</u>					
	BILL NO. 1					
	<u>DEMOLITIONS</u>					
	PREAMBLES					
	For preambles see "Specifications and methods to be used - PW371"					
	DEMOLITIONS, ETC					
	Demolition of existing dilapidated buildings comprising of concrete surface beds, half brick walls, corrugated iron roof covering on timber trusses including breaking up and removing all foundation concrete and brickwork, fillingwith selected earth filling and compact to 93% Mod AASHTO					
1	Single storey building with pitched roof, 243m2 on plan and 2850mm high at eaves, comprising unreinforced concrete surface bed, 230mm thick external walls, 230mm thick internal walls and corrugated roof covering on timber trusses	No	4			
2	Single storey building with pitched roof, 56m2 on plan and 2850mm high at eaves, comprising unreinforced concrete surface bed, 230mm thick external walls, 230mm thick internal walls and corrugated roof covering on timber trusses	No	1			
3	Pit toilet 20m2 on plan and 2850mm high at eaves, comprising pits, unreinforced concrete surface bed, 230mm thick external walls, 115mm thick internal walls,					
	corrugated roof covering on timber trusses, sucking waste in pits, filling and level the ground	No	1			
	Carried To Section Summary			R		
	Section No. 2			K		
	Bill No. 1					
	Demolitions					
	42					

		Lloit	Quantity	Doto	Amount	ia 55
		Unit	Quantity	Rate	Amount	
	SECTION NO. 2					
	Demolitions and Renovations					
	BILL NO. 2					
	ALTERATIONS					
	<u> </u>					
	PREAMBLES					
	For preambles see "Specifications and methods to be used - PW371"					
	TEMPORARY BARRICADES, SCREENS, ETC					
	Temporary barricades, screens, roofs, etc including removal					
1	Dust screen 1800mm high between concrete floor and					
	ceiling, of suitable timber framing with 375 micron polyethylene sheeting stapled on on one side, including					
	corners, ends, etc	m	130			
	Taking days and sometime waste flagge negaling					
	<u>Taking down and removing roofs, floors, panelling, ceilings, partitions, etc:</u>					
2	10 x 250mm fascia and barge boards	m	364			
	· ·	m²	1 109			
3	Take out and remove roof sheeting from roof trusses	111-	1 109			
	Taking out and removing sundry joinery work, fittings, etc					
4	Chalk boards size 4800 x 1220mm high from brick wall.	No	10			
5	Pinning boards size 2440 x 1220mm high from brick					
	walls.	No	20			
	Taking out/off and removing glass and mirrors					
6	Glass from steel windows, including cleaning out rebates					
	and preparing for new glass	m²	60			
	Taking down and removing roofs, floors, panelling,					
	ceilings, partitions, etc					
7	Nutec fibre cement ceilings, including cornices, timber brandering, etc	m²	964			
	-	111	304			
	Taking out doors, windows, etc					
8	Timber single door size 813 x 2032mm high overall from steel frames.	No	52			
		140	32			
9	Steel gate size 813 x 2032mm high overall from steel frames.	No	24			
		140	27			
	Breaking up and removing unreinforced concrete					
10	100mm Thick surface beds	m²	607			
				_		
	Carried to Collection			R		
	Section No. 2 Bill No. 2					
	Alterations					
	43					
	!		. 1			

					Chita Kekan	a SS
1		Unit	Quantity	Rate	Amount	I
	Hack up and removing granolithic screeds, plaster,					
	etc from concrete or brickwork and preparing surfaces for new screed, plaster, etc					
11	30mm screed from floors	m²	796			
	Hacking up/off and removing granolithic, screeds,					
	plaster, etc from concrete or brickwork and					
	preparing surfaces for new screed, plaster, tile					
	finishes, etc	_				
12	Internal plaster from walls	m²	960			
13	External plaster from walls, etc	m²	73			
						<del></del>
	Carried to Collection			R		
	Section No. 2					
	Bill No. 2					
	Alterations					
	44				I	

			Amount
BILL NO. 2 ALTERATIONS COLLECTION		Page No	
	Brought Forward from Page	43	
		44	
Section No. 2	Carried To Section Summary	R	
Bill No. 2 Alterations	45		

		1.1:4	O 4:4	Data	Chila Rekan	a 55
		Unit	Quantity	Rate	Amount	
	SECTION NO. 2					
	Demolitions and Renovations					
	BILL NO. 3					
	<u>EARTHWORKS</u>					
	PREAMBLES PREAMBLES					
	For preambles see "Specifications and methods to be used - PW371"					
	EXCAVATIONS ETC					
	Open face excavation in earth over site					
1	Open face excavation	m³	16			
	FILLING ETC					
	Earth filling obtained from the excavations (not					
	compacted)					
2	Over site to make up levels	m³	54			
	Compaction of surfaces					
3	Compaction of ground surface by compactor	m²	360			
	Coming To Continue Co			_		
	Carried To Section Summary Section No. 2			R		<u> </u>
	Bill No. 3					
	Earthworks					
	46					

					Chila Kekani	a 55
		Unit	Quantity	Rate	Amount	
	SECTION NO. 2					
	Demolitions and Renovations					
	BILL NO. 4					
	CONCRETE, FORMWORK AND REINFORCEMENT					
	GONGRETE, I GRIMWORK AND REINI GROEMERT					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371"					
	UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES					
	UNREINFORCED CONCRETE					
	15Mpa/19mm Concrete					
1	Aprons cast in panels.	m³	36			
2	Ramps.	m³	4			
3	Thickening down the edge of apron 150mm deep,					
٦	200mm top and tapering to 100mm at bottom including					
	all excavations, formwork, backfilling etc	m	360			
	REINFORCED CONCRETE					
	25 MPa/19mm Concrete:					
4	Surface beds cast in panels on waterproofing.	m³	25			
	TEST BLOCKS					
	Test blocks:					
_						
5	Making and testing set of three 150 x 150 x 150mm concrete strength test cubes (Provisional).	Sets	15			
	FINISHING TOP SURFACE OF CONCRETE					
6	Paving to falls.	m²	360			
7	Ramps to falls.	m²	8			
	ROUGH FORMWORK					
	Rough formwork to sides:					
8	Edges and reveals not exceeding 300mm high or wide.	m	368			
	MOVEMENT JOINTS ETC  Two layers of 5mm galvaniced mild steel alin is into					
	Two layers of .5mm galvanised mild steel slip joints between horizontal concrete and brick surfaces					
	including cement mortar bed:					
9	Not exceeding 300mm wide.	m	60			
	Carried to Collection			R		
	Section No. 2					
	Bill No. 4					
	Concrete, Formwork And Reinforcement					
	47					

		Unit	Quantity	Rate	Amount	a 00
			Quartity	Nate	Amount	
	Expansion joints with bitumen impregnated					
	softboard between vertical concrete and brick surfaces:					
10	12mm Joints not exceeding 300mm high.	m	75			
	Dividing Strips ,etc					
11	6 x 38mm Angle iron step guard cast into concrete with 3x 6mm anchors	m	5			
	REINFORCEMENT(PROVISIONAL)					
	Fabric reinforcement:					
12	Type 193 fabric reinforcement in concrete surface beds, slabs, etc.	m²	247			
	Carried to Collection			R		
	Section No. 2			IX.		
	Bill No. 4					
	Concrete, Formwork And Reinforcement					
	48					

	ſ	Amount	
BILL NO. 4  CONCRETE, FORMWORK AND REINFORCEMENT  COLLECTION	Page No		
Brought Forward from Page	47 48		
Carried To Section Summary	R		
Section No. 2 Bill No. 4	, and the second		
Concrete, Formwork And Reinforcement 49			
<del>4</del> 9	1		

				Chita Kekan	ıa S
	Unit	Quantity	Rate	Amount	
SECTION NO. 2					
Demolitions and Renovations					
BILL NO. 5					
MASONRY					
PREAMBLES					
For preambles see "Specification of materials and methods to be used - PW371"					
BRICKWORK					
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.					
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.					
<u>SAMPLES</u>					
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.					
FACE BRICKWORK COPINGS, SILLS, ETC.					
Brick-on-edge header course copings, sills, etc of face bricks prime cost R5500/1000 delivered to site excluding VAT and pointed with recessed joints on all exposed faces:					
230mm Wide sill set sloping and slightly projecting.	m	32			
					+
Carried To Section Summary			R		
Section No. 2 Bill No. 5					
Masonry					
50					

			•		Chita Kekan	a 55
		Unit	Quantity	Rate	Amount	
	SECTION NO. 2					
	Demolitions and Renovations					
	BILL NO. 6					
	ROOF COVERINGS					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW 371					
	General					
	PROFILED METAL SHEETING AND ACCESSORIES					
	0.58mm "Klip-lok light industrial" galvanised troughed sheet steel with "chromadek" finish one side, fixed to 76 x 50mm purlin complete under 5year quarantee by an approved firm of specialists, all in accordance with the materials supplied and methods employed by the manufacturer					
1	Roof covering with pitch not exceeding 25 degrees.	m²	1 109			
	0.58mm galvanised sheet iron, with "chromadek" one side in:					
2	Standard type FK3 ridge or hip flashing	m	107			
	Carried To Section Summary			R		
	Section No. 2					
	Bill No. 6 Roof Coverings					
	51					
- 1	·			ļ.		

				Chita Kekana	a SS
1	Unit	Quantity	Rate	Amount	
SECTION NO. 2					
Demolitions and Renovations					
BILL NO. 7					
CARPENTRY AND JOINERY					
DDE AMDLES					
PREAMBLES  Ear prombles and "Specification of materials and					
For preambles see "Specification of materials and methods to be used - PW371					
SUPPLEMENTARY PREAMBLES					
Particle board:					
Particle board shall comply with the following specifications: a) SABS 1300 Particle board: exterior and flooring type b) SABS 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.					
Decorative laminate finish:					
Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish.					
PREFABRICATED ROOF TRUSSES, ETC.					
Plate nailed timber roof truss construction:					
The following is applicable in respect of roof trusses: Trusses are at maximum 1200mm centres Roof covering is 'Klip-lok' roof sheeting on 76 x 50mm purlins. Ceilings are 6mm sheeting on 38 x 50mm brandering .Refer to drawings at the end of these bills of quantities for full details. All trusses are fabricated in a factory by specialists approved by the Architect. All trusses shall be designed by a Registered Professional Engineer(in accordance with the draft SABS Code of Practice for Design of Timber Trusses). The manufacturer of trusses shall supply a written quarantee that the trusses are designed, manufactured, and erected, to support the roof coverings specified. The quarntee shall be valid for 10(ten) years .					
Carried to Collection			R		
Section No. 2 Bill No. 7			.,		
Carpentry And Joinery					
52					

					Chita Kekana	3 55
١		Unit	Quantity	Rate	Amount	
	ROOF SUNDRIES					
	Sundries:					
1	Two coats creosote on sawn timbers.	m²	91			
	EAVES, VERGES, ETC					
	Everite FC77 or equal approved pressed fibre- cement:					
2	10 x 250mm Fascias and barge boards including galvanised steel H-profile jointing strips.	m	384			
	Wrought meranti doors:					
	Wrought meranti doors hung to steel frames:					
3	44mm Framed batten door 813 x 2032mm high of 44 x 150m top rail and stiles ,16 x 150mm middle ledge and braces and 22 x 220mm bottom rail, filled in with 22mmV-jointed one side boarding and covered on other side with 4mm plywood with veneer to match door, let into and including rebates all round.	No	24			
	DOORS ETC					
	Semi-solid flush doors with veneer					
4	40mm Door 813 x 2032mm high	No	28			
	<b>G</b>					
	Carried to Collection			R		
	Section No. 2					
	Bill No. 7					
	Carpentry And Joinery 53					
	33					

I			Amount	
BILL NO. 7				
CARPENTRY AND JOIN COLLECTION	<u>IERY</u>			
		Page No		
	Brought Forward from Page	52		
		53		
Section No. 2	Carried To Section Summary	R		
Bill No. 7 Carpentry And Joinery				
	54			

		Unit	Quantity	Rate	. Amount	ia SS
		Offic	Quantity	Nate	Amount	
	SECTION NO. 2					
	Demolitions and Renovations					
	BILL NO. 8					
	CEILINGS PARTITIONS AND ACCESS FLOORING					
	DDE AMDI EC					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	SUPPLEMENTARY PREAMBLES					
	Descriptions:					
	Items described as nailed shall be deemed to be fixed with hardened steel nails or pins or shot pinned to brickwork or concrete.					
	Items described as plugged shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres, and where described as bolted the bolts have been given.					
	INSULATION					
	Aerolite insulation:					
1	100mm Insulation closely fitted and laid on top of brandering between roof timbers etc.	m²	964			
	Wrought softwood					
2	19 x 76mm cornices nailed	m	450			
	NAILED UP AND SCREW UP CEILINGS					
	6mm Everite Nutec or equal approved fibre-cement					
	boards with H-type steel cover strips over joints:					
3	Ceilings including 38 x 38mm sawn softwood brandering					
	at 400mm centres.	m²	964			
4	Extra over ceiling for hinged trap door size 610 x 610mm	No	17			
	Carried To Section Summary			R		
	Section No. 2					
	Bill No. 8					
	Ceilings Partitions And Access Flooring					
	55					

			0 "	D (	Chita Kekan	a SS
		Unit	Quantity	Rate	Amount	
	SECTION NO. 2					
	Demolitions and Renovations					
	BILL NO. 9					
	IRONMONGERY					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	SUPPLEMENTARY PREAMBLES					
	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: AS Anodised silver: AB Anodised bronze: AG Anodised gold: ABL Anodised black: PB Polished brass: PL Polished and lacquered: PT Epoxy coated.					
	SUNDRIES					
	Brass or equal approved:					
1	Sliding window stay plugged	No	160			
2	Window handle plugged	No	160			
	Locks:					
	Solid or equal approved:					
3	CZ682-24-95SC"Gower" three lever lockset plugged	No	52			
	CATCHES, CABIN HOOKS, ETC					
	Solid or equal approved					
4	100mm cabin hook and eye including 70 x 70 x 20mm chamfered hardwood block twice oiled plugged	No	24			
	LOCKS					
	Solid or equal approved					
5	'Code 63' padlock plugged.	No	24			
	PINNING BOARDS, WRITING BOARDS, PROJECTION SCREENS, ETC					
6	Pinning board 2400 x 1200mm high plugged.	No	20			
	Carried to Collection			R		
	Section No. 2					
	Bill No. 9					
	Ironmongery					
	56				I	

7 Vitrex or equal approved system enamelled green folding, writing board with wall mounted centre board 4800 x 1220mm high with chalk rail and two swing leaves each 1200 x 1220mm high plugged with chalk rail pluged.  Greenfield steel lockers with standard baked enamel finish  8 Double door steel cupboard 914 x 457 x 1828mm high with five shelves bolted to brickwork.  No 10  To the finish of						Chita Kekar	ia SS
folding, writing board with wall mounted centre board 4800 x 1220mm high with chalk rail and two swing leaves each 1200 x 1220mm high plugged with chalk rail plugged.  Greenfield steel lockers with standard baked enamel finish  8 Double door steel cupboard 914 x 457 x 1828mm high with five shelves bolled to brickwork.  No 10  Carried to Collection Section No. 2  Bill No. 9  Ironmongery	1		Unit	Quantity	Rate	Amount	ı
folding, writing board with wall mounted centre board 4800 x 1220mm high with chalk rail and two swing leaves each 1200 x 1220mm high plugged with chalk rail plugged.  Greenfield steel lockers with standard baked enamel finish  8 Double door steel cupboard 914 x 457 x 1828mm high with five shelves bolled to brickwork.  No 10  Carried to Collection Section No. 2  Bill No. 9  Ironmongery							
folding, writing board with wall mounted centre board 4800 x 1220mm high with chalk rail and two swing leaves each 1200 x 1220mm high plugged with chalk rail plugged.  Greenfield steel lockers with standard baked enamel finish  8 Double door steel cupboard 914 x 457 x 1828mm high with five shelves bolled to brickwork.  No 10  Carried to Collection Section No. 2  Bill No. 9  Ironmongery							
folding, writing board with wall mounted centre board 4800 x 1220mm high with chalk rail and two swing leaves each 1200 x 1220mm high plugged with chalk rail plugged.  Greenfield steel lockers with standard baked enamel finish  8 Double door steel cupboard 914 x 457 x 1828mm high with five shelves bolled to brickwork.  No 10  Carried to Collection Section No. 2  Bill No. 9  Ironmongery	7	Vitrex or equal approved system enamelled green					
A800 x 1220mm high with chalk rail and two swing leaves each 1200 x 1220mm high plugged with chalk rail plugged.  Greenfield steel lockers with standard baked enamel finish  Double door steel cupboard 914 x 457 x 1828mm high with five shelves bolted to brickwork.  No 10  Carried to Collection Section No. 2  Bill No. 9  Ironmongery	'	folding ,writing board with wall mounted centre board					
leaves each 1200 x 1220mm high plugged with chalk rail plugged.  Greenfield steel lockers with standard baked enamel finish  8 Double door steel cupboard 914 x 457 x 1828mm high with five shelves bolted to brickwork.  No 10  To 10  Carried to Collection Section No. 2  Bill No. 9  Ironmongery		4800 x 1220mm high with chalk rail and two swing					
Carried to Collection Section No. 2 Bill No. 9 Ironmongery		leaves each 1200 x 1220mm high plugged with chalk rail					
8 Double door steel cupboard 914 x 457 x 1828mm high with five shelves bolted to brickwork.  No 10  Carried to Collection Section No. 2 Bill No. 9 Ironmongery		piuggea.	No	10			
8 Double door steel cupboard 914 x 457 x 1828mm high with five shelves bolted to brickwork.  No 10  Carried to Collection Section No. 2 Bill No. 9 Ironmongery		Greenfield steel lockers with standard baked enamel					
Section No. 2 Bill No. 9 Ironmongery  No 10							
with five shelves bolted to brickwork.  No  10  Carried to Collection Section No. 2 Bill No. 9 Ironmongery	R						
Carried to Collection Section No. 2 Bill No. 9 Ironnongery		with five shelves bolted to brickwork.	No	10			
Section No. 2 Bill No. 9 Ironmongery							
Section No. 2 Bill No. 9 Ironmongery							
Section No. 2 Bill No. 9 Ironmongery							
Section No. 2 Bill No. 9 Ironmongery							
Section No. 2 Bill No. 9 Ironmongery							
Section No. 2 Bill No. 9 Ironmongery							
Section No. 2 Bill No. 9 Ironmongery							
Section No. 2 Bill No. 9 Ironmongery							
Section No. 2 Bill No. 9 Ironmongery							
Section No. 2 Bill No. 9 Ironmongery							
Section No. 2 Bill No. 9 Ironmongery							
Section No. 2 Bill No. 9 Ironmongery							
Section No. 2 Bill No. 9 Ironmongery							
Section No. 2 Bill No. 9 Ironmongery							
Section No. 2 Bill No. 9 Ironmongery							
Section No. 2 Bill No. 9 Ironmongery							
Section No. 2 Bill No. 9 Ironmongery							
Section No. 2 Bill No. 9 Ironmongery							
Section No. 2 Bill No. 9 Ironmongery							
Section No. 2 Bill No. 9 Ironmongery							
Section No. 2 Bill No. 9 Ironmongery							
Section No. 2 Bill No. 9 Ironmongery							
Section No. 2 Bill No. 9 Ironmongery							
Section No. 2 Bill No. 9 Ironmongery							
Section No. 2 Bill No. 9 Ironmongery							
Section No. 2 Bill No. 9 Ironmongery							
Section No. 2 Bill No. 9 Ironmongery							
Section No. 2 Bill No. 9 Ironmongery							
Section No. 2 Bill No. 9 Ironmongery							
Section No. 2 Bill No. 9 Ironmongery							
Section No. 2 Bill No. 9 Ironmongery							
Section No. 2 Bill No. 9 Ironmongery							
Section No. 2 Bill No. 9 Ironmongery							
Section No. 2 Bill No. 9 Ironmongery							
Section No. 2 Bill No. 9 Ironmongery							
Bill No. 9 Ironmongery					R		
Ironmongery							
		Bill No. 9					
57		Ironmongery					
		57					

I			Amount
BILL NO. 9 IRONMONGERY COLLECTION		Page No	
	Brought Forward from Page	56	
		57	
	Carried To Section Summary	R	
Section No. 2 Bill No. 9 Ironmongery			
	58		

					Chita Kekana	a SS
ı	1	Unit	Quantity	Rate	Amount	
	SECTION NO. 2					
	<u>Demolitions and Renovations</u>					
	BILL NO. 10					
	METALWORK					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	SUPPLEMENTARY PREAMBLES					
	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.					
	MILD STEEL HANDRAILS AND BALUSTRADING					
	Mild steel handrails and balustrades fixed to base plates constructed of two number 6mm steel flat bar					
	cut to profile mounted to wall with 6mm thick steel fixing plate welded to two steel flat bars with 4mm fillet welds chemical anchors (bolts included), 12mm dia. Mild steel round spaced at 150mm centres, pedrilled openning 3No. In each upright, top rail to					
	be 30mm thick x 100mm wide steel					
1	Balustrading and handrails approximately 1000mm high fixed to concrete.	m	83			
	WELDED SCREENS, GATES, ETC.					
	Gates to external doors					
2	Single gate and frame 813 x 2032mm high of 25 x 25x 2mm hollow section frame and 25 x 25x 2mm hollow section horizontal middle rail filled in with 12 x 12mm square section vertical rails at 75mm centres and fitted with a pair of suitable hinges welded to frame and with locking mechanism for padlock all in and including outer frame of 25 x 25 x 2mm hollow section welded frame bolted to brickwork.	No	24			
	Repair to existing door frames					
3	Repair to existing door frames including replacing					
J	striking plate and leave in good working order.	No	24			
	Carried To Section Summary			R		
	Section No. 2					
	Bill No. 10					
	Metalwork					
	59					

			<b>.</b>	<b>5</b> .	Chita Kekan	ia SS
		Unit	Quantity	Rate	Amount	
	SECTION NO. 2					
	Demolitions and Renovations					
	BILL NO. 11					
	PLASTERING					
	LAGILINIO					
	<u>PREAMBLES</u>					
	For preambles see "Specification of materials and methods to be used - PW371					
	SCREEDS					
	Screeds on concrete:					
	Screeds of wood floated on concrete to receive					
	ceramic tiles:					
1	30mm Thick on floors and landings.	m²	796			
	GRANOLITHIC					
	Untinted wood floated granolithic on concrete					
2	30mm Thick on floors and landings.	m²	120			
	INTERNAL PLASTER					
	Cement plaster steel trowelled, on brickwork					
3	On walls	m²	960			
J	Off Walls	111	900			
	Carried To Section Summary			R		
	Section No. 2					
	Bill No. 11					
	Plastering					
	60					

					Chita Kekan	a SS
		Unit	Quantity	Rate	Amount	
	OFOTION NO. 0					
	SECTION NO. 2					
	Demolitions and Renovations					
	BILL NO. 12 TILING					
	HEING					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	FLOOR TILING					
	300 x 300 x 11.5mm ceramic floor tiles (Prime Cost amount R250.00/m2 delivered excluding vat) fixed					
	with adhesive to screed (screed elsewhere) and					
	flush pointed with tinted waterproof jointing compound					
1	On floors and landings.	m²	740			
2	Skirting formed of ceramic tile cut to 300 x 75mm high	m	212			
	Carried To Section Summary			R		
	Section No. 2					
	Bill No. 12					
	Tiling					
	61				1	

				Chita Kekan	a SS
]	Unit	Quantity	Rate	Amount	
SECTION NO. 2					
SECTION NO. 2  Demolitions and Renovations					
BILL NO. 13					
PLUMBING AND DRAINAGE					
PREAMBLES					
For preambles see "Specification of materials and methods to be used - PW371					
SUPPLEMENTARY PREAMBLES					
Concrete pipes:					
Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rings.					
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.					
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					
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					
Carried to Collection			R		
Section No. 2					
Bill No. 13 Plumbing And Drainage					
Flumbing And Drainage 62					
32		ı l		II	I

				Chita Kekar	na SS
	Unit	Quantity	Rate	Amount	
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.					
Septic tanks:					
Descriptions of septic tanks shall be deemed to include excavation, bedding and jointing, concrete base slabs, jointing to drains and backfilling, compaction, etc all in accordance with the manufacturer's instructions.					
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'.					
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 SAB.					
Flush pans:					
Flush pans shall have straight or side outlets and 'P' or 'S' traps as necessary.					
Carried to Collection			Б.		
Section No. 2			R		
Bill No. 13					
Plumbing And Drainage					
63					

		1 1 !4	0	Data	Amazint	a 33
		Unit	Quantity	Rate	Amount	
	Stainless steel basins, sinks, wash troughs, urinals, etc:					
	Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable.					
	Waste unions:					
	Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings.					
	RAINWATER DISPOSAL					
	Approved .6mm galvanised sheet iron with "chromadek" finish ,in:					
1	100 x 100mm Eaves gutters	m	360			
2	Extra over eaves gutter for angle/corner.	No	4			
3	Extra over eaves gutter for stopped end	No	34			
4	Extra over eaves gutter for outlet for 75mm pipe.	No	54			
5	75mm Diameter rainwater pipes.	m	168			
6	Extra over rainwater pipe for bend.	No	42			
7	Extra over rainwater pipe for shoe.	No	42			
	Repair enviro-loo units					
8	Allow a provisional sum of R3000/each to repair enviroloo units and leave in good working order.	No	27			
	FIRE APPLIANCES ETC.					
	'Chubb' or equal approved:					
9	9kg Dry chemical fire extinguisher plugged.	No	17			
	RAINWATER HARVESTING					
	Rainwater harvesting.					
10	Allow a sum of R15 000.00/each (Fifteen Thousand Rands) for provision of 5000l Jojo or equal approved tank complete with lid, fittings, tap, concrete plinth as per Architect details	No	6			
	Conside to Collection					
	Carried to Collection Section No. 2			R		
	Bill No. 13					
	Plumbing And Drainage					
	64					

	I	Amount	
BILL NO. 13 PLUMBING AND DRAINAGE COLLECTION	Page No		
Brought Forward from Page	62 63		
	64		
	_		
Carried To Section Summary Section No. 2 Bill No. 13	R		
Plumbing And Drainage 65			

					Chita Kekan	a 55
		Unit	Quantity	Rate	Amount	I
	SECTION NO. 2					
	Demolitions and Renovations					
	BILL NO. 14					
	<u>GLAZING</u>					
	PREAMBLES					
	For preambles see "Specification of materials and					
	methods to be used - PW371					
	GLAZING TO STEEL WITH PUTTY					
	5mm Clear float glass:					
1	Panes not exceeding 0,1m2.	m²	60			
•	Talloo flot oxooodillig o, filiz.					
	Carried To Section Summary			R		
	Section No. 2			ĸ		_
	Bill No. 14					
	Glazing					
	66					

		Unit	Quantity	Rate	. Amount	3 33
		· · · · ·			7	
	SECTION NO. 2					
	<u>Demolitions and Renovations</u>					
	BILL NO. 15					
	<u>PAINTWORK</u>					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	ON FLOATED PLASTER					
	Prepare , etc as specified and apply two coats of super acrylic paint:					
1	On interior walls.	m²	960			
	ON FIBRE-CEMENT, ETC.					
	Prepare, etc as specified and apply two coats of super acrylic Pva paint:					
2	On ceilings and cornices.	m²	964			
3	On fascias and barge boards.	m	450			
	ON METAL					
	Prepare, etc as specified and apply two coats of gloss enamel paint on :					
4	Door frames	m²	78			
5	On windows with burglar bars (both sides measured).	m²	278			
6	On gates, grilles, burglar screens, balustrades, etc (both sides measured over the full flat area).	m²	245			
	Inside eaves gutter					
7	Inside eaves gutter with water proofing paint.	m²	158			
	ON WOOD, WOOD BOARD					
	Prepare, etc as specified and apply two coats of					
	polyurethane suede varnish:					
8	On general surfaces of doors.	m²	79			
	ON NEW WOOD SURFACES					
	One coat primer, one coat alkyd based universal					
	undercoat and two coats superior quality universal enamel paint					
9	Doors	m²	92			
	Carried To Section Summers			R		
	Carried To Section Summary Section No. 2			ĸ		
	Bill No. 15					
	Paintwork					
	67					

Amount **SECTION NO. 2 Demolitions and Renovations SECTION SUMMARY** Bill No. Page 1 **DEMOLITIONS** 42 2 45 **ALTERATIONS** 3 **EARTHWORKS** 46 4 CONCRETE, FORMWORK AND REINFORCEMENT 49 5 **MASONRY** 50 6 **ROOF COVERINGS** 51 7 CARPENTRY AND JOINERY 54 CEILINGS PARTITIONS AND ACCESS FLOORING 8 55 9 **IRONMONGERY** 58 10 **METALWORK** 59 11 **PLASTERING** 60 12 TILING 61 PLUMBING AND DRAINAGE 13 65 14 **GLAZING** 66 15 **PAINTWORK** 67 Carried to Final Summary R Section No. 2 **SECTION SUMMARY** 68

## SECTION NO. 3 4 x 5 Classroom Block

		Unit	Quantity	Rate	. Amount	a SS
		Offic	Quartity	rate	Amount	
	SECTION NO. 3					
	4 x 5 Classroom Block					
	BILL NO. 1					
	<u>FOUNDATIONS</u>					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371"					
	SITE CLEARANCE ETC					
	Site clearance:					
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc.	m²	450			
	REMOVAL OF TREES, ETC.					
	Taking out and removing, grubbing up roots and filling in holes:					
2	Tree stump exceeding 200mm and not exceeding 500mm girth.	No	1			
	EXCAVATION, FILLING, ETC OTHER THAN BULK					
	Excavation in earth not exceeding 2m deep:					
3	Trenches.	m³	155			
	Extra over trench and hole excavations in earth for excavation:					
4	Soft rock.	m³	12			
5	Hard rock.	m³	6			
	Risk of collapse of excavations:					
6	Sides of trench and hole excavations not exceeding 1,5m deep.	m²	358			
	·	111	330			
	Keeping excavations free of water:					
7	Keeping excavations free of all water other than subterranean water.	Item				
	Earth filling obtained from excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO:					
8	Backfilling to trenches, holes, etc.	m³	62			
9	Under floors, steps, pavings, etc.	m³	56			
	, 1 ,1 3 ,					
	O			_		$\vdash$
	Carried to Collection Section No. 3			R		<u> </u>
	Bill No. 1					
	Foundations					
	70					

		Unit	Quantity	Rate	. Amount	a 33
		Offic	Quantity	rate	Amount	
	Earth filling supplied by the Contractor and compacted to 95% Mod AASHTO density):					
10	Under floors, steps, pavings, etc.	m³	193			
	Cart Away					
	Extra over excavation for cart away:					
11	Surplus material from excavations on site to a dumping site be located by the contractor	m³	7			
	Coarse river sand filling supplied by the Contractor:					
12	Under floors etc.	m³	19			
	COMPACTION					
	Compaction of surfaces:					
13	Compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 90%. Mod AASHTO density.	m²	394			
	Prescribed density tests on filling:					
14	Modified AASHTO Density test.	No	12			
	SOIL POISONING Soil insecticide:					
15		2	004			
		m²	394			
16	To bottoms and sides of trenches etc.	m²	501			
	Carried to Collection			R		
	Section No. 3					
	Bill No. 1 Foundations					
	Foundations 71					
I	• •		1		I	I

			Amount	
BILL NO. 1 FOUNDATIONS COLLECTION		Page No		
	Brought Forward from Page	70		
		71		
Section No. 3	Carried To Section Summary	R		
Bill No. 1 Foundations	72			
	1 4		ı	,

		1.124	0	Dete	A	a 55
		Unit	Quantity	Rate	Amount	
	SECTION NO. 3					
	4 x 5 Classroom Block					
	BILL NO. 2					
	CONCRETE, FORMWORK AND REINFORCEMENT					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371"					
	UNREINFORCED CONCRETE					
	15Mpa/19mm Concrete					
1	Aprons cast in panels.	m³	10			
2	Ramps.	m³	2			
3	Thickening down the edge of apron 150mm deep,					
	200mm top and tapering to 100mm at bottom including all excavations, formwork, backfilling etc	m	104			
	REINFORCED CONCRETE					
	25 MPa/19mm Concrete:					
4	Footings.	m³	31			
5	Surface beds cast in panels on waterproofing.	m³	38			
	TEST BLOCKS					
	Test blocks:					
6	Making and testing set of three 150 x 150 x 150mm					
0	concrete strength test cubes (Provisional).	Sets	10			
	FINISHING TOP SURFACE OF CONCRETE					
7	Paving to falls.	m²	104			
8	Ramps to falls.	m²	4			
	ROUGH FORMWORK (DEGREE OF ACCURACY III) (CPAP Work Group No 111)					
	Rough Formwork to Sides:					
9	Edges and reveals not exceeding 300mm high or wide.	m	104			
	MOVEMENT JOINTS ETC					
	Two layers of .5mm galvanised mild steel slip joints between horizontal concrete and brick surfaces including cement mortar bed:					
10	Not exceeding 300mm wide.	m	60			
	Carried to Collection			R		
	Section No. 3					
	Bill No. 2 Concrete, Formwork And Reinforcement					
	73					
	- 1		1	Į.	I	I

		Unit	Quantity	Rate	, Amount	a 33
			Quantity	rate	Amount	
	Expansion joints with bitumen impregnated					
	softboard between vertical concrete and brick surfaces:					
11	12mm Joints not exceeding 300mm high.	m	75			
	Dividing Strips ,etc					
12	6 x 38mm Angle iron step guard cast into concrete with 3x 6mm anchors	m	5			
	REINFORCEMENT(PROVISIONAL)					
	Fabric reinforcement:					
13	Type 193 fabric reinforcement in concrete surface beds, slabs, etc.	m²	394			
	Steel reinforcement to structural concrete work:					
14	Various sizes	Tonnes	6			
	Carried to Collection			R		
	Section No. 3					
	Bill No. 2					
	Concrete, Formwork And Reinforcement					
	74					

	I	Amount	
BILL NO. 2  CONCRETE, FORMWORK AND REINFORCEMENT  COLLECTION	Page No		
Brought Forward from Page	73 74		
Carried To Section Summary Section No. 3 Bill No. 2 Concrete, Formwork And Reinforcement	R		
75			

					Chita Kekan	a SS
	I	Unit	Quantity	Rate	Amount	
	SECTION NO. 3					
	4 x 5 Classroom Block					
	BILL NO. 3					
	MASONRY					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371"					
	BRICKWORK					
	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.					
	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.					
	BRICKWORK IN FOUNDATIONS (PROVISIONAL)					
	Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:					
1	One brick walls	m²	249			
	BRICKWORK IN SUPERSTRUCTURE					
	Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:					
2	One brick walls	m²	453			
	BRICKWORK SUNDRIES					
	Brickwork reinforcement:					
3	75mm Wide reinforcement built in horizontally.	m	102			
4	150mm Wide reinforcement built in horizontally.	m	2 118			
	Carried to Collection			R		
	Section No. 3					
	Bill No. 3 Masonry					
	76					
ı	!		1	l	1	1

		Unit	Quantity	Rate	Amount	a 33
		Ome	Quantity	rato	, anodin	
	Turning pieces:					
5	220mm Wide turning piece to lintels etc.	m	51			
	Galvanised wire ties etc:					
6	4mm Diameter roof tie 2m girth bent double with one					
	end fixed to timber and other end built into brickwork (Provisional)	No	104			
	,	140	104			
7	Galvanised hoop iron cramps, ties, etc:  30 x 1,6mm Cramp 500mm long with one end fixed to					
'	wood and other end built into brickwork (Provisional)	No	104			
	FACE BRICKWORK					
	Face bricks (Prime cost R5 500/1000 delivered to					
	site excluding VAT) pointed with flush horizontal and vertical joints:					
8	Extra over brickwork for face brickwork.	m²	318			
	Extra over brickwork for face brickwork in foundations	•••	010			
9	(Provisional).	m²	92			
10	Half brick in facings in beamfilling	m²	31			
	FACE BRICKWORK COPINGS, SILLS, ETC.					
	Brick-on-edge header course copings, sills, etc of face bricks (Prime cost R5500/1000 delivered to site					
	excluding VAT) and pointed with recessed joints on all exposed faces:					
11	Extra over brickwork for brick-on-edge header course lintel pointed on face and 110mm soffit.	m	56			
12	230mm Wide sill set sloping and slightly projecting.	m	51			
13	Coping on top of one brick wall pointed on exposed	m	46			
13	faces	""	40			
	NUTEC-CEMENT/FIBRE-CEMENT WINDOW SILLS					
	Natural grey sills in single lengths bedded in class I mortar including metal fixing lugs etc:					
14	12 x 152mm Wide sills set flat and slightly projecting.	m	51			
	Carried to Collection			R		
	Section No. 3 Bill No. 3					
	Masonry					
	77					

			Amount
BILL NO. 3 MASONRY COLLECTION		Page No	
	Brought Forward from Page	76	
		77	
Section No. 3 Bill No. 3 Masonry	Carried To Section Summary	R	
,	78		

		Unit	Quantity	Rate	. Amount	a 55
		Offic	Quartity	Nate	Amount	
	SECTION NO. 3					
	4 x 5 Classroom Block					
	BILL NO. 4					
	WATERPROOFING					
	PREAMBLES PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	DAMPPROOFING OF WALLS AND FLOORS					
	One layer of 375 micron Consol Plastics Brikgrip  DPC embossed damp proof course:					
1	In walls.	m²	43			
	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	394			
	JOINT SEALANTS ETC					
	silicone sealing compound including backing cord, bond breaker,primer,etc					
3	12 x 20mm in expansion joints in floors including raking out expansion joint filler as necessary (Provisional)	m	99			
4	12 x 20mm in vertical expansion joints in walls including raking out expansion joint filler as necessary	m	68			
	Carried To Section Summary			R		
	Section No. 3			K		_
	Bill No. 4					
	Waterproofing					
	79					

SECTION NO. 3  4 x 5 Classroom Block BILL NO. 5 ROOF COVERINGS  PREAMBLES  PREAMBLES  For preambles see "Specification of materials and methods to be used - PW 371  PROFILED METAL SHEETING AND ACCESSORIES 0.58mm "Killook light industrial" galvanised troughed sheet steel with "Globalcoat" finish one side (colour Traffic Green), fixed to 76 x 56mm purlin complete under Syear guarantee by an approved firm of specialists, all in accordance with the materials supplied and methods employed by the manufacturer  1 Roof covering with pitch not exceeding 25 degrees. 0.58mm galvanised sheet iron, with "chromadek" one side in: 2 Standard type FK3 ridge or hip flashing  Carried To Section Summary  R  Carried To Section Summary  Section No. 3  Bill No. 5  Roof Coverings  BO  Amount  Am						Chita Kekan	a SS
### Act Classroom Block BILL NO.5  ROOF COVERINGS  PREAMBLES  For preambles see "Specification of materials and methods to be used - PW 371  PROFILED METAL SHEETING AND ACCESSORIES  0.58mm "Kilp-lok light industrial" galvanised troughed sheet steel with "Globalcoat" finish one side (colour Traffic Green), fixed to 76 x 50mm purilin complete under Syear quarantee by an approved firm of specialists, all in accordance with the materials supplied and methods employed by the manufacturer  Roof covering with pitch not exceeding 25 degrees.  0.58mm galvanised sheet iron, with "chromadek" one side in:  2 Standard type FK3 ridge or hip flashing  Carried To Section Summary  R  Section No. 3  Bill No. 5  Roof Coverings			Unit	Quantity	Rate	Amount	
### Act Classroom Block BILL NO.5  ROOF COVERINGS  PREAMBLES  For preambles see "Specification of materials and methods to be used - PW 371  PROFILED METAL SHEETING AND ACCESSORIES  0.58mm "Kilp-lok light industrial" galvanised troughed sheet steel with "Globalcoat" finish one side (colour Traffic Green), fixed to 76 x 50mm purilin complete under Syear quarantee by an approved firm of specialists, all in accordance with the materials supplied and methods employed by the manufacturer  Roof covering with pitch not exceeding 25 degrees.  0.58mm galvanised sheet iron, with "chromadek" one side in:  2 Standard type FK3 ridge or hip flashing  Carried To Section Summary  R  Section No. 3  Bill No. 5  Roof Coverings							
### Act Classroom Block BILL NO.5  ROOF COVERINGS  PREAMBLES  For preambles see "Specification of materials and methods to be used - PW 371  PROFILED METAL SHEETING AND ACCESSORIES  0.58mm "Kilp-lok light industrial" galvanised troughed sheet steel with "Globalcoat" finish one side (colour Traffic Green), fixed to 76 x 50mm purilin complete under Syear quarantee by an approved firm of specialists, all in accordance with the materials supplied and methods employed by the manufacturer  Roof covering with pitch not exceeding 25 degrees.  0.58mm galvanised sheet iron, with "chromadek" one side in:  2 Standard type FK3 ridge or hip flashing  Carried To Section Summary  R  Section No. 3  Bill No. 5  Roof Coverings		SECTION NO. 3					
BILL NO. 5 ROOF COVERINGS  PREAMBLES For preambles see "Specification of materials and methods to be used - PW 371 PROFILED METAL SHEETING AND ACCESSORIES 0.58mm "Klip-lok light industrial" galvanised troughed sheet steel with "Globalcoat" finish one side (colour Traffic Green), fixed to 76 x 50mm purlin complete under Syear quarantee by an approved firm of specialists, all in accordance with the materials supplied and methods employed by the manufacturer Roof covering with pitch not exceeding 25 degrees. 0.58mm galvanised sheet iron, with "chromadek" one side in: 2 Standard type FK3 ridge or hip flashing m 47  Carried To Section Summary Section No. 3 Bill No. 5 Roof Coverings							
ROOF COVERINGS PREAMBLES For preambles see "Specification of materials and methods to be used - PW 371 PROFILED METAL SHEETING AND ACCESSORIES 0.58mm "Kilp-Jok light industrial" galvanised troughed sheet steel with "Globalcoat" finish one side (colour Traffic Green), fixed to 76 x 50mm purlin complete under Syear quarantee by an approved firm of specialists, all in accordance with the materials supplied and methods employed by the manufacturer 1 Roof covering with pitch not exceeding 25 degrees. 0.58mm galvanised sheet iron, with "chromadek" one side in: 2 Standard type FK3 ridge or hip flashing m 47  Carried To Section Summary Section No. 3 Bill No. 5 Roof Coverings							
PREAMBLES For preambles see "Specification of materials and methods to be used - PW 371  PROFILED METAL SHEETING AND ACCESSORIES 0.58mm "KIIp-lok light industrial" galvanised troughed sheet steel with "Globalcoat" finish one side (colour Traffic Green), fixed to 76 x 50mm purlin complete under 5year quarantee by an approved firm of specialists, all in accordance with the materials supplied and methods employed by the manufacturer  1 Roof covering with pitch not exceeding 25 degrees.  0.58mm galvanised sheet iron, with "chromadek" one side in:  2 Standard type FK3 ridge or hip flashing m 47  Carried To Section Summary  Section No. 3  Bill No. 5  Roof Coverings							
For preambles see "Specification of materials and methods to be used - PW 371  PROFILED METAL SHEETING AND ACCESSORIES  0.58mm "Klip-lok light industrial" galvanised troughed sheet steel with "Globalcoat" finish one side (colour Traffic Green), fixed to 76 x 50mm purlin complete under 5vear quarantee by an approved firm of specialists, all in accordance with the materials supplied and methods employed by the manufacturer  Roof covering with pitch not exceeding 25 degrees.  0.58mm galvanised sheet iron, with "chromadek" one side in:  2 Standard type FK3 ridge or hip flashing  Carried To Section Summary  Section No. 3  Bill No. 5  Roof Coverings							
methods to be used - PW 371  PROFILED METAL SHEETING AND ACCESSORIES  0.58mm "Klip-lok light industrial" galvanised troughed sheet steel with "Globalcoat" finish one side (colour Traffic Green), fixed to 76 x 50mm purlin complete under 5year quarantee by an approved firm of specialists, all in accordance with the materials supplied and methods employed by the manufacturer  1 Roof covering with pitch not exceeding 25 degrees.  0.58mm galvanised sheet iron, with "chromadek" one side in:  2 Standard type FK3 ridge or hip flashing  M 47  Carried To Section Summary  Section No. 3  Bill No. 5  Roof Coverings		<u>PREAMBLES</u>					
0.58mm "Klip-lok light industrial" galvanised troughed sheet steel with "Globalcoat" finish one side (colour Traffic Green), fixed to 76 x 50mm purlin complete under 5year guarantee by an approved firm of specialists, all in accordance with the materials supplied and methods employed by the manufacturer  1 Roof covering with pitch not exceeding 25 degrees.  0.58mm galvanised sheet iron, with "chromadek" one side in:  2 Standard type FK3 ridge or hip flashing  m 47  Carried To Section Summary  Section No. 3  Bill No. 5  Roof Coverings		For preambles see "Specification of materials and methods to be used - PW 371					
troughed sheet steel with "Globalcoat" finish one side (colour Traffic Green), fixed to 76 x 50mm purlin complete under 5year quarantee by an approved firm of specialists, all in accordance with the materials supplied and methods employed by the manufacturer  1 Roof covering with pitch not exceeding 25 degrees.  0.58mm galvanised sheet iron, with "chromadek" one side in:  2 Standard type FK3 ridge or hip flashing  m 47  Carried To Section Summary  Section No. 3  Bill No. 5  Roof Coverings		PROFILED METAL SHEETING AND ACCESSORIES					
O.58mm galvanised sheet iron, with "chromadek" one side in:  Standard type FK3 ridge or hip flashing m 47  Carried To Section Summary Section No. 3 Bill No. 5 Roof Coverings		troughed sheet steel with "Globalcoat" finish one side (colour Traffic Green), fixed to 76 x 50mm purlin complete under 5year quarantee by an approved firm of specialists, all in accordance with the materials supplied and methods employed by the					
O.58mm galvanised sheet iron, with "chromadek" one side in:  Standard type FK3 ridge or hip flashing m 47  Carried To Section Summary Section No. 3 Bill No. 5 Roof Coverings	1		m²	453			
One side in:  Standard type FK3 ridge or hip flashing m 47  Carried To Section Summary Section No. 3 Bill No. 5 Roof Coverings	•						
Carried To Section Summary  Section No. 3  Bill No. 5  Roof Coverings							
Section No. 3 Bill No. 5 Roof Coverings	2	Standard type FK3 ridge or hip flashing	m	47			
Section No. 3 Bill No. 5 Roof Coverings							
Bill No. 5 Roof Coverings		Carried To Section Summary			R		
Roof Coverings		- 1					
		Bill No. 5					
		Roof Coverings					
		-					

				Chita Kekan	a SS
	Unit	Quantity	Rate	Amount	
SECTION NO. 3					
4 x 5 Classroom Block					
BILL NO. 6					
CARPENTRY AND JOINERY					
PREAMBLES					
For preambles see "Specification of materials and methods to be used - PW371					
SUPPLEMENTARY PREAMBLES					
Particle board:					
Particle board shall comply with the following specifications: a) SABS 1300 Particle board: exterior and flooring type b) SABS 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.					
Decorative laminate finish:					
Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish.					
PREFABRICATED ROOF TRUSSES, ETC.					
Plate nailed timber roof truss construction:					
The following is applicable in respect of roof trusses: Trusses are at maximum 1200mm centres Roof covering is 'Klip-lok' roof sheeting on 76 x 50mm purlins. Ceilings are 6mm sheeting on 38 x 50mm brandering. Refer to drawings at the end of these bills of quantities for full details. All trusses are fabricated in a factory by specialists approved by the Architect. All trusses shall be designed by a Registered Professional Engineer(in accordance with the draft SABS Code of Practice for Design of Timber Trusses). The manufacturer of trusses shall supply a written quarantee that the trusses are designed, manufactured, and erected, to support the roof coverings specified. The quarntee shall be valid for 10(ten) years.					
Carried to Collection			R		
Section No. 3					
Bill No. 6					
Carpentry And Joinery 81					

		Unit	Quantity	Rate	. Amount	a 00
		Offic	Quantity	Nate	Amount	
	Sawn softwood:					
1	Roof construction to double pitched roof with two gable ends approximately 394m2 (five classrooms) on plan overall including trusses, rafters, purlins, permanent bracing, etc (measured flat).	No	1			
	ROOF CONSTRUCTION					
	Sawn softwood :					
2	114 x 38mm Wall plates.	m	87			
3	114 x 38mm rafters exceeding 2.4m and not exceeding 3.9m.	m	37			
4	50 x 76mm purlins.	m	180			
5	50 x 220mm support beam.	m	29			
	ROOF SUNDRIES					
	Sundries:					
6	Two coats creosote on sawn timbers.	m²	26			
	EAVES, VERGES, ETC					
	Everite FC77 or equal approved pressed fibre- cement:					
7	10 x 250mm Fascias and barge boards including galvanised steel H-profile jointing strips.	m	87			
	Wrought meranti doors:					
	Wrought meranti doors hung to steel frames:					
8	44mm Framed batten door 914 x 2032mm high of 44 x 150m top rail and stiles ,16 x 150mm middle ledge and braces and 22 x 220mm bottom rail, filled in with 22mmV-jointed one side boarding and covered on other side with 4mm plywood with veneer to match door, let into and including rebates all round.	No	5			
	into and including repates all round.	No	5			
	Carried to Collection			R		
	Section No. 3 Bill No. 6					
	Carpentry And Joinery					
	82					

		I	Amount	l
BILL NO. 6  CARPENTRY AND JOINE COLLECTION	<u>ERY</u>	Page No		
	Brought Forward from Page	81		
		82		
Ocalian N. O	Carried To Section Summary	R		
Section No. 3 Bill No. 6 Carpentry And Joinery				
	83			

		Unit	Quantity	Rate	Amount	a 55
		OTIIC	Quartity	rate	Amount	
	SECTION NO. 3					
	4 x 5 Classroom Block					
	BILL NO. 7					
	CEILINGS PARTITIONS AND ACCESS FLOORING					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	SUPPLEMENTARY PREAMBLES					
	Descriptions:					
	Items described as nailed shall be deemed to be fixed with hardened steel nails or pins or shot pinned to brickwork or concrete.					
	Items described as plugged shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres, and where described as bolted the bolts have been given.					
	INSULATION					
	Aerolite insulation:					
1	100mm Insulation closely fitted and laid on top of brandering between roof timbers etc.	m²	394			
	Wrought softwood					
2	19 x 76mm cornices nailed	m	243			
	NAILED UP AND SCREW UP CEILINGS					
	6mm Everite Nutec or equal approved fibre-cement boards with H-type steel cover strips over joints:					
3	Ceilings including 38 x 38mm sawn softwood brandering at 400mm centres.	m²	394			
4	Extra over ceiling for hinged trap door size 610 x 610mm	No	5			
	Carried To Section Summary			R		
	Section No. 3 Bill No. 7					
	Ceilings Partitions And Access Flooring					
	84					

		Unit	Quantity	Rate	Amount	a 33
		Offic	Quantity	Nate	Amount	
	SECTION NO. 3					
	4 x 5 Classroom Block					
	BILL NO. 8					
	IRONMONGERY					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	SUPPLEMENTARY PREAMBLES					
	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: AS Anodised silver: AB Anodised bronze: AG Anodised gold: ABL Anodised black: PB Polished brass: PL Polished and lacquered: PT Epoxy coated.					
	CATCHES, CABIN HOOKS, ETC					
	Solid or equal approved:					
1	100mm cabin hook and eye including 70 x 70 x 20mm chamfered hardwood block twice oiled and plugged.	No	3			
	LOCKS					
	Solid or equal approved:					
2	"Code 630" padlock plugged.	No	3			
	'Solid" or equal approved					
3	Code 2252-76 three lever upright mortice lock plugged.	No	3			
	SUNDRIES					
	Solid or equal approved:					
4	38mm Diameter rubber door stop plugged.	No	3			
	PINNING BOARDS, WRITING BOARDS,					
	PROJECTION SCREENS, ETC					
	<u>Vitrex or equal approved:</u>					
5	Pinning board 2400 x 1200mm high plugged.	No	6			
6	Vitrex system enamelled green folding ,writing board with wall mounted centre board 4800 x 1220mm high with chalk rail and two swing leaves each 1200 x					
	1220mm high plugged with chalk rail plugged.	No	3			
	Carried to Collection			R		
	Section No. 3					
	Bill No. 8					
	Ironmongery					
	85					

					Chita Kekan	a 55
1	ı	Unit	Quantity	Rate	Amount	l
7	STEEL CABINTES  Free standing proprietary type steel shelving units with standard powder coated finish, including heavy duty uprights, open base foot pieces, shelf brackets, shelves, spacers, top rails, top finishing plates and adjustable book clips  Double shelving unit 1800 x 450 x 2 200mm high in 4 bays with uprights, each bay 914mm wide with shelves	No	Quantity 3	Rate	Amount	
	Carried to Collection			R		
	Section No. 3 Bill No. 8					
	Ironmongery					
	86					

I			Amount
BILL NO. 8 IRONMONGERY COLLECTION		Page No	
	Brought Forward from Page	85	
		86	
	Carried To Section Summary	R	
Section No. 3 Bill No. 8 Ironmongery			
	87		

					Chita Kekan	a SS
	I	Unit	Quantity	Rate	Amount	
	SECTION NO. 3					
	4 x 5 Classroom Block					
	BILL NO. 9					
	<u>METALWORK</u>					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	SUPPLEMENTARY PREAMBLES					
	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.					
	STEEL BALUSTRADES AND HANDRAILS					
	Mild steel handrails and balustrades fixed to base plates constructed of two number 6mm steel flat bar cut to profile mounted to wall with 6mm thick steel fixing plate welded to two steel flat bars with 4mm fillet welds chemical anchors (bolts included), 12mm dia. Mild steel round spaced at 150mm centres, pedrilled openning 3No. In each upright, top rail to be 30mm thick x 100mm wide steel					
1	Steel handrails and balustrades 1000mm high	m	6			
	Mild Steel Poles					
2	76 x 76 x 3mm mild steel square tubing columns 3m high secured on top of foundation with 5mm thick fixing plate including 10mm dia 4No. bolts	No	17			
						_
	Carried to Collection			R		
	Section No. 3					_
	Bill No. 9 Metalwork					
	Metalwork 88					
	00				II	I

					Chita Kekana	a SS
ı	ı	Unit	Quantity	Rate	Amount	
	COMBINATION DOOR FRAME WITH SECURITY					
	<u>GATE</u>					
	Classroom combination door frame with security gate					
3	"Code 914" door frame size 914 x 2032mm high fitted with three (3) parliament hinges, complete with single security gate size 914 x 2032mm high overall formed of 25 x 25 x 2mm tubular section frame mitred and welded at angles and two 25 x 25 x 2mm tubular section horizontal middle rails, gate filled in with 12 x 12 x 12mm square section vertical rails at 100mm centres and fitted with locking bolt for padlock, frame formed of 25 x 38 x 2mm tubular section stiles and top rail mitred and welded at angles and fitted with three hinges welded to gate and frame, frame factory welded at maximum 250mm centres to door frame	No	5			
	STEEL WINDOWS, DOORS, ETC.					
	Standard residential windows with 12 x 12(B33) solid burglar bars to all sashes:					
4	Window Code 5/2 (NTY or equal approved), 1143 x 1332mm high.	No	45			
	STEEL LOUVRES,ETC					
	Purpose made louvres:					
5	Triangular shaped (on elevation) residential section louvred ventilators 3138 wide (at the horizontal bottom) x 571mm high overall, filled in with type LC fixed horizontal louvre blades fixed to surround and covered at back with No. 256 galvanised mesh mosquito gauze, fixed with and including 3 x 20mm steel flat section cover strips screwed	No	2			
	Carried to Collection Section No. 3 Bill No. 9			R		
	Metalwork					
	89					

			Amount	
BILL NO. 9  METALWORK  COLLECTION		Page No		
	Brought Forward from Page	88		
		89		
Section No. 3 Bill No. 9	Carried To Section Summary	R		
Metalwork	90			

		1.124	0	D-4-	Chila Kekan	a 33
		Unit	Quantity	Rate	Amount	
	SECTION NO. 3					
	4 x 5 Classroom Block					
	BILL NO. 10					
	PLASTERING					
	DDEAMDLES					
	PREAMBLES  For promphiles and "Chapification of motorials and					
	For preambles see "Specification of materials and methods to be used - PW371					
	SCREEDS					
	Screeds on concrete:					
	Screeds of wood floated on concrete to receive ceramic tiles:					
1	30mm Thick on floors to receive ceramic tiling.	m²	318			
	GRANOLITHIC					
	Untinted wood floated granolithic on concrete					
2	30mm Thick on floors and landings.	m²	76			
	INTERNAL PLASTER					
	Cement plaster steel trowelled, on brickwork					
3	On walls	m²	474			
4	On narrow widths not exceeding 300mm wide	m²	22			
	CORNER PROTECTORS, DIVIDING STRIPS, ETC (CPAP Work Group No 136)					
5	30 x 3mm Flat section brass dividing strips between					
	different floor finishes.	m	5			
	Carried To Section Summary			R		
	Section No. 3 Bill No. 10					
	Plastering					
	91					

					Chita Kekan	a SS
		Unit	Quantity	Rate	Amount	
	SECTION NO. 3					
	4 x 5 Classroom Block					
	BILL NO. 11					
	<u>TILING</u>					
	PREAMBLES					
	For preambles see "Specification of materials and					
	methods to be used - PW371					
	FLOOR TILING					
	300 x 300 x 11.5mm ceramic floor tiles (Prime Cost					
	amount R250.00/m2 excluding vat) fixed with					
	adhesive to screed (screed elsewhere) and flush					
	pointed with tinted waterproof jointing compound					
1	On floors and landings.	m²	318			
2	Skirting formed of ceramic tile cut to 300 x 75mm high	m	155			
						$\vdash$
	Carried To Section Summary			R		
	Section No. 3					
	Bill No. 11					
	Tiling					
	92					

				Chita Kekan	a SS
	Unit	Quantity	Rate	Amount	I
SECTION NO. 3					
4 x 5 Classroom Block					
BILL NO. 12 PLUMBING AND DRAINAGE					
PLOWIBING AND DIVAMAGE					
PREAMBLES					
For preambles see "Specification of materials and methods to be used - PW371					
SUPPLEMENTARY PREAMBLES					
Concrete pipes:					
Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rings.					
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.					
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					
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					
Carried to Collection			R		
Section No. 3					
Bill No. 12					
Plumbing And Drainage 93					
93				II	l

				Chita Kekan	a SS
	Unit	Quantity	Rate	Amount	
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.					
Septic tanks:					
Descriptions of septic tanks shall be deemed to include excavation, bedding and jointing, concrete base slabs, jointing to drains and backfilling, compaction, etc all in accordance with the manufacturer's instructions.					
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'.					
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 SAB.					
Flush pans:					
Flush pans shall have straight or side outlets and 'P' or 'S' traps as necessary.					
Corried to Collection			-		
Carried to Collection Section No. 3			R		
Bill No. 12					
Plumbing And Drainage					
94					

ı		Unit	Quantity	Rate	, Amount	a 33
	Stainless steel basins, sinks, wash troughs, urinals, etc:					
	Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable.					
	Waste unions:					
	Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings.					
	RAINWATER DISPOSAL					
	Approved .6mm galvanised sheet iron with "chromadek" finish ,in:					
1	100 x 100mm Eaves gutters	m	108			
2	Extra over eaves gutter for angle/corner.	No	4			
3	Extra over eaves gutter for outlet for 75mm pipe.	No	26			
4	75mm Diameter rainwater pipes.	m	104			
5	Extra over rainwater pipe for bend.	No	26			
6	Extra over rainwater pipe for shoe.	No	26			
	FIRE APPLIANCES ETC.					
	'Chubb' or equal approved					
7	9kg Dry chemical fire extinguisher plugged.	No	5			
	RAINWATER HARVESTING					
	Rainwater harvesting					
8	Allow a sum of R15 000.00/each (Fifteen Thousand Rands) for provision of 5000l Jojo or equal approved tank complete with lid, fittings, tap, concrete plinth as per Architect details	No	2			
		140				
	Carried to Collection			R		
	Section No. 3					
	Bill No. 12					
	Plumbing And Drainage					
	95					

ı			Amount	1
BILL NO. 12				
PLUMBING AND DRAIN	AGE			
COLLECTION		Page No		
		1 490 110		
	Brought Forward from Page	93		
	Ç Ç	94		
		95		
Section No. 3	Carried To Section Summary	R		_
Bill No. 12 Plumbing And Drainage				
Training / the Braining	96			

					Chita Kekan	a SS
١		Unit	Quantity	Rate	Amount	I
	SECTION NO. 3					
	4 x 5 Classroom Block					
	BILL NO. 13					
	<u>GLAZING</u>					
	DDE AMDLES					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	GLAZING TO STEEL WITH PUTTY					
	5mm Clear float glass:	2	4.4			
1	Panes not exceeding 0,1m2.	m²	44			
	5mm obscure glass:					
2	Panes not exceeding 0,1m2.	m²	25			
	Carried To Section Summary			R		
	Section No. 3					
	Bill No. 13					
	Glazing					
	97				I	

		Unit	Quantity	Rate	. Amount
		OTIIC	Quantity	Nate	Amount
	SECTION NO. 3				
	4 x 5 Classroom Block				
	BILL NO. 14				
	PAINTWORK				
	PREAMBLES				
	For preambles see "Specification of materials and methods to be used - PW371				
	ON NEW INTERNAL FLOATED PLASTER SURFACES				
	One coat alkali resistant primer and two coats PVA emulsion paint for interior use				
1	Walls	m²	474		
	ON FIBRE-CEMENT, ETC.				
	Prepare , etc as specified and apply two coats of super acrylic Pva paint:				
2	On ceilings and cornices.	m²	394		
3	On fascias and barge boards.	m	104		
	ON METAL				
	<u>Prepare, etc as specified and apply two coats of gloss enamel paint on :</u>				
4	Door frames	m²	8		
5	On windows with burglar bars (both sides measured).	m²	136		
6	On gates, grilles, burglar screens, balustrades, etc (both sides measured over the full flat area).	m²	29		
7	Steel poles	m	51		
	Eaves gutter				
8	To inside of eaves gutter with waterproofing paint	m²	38		
	ON WOOD, WOOD BOARD				
	Prepare, etc as specified and apply two coats of polyurethane suede varnish:				
9	On general surfaces of doors.	m²	17		
10	On laminated beam.	m²	25		
	Carried To Section Summary			R	
	Section No. 3			• •	
	Bill No. 14				
	Paintwork				
	98				

			Amount	
	SECTION NO. 3			
	4 x 5 Classroom Block			
	SECTION SUMMARY			
Bill No.		Page		
1	FOUNDATIONS	72		
2	CONCRETE, FORMWORK AND REINFORCEMENT	75		
3	MASONRY	78		
4	WATERPROOFING	79		
5	ROOF COVERINGS	80		
6	CARPENTRY AND JOINERY	83		
7	CEILINGS PARTITIONS AND ACCESS FLOORING	84		
8	IRONMONGERY	87		
9	METALWORK	90		
10	PLASTERING	91		
11	TILING	92		
12	PLUMBING AND DRAINAGE	96		
13	GLAZING	97		
14	PAINTWORK	98		
	Section Factor		x 4	
	Carried to Final Summary	R		
	Section No. 3 SECTION SUMMARY			
	99			

## SECTION NO. 4 Medium Administration Block

SECTION NO. 4 Medium Administration Block BILL NO.1 FOUNDATIONS PREABLES For preambles see "Specification of materials and methods to be used - PW371" SITE CLEARANCE ETC Site clearance:  1 Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc.  REMOVAL OF TREES, ETC. Taking out and removing, grubbing up roots and filling in holes: 2 Tree stump exceeding 200mm and not exceeding 500mm girth. EXCAVATION, FILLING, ETC OTHER THAN BULK Excavation in earth not exceeding 2m deep: 3 Trenches.  Extra over trench and hole excavations in earth for excavation: 4 Soft rock.  Hard rock. Risk of collapse of excavations: 5 Sides of trench and hole excavations not exceeding 1.5m deep.  Keeping excavations free of all water other than subterranean water.  Earth filling obtained from excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO:  Backfilling to trenches, holes, etc.  Under floors, steps, pavings, etc.  Carried to Collection Section No. 4 Bill No. 1 Foundations  101			Unit	Quantity	Rate	Amount	a 33
Medium Administration Block BILL NO. 1 FOUNDATIONS PREAMBLES For preambles see "Specification of materials and methods to be used - PW371" SITE CLEARANCE ETC Site clearance:  1 Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc.  REMOVAL OF TREES, ETC. Taking out and removing, grubbing up roots and filling in holes:  Tree stump exceeding 200mm and not exceeding 500mm girth, holes: Trenches, m³ 134 EXCAVATION, FILLING, ETC OTHER THAN BULK Excavation in earth not exceeding 2m deep;  Trenches, m³ 9 Hard rock, m³ 9 Hard rock, m³ 5 Sides of trench and hole excavations in earth for excavation:  Sides of trench and hole excavations not exceeding 1,5m deep.  Keeping excavations free of all water other than subterranean water.  Earth filling obtained from excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO: Backfilling to trenches, holes, etc. m³ 23 Under floors, steps, pavings, etc.  Carried to Collection Section No. 4 Bill No. 1 Foundations			Offic	Quantity	raic	Amount	
Medium Administration Block BILL NO. 1 FOUNDATIONS PREAMBLES For preambles see "Specification of materials and methods to be used - PW371" SITE CLEARANCE ETC Site clearance:  1 Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc.  REMOVAL OF TREES, ETC. Taking out and removing, grubbing up roots and filling in holes:  Tree stump exceeding 200mm and not exceeding 500mm girth, holes: Trenches, m³ 134 EXCAVATION, FILLING, ETC OTHER THAN BULK Excavation in earth not exceeding 2m deep;  Trenches, m³ 9 Hard rock, m³ 9 Hard rock, m³ 5 Sides of trench and hole excavations in earth for excavation:  Sides of trench and hole excavations not exceeding 1,5m deep.  Keeping excavations free of all water other than subterranean water.  Earth filling obtained from excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO: Backfilling to trenches, holes, etc. m³ 23 Under floors, steps, pavings, etc.  Carried to Collection Section No. 4 Bill No. 1 Foundations							
BILL NO. 1 FOUNDATIONS  PREAMBLES For preambles see "Specification of materials and methods to be used - PW371" SITE CLEARANCE ETC Site clearance:  Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc.  Temperature exceeding 200mm and not exceeding 200mm girth, bush, etc.  Tree stump exceeding 200mm and not exceeding 500mm girth.  EXCAVATION. FILLING, ETC OTHER THAN BULK Excavation in earth not exceeding 2m deep:  Trenches.  Trenches.  Risk of collapse of excavations in earth for excavations: Sides of trench and hole excavations not exceeding 1,5m deep.  Reping excavations free of water: Keeping excavations free of all water other than subterranean water.  Earth filling obtained from excavations and/or prescribed stock piles on site compacted to 93%, Mod AASHTO:  Backfilling to trenches, holes, etc.  Carried to Collection  Section No. 4 Bill No. 1 Foundations		SECTION NO. 4					
FOUNDATIONS PREAMBLES  For preambles see "Specification of materials and methods to be used - PW371"  SITE CLEARANCE ETC  Site clearance:  1 Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc.  REMOVAL OF TREES, ETC. Taking out and removing, grubbing up roots and filling in holes:  1 Tree stump exceeding 200mm and not exceeding 500mm girth, bush, etc.  EXCAVATION, FILLING, ETC OTHER THAN BULK Excavation in earth not exceeding 2m deep:  Trenches.  Extra over trench and hole excavations in earth for oxcavation:  Soft rock.  Risk of collapse of excavations:  Sides of trench and hole excavations not exceeding 1,5m deep.  Keeping excavations free of water:  Keeping excavations free of all water other than subterranean water.  Earth filling obtained from excavations and/or prescribed slock piles on site compacted to 93% Mod AASHTO:  Backfilling to trenches, holes, etc.  Carried to Collection  Section No. 4  Bill No. 1  Foundations		Medium Administration Block					
PREAMBLES For preambles see "Specification of materials and methods to be used - PW371"  SITE CLEARANCE ETC Site clearance:  Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc.  REMOVAL OF TREES, ETC. Taking out and removing, grubbing up roots and filling in holes:  Tree stump exceeding 200mm and not exceeding 500mm girth.  EXCAVATION, FILLING, ETC OTHER THAN BULK Excavation in earth not exceeding 2m deep:  Trenches.  Extra over trench and hole excavations in earth for excavation:  Soft rock.  Hard rock.  Risk of collapse of excavations:  Sides of trench and hole excavations not exceeding 1,5m deep.  Keeping excavations free of water:  Keeping excavations free of all water other than subterranean water.  Earth filling obtained from excavations and/or prescribed stock piles on site compacted to 33%.  Mod AASHTO:  Backfilling to trenches, holes, etc.  Carried to Collection  Section No. 4 Bill No. 1 Foundations		BILL NO. 1					
For preambles see " Specification of materials and methods to be used - PW371"  SITE CLEARANCE ETC  Site clearance:  Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc.  REMOVAL OF TREES, ETC.  Taking out and removing, grubbing up roots and filling in holes:  Tree stump exceeding 200mm and not exceeding 500mm girth.  No 1  EXCAVATION, FILLING, ETC OTHER THAN BULK Excavation in earth not exceeding 2m deep:  Trenches.  Trenches.  Trenches.  M³ 134  Extra over trench and hole excavations in earth for excavation:  Soft rock.  Hard rock.  Risk of collapse of excavations:  Sides of trench and hole excavations not exceeding 1,5m deep.  Keeping excavations free of water:  Keeping excavations free of water:  Keeping excavations free of water than subterranean water.  Earth filling obtained from excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO:  Backfilling to trenches, holes, etc.  Carried to Collection Section No. 4  Bill No. 1  Foundations		<u>FOUNDATIONS</u>					
methods to be used - PW371"  SITE CLEARANCE ETC  Site clearance:  1 Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc.  REMOVAL OF TREES, ETC.  Taking out and removing, grubbing up roots and filling in holes:  1 Tree stump exceeding 200mm and not exceeding 500mm girth.  EXCAVATION, FILLING, ETC OTHER THAN BULK Excavation in earth not exceeding 2m deep:  3 Trenches. m³ 134  Extra over trench and hole excavations in earth for excavation:  Soft rock. m³ 9  Hard rock. m³ 5  Risk of collapse of excavations:  Sites of trench and hole excavations not exceeding 1,5m deep.  Keeping excavations free of water:  Keeping excavations free of water than subterranean water.  Earth filling obtained from excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO:  Backfilling to trenches, holes, etc. m³ 42  Carried to Collection  Section No. 4  Bill No. 1  Foundations		PREAMBLES					
Site clearance:  Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc.  REMOVAL OF TREES, ETC. Taking out and removing, grubbing up roots and filling in holes:  Tree stump exceeding 200mm and not exceeding 500mm girth.  No 1  EXCAVATION, FILLING, ETC OTHER THAN BULK Excavation in earth not exceeding 2m deep:  Trenches.  Extra over trench and hole excavations in earth for excavation:  Soft rock.  Hard rock.  Risk of collapse of excavations:  Sides of trench and hole excavations not exceeding 1,5m deep.  Keeping excavations free of water:  Keeping excavations free of all water other than subterranean water.  Earth filling obtained from excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO:  Backfilling to trenches, holes, etc.  Under floors, steps, pavings, etc.  Carried to Collection  Section No. 4  Bill No. 1  Foundations							
Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc.  REMOVAL OF TREES, ETC. Taking out and removing, grubbing up roots and filling in holes:  Tree stump exceeding 200mm and not exceeding 500mm girth.  EXCAVATION, FILLING, ETC OTHER THAN BULK Excavation in earth not exceeding 2m deep:  Trenches.  Extra over trench and hole excavations in earth for excavation:  Soft rock.  Hard rock.  Risk of collapse of excavations:  Sides of trench and hole excavations not exceeding 1,5m deep.  Keeping excavations free of water:  Keeping excavations free of all water other than subterranean water.  Earth filling obtained from excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO:  Backfilling to trenches, holes, etc.  Under floors, steps, pavings, etc.  Carried to Collection  Section No. 4  Bill No. 1  Foundations		SITE CLEARANCE ETC					
hedges, shrubs and trees not exceeding 200mm girth, bush, etc.  REMOVAL OF TREES, ETC. Taking out and removing, grubbing up roots and filling in holes:  Tree stump exceeding 200mm and not exceeding 500mm girth.  EXCAVATION, FILLING, ETC OTHER THAN BULK Excavation in earth not exceeding 2m deep:  Trenches.  Extra over trench and hole excavations in earth for excavation:  Soft rock.  Hard rock.  Risk of collapse of excavations:  Sides of trench and hole excavations not exceeding 1,5m deep.  Keeping excavations free of water:  Keeping excavations free of all water other than subterranean water.  Earth filling obtained from excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO:  Backfilling to trenches, holes, etc.  Under floors, steps, pavings, etc.  Carried to Collection  Section No. 4  Bill No. 1  Foundations		Site clearance:					
Taking out and removing, grubbing up roots and filling in holes:  Tree stump exceeding 200mm and not exceeding 500mm girth.  EXCAVATION, FILLING, ETC OTHER THAN BULK Excavation in earth not exceeding 2m deep:  Trenches.  Extra over trench and hole excavations in earth for excavation:  Soft rock.  Hard rock.  Risk of collapse of excavations:  Sides of trench and hole excavations not exceeding 1,5m deep.  Keeping excavations free of water:  Keeping excavations free of all water other than subterranean water.  Earth filling obtained from excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO:  Backfilling to trenches, holes, etc.  Under floors, steps, pavings, etc.  Carried to Collection  Section No. 4  Bill No. 1  Foundations	1	hedges, shrubs and trees not exceeding 200mm girth,	m²	537			
filling in holes:  Tree stump exceeding 200mm and not exceeding 500mm girth.  EXCAVATION, FILLING, ETC OTHER THAN BULK Excavation in earth not exceeding 2m deep:  Trenches.  Extra over trench and hole excavations in earth for excavation:  Soft rock.  Hard rock.  Risk of collapse of excavations:  Sides of trench and hole excavations not exceeding 1,5m deep.  Keeping excavations free of water:  Keeping excavations free of all water other than subterranean water.  Earth filling obtained from excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO:  Backfilling to trenches, holes, etc.  Under floors, steps, pavings, etc.  Carried to Collection  Section No. 4  Bill No. 1  Foundations		REMOVAL OF TREES, ETC.					
500mm girth.  EXCAVATION, FILLING, ETC OTHER THAN BULK Excavation in earth not exceeding 2m deep:  Trenches.  Extra over trench and hole excavations in earth for excavation:  Soft rock.  Hard rock.  Risk of collapse of excavations:  Sides of trench and hole excavations not exceeding 1,5m deep.  Keeping excavations free of water:  Keeping excavations free of all water other than subterranean water.  Earth filling obtained from excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO:  Backfilling to trenches, holes, etc.  Under floors, steps, pavings, etc.  Carried to Collection  Section No. 4  Bill No. 1  Foundations							
Excavation in earth not exceeding 2m deep: Trenches.  Trenches.  Extra over trench and hole excavations in earth for excavation:  Soft rock.  Hard rock.  Risk of collapse of excavations:  Sides of trench and hole excavations not exceeding 1,5m deep.  Keeping excavations free of water:  Keeping excavations free of all water other than subterranean water.  Earth filling obtained from excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO:  Backfilling to trenches, holes, etc.  Under floors, steps, pavings, etc.  Carried to Collection  Section No. 4  Bill No. 1  Foundations	2		No	1			
Trenches.  Extra over trench and hole excavations in earth for excavation:  Soft rock.  Hard rock.  Risk of collapse of excavations: Sides of trench and hole excavations not exceeding 1,5m deep.  Keeping excavations free of water: Keeping excavations free of all water other than subterranean water.  Earth filling obtained from excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO:  Backfilling to trenches, holes, etc.  Under floors, steps, pavings, etc.  Carried to Collection Section No. 4 Bill No. 1 Foundations		EXCAVATION, FILLING, ETC OTHER THAN BULK					
Extra over trench and hole excavations in earth for excavation:  Soft rock.  Hard rock.  Risk of collapse of excavations: Sides of trench and hole excavations not exceeding 1,5m deep.  Keeping excavations free of water: Keeping excavations free of all water other than subterranean water.  Earth filling obtained from excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO:  Backfilling to trenches, holes, etc.  Carried to Collection  Section No. 4 Bill No. 1 Foundations		Excavation in earth not exceeding 2m deep:					
excavation:  Soft rock.  Hard rock.  Risk of collapse of excavations:  Sides of trench and hole excavations not exceeding 1,5m deep.  Keeping excavations free of water:  Keeping excavations free of all water other than subterranean water.  Earth filling obtained from excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO:  Backfilling to trenches, holes, etc.  Mod AGSHTO:  Under floors, steps, pavings, etc.  Carried to Collection  Section No. 4  Bill No. 1  Foundations	3	Trenches.	m³	134			
Hard rock.  Risk of collapse of excavations:  Sides of trench and hole excavations not exceeding 1,5m deep.  Keeping excavations free of water:  Keeping excavations free of all water other than subterranean water.  Earth filling obtained from excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO:  Backfilling to trenches, holes, etc.  Under floors, steps, pavings, etc.  Carried to Collection  Section No. 4  Bill No. 1  Foundations							
Risk of collapse of excavations:  Sides of trench and hole excavations not exceeding 1,5m deep.  Keeping excavations free of water:  Keeping excavations free of all water other than subterranean water.  Earth filling obtained from excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO:  Backfilling to trenches, holes, etc.  May 23  Under floors, steps, pavings, etc.  Carried to Collection  Section No. 4  Bill No. 1  Foundations	4	Soft rock.	m³	9			
Sides of trench and hole excavations not exceeding 1,5m deep.  Keeping excavations free of water:  Keeping excavations free of all water other than subterranean water.  Item  Earth filling obtained from excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO:  Backfilling to trenches, holes, etc.  Under floors, steps, pavings, etc.  Carried to Collection  Section No. 4  Bill No. 1  Foundations	5	Hard rock.	m³	5			
Sides of trench and hole excavations not exceeding 1,5m deep.  Keeping excavations free of water:  Keeping excavations free of all water other than subterranean water.  Item  Earth filling obtained from excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO:  Backfilling to trenches, holes, etc.  Under floors, steps, pavings, etc.  Carried to Collection  Section No. 4  Bill No. 1  Foundations		Risk of collapse of excavations:					
Keeping excavations free of all water other than subterranean water.    Earth filling obtained from excavations and/or prescribed stock piles on site compacted to 93%   Mod AASHTO:	6	Sides of trench and hole excavations not exceeding	m²	312			
Keeping excavations free of all water other than subterranean water.    Earth filling obtained from excavations and/or prescribed stock piles on site compacted to 93%   Mod AASHTO:		Keeping excavations free of water:					
Prescribed stock piles on site compacted to 93%  Mod AASHTO:  Backfilling to trenches, holes, etc.  Under floors, steps, pavings, etc.  Carried to Collection  Section No. 4  Bill No. 1  Foundations	7	Keeping excavations free of all water other than	Item				
Backfilling to trenches, holes, etc.  9 Under floors, steps, pavings, etc.  Carried to Collection  Section No. 4  Bill No. 1  Foundations		prescribed stock piles on site compacted to 93%					
9 Under floors, steps, pavings, etc.  Carried to Collection Section No. 4 Bill No. 1 Foundations	8		m³	23			
Carried to Collection  Section No. 4  Bill No. 1  Foundations		•					
Section No. 4 Bill No. 1 Foundations		onder noors, steps, pavings, etc.		72			
Section No. 4 Bill No. 1 Foundations					_		
Bill No. 1 Foundations					Ŕ		
Foundations							

ı		Unit	Quantity	Rate	Amount	a 33
	Earth filling supplied by the Contractor and compacted to 95% Mod AASHTO density):					
10	Under floors, steps, pavings, etc.	m³	173			
	Cart Away					
	Extra over excavation for cart away:					
11	Surplus material from excavations on site to a dumping site be located by the contractor	m³	28			
	Coarse river sand filling supplied by the Contractor:					
12	Under floors etc.	m³	15			
	COMPACTION					
	Compaction of surfaces:					
13	Compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 90%. Mod AASHTO density.	m²	297			
	Prescribed density tests on filling:					
14	Modified AASHTO Density test.	No	16			
	SOIL POISONING					
	Soil insecticide:					
15	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming.	m²	297			
16	To bottoms and sides of trenches etc.	m²	445			
	Carried to Collection			R		
	Section No. 4 Bill No. 1			K		
	Foundations 102					
			,	,		

			Amount	1
BILL NO. 1				
FOUNDATIONS				
COLLECTION				
		Page No		
	Brought Forward from Page	101		
		102		
	Carried To Section Summary	R		
Section No. 4	carried to occiton duminary	K		
Bill No. 1 Foundations				
	103			

1		Unit	Quantity	Rate	Amount
	SECTION NO. 4				
	Medium Administration Block				
	BILL NO. 2				
	CONCRETE, FORMWORK AND REINFORCEMENT				
	PREAMBLES				
	For preambles see "Specification of materials and methods to be used - PW371"				
	UNREINFORCED CONCRETE				
	15Mpa/19mm Concrete				
1	Aprons cast in panels.	m³	11		
2	Ramps.	m³	4		
3	Thickening down the edge of apron 150mm deep, 200mm top and tapering to 100mm at bottom including all excavations, formwork, backfilling etc	m	79		
	REINFORCED CONCRETE				
	25MPa/19mm Concrete:				
4	Surface beds cast in panels on waterproofing.	m³	27		
5	Footings.	m³	27		
6	Slabs.	m³	2		
	TEST BLOCKS				
	Test blocks:				
7	Making and testing set of three 150 x 150 x 150mm concrete strength test cubes (Provisional).	Sets	20		
	FINISHING TOP SURFACE OF CONCRETE				
8	Paving to falls.	m²	79		
	ROUGH FORMWORK (DEGREE OF ACCURACY III)				
	Rough Formwork to Sides:				
9	Edges and reveals not exceeding 300mm high or wide.	m	25		
	Rough Formwork to Soffits:				
10	Slabs propped up exceeding 1.5 and not exceeding 3.5m high.	m²	10		
	Carried to Collection			R	
	Section No. 4			ĸ	
	Bill No. 2				
	Concrete, Formwork And Reinforcement				
ļ	104				

		Unit	Quantity	Rate	Amount	a 55
			Quartity	rato	, unounc	
	MOVEMENT JOINTS ETC					
	Two layers of .5mm galvanised mild steel slip joints					
	between horizontal concrete and brick surfaces including cement mortar bed:					
11	Not exceeding 300mm wide.	m	70			
	Expansion joints with bitumen impregnated softboard between vertical concrete and brick surfaces:					
12	12mm Joints not exceeding 300mm high.	m	75			
	Dividing Strips ,etc					
13	6 x 38mm Angle iron step guard cast into concrete with 3x 6mm anchors	m	8			
	REINFORCEMENT(PROVISIONAL)					
	Fabric reinforcement:					
14	Type 193 fabric reinforcement in concrete surface beds, slabs, etc.	m²	297			
15	Type 395 fabric reinforcement in concrete surface beds, slabs, etc.	m²	10			
	$\underline{\mbox{Mild steel reinforcement to structural concrete work:}}$					
16	10mm Diameter bars.	Tonnes	1,00			
	High tensile steel reinforcement to structural concrete work:					
17	20mm Diameter bars.	Tonnes	1,00			
18	16mm Diameter bars.	Tonnes	2,00			
19	12mm Diameter bars.	Tonnes	1,00			
	Carried to Collection			R		
	Section No. 4					
	Bill No. 2 Concrete, Formwork And Reinforcement					
	Concrete, Formwork And Reinforcement					
I	.30	I	ı l		II	I

BILL NO. 2 CONCRETE, FORMWORK AND REINFORCEMENT COLLECTION  Brought Forward from Page  104 105  Carried To Section Summary  Section No. 4 Bill No. 2 Concrete, Formwork And Reinforcement 106			Amount	
CONCRETE, FORMWORK AND REINFORCEMENT COLLECTION  Brought Forward from Page 104 105  Carried To Section Summary R Section No. 4 Bill No. 2 Concrete, Formwork And Reinforcement				
Carried To Section Summary  Carried To Section Summary  R  Section No. 4 Bill No. 2 Concrete, Formwork And Reinforcement	BILL NO. 2			
Brought Forward from Page 104 105  Carried To Section Summary R Section No. 4 Bill No. 2 Concrete, Formwork And Reinforcement				
Carried To Section Summary R  Section No. 4 Bill No. 2 Concrete, Formwork And Reinforcement	GOLLECTION	Page No		
Carried To Section Summary R  Section No. 4 Bill No. 2 Concrete, Formwork And Reinforcement				
Carried To Section Summary R  Section No. 4 Bill No. 2 Concrete, Formwork And Reinforcement	Brought Forward from Page	104		
Section No. 4 Bill No. 2 Concrete, Formwork And Reinforcement		105		
Section No. 4 Bill No. 2 Concrete, Formwork And Reinforcement				
Section No. 4 Bill No. 2 Concrete, Formwork And Reinforcement				
Section No. 4 Bill No. 2 Concrete, Formwork And Reinforcement				
Section No. 4 Bill No. 2 Concrete, Formwork And Reinforcement				
Section No. 4 Bill No. 2 Concrete, Formwork And Reinforcement				
Section No. 4 Bill No. 2 Concrete, Formwork And Reinforcement				
Section No. 4 Bill No. 2 Concrete, Formwork And Reinforcement				
Section No. 4 Bill No. 2 Concrete, Formwork And Reinforcement				
Section No. 4 Bill No. 2 Concrete, Formwork And Reinforcement				
Section No. 4 Bill No. 2 Concrete, Formwork And Reinforcement				
Section No. 4 Bill No. 2 Concrete, Formwork And Reinforcement				
Section No. 4 Bill No. 2 Concrete, Formwork And Reinforcement				
Section No. 4 Bill No. 2 Concrete, Formwork And Reinforcement				
Section No. 4 Bill No. 2 Concrete, Formwork And Reinforcement				
Section No. 4 Bill No. 2 Concrete, Formwork And Reinforcement				
Section No. 4 Bill No. 2 Concrete, Formwork And Reinforcement				
Bill No. 2 Concrete, Formwork And Reinforcement		R		
	Bill No. 2			

SECTION NO. 4  Medium Administration Block Bill. No. 3  MASONRY  PREAMBLES  For preambles see "Specification of materials and methods to be used - PW371"  BRICKWORK  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.  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.  BRICKWORK IN FOUNDATIONS (PROVISIONAL) Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:  1 Half brick walls  BRICKWORK IN SUPERSTRUCTURE Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:  3 Piers  m² 36  Half brick walls mean filling.  m² 28  6 One brick walls in beam filling.  m² 357						Chita Kekan	a SS
Medium Administration Block BILL NO. 3 MASONRY  PREAMBLES For preambles see "Specification of materials and methods to be used - PW371"  BRICKWORK 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.  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.  BRICKWORK IN FOUNDATIONS (PROVISIONAL)  Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:  Half brick walls  One brick walls  BRICKWORK IN SUPERSTRUCTURE  Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:  Piers  Mage 138  Half brick walls in beam filling.  mage 238		I	Unit	Quantity	Rate	Amount	
Medium Administration Block BILL NO. 3 MASONRY  PREAMBLES For preambles see "Specification of materials and methods to be used - PW371"  BRICKWORK 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.  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.  BRICKWORK IN FOUNDATIONS (PROVISIONAL)  Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:  Half brick walls  One brick walls  BRICKWORK IN SUPERSTRUCTURE  Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:  Piers  Mage 138  Half brick walls in beam filling.  mage 238							
Medium Administration Block BILL NO. 3 MASONRY  PREAMBLES For preambles see "Specification of materials and methods to be used - PW371"  BRICKWORK 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.  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.  BRICKWORK IN FOUNDATIONS (PROVISIONAL)  Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:  Half brick walls  One brick walls  BRICKWORK IN SUPERSTRUCTURE  Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:  Piers  Mage 138  Half brick walls in beam filling.  mage 238		SECTION NO. 4					
BILL NO. 3 MASONRY  PREAMBLES For preambles see "Specification of materials and methods to be used - PW371"  BRICKWORK 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.  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.  BRICKWORK IN FOUNDATIONS (PROVISIONAL) Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:  1 Half brick walls  Mr 3  BRICKWORK IN SUPERSTRUCTURE Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:  3 Piers  Mr 3  Half brick walls in beam filling.  mr 2  Half brick walls in beam filling.							
MASONRY  PREAMBLES  For preambles see "Specification of materials and methods to be used - PW371"  BRICKWORK  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.  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.  BRICKWORK IN FOUNDATIONS (PROVISIONAL)  Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:  1 Half brick walls  Mall brick walls mortar:  3 Piers  m³ 3  Half brick walls in beam filling.  m² 138  Half brick walls in beam filling.  m² 2							
For preambles see "Specification of materials and methods to be used - PW371"  BRICKWORK  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.  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.  BRICKWORK IN FOUNDATIONS (PROVISIONAL)  Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:  Half brick walls  Piers  Ma 36  BRICKWORK IN SUPERSTRUCTURE  Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:  Piers  Half brick walls  Ma 3 3  Half brick walls in beam filling.							
methods to be used - PW371"  BRICKWORK  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.  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.  BRICKWORK IN FOUNDATIONS (PROVISIONAL)  Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:  Half brick walls  Cne brick walls  BRICKWORK IN SUPERSTRUCTURE  Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:  Half brick walls  Mage 138  Half brick walls mg 2 138  Half brick walls mg 2 138  Half brick walls in beam filling. mg 2 28		PREAMBLES					
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.  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.  BRICKWORK IN FOUNDATIONS (PROVISIONAL)  Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:  1 Half brick walls.  Mr² 36  2 One brick walls my² 130  BRICKWORK IN SUPERSTRUCTURE  Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:  3 Piers  Mr³ 3  Half brick walls  Mr² 138  Half brick walls in beam filling.  m² 28							
Where sizes in descriptions are given in brick units, 'one brick' shall represent the length and 'half brick' the width of a brick.  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.  BRICKWORK IN FOUNDATIONS (PROVISIONAL)  Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:  Half brick walls  BRICKWORK IN SUPERSTRUCTURE Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:  3 Piers  m²  3 Half brick walls  m²  138  Half brick walls in beam filling.  m²  28		BRICKWORK					
brick' shall represent the length and 'half brick' the width of a brick.  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.  BRICKWORK IN FOUNDATIONS (PROVISIONAL)  Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:  Half brick walls  BRICKWORK IN SUPERSTRUCTURE  Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:  Piers  m² 3  Half brick walls  m² 138  Half brick walls in beam filling.  m² 28		Sizes in descriptions:					
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.  BRICKWORK IN FOUNDATIONS (PROVISIONAL)  Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:  Half brick walls.  Descriptions of the provided in the provided		brick' shall represent the length and 'half brick' the width					
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.  BRICKWORK IN FOUNDATIONS (PROVISIONAL)  Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:  1 Half brick walls.  Mr 36  Piers Mr 37  Half brick walls in Class I mortar:  3 Piers Mr 38  Half brick walls Mr 28  Half brick walls in beam filling.  Mr 28							
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.  BRICKWORK IN FOUNDATIONS (PROVISIONAL)  Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:  1 Half brick walls.  2 One brick walls  BRICKWORK IN SUPERSTRUCTURE  Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:  3 Piers  m³ 3  Half brick walls m² 138  Half brick walls in beam filling.  m² 28		Bricks shall be ordered timeously to obtain uniformity in size and colour.					
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.  BRICKWORK IN FOUNDATIONS (PROVISIONAL)  Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:  1 Half brick walls.  2 One brick walls  BRICKWORK IN SUPERSTRUCTURE  Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:  3 Piers  m³ 3  Half brick walls  m² 138  Half brick walls in beam filling.  m² 28		Pointing:					
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.  BRICKWORK IN FOUNDATIONS (PROVISIONAL)  Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:  1 Half brick walls.  2 One brick walls  BRICKWORK IN SUPERSTRUCTURE  Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:  3 Piers  m³ 3  Half brick walls  m² 138  Half brick walls in beam filling.  m² 28		and face brickwork shall be deemed to include square					
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.  BRICKWORK IN FOUNDATIONS (PROVISIONAL)  Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:  1 Half brick walls.  2 One brick walls  BRICKWORK IN SUPERSTRUCTURE  Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:  3 Piers  Mai 138  Half brick walls  Mai 138  Half brick walls in beam filling.  Mai 28		SAMPLES					
Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:  1 Half brick walls. m² 36 2 One brick walls m² 130  BRICKWORK IN SUPERSTRUCTURE Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:  3 Piers m³ 3 4 Half brick walls m² 138 5 Half brick walls in beam filling. m² 28		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					
compressive strength) in Class I mortar:  Half brick walls.  One brick walls  BRICKWORK IN SUPERSTRUCTURE  Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:  Piers  Half brick walls  Half brick walls in beam filling.  m²  36  m²  130  m²  130  m²  130  130  130  130  130  130  130  13		BRICKWORK IN FOUNDATIONS (PROVISIONAL)					
2 One brick walls  BRICKWORK IN SUPERSTRUCTURE  Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:  3 Piers  Half brick walls  Half brick walls in beam filling.  m²  130  m²  130  m²  130  m²  130  m²  130							
BRICKWORK IN SUPERSTRUCTURE  Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:  3 Piers m³ 3  4 Half brick walls m² 138  5 Half brick walls in beam filling. m² 28	1	Half brick walls.	m²	36			
Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:  Piers m³ 3  Half brick walls m² 138  Half brick walls in beam filling. m² 28	2	One brick walls	m²	130			
compressive strength) in Class I mortar:  3 Piers m³ 3  4 Half brick walls m² 138  5 Half brick walls in beam filling. m² 28		BRICKWORK IN SUPERSTRUCTURE					
4 Half brick walls 5 Half brick walls in beam filling.  m² 138 m² 28							
5 Half brick walls in beam filling. m² 28	3	Piers	m³	3			
	4	Half brick walls	m²	138			
6 One brick walls m² 357	5	Half brick walls in beam filling.	m²	28			
	6	One brick walls	m²	357			
Carried to Collection R		Carried to Collection			Þ		
Section No. 4					K		
Bill No. 3							
Masonry		-					
107		107					

		Unit	Quantity	Rate	Amount	
	BRICKWORK SUNDRIES					
	Brickwork reinforcement:					
7	75mm Wide reinforcement built in horizontally.	m	749			
8	150mm Wide reinforcement built in horizontally.	m	3 125			
	Prestressed fabricated lintels:					
9	110 x 75mm Lintels in lengths not exceeding 3m.	m	55			
	Turning pieces:					
10	110mm Wide turning piece to lintels etc.	m	55			
11	220mm Wide turning piece to lintels etc.	m	20			
	Galvanised wire ties etc:					
12	4mm Diameter roof tie 2m girth bent double with one end fixed to timber and other end built into brickwork (Provisional)	No	125			
	Galvanised hoop iron cramps, ties, etc:					
13	30 x 1,6mm Cramp 500mm long with one end fixed to wood and other end built into brickwork (Provisional)	No	125			
	FACE BRICKWORK					
	Face bricks (Prime cost R5 500/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints:					
14	Extra over brickwork for face brickwork.	m²	297			
15	Extra over brickwork for face brickwork in foundations (Provisional).	m²	51			
16	Extra over brickwork for face brickwork to piers.	m²	4			
17	Half brick in facings in beamfilling	m²	27			
	FACE BRICKWORK COPINGS, SILLS, ETC.					
	Brick-on-edge header course copings, sills, etc of face bricks (Prime cost R5 500/1000 delivered to site excluding VAT) and pointed with recessed joints on all exposed faces:					
18	Extra over brickwork for brick-on-edge header course lintel pointed on face and 110mm soffit.	m	54			
19	Extra over brickwork for brick-on-edge header course lintel pointed on face and 220mm soffit	m	17			
20	110mm cut brick Wide sills set flat	m	14			
	Carried to Collection Section No. 4 Bill No. 3 Masonry 108			R		

			0 "	<b>5</b> (	Criita Kekan	a SS
		Unit	Quantity	Rate	Amount	
21	230mm Wide sill set sloping and slightly projecting.	m	10			
22	Coping on top of one brick wall pointed on exposed		14			
22	faces	m	14			
	NUTEC-CEMENT/FIBRE-CEMENT WINDOW SILLS					
	Natural grey sills in single lengths bedded in class I mortar including metal fixing lugs etc:					
23	12 x 152mm Wide sills set flat and slightly projecting.	m	8			
23	12 x 13211111 Wide Sills Set that and Slightly projecting.	'''	0			
	Carried to Collection			R		
	Section No. 4					_
	Bill No. 3					
	Masonry					
	109					

			Amount	
BILL NO. 3  MASONRY  COLLECTION		Page No		
	Brought Forward from Page	107 108 109		
Section No. 4 Bill No. 3 Masonry	Carried To Section Summary	R		

		Unit	Quantity	Rate	. Amount	a 55
		Orne	Quartity	rate	Amount	
	SECTION NO. 4					
	Medium Administration Block					
	BILL NO. 4					
	WATERPROOFING					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	DAMPPROOFING OF WALLS AND FLOORS					
	One layer of 375 micron Consol Plastics Brikgrip  DPC embossed damp proof course:					
1	In walls.	m²	38			
	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	297			
	JOINT SEALANTS ETC					
	Silicone sealing compound including backing cord, bond breaker,primer,etc					
3	12 x 20mm in expansion joints in floors including raking out expansion joint filler as necessary (Provisional).	m	46			
4	12 x 20mm in vertical expansion joints in walls including raking out expansion joint filler as necessary.	m	40			
	, ,					
	Carried To Section Summary			R		
	Section No. 4					
	Bill No. 4					
	Waterproofing 111					
			ı l		I	1

		Unit	Quantity	Rate	Amount	ia 55
		Offic	Quantity	rate	Amount	
	SECTION NO. 4					
	Medium Administration Block					
	BILL NO. 5					
	ROOF COVERINGS					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW 371					
	<u>General</u>					
	PROFILED METAL SHEETING AND ACCESSORIES					
	0.58mm "Klip-lok light industrial" galvanised troughed sheet steel with "Globalcoat" finish one side (colour Traffic Green), fixed to 76 x 50mm purlin complete under 5year quarantee by an approved firm of specialists, all in accordance with the materials supplied and methods employed by the manufacturer					
1	Roof covering with pitch not exceeding 25 degrees.	m²	376			
	0.58mm galvanised sheet iron, with "chromadek" one side in:					
2	Standard type FK3 ridge or hip flashing	m	26			
3	Standard valley flashing	m	16			
	Carried To Section Summary			R		
	Section No. 4					
	Bill No. 5					
	Roof Coverings					
	112					

				Chita Kekan	a SS
]	Unit	Quantity	Rate	Amount	
SECTION NO. 4					
SECTION NO. 4					
Medium Administration Block BILL NO. 6					
CARPENTRY AND JOINERY					
PREAMBLES					
For preambles see "Specification of materials and methods to be used - PW371					
SUPPLEMENTARY PREAMBLES					
Particle board:					
Particle board shall comply with the following specifications: a) SABS 1300 Particle board: exterior and flooring type b) SABS 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.					
Decorative laminate finish:					
Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish.					
PREFABRICATED ROOF TRUSSES, ETC.					
Plate nailed timber roof truss construction:					
The following is applicable in respect of roof trusses: Trusses are at maximum 1200mm centres Roof covering is 'Klip-lok' roof sheeting on 76 x 50mm purlins. Ceilings are 6mm sheeting on 38 x 50mm brandering. Refer to drawings at the end of these bills of quantities for full details. All trusses are fabricated in a factory by specialists approved by the Architect. All trusses shall be designed by a Registered Professional Engineer(in accordance with the draft SABS Code of Practice for Design of Timber Trusses). The manufacturer of trusses shall supply a written quarantee that the trusses are designed, manufactured, and erected, to support the roof coverings specified. The quarntee shall be valid for 10(ten) years.					
Carried to Collection			R		
Section No. 4					
Bill No. 6					
Carpentry And Joinery					
113				II	

		Lloit	Quantity	Doto	Amount	a SS
		Unit	Quantity	Rate	Amount	
	Sawn softwood:					
1	Roof construction to double pitched roof with two hipped					
	ends approximately 297m2 (Administration Block) on					
	plan including trusses, hipped ends, jack rafters, purlins, permanent bracing, etc (measured flat).	No	1			
	ROOF CONSTRUCTION	110				
	<del>-</del>					
2	Sawn softwood :  114 x 38mm Wall plates.	m	134			
2		m				
3	50 x 228mm support beam	m	50			
	ROOF SUNDRIES					
	Sundries:					
4	Two coats creosote on sawn timbers.	m²	52			
	EAVES, VERGES, ETC					
	Everite FC77 or equal approved pressed fibre-					
	cement:					
5	10 x 250mm Fascias and barge boards including galvanised steel H-profile jointing strips.	m	86			
		•••				
	JOINERY SUNDRIES					
	Wrought Meranti					
6	450mm wide slatted seats, etc of 76 x 38mm thick (50mm centres) screwed under and including steel 50 x					
	50 x 3mm L section steel holed to concrete fixed with					
	bolts	m²	10			
	SEMI SOLID CORE FLUSH DOORS					
	44 semi-solid flush doors with 3,2mm standard					
	hardboard covering on both sides hung to steel frames:					
7	40mm Door 813 x 2032mm high.	No	11			
	Counted to Collection			_		
	Carried to Collection Section No. 4			R		<u> </u>
	Bill No. 6					
	Carpentry And Joinery					
	114					

1			Amount	
BILL NO. 6				
CARPENTRY AND JOIN	ERY			
COLLECTION				
		Page No		
	Brought Forward from Page	113		
		114		
				_
	Carried To Section Summary	R		_
Section No. 4 Bill No. 6				
Carpentry And Joinery	115			
1		ı I	1	

		Unit	Quantity	Rate	Amount	a SS
		Offic	Quantity	rate	7 unount	
	SECTION NO. 4					
	Medium Administration Block					
	BILL NO. 7					
	CEILINGS PARTITIONS AND ACCESS FLOORING					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	SUPPLEMENTARY PREAMBLES					
	Descriptions:					
	Items described as nailed shall be deemed to be fixed with hardened steel nails or pins or shot pinned to brickwork or concrete.					
	Items described as plugged shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres, and where described as bolted the bolts have been given.					
	INSULATION					
	Aerolite insulation:					
1	100mm Insulation closely fitted and laid on top of brandering between roof timbers etc.	m²	297			
	Wrought softwood					
2	19 x 76mm cornices nailed	m	482			
	NAILED UP AND SCREW UP CEILINGS					
	6mm Everite Nutec fibre-cement boards with H-type steel cover strips over joints:					
3	Ceilings including 38 x 38mm sawn softwood brandering at 400mm centres.	m²	297			
4	Extra over ceiling for hinged trap door size 610 x 610mm	No	2			
	Carried To Section Summary			R		
	Section No. 4 Bill No. 7					
	Ceilings Partitions And Access Flooring					
	116					

		Unit	Quantity	Rate	Amount	a 33
		Offic	Quartity	rate	7 tinodite	
	SECTION NO. 4					
	Medium Administration Block					
	BILL NO. 8					
	IRONMONGERY					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	SUPPLEMENTARY PREAMBLES					
	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: AS Anodised silver: AB Anodised bronze: AG Anodised gold: ABL Anodised black: PB Polished brass: PL Polished and lacquered: PT Epoxy coated.					
	HINGES, FLOOR SPRING HINGES, BOLTS, PANIC BOLTS, ETC					
	"Solid" or equal approved:					
1	150mm 8052-150 Brass flush bolt with keep fixed to metal.	No	2			
2	150mm 8052-150 Brass flush bolt with keep let into concretet.	No	2			
3	CZ 80941WC indicator bolt with keep fixed to metal.	No	2			
	CATCHES, CABIN HOOKS, ETC					
	Solid or equal approved:					
4		No	4			
	LOCKS					
	Solid or equal approved:					
5	"Code 630" padlock.	No	2			
	'Solid" or equal approved					
6	CZ682-24-95SC"Gower" two lever lockset.	No	11			
	DOOR CLOSERS					
	"Yale" or equal approved					
7	Y202RC Door closer with cover fixed to metal	No	2			
	Carried to Collection			R		
	Section No. 4					
	Bill No. 8					
	Ironmongery 117					
	111					l

		Unit	Quantity	Rate	. Amount	a 33
	BATHROOM FITTINGS					
	Kimberley-Clark or equal approved:					
8	19mm Diameter chromium plated towel rail 900mm long including flanged end brackets.	No	2			
9	Lockable toilet roll holder plugged.	No	2			
	SUNDRIES					
	Solid or equal approved:					
10	38mm Diameter rubber door stop plugged.	No	15			
	MATS					
	Squeegee or equal approved					
11	1500 x 800 x 17mm Door mat laid loose in mat surround fixed with 25 x 25mm aluminium angle plugged to concrete (Provisional).	No	2			
	VERTICAL AND ROLLER BLINDS					
	127mm wide non-fade material vertical blinds as per "Windowvert" or similar approved ,fitted as per manufacturere's instructions					
12	To fit window 2 044 x 954mm high.	No	1			
13	To fit window 1 511 x 1 245mm high.	No	14			
14	To fit window 1 022 x 1 224mm high.	No	3			
15	To fit window 533 x 949mm high.	No	5			
	PINNING BOARDS, WRITING BOARDS, PROJECTION SCREENS, ETC					
	Vitrex or equal approved:					
16	Pinning board 2400 x 1200mm high plugged.	No	1			
17	Pinning board 3000 x 1200mm high plugged.	No	4			
	STEEL LOCKERS					
	Greenfield steel lockers with standard baked enamel finish					
18	Double door steel cupboard 914 x 457 x 1828mm high with five shelves bolted to brickwork.	No	4			
	Carried to Collection			R		
	Section No. 4					
	Bill No. 8					
	Ironmongery 118					
	110					

			Amount	
BILL NO. 8 IRONMONGERY COLLECTION		Page No		
	Brought Forward from Page	117		
		118		
Section No. 4	Carried To Section Summary	R		_
Bill No. 8 Ironmongery	119			

					Chita Kekan	a SS
I	ı	Unit	Quantity	Rate	Amount	
	SECTION NO. 4					
	Medium Administration Block					
	BILL NO. 9					
	METALWORK					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	SUPPLEMENTARY PREAMBLES					
	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.					
	Mild steel handrails and balustrades fixed to base plates constructed of two number 6mm steel flat bar cut to profile mounted to wall with 6mm thick steel fixing plate welded to two steel flat bars with 4mm					
	fillet welds chemical anchors (bolts included), 12mm diameter mild steel round spaced at 150mm centres, predrilled openning 3no in each upright, top rail to be 30mm thick x 100mm wide steel					
1	Balustrades including steel handrails approximately 1000mm high fixed to concrete.	m	16			
	WELDED SCREENS, GATES, ETC.					
	Gates to external doors					
2	Ditto, double gate and frame 1613 x 2032mm high overall as per Architectural drawing	No	2			
	PRESSED STEEL DOOR FRAMES					
	1,2mm Rebated frames suitable for half brick walls:					
3	Frame for door 813 x 2032mm high.	No	10			
	·	="				
	1,2mm Rebated frames suitable for one brick walls:	No	1			
4	Frame for door 813 x 2032mm high.	NO	I			
	Carried to Collection			R		
	Section No. 4			• •		
	Bill No. 9					
	Metalwork					
	120					

I	1	Unit	Quantity	Rate	Amount	
	STEEL WINDOWS, DOORS, ETC.					
	Standard residential windows with 12 x 12(B33) solid burglar bars to all sashes:					
5	Window type SWE37S/SWE37S, size 2044 x 954mm high.	No	1			
6	Window type SWE418, size 1511 x 1245mm high.	No	14			
7	Window type SW37, size 1022 x 1224mm high.	No	3			
8	Window type SWE31S, size 533 x 949mm high.	No	5			
9	Composite window type NG9/D4HS, size 1511 x 1623mm high.	No	1			
	STEEL STRONGROOM DOORS, VENTILATORS, ETC.					
	Strongroom doors etc. suitable for 220mm walls fixed to brickwork or concrete					
10	Double ended strongroom ventilator.	No	1			
11	Record room door and frame 1030 x 2010mm high overall with a mass of 324kg, including one 7lever security lock and wall mounted door stop	No	1			
	ALUMINIUM DOORS AND WINDOWS, ETC					
	Purpose made natural anodised aluminium windows glazed with 6mm thick laminated safety glass and plugged to brickwall or concrete					
12	Window 1525 x 1300mm high overall in clear panes.	No	3			
13	Window 2400 x 1300mm high overall in clear panes.	No	1			
	Purpose made natural anodised aluminium doors glazed with 6mm thick laminated safety glass and plugged to brickwall or concrete					
14	Double door size 1575 x 2125mm high in four panes with each leaf side hung and one pair type TS550 satin chromium plated double action floor spring hinges with standard open feature, including adjustable top centre and box let into concrete, two double cylinder lockset, and two pairs of AL5512-300BB ABL aluminium pull handles fixing back to back.	No	2			
	SECURITY BARRIERS					
15	Trellidoor 1600 x 2125mm high plugged.	No	2			
	Carried to Collection Section No. 4			R		
	Bill No. 9					
	Metalwork					
	121					

		Unit	Quantity	Rate	Amount ,	a 33
	STEEL LOUVRES,ETC					
	Purpose made louvres:					
16	Triangular shaped (on elevation) residential section louvred ventilators 3138 wide (at the horizontal bottom) x 571mm high overall, filled in with type LC fixed horizontal louvre blades fixed to surround and covered at back with No. 256 galvanised mesh mosquito gauze, fixed with and including 3 x 20mm steel flat section cover strips screwed	No	2			
17	Ditto but approximately 3700 x 1000mm high overall	No	2			
	Carried to Collection Section No. 4			R		
	Bill No. 9					
	Metalwork 122					

			Amount	
BILL NO. 9  METALWORK  COLLECTION		Page No		
	Brought Forward from Page	120 121 122		
Section No. 4	Carried To Section Summary	R		
Bill No. 9 Metalwork	123			

		Unit	Quantity	Rate	Amount	a ss
		Offic	Qualitity	rate	Amount	
	SECTION NO. 4					
	Medium Administration Block					
	BILL NO. 10					
	<u>PLASTERING</u>					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	SCREEDS					
	Screeds on concrete:					
	Screeds of wood floated on concrete to receive ceramic tiles:					
1	30mm Thick on floors and landings.	m²	297			
	GRANOLITHIC					
	Untinted wood floated granolithic on concrete					
2	30mm Thick on floors and landings.	m²	4			
	INTERNAL PLASTER					
	Cement plaster on brickwork:					
3	On walls.	m²	658			
4	On narrow widths.	m²	6			
5	On concrete soffit.	m²	6			
	CORNER PROTECTORS, DIVIDING STRIPS, ETC					
6	30 x 3mm Flat section brass dividing strips between					
	different floor finishes.	m	7			
	Carried To Section Summary Section No. 4			R		<u> </u>
	Bill No. 10					
	Plastering					
	124					

1		Unit	Quantity	Rate	Amount	. 55
	SECTION NO. 4					
	Medium Administration Block					
	BILL NO. 11 TILING					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	WALL TILING					
	200 x 200 x 10mm White glazed ceramic tiles fixed					
	with adhesive to plaster (plaster elsewhere):	2				
1	On walls in isolated panels, splashbacks, etc.	m²	32			
2	On narrow widths.	m²	1			
	FLOOR TILING					
	300 x 300 x 11.5mm ceramic floor tiles (Prime Cost amount R250.00/m2 excluding vat) fixed with					
	adhesive to screed (screed elsewhere) and flush					
	pointed with tinted waterproof jointing compound					
3	On floors and landings.	m²	297			
4	Skirting formed of ceramic tile cut to 300 x 75mm high	m	211			
	Coming To Continue Con			_		
	Carried To Section Summary Section No. 4			R		
	Bill No. 11					
	Tiling					
	125					

				Chita Kekan	a SS
1	Unit	Quantity	Rate	Amount	l
SECTION NO. 4					
SECTION NO. 4  Medium Administration Block					
BILL NO. 12					
PLUMBING AND DRAINAGE					
PREAMBLES					
For preambles see "Specification of materials and methods to be used - PW371					
SUPPLEMENTARY PREAMBLES					
Concrete pipes:					
Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rings.					
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.					
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					
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					
Carried to Collection			R		
Section No. 4 Bill No. 12					
Plumbing And Drainage					
126					
					•

				Chita Kekar	na SS
	Unit	Quantity	Rate	Amount	
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.					
Septic tanks:					
Descriptions of septic tanks shall be deemed to include excavation, bedding and jointing, concrete base slabs, jointing to drains and backfilling, compaction, etc all in accordance with the manufacturer's instructions.					
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'.					
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 SAB.					
Flush pans:					
Flush pans shall have straight or side outlets and 'P' or 'S' traps as necessary.					
Carried to Collection			R		
Section No. 4			ĸ		
Bill No. 12					
Plumbing And Drainage					
127					

		Unit	Quantity	Rate	. Amount
		Orme	Quantity	rato	/ integrit
	Stainless steel basins, sinks, wash troughs, urinals, etc:				
	Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable.				
	Waste unions:				
	Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings.				
	RAINWATER DISPOSAL				
	Approved .6mm galvanised sheet iron with "chromadek" finish ,in:				
1	100 x 100mm Eaves gutters	m	79		
2	Extra over eaves gutter for angle/corner.	No	12		
3	Extra over eaves gutter for stopped end	No	6		
4	Extra over eaves gutter for outlet for 75mm pipe.	No	12		
5	75mm Diameter rainwater pipes.	m	48		
6	Extra over rainwater pipe for bend.	No	12		
7	Extra over rainwater pipe for shoe.	No	12		
	SANITARY FITTINGS				
	'Citimetal' stainless steel or equal approved:				
8	Series single end bowl overlay sink, size 1200 x 535mm fitted to top of cabinet.	No	1		
	"Vaal" or equal approved				
9	510 x 405mm "Hibiscus" (code 7050) white vitreous china rounded lavatory basin with two tapholes supported on and including two bolts(code 84467Z0)	No	3		
10	White vitreous china "Daisy" semi-close coupled 90degree outlet open rim washdown pan (code 774000) and matching 9litre cistern (code 710034) complete with lid, fitments and flush pipe elbow and conversion bend (code 710044) and "deluxe" toilet seat	No	2		
	WASTE UNIONS ETC				
	'Cobra Watertech" or equal approved				
11	38mm "Cobra 316" unslotted waste and plug with chain	No	1		
	TRAPS ETC				
	"Marley' or equal approved				
12	40mm Flexi butyl rubber trap with reseal "P" trap	No	1		
	Carried to Collection			R	
	Section No. 4				
	Bill No. 12				
	Plumbing And Drainage 128				
I	120				I I

				K 2112	∆m∩iint	
		Unit	Quantity	Rate	Amount	
-	"Cobra Watertech" or equal approved					
13 "	"Cobra Ref. 365/40" CP Bottle trap.	No	2			
	TAPS, VALVES, ETC					
-	Cobra Watertech' or equal approved:					
	"Cobra Rf. 107EC-15" Bib tap plugged	No	3			
	15mm Gate valves plugged	No	6			
16 "	'Cobra Ref. 232/350' Angle regulating valve	No	2			
	"Cobra Ref. 166/041 wall type "Star" sink mixer with overarm swivel outlet	No	1			
2	SANITARY PLUMBING					
-	uPVC pipes:					
	50mm Pipes	m	60			
19 1	110m Pipes.	m	55			
	50mm Pipes laid in and including trenches not exceeding 1m deep.	m	25			
	110mm Pipes laid in and including trenches not exceeding 1m deep under surface beds.	m	25			
<u> </u>	Extra over uPVC pipes for fittings:					
22 5	50mm Bend.	No	10			
23 1	100mm Bend.	No	8			
24	110mm Junction.	No	6			
25 5	50mm Junction.	No	12			
26	110mm Reducing junction.	No	6			
27	110mm Double junction.	No	5			
28	110mm Pan connector	No	2			
29	110mm "G1 Two-way" vent valve	No	2			
2	Sundries:					
30	Testing waste pipe system.	Item				
<u> </u>	WATER SUPPLIES					
<u> </u>	Class 9 uPVC pressure pipes:					
	63mm Pipes laid in and including trenches not exceeding 1000mmm deep	m	60			
						_
	Carried to Collection			R		
	Section No. 4 Bill No. 12					
	Plumbing And Drainage					
	129					

1		Unit	Quantity	Rate	Amount	
	Extra over uPVC pressure pipes for solvent welded pressure fittings:					
32	63mm Elbow	No	6			
33	63mm Tee	No	4			
34	63mm Reducer.	No	4			
	Class o copper pipes:					
35	15mm Pipes	m	30			
36	22mm Pipes.	m	40			
	Extra over class o copper pipes for capillary fittings:					
37	15mm Fittings.	No	20			
38	22mm Fittings.	No	15			
	Copper overflow and service pipes:					
39	15mm Service pipe 300mm girth.	No	1			
	Sundries:					
40	450 x 450m cast iron stopcock box including brick chamber below not exceeding 750mm deep internally.	No	1			
41	'ZIP Hydroboil code 3800' 25 litre white powder coated water boiler as manufactured by Franke Kitchen Systems, plugged and screwed to wall.	No	1			
	ELECTRICAL WATER HEATERS					
	"Kwikot"					
42	150 litre Horizontally floor mounted electric water heater	No	1			
	Testing:					
43	Testing water pipe system.	Item				
	FIRE APPLIANCES ETC.					
4.4	'Chubb':					
44	'Everyway' hose reel complete with 30m plastic hose, chromium plated stopcock, shut-off nozzle and wall					
	bracket.	No	1			
45	9kg Dry chemical fire extinguisher plugged.	No	2			
	Carried to Collection			R		
	Section No. 4 Bill No. 12					
	Plumbing And Drainage					
	130					

			<b>.</b>	<b>5</b> .	Chita Kekan	a SS
		Unit	Quantity	Rate	Amount	
	RAINWATER HARVESTING					
	Rainwater harvesting					
46	Allow a sum of R15 000.00/each (Fifteen Thousand					
	Rands) for provision of 5000l Jojo or equal approved tank complete with lid, fittings, tap, concrete plinth as per					
	Architect details	No	2			
	Carried to Collection			R		
	Section No. 4					
	Bill No. 12					
	Plumbing And Drainage					
	131					

			Amount	a 33
			, anount	
BILL NO. 12				
PLUMBING AND DRAIN	∆GF			
COLLECTION	<u></u>			
<u> </u>		Page No		
		1 age 140		
	Brought Forward from Page	126		
		127		
		128		
		129		
		130		
		131		
	Carried To Section Summary	R		
Section No. 4				
Bill No. 12 Plumbing And Drainage				
Training And Drainage	132			
1		ı I		1

					Chita Kekani	a SS
		Unit	Quantity	Rate	Amount	
	CECTION NO. 4					
	SECTION NO. 4					
	Medium Administration Block BILL NO. 13					
	GLAZING					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	GLAZING TO STEEL WITH PUTTY					
	5mm Clear float glass:					
1	Panes exceeding 0,1m2 and not exceeding 0,5m2.	m²	43			
	5mm Rough cast glass:					
2	Panes exceeding 0,1m2 and not exceeding 0,5m2.	m²	2			
2		111-	2			
	TOPS, SHELVES, DOORS, MIRRORS, ETC.					
	6mm Silvered float glass copper backed mirrors with polished edges fixed with double sided adhesive					
	tape:					
3	Mirror 450 x 600 mm high.	No	3			
	Carried To Section Summary			R		
	Section No. 4					
	Bill No. 13 Glazing					
	133					
	· · · · · · · · · · · · · · · · · · ·			ļ	ı	

		l lmit	Ouantitu	Dete	A manuat	33
		Unit	Quantity	Rate	Amount	
	SECTION NO. 4					
	Medium Administration Block					
	BILL NO. 14					
	<u>PAINTWORK</u>					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	ON FLOATED PLASTER					
	Prepare, etc as specified and apply two coats of super acrylic paint:					
1	On interior walls.	m²	658			
	ON FIBRE-CEMENT, ETC.					
	Prepare, etc as specified and apply two coats of super acrylic Pva paint:					
2	On ceilings and cornices.	m²	297			
3	On fascias and barge boards.	m	172			
	ON METAL					
	Prepare, etc as specified and apply two coats of gloss enamel paint on :					
4	Door frames	m²	16			
5	On windows with burglar bars (both sides measured).	m²	74			
6	On gates, grilles, burglar screens, balustrades, etc (both sides measured over the full flat area).	m²	21			
	Inside eaves gutter					
7	Inside eaves gutter with waterproofing paint	m²	60			
	ON WOOD, WOOD BOARD					
	Prepare,etc as specified and apply two coats of super acrylic Pva paint on:					
8	General surfaces of doors (interior).	m²	36			
	Prepare, etc as specified and apply two coats of polyurethane suede varnish:					
9	On open slatted seating.	m²	9			
10	On laminated beam.	m²	3			
	Carried To Section Summary Section No. 4			R		
	Bill No. 14					
	Paintwork					
	134					

Amount **SECTION NO. 4 Medium Administration Block SECTION SUMMARY** Bill No. Page **FOUNDATIONS** 103 1 2 CONCRETE, FORMWORK AND REINFORCEMENT 106 3 **MASONRY** 110 WATERPROOFING 4 111 5 **ROOF COVERINGS** 112 6 CARPENTRY AND JOINERY 115 7 CEILINGS PARTITIONS AND ACCESS FLOORING 116 8 **IRONMONGERY** 119 9 **METALWORK** 123 10 **PLASTERING** 124 11 **TILING** 125 12 PLUMBING AND DRAINAGE 132 13 **GLAZING** 133 **PAINTWORK** 14 134 Carried to Final Summary R Section No. 4 **SECTION SUMMARY** 135

## SECTION NO. 5 5 x 4 Enviro loo Seats Toilet Block

1		Unit	Quantity	Rate	Amount	1
	SECTION NO. 5					
	5 x 4 Enviro loo Seats Toilet Block BILL NO. 1					
	FOUNDATIONS					
	PREAMBLES					
	For preambles see " Specification of materials and methods to be used - PW371"					
	SITE CLEARANCE ETC					
	Site clearance:					
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc.	m²	19			
	REMOVAL OF TREES, ETC.					
	Taking out and removing, grubbing up roots and filling in holes:					
2	Tree stump exceeding 200mm and not exceeding 500mm girth.	No	1			
	EXCAVATION, FILLING, ETC OTHER THAN BULK					
	Excavation in earth not exceeding 2m deep:					
3	Trenches.	m³	28			
4	Pit.	m³	4			
	Extra over trench and hole excavations in earth for excavation:					
5	Soft rock.	m³	3			
6	Hard rock.					
0		m³	1			
_	Risk of collapse of excavations:					
7	Sides of trench and hole excavations not exceeding 1,5m deep.	m²	23			
	Keeping excavations free of water:					
8	Keeping excavations free of all water other than subterranean water.	Item				
	Earth filling obtained from excavations and/or prescribed stock piles on site compacted to 93%					
	Mod AASHTO:					
9	Backfilling to trenches, holes, etc.	m³	4			
10	Under floors, steps, pavings, etc.	m³	5			
	Carried to Collection			R		
	Section No. 5					
	Bill No. 1					
	Foundations					
	137					

1		Unit	Quantity	Rate	Amount	1
	Earth filling supplied by the Contractor and compacted to 95% Mod AASHTO density):					
11	Under floors, steps, pavings, etc.	т³	11			
	Cart Away					
	Extra over excavation for cart away:					
12	Surplus material from excavations on site to a dumping site be located by the contractor	m³	14			
	Coarse river sand filling supplied by the Contractor:					
13	Under floors etc.	m³	6			
	COMPACTION					
	Compaction of surfaces:					
14	Compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 90%. Mod AASHTO density.	m²	26			
	Prescribed density tests on filling:					
15	Modified AASHTO Density test.	No	8			
	SOIL POISONING					
	Soil insecticide:					
16	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming.	m²	26			
17	To bottoms and sides of trenches etc.	m²	38			
	Carried to Collection			R		
	Section No. 5 Bill No. 1			К		
	Foundations 138					

I		ı I	Amount	
BILL NO. 1 FOUNDATIONS COLLECTION		Page No		
	Brought Forward from Page	137		
		138		
Section No. 5 Bill No. 1	Carried To Section Summary	R		
Foundations	139			

			0 "	Б.,	Chila Kekan	a 55
		Unit	Quantity	Rate	Amount	
	SECTION NO. 5					
	5 x 4 Enviro loo Seats Toilet Block					
	BILL NO. 2					
	CONCRETE, FORMWORK AND REINFORCEMENT					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371"					
	UNREINFORCED CONCRETE					
	15Mpa/19mm Concrete					
1	Aprons cast in panels.	m³	2			
2	Ramps.	m³	1			
3	Thickening down the edge of apron 150mm deep, 200mm top and tapering to 100mm at bottom including all excavations, formwork, backfilling etc	m	29			
	REINFORCED CONCRETE					
	25 MPa/19mm Concrete:					
4	Surface beds cast in panels on waterproofing.	m³	2			
5	Footings.	m³	7			
6	Slabs	m³	2			
	TEST BLOCKS					
	Test blocks:					
7	Making and testing set of three 150 x 150 x 150mm concrete strength test cubes (Provisional).	Sets	5			
	FINISHING TOP SURFACE OF CONCRETE					
8	Paving to falls.	m²	17			
9	Ramps to falls.	m²	2			
	ROUGH FORMWORK (DEGREE OF ACCURACY III) (CPAP Work Group No 111)					
	Rough Formwork to Sides:					
10	Edges and reveals not exceeding 300mm high or wide.	m	6			
11	Formwork to soffits of slabs	m²	9			
	Carried to Collection			R		
	Section No. 5			IX		
	Bill No. 2					
	Concrete, Formwork And Reinforcement					
	140					

ı		Unit	Quantity	Rate	Amount	1
	MOVEMENT JOINTS ETC					
	Two layers of .5mm galvanised mild steel slip joints between horizontal concrete and brick surfaces including cement mortar bed:					
12		m	6			
	Expansion joints with bitumen impregnated softboard between vertical concrete and brick surfaces:					
13	12mm Joints not exceeding 300mm high.	m	6			
	Dividing Strips ,etc					
14	6 x 38mm Angle iron step guard cast into concrete with 3x 6mm anchors	m	2			
	REINFORCEMENT(PROVISIONAL)					
	Fabric reinforcement:					
15	Type 193 fabric reinforcement in concrete surface beds, slabs, etc.	m²	26			
	Mild steel reinforcement to structural concrete work:					
16	10mm Diameter bars.	Tonnes	1			
	High tensile steel reinforcement to structural concrete work:					
17	20mm Diameter bars.	Tonnes	1			
18	16mm Diameter bars.	Tonnes	1			
	Carried to Collection			R		
	Section No. 5			ĸ		
	Bill No. 2					
	Concrete, Formwork And Reinforcement					
	141					

		Amount	
BILL NO. 2			
CONCRETE, FORMWORK AND REINFORCEMENT  COLLECTION			
	Page No		
	110		
Brought Forward from Page	140 141		
Carried To Section Summary	R		
Section No. 5 Bill No. 2			
Concrete, Formwork And Reinforcement  142			

					Chita Kekan	a SS
		Unit	Quantity	Rate	Amount	
	SECTION NO. 5					
	5 x 4 Enviro loo Seats Toilet Block					
	BILL NO. 3					
	MASONRY					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371"					
	BRICKWORK					
	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.					
	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.					
	BRICKWORK IN FOUNDATIONS (PROVISIONAL)					
	Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:					
1	Half brick walls	m²	11			
2	One brick walls	m²	11			
	BRICKWORK IN SUPERSTRUCTURE					
	Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:					
3	Half brick walls	m²	18			
4	Half brick walls in beam filling.	m²	2			
5	One brick walls	m²	69			
	0			-		
	Carried to Collection Section No. 5			R		
	Bill No. 3					
	Masonry					
	143					

ı		Unit	Quantity	Rate	Amount	1
	BRICKWORK SUNDRIES					
	Brickwork reinforcement:					
6	75mm Wide reinforcement built in horizontally.	m	64			
7	150mm Wide reinforcement built in horizontally.	m	194			
	Turning pieces:					
8	110mm Wide turning piece to lintels etc.	m	5			
9	220mm Wide turning piece to lintels etc.	m	2			
	Galvanised wire ties etc:					
10	4mm Diameter roof tie 2m girth bent double with one end fixed to timber and other end built into brickwork.(Provisional)	No	24			
	Galvanised hoop iron cramps, ties, etc:					
11	30 x 1,6mm Cramp 500mm long with one end fixed to					
	wood and other end built into brickwork.(Provisional)	No	24			
	FACE BRICKWORK					
	Face bricks (Prime cost R5 500/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints:					
12	Extra over brickwork for face brickwork.	m²	79			
13	Extra over brickwork for face brickwork in foundations (Provisional).	m²	6			
14	Extra over brickwork for face brickwork to piers.	m²	2			
15	Half brick in facings in beamfilling	m²	5			
	FACE BRICKWORK COPINGS, SILLS, ETC.					
	Brick-on-edge header course copings, sills, etc of face bricks (Prime cost R5 500/1000 delivered to site excluding VAT) and pointed with recessed joints on all exposed faces:					
16	Extra over brickwork for brick-on-edge header course lintel pointed on face and 110mm soffit.	m	2			
17	230mm Wide sill set sloping and slightly projecting.	m	5			
18	Coping on top of one brick wall pointed on exposed faces	m	16			
	Carried to Collection Section No. 5 Bill No. 3 Masonry			R		
	144					

				<b>5</b> /	Crina Kekar	ia 55
		Unit	Quantity	Rate	Amount	
	NUTEC-CEMENT/FIBRE-CEMENT WINDOW SILLS					
	Natural grey sills in single lengths bedded in class I mortar including metal fixing lugs etc:					
	mortar including metal fixing lugs etc:					
19	12 x 152mm Wide sills set flat and slightly projecting.	m	4			
						+-
	Carried to Collection			R		
	Section No. 5					+
	Bill No. 3					
	Masonry					
	145					
- 1		I .	1	ı	11	1

I			Amount	l
BILL NO. 3				
MASONRY				
COLLECTION				
		Page No		
	Brought Forward from Page	143		
		144		
		145		
Section No. 5	Carried To Section Summary	R		
Bill No. 3				
Masonry	146			

		Unit	Quantity	Rate	. Amount	a 55
		Offic	Quartity	Nate	Amount	
	SECTION NO. 5					
	5 x 4 Enviro loo Seats Toilet Block					
	BILL NO. 4					
	WATERPROOFING					
	PREAMBLES PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	DAMPPROOFING OF WALLS AND FLOORS					
	One layer of 375 micron Consol Plastics Brikgrip DPC embossed damp proof course:					
1	In walls.	m²	10			
	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	16			
	JOINT SEALANTS ETC					
	silicone sealing compound including backing cord, bond breaker,primer,etc					
3	12 x 20mm in expansion joints in floors including raking out expansion joint filler as necessary (Provisional)	m	38			
4	12 x 20mm in vertical expansion joints in walls including raking out expansion joint filler as necessary	m	48			
	Carried To Section Summary			R		
	Section No. 5					
	Bill No. 4					
	Waterproofing					
	147					

		Unit	Quantity	Rate	Amount	a SS
		Offic	Quantity	rate	/ who which	
	SECTION NO. 5					
	5 x 4 Enviro loo Seats Toilet Block					
	BILL NO. 5					
	ROOF COVERINGS					
	PREAMBLES PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW 371					
	<u>General</u>					
	PROFILED METAL SHEETING AND ACCESSORIES					
	.5mm "Klip-lok light industrial" galvanised troughed sheet steel with "chromadek" finish one side,fixed to 76 x 50mm purlin complete under 5year quarantee by an approved firm of specialists, all in accordance with the materials supplied and methods employed by the manufacturer					
1	Roof covering with pitch not exceeding 25 degrees.	m²	20			
	.8mm galvanised sheet iron, with "chromadek" one side in:					
2	Standard type FK3 ridge or hip flashing	m	8			
	Carried To Section Summary			R		
	Section No. 5					
	Bill No. 5					
	Roof Coverings					
	148					

SECTION NO. 5 5 x 4 Enviro Ioo Seats Toilet Block BILL NO. 6 CARPENTRY AND JOINERY PREAMBLES For preambles see "Specification of materials and methods to be used - PW371 SUPPLEMENTARY PREAMBLES Particle board: Particle board shall comply with the following specifications: a) SABS 1300 Particle board: interior type. Joinery: Descriptions of frames shall be deemed to include frames, transoms, mullions, rails, etc. Descriptions of frames shall be deemed to include pelleting of both holes. Fixing: Items described as nailed shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete. Descriptions of frames shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete. Pethod in the steel particle board: The following is applicable in respect of roof trusses: Trusses are a maximum 120mm centres Roof covering is Kilpi-lok roof sheeting on 75 x 50mm purlins. Callings are firm sheeting on 38 x 50mm brandering, Refer to drawings at the end of these bills of quantities for full details. All trusses are floating-trusses are forms sheeting on 75 x 50mm purlins. Callings are firm sheeting on 38 x 50mm brandering, Refer to drawings at the end of these bills of quantities for full details. All trusses are designed, a Registered Professional Engineer(in accordance with the draft SABS Code of Practice for Design of Timber Trusses). The manufacturer of trusses shall supply a written quarantee that the trusses shall supply a written quarantee that the trusses are designed, manufactured, and erected, to support the roof coverings specified. The quarantee shall be valid for 10(ten) years.  Carried to Collection Section No. 5 Bill No. 6 Carpentry And Joinery					Chita Kekana	a SS
5 x 4 Enviro Ioo Seats Toilet Block BILL No. 6 GARPENTRY AND JOINERY PREAMBLES For preambles see "Specification of materials and methods to be used - PW371 SUPPLEMENTARY PREAMBLES Particle board: Particle board shall comply with the following specifications: a) sABS 1300 Particle board: exterior and flooring type b) SABS 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. Decorative laminate finish: Laminate finish shall be glued under pressure. Edge strips shall be but jointed at junctions with adjacent similar finish. PREFABRICATED ROOF TRUSSES, ETC. Plate nailed timber roof truss construction: The following is applicable in respect of roof trusses: Trusses are at maximum 1200mm centres Roof covering is Ytijo-lok' roof sheeting on 76 x 50mm purlins. Ceilings are form sheeting on 38 x 50mm brandering. Refer to drawings at the end of these bills of quantities for full details. All trusses are fabricated in a factory by specialists approved by the Architect. All trusses are flow sign of the practice for Design of Timber Trusses.) The manufactured in accordance with the draft SABS Code of Practice for Design of Timber Trusses.) The manufacture of trusses shall supply a written quarantee that the trusses are designed, manufactured, and erected, to support the roof coverings specified. The quarantee shall be valid for 10(ten) years.  Carried to Collection Section No. 5 Bill No. 6 Carried to Collection		Unit	Quantity	Rate	Amount	
5 x 4 Enviro Ioo Seats Toilet Block BILL No. 6 GARPENTRY AND JOINERY PREAMBLES For preambles see "Specification of materials and methods to be used - PW371 SUPPLEMENTARY PREAMBLES Particle board: Particle board shall comply with the following specifications: a) sABS 1300 Particle board: exterior and flooring type b) SABS 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. Decorative laminate finish: Laminate finish shall be glued under pressure. Edge strips shall be but jointed at junctions with adjacent similar finish. PREFABRICATED ROOF TRUSSES, ETC. Plate nailed timber roof truss construction: The following is applicable in respect of roof trusses: Trusses are at maximum 1200mm centres Roof covering is Ytijo-lok' roof sheeting on 76 x 50mm purlins. Ceilings are form sheeting on 38 x 50mm brandering. Refer to drawings at the end of these bills of quantities for full details. All trusses are fabricated in a factory by specialists approved by the Architect. All trusses are flow sign of the practice for Design of Timber Trusses.) The manufactured in accordance with the draft SABS Code of Practice for Design of Timber Trusses.) The manufacture of trusses shall supply a written quarantee that the trusses are designed, manufactured, and erected, to support the roof coverings specified. The quarantee shall be valid for 10(ten) years.  Carried to Collection Section No. 5 Bill No. 6 Carried to Collection						
5 x 4 Enviro Ioo Seats Toilet Block BILL No. 6 GARPENTRY AND JOINERY PREAMBLES For preambles see "Specification of materials and methods to be used - PW371 SUPPLEMENTARY PREAMBLES Particle board: Particle board shall comply with the following specifications: a) sABS 1300 Particle board: exterior and flooring type b) SABS 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. Decorative laminate finish: Laminate finish shall be glued under pressure. Edge strips shall be but jointed at junctions with adjacent similar finish. PREFABRICATED ROOF TRUSSES, ETC. Plate nailed timber roof truss construction: The following is applicable in respect of roof trusses: Trusses are at maximum 1200mm centres Roof covering is Ytijo-lok' roof sheeting on 76 x 50mm purlins. Ceilings are form sheeting on 38 x 50mm brandering. Refer to drawings at the end of these bills of quantities for full details. All trusses are fabricated in a factory by specialists approved by the Architect. All trusses are flow sign of the practice for Design of Timber Trusses.) The manufactured in accordance with the draft SABS Code of Practice for Design of Timber Trusses.) The manufacture of trusses shall supply a written quarantee that the trusses are designed, manufactured, and erected, to support the roof coverings specified. The quarantee shall be valid for 10(ten) years.  Carried to Collection Section No. 5 Bill No. 6 Carried to Collection	SECTION NO. 5					
BILL NO. 6 CARPENTRY AND JOINERY  PREAMBLES For preambles see "Specification of materials and methods to be used - PW371 SUPPLEMENTARY PREAMBLES Particle board: Particle board shall comply with the following specifications: a) SABS 1300 Particle board: exterior and flooring type b) SABS 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 both holes. Fixing: Items described as nailed shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete.  Decorative laminate finish: Laminate finish shall be glued under pressure. Edge strips shall be buttl pinted at junctions with adjacent similar finish. PREFABRICATED ROOF TRUSSES, ETC. Plate nailed timber roof truss construction: The following is applicable in respect of roof trusses: Trusses are at maximum 1200mm centres Roof covering is Kilp-lok roof sheeting on 76 x 50mm purlins. Ceilings are 6mm sheeting on 38 x 30mm brandering. Refer to drawings at the end of these bills of quantities for full details. All trusses are fabricated in a factory by specialists approved by the Architect All trusses shall be designed by a Registered Professional Engineerin accordance with the draft SABS Code of Practice for Design of Timber Trusses). The manufactured rof trusses shall be valid for 10(ten) years.  Carried to Collection Section No. 5 Bill No. 6 Carpentry And Joinery						
CARPENTRY AND JOINERY PREAMBLES For preambles see "Specification of materials and methods to be used - PW371 SUPPLEMENTARY PREAMBLES Particle board shall comptly with the following specifications: a) SABS 1300 Particle board: exterior and flooring type b) SABS 1300 Particle board: interior type. Joinery: Descriptions of frames shall be deemed to include frames, transoms, mullions, rails, etc. Descriptions of hardwood olinery shall be deemed to include pelleting of both holes. Fixing: Items described as nailed shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete. Decorative laminate finish: Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish. PREFABRICATED ROOF TRUSSES, ETC. Plate nailed timber roof truss construction: The following is applicable in respect of roof trusses: Trusses are at maximum 1200mm centres Roof covering is 'Klip-lok' roof sheeting on 76 x 50mm purlins. Ceilings are at maximum 1200mm centres Roof covering is 'Klip-lok' roof sheeting on 38 x 50mm brandering, Refer to drawings at the end of these bills of quantities for full details. All trusses are flabricated in a factory by specialists approved by the Architect. All trusses shall be designed by a Registered Professional Engineer(in accordance with the draft SABS Code of Practice for Design of Timber Trusses). The manufacturer of trusses shall supply a written quarantee that the trusses are designed, manufactured and erected, to support the roof coverings specified. The quarmtee shall be valid for 10(ten) years.						
For preambles see "Specification of materials and methods to be used - PW371  SUPPLEMENTARY PREAMBLES Particle board:  Particle board shall comply with the following specifications: a) SABS 1300 Particle board: exterior and flooring type b) SABS 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 both holes.  Fixing:  Items described as nailed shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete.  Decorative laminate finish:  Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish.  PREFABRICATED ROOF TRUSSES, ETC.  Plate nailed timber roof truss construction:  The following is applicable in respect of roof trusses: Trusses are at maximum 1200mm centres Roof covering is (Kilp-lok' roof sheeting on 76 x 50mm purlins. Ceilings are 6mm sheeting on 38 x 50mm brandering. Refer to drawings at the end of these bills of quantities for full details. All trusses are fabricated in a factory by specialists approved by the Architect. All trusses shall supply a written quarantee that the trusses shall supply a written quarantee that the trusses are designed, manufactured, and erected, to support the roof coverings specified. The quarantee shall be valid for 10(ten) years.  Carried to Collection  Section No. 5  Bill No. 6  Carpentry And Joinery	CARPENTRY AND JOINERY					
For preambles see "Specification of materials and methods to be used - PW371  SUPPLEMENTARY PREAMBLES Particle board:  Particle board shall comply with the following specifications: a) SABS 1300 Particle board: exterior and flooring type b) SABS 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 both holes.  Fixing:  Items described as nailed shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete.  Decorative laminate finish:  Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish.  PREFABRICATED ROOF TRUSSES, ETC.  Plate nailed timber roof truss construction:  The following is applicable in respect of roof trusses: Trusses are at maximum 1200mm centres Roof covering is (Kilp-lok' roof sheeting on 78 x 50mm purlins. Ceilings are 6mm sheeting on 38 x 50mm brandering. Refer to drawings at the end of these bills of quantities for full details. All trusses are fabricated in a factory by specialists approved by the Architect. All trusses shall supply a written quarantee that the trusses shall supply a written quarantee that the trusses shall supply a written quarantee that the trusses are designed, manufactured, and erected, to support the roof coverings specified. The quarantee shall be valid for 10(ten) years.  Carried to Collection  Section No. 5  Bill No. 6  Carried to Collection	PREAMBLES					
Particle board: Particle board shall comply with the following specifications: a) SABS 1300 Particle board: exterior and flooring type b) SABS 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 both holes.  Fixing: Items described as nailed shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete.  Decorative laminate finish: Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish.  PREFABRICATED ROOF TRUSSES, ETC. Plate nailed timber roof truss construction: The following is applicable in respect of roof trusses: Trusses are at maximum 1200mm centres Roof covering is 'Klip-lok' roof sheeting on 76 x 50mm purlins. Ceilings are 6mm sheeting on 38 x 50mm brandering. Refer to drawings at the end of these bills of quantities for full details. All trusses are fabricated in a factory by specialists approved by the Architect. All trusses shall be designed by a Registered Professional Engineer(in accordance with the draft SABS Code of Practice for Design of Timber Trusses). The manufacturer of trusses shall supply a written quarantee that the trusses are designed, manufactured, and erected, to support the roof coverings specified. The quarantee shall be valid for 10(ten) years.  Carried to Collection  R  Section No. 5  Bill No. 6  Carpentry And Joinery	For preambles see "Specification of materials and					
Particle board shall comply with the following specifications: a) SABS 1300 Particle board: exterior and flooring type b) SABS 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 both holes.  Fixing:  Items described as nailed shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete.  Decorative laminate finish:  Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish.  PREFABRICATED ROOF TRUSSES, ETC.  Plate nailed timber roof truss construction:  The following is applicable in respect of roof trusses: Trusses are at maximum 1200mm centres Roof covering is Klip-lok roof sheetling on 76 x 50mm purlins. Ceilings are form sheeting on 38 x 50mm brandering .Refer to drawings at the end of these bills of quantities for full details. All trusses are fabricated in a factory by specialists approved by the Architect. All trusses shall be designed by a Registered Professional Engineer(in accordance with the draft SABS Code of Practice for Design of Timber Trusses). The manufacture of trusses shall supply a written quarantee that the trusses are designed, manufactured, and erected, to support the roof coverings specified. The quarntee shall be valid for 10(ten) years .  Carried to Collection  R  Section No. 5  Bill No. 6  Carpentry And Joinery	SUPPLEMENTARY PREAMBLES					
specifications: a) SABS 1300 Particle board: exterior and flooring type b) SABS 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.  Decorative laminate finish:  Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish.  PREFABRICATED ROOF TRUSSES, ETC.  Plate nailed timber roof truss construction:  The following is applicable in respect of roof trusses: Trusses are at maximum 1200mm centres Roof covering is "Klip-lok' roof sheeting on 76 x 50mm burnatering. Refer to drawings at the end of these bills of quantities for full details. All trusses are fabricated in a factory by specialists approved by the Architect. All trusses shall be designed by a Registered Professional Engineer(in accordance with the draft SABS Code of Practice for Design of Timber Trusses). The manufacture of trusses shall supply a written quarantee that the trusses are designed, manufactured, and erected, to support the roof coverings specified. The quarntee shall be valid for 10(ten) years.  Carried to Collection  R  Carried to Collection	Particle board:					
Descriptions of frames shall be deemed to include frames, transoms, mullions, rails, etc.  Descriptions of hardwood joinery shall be deemed to include pelleting of both holes.  Fixing:  Items described as nailed shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete.  Decorative laminate finish:  Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish.  PREFABRICATED ROOF TRUSSES, ETC.  Plate nailed timber roof truss construction:  The following is applicable in respect of roof trusses: Trusses are at maximum 1200mm centres Roof covering is 'Klip-lok' roof sheeting on 76 x 50mm purlins.  Ceilings are 6mm sheeting on 38 x 50mm brandering. Refer to drawings at the end of these bills of quantities for full details. All trusses are fabricated in a factory by specialists approved by the Architect. All trusses shall be designed by a Registered Professional Engineer(in accordance with the draft SABS Code of Practice for Design of Timber Trusses). The manufacturer of trusses shall supply a written quarantee that the trusses are designed, manufactured, and erected, to support the roof coverings specified. The quarntee shall be valid for 10(ten) years.  Carried to Collection  R  Carried to Collection  R  Section No. 5  Bill No. 6  Carpentry And Joinery	specifications: a) SABS 1300 Particle board: exterior and					
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.  Decorative laminate finish:  Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish.  PREFABRICATED ROOF TRUSSES, ETC.  Plate nailed timber roof truss construction:  The following is applicable in respect of roof trusses: Trusses are at maximum 1200mm centres Roof covering is 'Klip-lok' roof sheeting on 76 x 50mm purlins. Ceilings are 6mm sheeting on 38 x 50mm brandering. Refer to drawings at the end of these bills of quantities for full details. All trusses are fabricated in a factory by specialists approved by the Architect. All trusses shall be designed by a Registered Professional Engineer(in accordance with the draft SABS code of Practice for Design of Timber Trusses). The manufacturer of trusses shall supply a written quarantee that the trusses are designed, manufactured, and erected, to support the roof coverings specified. The quarrantee shall be valid for 10(ten) years.  Carried to Collection  R  Carried to Collection  Section No. 5  Bill No. 6  Carpentry And Joinery	<u>Joinery:</u>					
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.  Decorative laminate finish:  Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish.  PREFABRICATED ROOF TRUSSES, ETC.  Plate nailed timber roof truss construction:  The following is applicable in respect of roof trusses: Trusses are at maximum 1200mm centres Roof covering is 'Klip-lok' roof sheeting on 76 x 50mm purlins.  Ceilings are 6mm sheeting on 38 x 50mm brandering. Refer to drawings at the end of these bills of quantities for full details. All trusses are fabricated in a factory by specialists approved by the Architect. All trusses shall be designed by a Registered Professional Engineer(in accordance with the draft SABS Code of Practice for Design of Timber Trusses). The manufacturer of trusses shall supply a written quarantee that the trusses are designed, manufactured, and erected, to support the roof coverings specified. The quarntee shall be valid for 10(ten) years.  Carried to Collection  R  Carried to Collection  Section No. 5  Bill No. 6  Carpentry And Joinery						
Items described as nailed shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete.  Decorative laminate finish:  Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish.  PREFABRICATED ROOF TRUSSES, ETC.  Plate nailed timber roof truss construction:  The following is applicable in respect of roof trusses: Trusses are at maximum 1200mm centres Roof covering is 'Klip-lok' roof sheeting on 76 x 50mm purlins. Ceilings are 6mm sheeting on 38 x 50mm brandering. Refer to drawings at the end of these bills of quantities for full details. All trusses are fabricated in a factory by specialists approved by the Architect. All trusses shall be designed by a Registered Professional Engineer(in accordance with the draft SABS Code of Practice for Design of Timber Trusses). The manufacturer of trusses shall supply a written quarantee that the trusses are designed, manufactured, and erected, to support the roof coverings specified. The quarntee shall be valid for 10(ten) years.  Carried to Collection  R  Carried to Collection  R  Carried to Collection						
with hardened steel nails or shot pins to brickwork or concrete.  Decorative laminate finish:  Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish.  PREFABRICATED ROOF TRUSSES, ETC.  Plate nailed timber roof truss construction:  The following is applicable in respect of roof trusses: Trusses are at maximum 1200mm centres Roof covering is 'Klip-lok' roof sheeting on 76 x 50mm purlins.  Ceilings are 6mm sheeting on 38 x 50mm brandering. Refer to drawings at the end of these bills of quantities for full details. All trusses are fabricated in a factory by specialists approved by the Architect. All trusses shall be designed by a Registered Professional Engineer(in accordance with the draft SABS Code of Practice for Design of Timber Trusses). The manufacturer of trusses shall supply a written quarantee that the trusses are designed, manufactured, and erected, to support the roof coverings specified. The quarntee shall be valid for 10(ten) years.  Carried to Collection  R  Carried to Collection  R  Carried to Collection	Fixing:					
Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish.  PREFABRICATED ROOF TRUSSES, ETC.  Plate nailed timber roof truss construction:  The following is applicable in respect of roof trusses: Trusses are at maximum 1200mm centres Roof covering is 'Klip-lok' roof sheeting on 76 x 50mm purlins.  Cellings are 6mm sheeting on 38 x 50mm brandering. Refer to drawings at the end of these bills of quantities for full details. All trusses are fabricated in a factory by specialists approved by the Architect. All trusses shall be designed by a Registered Professional Engineer(in accordance with the draft SABS Code of Practice for Design of Timber Trusses). The manufacturer of trusses shall supply a written quarantee that the trusses are designed, manufactured, and erected, to support the roof coverings specified. The quarntee shall be valid for 10(ten) years.  Carried to Collection  R  Carried to Collection  R  Carried to Collection	with hardened steel nails or shot pins to brickwork or					
strips shall be butt jointed at junctions with adjacent similar finish.  PREFABRICATED ROOF TRUSSES, ETC.  Plate nailed timber roof truss construction:  The following is applicable in respect of roof trusses: Trusses are at maximum 1200mm centres Roof covering is 'Klip-lok' roof sheeting on 76 x 50mm purlins. Ceilings are 6mm sheeting on 38 x 50mm brandering. Refer to drawings at the end of these bills of quantities for full details. All trusses are fabricated in a factory by specialists approved by the Architect. All trusses shall be designed by a Registered Professional Engineer(in accordance with the draft SABS Code of Practice for Design of Timber Trusses). The manufacturer of trusses shall supply a written quarantee that the trusses are designed, manufactured, and erected, to support the roof coverings specified. The quarntee shall be valid for 10(ten) years.  Carried to Collection  R  Carried to Collection  R  Carried to Collection	Decorative laminate finish:					
Plate nailed timber roof truss construction:  The following is applicable in respect of roof trusses: Trusses are at maximum 1200mm centres Roof covering is 'Klip-lok' roof sheeting on 76 x 50mm purlins. Ceilings are 6mm sheeting on 38 x 50mm brandering .Refer to drawings at the end of these bills of quantities for full details. All trusses are fabricated in a factory by specialists approved by the Architect. All trusses shall be designed by a Registered Professional Engineer(in accordance with the draft SABS Code of Practice for Design of Timber Trusses). The manufacturer of trusses shall supply a written quarantee that the trusses are designed, manufactured, and erected, to support the roof coverings specified. The quarntee shall be valid for 10(ten) years .  Carried to Collection  R  Section No. 5  Bill No. 6  Carpentry And Joinery	strips shall be butt jointed at junctions with adjacent					
The following is applicable in respect of roof trusses: Trusses are at maximum 1200mm centres Roof covering is 'Klip-lok' roof sheeting on 76 x 50mm purlins. Ceilings are 6mm sheeting on 38 x 50mm brandering. Refer to drawings at the end of these bills of quantities for full details. All trusses are fabricated in a factory by specialists approved by the Architect. All trusses shall be designed by a Registered Professional Engineer(in accordance with the draft SABS Code of Practice for Design of Timber Trusses). The manufacturer of trusses shall supply a written quarantee that the trusses are designed, manufactured,and erected, to support the roof coverings specified. The quarntee shall be valid for 10(ten) years .  Carried to Collection  R  Carried to Collection  R  Carpentry And Joinery	PREFABRICATED ROOF TRUSSES, ETC.					
Trusses are at maximum 1200mm centres Roof covering is 'Klip-lok' roof sheeting on 76 x 50mm purlins. Ceilings are 6mm sheeting on 38 x 50mm brandering .Refer to drawings at the end of these bills of quantities for full details. All trusses are fabricated in a factory by specialists approved by the Architect. All trusses shall be designed by a Registered Professional Engineer(in accordance with the draft SABS Code of Practice for Design of Timber Trusses). The manufacturer of trusses shall supply a written quarantee that the trusses are designed, manufactured, and erected, to support the roof coverings specified. The quarntee shall be valid for 10(ten) years .  Carried to Collection  R  Section No. 5  Bill No. 6  Carpentry And Joinery	Plate nailed timber roof truss construction:					
Section No. 5 Bill No. 6 Carpentry And Joinery	Trusses are at maximum 1200mm centres Roof covering is 'Klip-lok' roof sheeting on 76 x 50mm purlins. Ceilings are 6mm sheeting on 38 x 50mm brandering .Refer to drawings at the end of these bills of quantities for full details. All trusses are fabricated in a factory by specialists approved by the Architect. All trusses shall be designed by a Registered Professional Engineer(in accordance with the draft SABS Code of Practice for Design of Timber Trusses). The manufacturer of trusses shall supply a written quarantee that the trusses are designed, manufactured, and erected, to support the roof coverings specified. The					
Section No. 5 Bill No. 6 Carpentry And Joinery	Carried to Collection			R		
	Section No. 5					
149	Carpentry And Joinery					
	149					

		Unit	Quantity	Rate	Amount	
	Sawn softwood:					
1	Roof construction to double pitched roof with two gable ends approximately 16m2 on plan overall including trusses, rafters, purlins, permanent bracing, etc (measured flat).	No	1			
	ROOF CONSTRUCTION					
	Sawn softwood :					
2	114 x 38mm Wall plates.	m	4			
3	114 x 38mm rafters exceeding 2.4m and not exceeding 3.9m.	m	5			
4	50 x 76mm purlins.	m	16			
	ROOF SUNDRIES					
	Sundries:					
5	Two coats creosote on sawn timbers.	m²	6			
	EAVES, VERGES, ETC					
	Everite FC77 or equal approved pressed fibre-cement:					
6	10 x 250mm Fascias and barge boards including galvanised steel H-profile jointing strips.	m	20			
	Wrought meranti doors:					
	Wrought meranti doors hung to steel frames:					
7	44mm Framed batten door 813 x 2032mm high of 44 x 150m top rail and stiles ,16 x 150mm middle ledge and braces and 22 x 220mm bottom rail, filled in with 22mmV-jointed one side boarding and covered on other side with 4mm plywood with veneer to match door, let into and including rebates all round.	No	2			
	Semi-solid flush doors					
8	40mm semi-solid flush doors with 3.2mm standard hardboard covering on both sides hung to steel frames:	No	4			
	Carried to Collection			R		
	Section No. 5					
	Bill No. 6 Carpentry And Joinery					
	150					
			·			

BILL NO. 6 CARPENTRY AND JOINERY COLLECTION  Brought Forward from Page 149 150  Carried To Section Summary  R  Section No. 5 Bill No. 6 Carpentry And Joinery	I			Amount	
CARPENTRY AND JOINERY COLLECTION  Brought Forward from Page 149 150  Carried To Section Summary R Section No. 5 Bill No. 6 Carpentry And Joinery					
Carried To Section Summary  Carried To Section Summary  R  Section No. 5 Bill No. 6 Carpentry And Joinery	BILL NO. 6				
Brought Forward from Page 149 150  Carried To Section Summary R  Section No. 5 Bill No. 6 Carpentry And Joinery		<u>ERY</u>			
Carried To Section Summary R  Section No. 5 Bill No. 6 Carpentry And Joinery	COLLECTION		Page No		
Carried To Section Summary R  Section No. 5 Bill No. 6 Carpentry And Joinery			. ago . to		
Carried To Section Summary R  Section No. 5 Bill No. 6 Carpentry And Joinery		Brought Forward from Page	149		
Section No. 5 Bill No. 6 Carpentry And Joinery		Broaght of Mara from Fago			
Section No. 5 Bill No. 6 Carpentry And Joinery					
Section No. 5 Bill No. 6 Carpentry And Joinery					
Section No. 5 Bill No. 6 Carpentry And Joinery					
Section No. 5 Bill No. 6 Carpentry And Joinery					
Section No. 5 Bill No. 6 Carpentry And Joinery					
Section No. 5 Bill No. 6 Carpentry And Joinery					
Section No. 5 Bill No. 6 Carpentry And Joinery					
Section No. 5 Bill No. 6 Carpentry And Joinery					
Section No. 5 Bill No. 6 Carpentry And Joinery					
Section No. 5 Bill No. 6 Carpentry And Joinery					
Section No. 5 Bill No. 6 Carpentry And Joinery					
Section No. 5 Bill No. 6 Carpentry And Joinery					
Section No. 5 Bill No. 6 Carpentry And Joinery					
Section No. 5 Bill No. 6 Carpentry And Joinery					
Section No. 5 Bill No. 6 Carpentry And Joinery					
Section No. 5 Bill No. 6 Carpentry And Joinery					
Section No. 5 Bill No. 6 Carpentry And Joinery					
Bill No. 6 Carpentry And Joinery		Carried To Section Summary	R		
Carpentry And Joinery	1				_
151	Carpentry And Joinery	151			

		Unit	Quantity	Rate	Amount	a SS
		Offic	Quartity	rate	7 tillount	
	SECTION NO. 5					
	5 x 4 Enviro loo Seats Toilet Block					
	BILL NO. 7					
	CEILINGS PARTITIONS AND ACCESS FLOORING					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	SUPPLEMENTARY PREAMBLES					
	Descriptions:					
	Items described as nailed shall be deemed to be fixed with hardened steel nails or pins or shot pinned to brickwork or concrete.					
	Items described as plugged shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres, and where described as bolted the bolts have been given.					
	INSULATION					
	Aerolite insulation:					
1	100mm Insulation closely fitted and laid on top of brandering between roof timbers etc.	m²	16			
	Wrought softwood					
2	19 x 76mm cornices nailed	m	16			
	NAILED UP AND SCREW UP CEILINGS					
	6mm Everite Nutec or equal approved fibre-cement					
	boards with H-type steel cover strips over joints:					
3	Ceilings including 38 x 38mm sawn softwood brandering at 400mm centres.	m²	16			
4	Extra over ceiling for hinged trap door size 610 x 610mm	No	1			
	Carried To Section Summary			R		
	Section No. 5			IX.		
	Bill No. 7					
	Ceilings Partitions And Access Flooring					
	152					

		Unit	Quantity	Rate	Amount	a ss
		Offic	Quantity	Nato	Amount	
	SECTION NO. 5					
	5 x 4 Enviro loo Seats Toilet Block					
	BILL NO. 8					
	IRONMONGERY					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	SUPPLEMENTARY PREAMBLES					
	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: AS Anodised silver: AB Anodised bronze: AG Anodised gold: ABL Anodised black: PB Polished brass: PL Polished and lacquered: PT Epoxy coated.					
	CATCHES, CABIN HOOKS, ETC					
	Solid or equal approved:					
1	100mm cabin hook and eye including 70 x 70 x 20mm chamfered hardwood block twice oiled and plugged.	No	2			
	LOCKS					
	Solid or equal approved:					
2	"Code 630" padlock.	No	2			
	'Solid" or equal approved					
3	CZ682-24-95SC"Gower" two lever lockset.	No	4			
4	CZ682-24-95SC"Gower" three lever lockset.	No	2			
	SUNDRIES					
	Solid or equal approved:					
5	38mm Diameter rubber door stop plugged.	No	6			
	Lockable toilet roll holder					
6	Vandal proof lockable toilet roll holder plugged	No	4			
	,					
	Carried To Section Summary			R		
	Section No. 5					
	Bill No. 8					
	Ironmongery 153					
	100				il	1

					Chita Kekan	a SS
	I	Unit	Quantity	Rate	Amount	
	SECTION NO. 5					
	5 x 4 Enviro loo Seats Toilet Block					
	BILL NO. 9					
	<u>METALWORK</u>					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	SUPPLEMENTARY PREAMBLES					
	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.					
	WELDED SCREENS, GATES, ETC.					
	Gates to external doors					
1	Single gate and frame 813 x 2032mm high of 25 x 25x 2mm hollow section frame and 25 x 25x 2mm hollow section horizontal middle rail filled in with 12 x 12mm square section vertical rails at 75mm centres and fitted with a pair of suitable hinges welded to frame and with locking mechanism for padlock all in and including outer frame of 25 x 25 x 2mm hollow section welded frame bolted to brickwork.	No	2			
	PRESSED STEEL DOOR FRAMES					
	1,2mm Rebated frames suitable for half brick walls:					
2	Frame for door 813 x 2032mm high.	No	4			
	1,2mm Rebated frames suitable for one brick walls:					
3	Frame for door 813 x 2032mm high	No	2			
	STEEL WINDOWS, DOORS, ETC.					
	Standard residential windows with 12 x 12(B33) solid burglar bars to all sashes:					
4	Window type NE1, 533 x 654mm high	No	4			
	Carried to Collection			R		
	Section No. 5					
	Bill No. 9					
	Metalwork					
	154					

					Chita Kekan	a SS
1		Unit	Quantity	Rate	Amount	ı
OTE	EL LOUNTES ETO					
STEE	EL LOUVRES,ETC					
Purp	ose made louvres:					
5 Trian	igular shaped (on elevation) residential section					
louvre	ed ventilators 3138 wide (at the horizontal bottom) x					
571m	nm high overall, filled in with type LC fixed horizontal					
louvre	e blades fixed to surround and covered at back with					
No. 2	256 galvanised mesh mosquito gauze, fixed with and					
screw	ding 3 x 20mm steel flat section cover strips					
Sciev	wed	No	2			
	Carried to Collection			D		
				R		
	on No. 5					
Bill N						
Metal	lwork					
	155		1		II.	ı

		1	Amount	
BILL NO. 9 METALWORK				
COLLECTION		Page No		
	Brought Forward from Page	154 155		
Section No. 5 Bill No. 9 Metalwork	Carried To Section Summary	R		
	156			

					Chita Kekar	1a SS
I	1	Unit	Quantity	Rate	Amount	I
	SECTION NO. 5					
	5 x 4 Enviro loo Seats Toilet Block					
	BILL NO. 10					
	PLASTERING					
	<u>PREAMBLES</u>					
	For preambles see "Specification of materials and					
	methods to be used - PW371					
	SCREEDS					
	Screeds on concrete:					
	Screeds of wood floated on concrete to receive					
	ceramic tiles:					
1	30mm Thick on floors to receive ceramic tiling.	m²	16			
	Comind To Cooking Con			_		
	Carried To Section Summary			R		<del>  -</del>
	Section No. 5 Bill No. 10					
	Plastering					
	Plastering 157					
	107		1		I	

					Chita Kekan	ia SS
		Unit	Quantity	Rate	Amount	
	SECTION NO. 5					
	5 x 4 Enviro loo Seats Toilet Block					
	BILL NO. 11					
	<u>TILING</u>					
	DDE AMBLEO					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	FLOOR TILING					
	300 x 300 x 11.5mm ceramic floor tiles (Prime Cost amount R250.00/m2 delivered excluding vat) fixed					
	with adhesive to screed (screed elsewhere) and					
	flush pointed with tinted waterproof jointing					
	compound					
1	On floors and landings.	m²	16			
2	Skirting formed of ceramic tile cut to 300 x 75mm high	m	16			
						<del>                                     </del>
	Carried To Section Summary			R		
	Section No. 5					
	Bill No. 11					
	Tiling					
	158					

				Chita Kekan	a SS
	Unit	Quantity	Rate	Amount	
SECTION NO. 5					
5 x 4 Enviro loo Seats Toilet Block					
BILL NO. 12					
PLUMBING AND DRAINAGE					
PREAMBLES					
For preambles see "Specification of materials and methods to be used - PW371					
SUPPLEMENTARY PREAMBLES					
Concrete pipes:					
Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rings.					
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.					
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					
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					
Carried to Collection			R		
Section No. 5					
Bill No. 12					
Plumbing And Drainage 159					
		1		ш	1

				Chita Kekan	a SS
	Unit	Quantity	Rate	Amount	
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.					
Septic tanks:					
Descriptions of septic tanks shall be deemed to include excavation, bedding and jointing, concrete base slabs, jointing to drains and backfilling, compaction, etc all in accordance with the manufacturer's instructions.					
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'.					
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 SAB.					
Flush pans:					
Flush pans shall have straight or side outlets and 'P' or 'S' traps as necessary.					
Carried to Collection Section No. 5 Bill No. 12			R		
Plumbing And Drainage 160					
130		1		II	I

		Unit	Quantity	Rate	Amount
	Stainless steel basins, sinks, wash troughs, urinals, etc:				
	Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable.				
	Waste unions:				
	Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings.				
	RAINWATER DISPOSAL				
	Approved .6mm galvanised sheet iron with "chromadek" finish ,in:				
1	100 x 100mm Eaves gutters	m	16		
2	Extra over eaves gutter for angle/corner.	No	4		
3	Extra over eaves gutter for stopped end	No	4		
4	Extra over eaves gutter for outlet for 75mm pipe.	No	4		
5	75mm Diameter rainwater pipes.	m	16		
6	Extra over rainwater pipe for bend.	No	4		
7	Extra over rainwater pipe for shoe.	No	4		
	Sanitary fittings				
	Vaal or equal approved:				
8	510 x 405mm Hibiscus (Code 7050) white vitreous china rounded lavatory basin with two tapholes supported on and including two bolts	No	2		
9	"Cobra Rf. 107EC-15" basin tap plugged.	No	2		
10	Allow a sum of R5000 for water supplies, etc	Item	_		
11	Allow a sum of R5000 for soil drainage, etc	Item			
''	•	цет			
12	Enviro-loo set:  Enviro-loo set supplied and installed complete.	Sets	4		
13	Allow for training	Item			5 000 00
13	-	ЩСП			3 000 00
	FIRE APPLIANCES ETC. 'Chubb' or equal approved:				
14	9kg Dry chemical fire extinguisher plugged	No	2		
	ong Bry onomical me oxunguioner plagged	140			
	Carried to Collection Section No. 5			R	
	Bill No. 12				
	Plumbing And Drainage				
	161				

I			Amount	
BILL NO. 12				
PLUMBING AND DRAINA	AGE			
COLLECTION				
		Page No		
	Brought Forward from Page	159		
		160		
		161		
Section No. 5	Carried To Section Summary	R		
Bill No. 12				
Plumbing And Drainage	162			

SECTION NO. 5 5 x 4 Enviro loo Seats Toilet Block BILL NO. 13 GLAZING PREAMBLES For preambles see "Specification of materials and methods to be used - PW371 GLAZING TO STEEL WITH PUTTY 5mm obscure glass: 1 Panes not exceeding 0,1m2.  m² 4						Chita Kekan	a 55
\$\frac{\text{S.x.4 Enviro loo Seats Toilet Block}{\text{BILL NO. 13}}{\text{GLAZING}}\$  \[ \text{PREAMBLES}{\text{For preambles see "Specification of materials and methods to be used - PW371}{\text{GLAZING TO STEEL WITH PUTTY}}{\text{Smm obscure glass:}} \[ \text{Panes not exceeding 0,1m2.} \text{m²} = 4	١	I	Unit	Quantity	Rate	Amount	I
\$\frac{\text{S.Y.4 Enviro loo Seats Toilet Block}{\text{BILL NO. 13}}{\text{GLAZING}}\$  \[ \text{PREAMBLES}{\text{For preambles see "Specification of materials and methods to be used - PW371}{\text{GLAZING TO STEEL WITH PUTTY}}{\text{Smm obscure glass:}} \[ \text{Panes not exceeding 0,1m2.} \text{m²} = 4							
\$\frac{\text{S.Y.4 Enviro loo Seats Toilet Block}{\text{BILL NO. 13}}{\text{GLAZING}}\$  \[ \text{PREAMBLES}{\text{For preambles see "Specification of materials and methods to be used - PW371}{\text{GLAZING TO STEEL WITH PUTTY}}{\text{Smm obscure glass:}} \[ \text{Panes not exceeding 0,1m2.} \text{m²} = 4							
BILL NO. 13 GLAZING  PREAMBLES For preambles see "Specification of materials and methods to be used - PW371  GLAZING TO STEEL WITH PUTTY  5mm obscure glass:  1 Panes not exceeding 0,1m2. m² 4							
GLAZING PREAMBLES For preambles see "Specification of materials and methods to be used - PW371 GLAZING TO STEEL WITH PUTTY 5mm obscure glass: 1 Panes not exceeding 0,1m2. m² 4							
PREAMBLES For preambles see "Specification of materials and methods to be used - PW371 GLAZING TO STEEL WITH PUTTY 5mm obscure glass: 1 Panes not exceeding 0,1m2.  m² 4							
For preambles see "Specification of materials and methods to be used - PW371  GLAZING TO STEEL WITH PUTTY  5mm obscure glass:  1 Panes not exceeding 0,1m2.  m² 4		GLAZING					
methods to be used - PW371 GLAZING TO STEEL WITH PUTTY Smm obscure glass:  1 Panes not exceeding 0,1m2.  m² 4		<u>PREAMBLES</u>					
GLAZING TO STEEL WITH PUTTY Smm obscure glass:  1 Panes not exceeding 0,1m2.  m² 4		For preambles see "Specification of materials and					
Smm obscure glass:  1 Panes not exceeding 0,1m2.  m²  4							
1 Panes not exceeding 0,1m2. m² 4							
	,		ma 2				
Carried To Section Summary	1	Panes not exceeding 0,1m2.	m²	4			
Carried To Section Summary							
Carried To Section Summary							
Carried To Section Summary							
Carried To Section Summary							
Carried To Section Summary							
Carried To Section Summary							
Carried To Section Summary							
Carried To Section Summary							
Carried To Section Summary							
Carried To Section Summary							
Carried To Section Summary							
Carried To Section Summany							
Carried To Section Summary							
Carried To Section Summary							
Carried To Section Summary							
Carried To Section Summany							
Carried To Section Summany							
Carried To Section Summary							
Carried To Section Summany							
Carried To Section Summany							
Carried To Section Summany							
Carried To Section Summany							
Carried To Section Summany							
Carried To Section Summany							
Carried To Section Summany							
Carried to Section Summary		0 . 17 0 0			_		
Section No. 5		Carried To Section Summary			R		<u></u>
Bill No. 13							
Glazing							
163							

			0 "	Б.,	Cilita Kekan	a 55
		Unit	Quantity	Rate	Amount	
	SECTION NO. 5					
	5 x 4 Enviro loo Seats Toilet Block					
	BILL NO. 14					
	<u>PAINTWORK</u>					
	PREAMBLES PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	ON FIBRE-CEMENT, ETC.					
	Prepare , etc as specified and apply two coats of super acrylic Pva paint:					
1	On ceilings and cornices.	m²	16			
2	On fascias and barge boards.	m	16			
	ON METAL					
	Prepare, etc as specified and apply two coats of					
	gloss enamel paint on :					
3	Door frames	m²	9			
4	On windows with burglar bars (both sides measured).	m²	4			
5	On gates, grilles, burglar screens, balustrades, etc (both sides measured over the full flat area).	m²	7			
	Inside eaves gutter					
6	Inside eaves gutter with waterproofing paint	m²	6			
	Prepare,etc as specified and apply two coats of super acrylic Pva paint on:					
7	General surfaces of doors (interior).	m²	13			
	ON WOOD, WOOD BOARD					
	Prepare, etc as specified and apply two coats of					
	polyurethane suede varnish:					
8	On general surfaces of doors.	m²	7			
						<u> </u>
	Carried To Section Summary			R		
	Section No. 5					
	Bill No. 14					
	Paintwork 164					
- 1	104		ı l		I	1

			Amount	
	SECTION NO. 5			
	5 x 4 Enviro loo Seats Toilet Block			
	SECTION SUMMARY			
Bill No.		Page		
1	FOUNDATIONS	139		
2	CONCRETE, FORMWORK AND REINFORCEMENT	142		
3	MASONRY	146		
4	WATERPROOFING	147		
5	ROOF COVERINGS	148		
6	CARPENTRY AND JOINERY	151		
7	CEILINGS PARTITIONS AND ACCESS FLOORING	152		
8	IRONMONGERY	153		
9	METALWORK	156		
10	PLASTERING	157		
11	TILING	158		
12	PLUMBING AND DRAINAGE	162		
13	GLAZING	163		
14	PAINTWORK	164		
	Section Factor		x 5	
	Carried to Final Summary	R		
	Section No. 5			
	SECTION SUMMARY			
	165			

# **SECTION NO. 6**

## **Provisional Sum**

1		11	Amount	
	SECTION NO. 6			
	SECTION NO. 6 Provisional Sum			
	1 TOVISIONAL CUILI			
	NOTE: All provisional sums are nett			
	The Client reserves the right to omit any or all provisional sums			
	allowed in his tender without claim for loss of profit by the Contractor			
1	Flags, Flag Poles & Plaque  Provide the amount of R30 000.00 (Thirty Thousand Rands) for flags and			
'	plaque by a specialist	Item	30 000	00
2	Profit on above item.	Item		
3	Attendance on ditto.	Item		
	<u>Signage</u>			
4	Provide the sum of R35 000.00 (Thirty Five Thousand Rands) for signage	Item	35 000	00
5	Profit	Item		
6	Attendance	Item		
	School furniture			
7	Provide the sum of R1 100 000.00 (One Million One Hundred Thousand Rands) for supply of school furniture	Item	1 100 000	00
8	Profit	Item		
9	Attendance	Item		
	Office equipments and furniture			
10	Provide the sum of R300 000.00 (Three Thousand Rands) for supply of Office equipments, furniture, first aid kit and sick bed in the administration block by			
	specialist.	Item	300 000	00
11	Profit	Item		
12	Attendance	Item		
	Community liason officer			
13	Provide the budgedary allowance of R120 000.00 (One Hundred and Twenty Thousand Rands) for employement of a community liason officer for labour requirements by the contractor and deducted in whole or part if not required.	ltono	120,000	00
14	Profit	Item	120 000	00
		Item		
15	Attendance	Item		
	Operiod To Operion Operano			
	Carried To Section Summary Section No. 6	R		
	Bill No. 1			
	Provisional Sums			
	167			

1			Amount	
	Joinery fittings			
16	Provide the sum of R300 000 (Three Thousand Rands) for joinery fittings by specialist	Item	300 000	00
17	Profit	Item		
18	Attendance	Item		
	Occupational Health and Safety Consultancy Services			
19	Provide the sum of R500 000.00 (Five Hundred Thousand Rands) for			
	occupational health and safety services to be appointed by the Employer	Item	500 000	00
20	Profit	Item		
21	Attendance	Item		
	Carried To Section Summary Section No. 6	R		
	Bill No. 1			
	Provisional Sums			
	168			

1	1		Amount
SECTION NO. 6			
Provisional Sum			
SECTION SUMMARY			
		Page	
	Brought forward from page	167	
	Brought forward from page	168	
	Carried to Final Summary	R	
Section No. 6 SECTION SUMMARY			
	169		

			Office Holland	
Section No.	FINAL SUMMARY	Page		
1	Preliminaries and Generals	40		
2	Demolitions and Renovations	68		
3	4 x 5 Classroom Block	99		
4	Medium Administration Block	135		
5	5 x 4 Enviro loo Seats Toilet Block	165		
6	Provisional Sum	169		
	ADD: CONTINGENCIES			
	Allow the Amount of R1 500 000,00 (one million five hundred thousand Rands) for contingencies, to be used by the Architect in terms of Clause 17 of the Principal Building Agreement.		1 500 000	00
	ADD: CPAP ALLOWANCE			
	Allow the amount of R1 500 000,00( one million five hundred thousand Rands) for CPAP (Contract Price Adjustment Provisions) as Item 38.5.3 of the Schedule in the Preliminaries Bill No.1, to be used in terms of Clause 28.11 of the Principal Building Agreement.		1 500 000	00
	ADD: PART B & PART C			
	ELECTRICAL INSTALLATION & CIVIL WORKS			
	Carried to Next	R		
	170			
l		I	11	

	Brought from Previous	R	
SubTotal excluding Value Added Tax			
ADD VAT @ 15%:			
Carried to Tender		R	
FINAL SUMMARY			
171			

### REPUBLIC OF SOUTH AFRICA

# LIMPOPO DEPARTMENT OF PUBLIC WORKS & INFRASTRUCTURE

CHITA KEKANA SECONDARY SCHOOL

LDPWRI-B/20216

# PART B ELECTRICAL INSTALLATIONS BILLS OF QUANTITIES

Summary- Chita Kekana Sec School				
BILL	DESCRIPTION	AMOUNT		
1A and 1B	Preliminary and General and Transport			
2	Internal Installation			
3	PVC Sleeves for Electric Installation			
4	HVAC			
5	Prov Sum for Eskom Bulk Power Supply			
6	Prov Sum for CCTV			
	CARRIED TO FINAL SUMMARY			
New Rate Items: Mark-up percentag	e on New Rate Items%.Labour cost shall be based on the bill of rates.			
CONTRACTOR:				
SIGNATURE:				
DATE:				

#### Internal Installations Bill- Chita Kekana Sec School

	DESCRIPTION	UNIT	Qty	Rate	TOTAL
	BILL 2				
	CONDUIT MODIC				
	CONDUIT WORK				
	Flush in walls, floors and concrete slabs against wooden and steel structures and walls in ceiling void, indoor and				
	outdoor, chasing of floors and walls where necessary, etc.				
2	CONDUIT 20 mm dia PVC				
2.1	Material	m	6000		
2.2	Installation	m	6000		
	50 mm dia PVC				
2.3	Material	m	3000		
2.4	Installation	m	3000		
3	OTEEL BOYES AND SOVED DI ATES				
3	STEEL BOXES AND COVER PLATES Round conduit boxes				
	Tround conduit boxes				
3.1	Material	No	242		
3.2	Installation	No	242		
	Galvanized Steel				
	100 x 50 x 50 mm				
3.3	Material	No	114		
3.4	Installation	No	114		
	TOTAL CARRIED FORWARD				
	I O I AL OAR RED I ORIVALID	1			

ITEM	DESCRIPTION	UNIT	Qty	Rate	TOTAL
	TOTAL BROUGHT FORWARD				
4	CONDUCTORS				
	PVC Insulated copper conductors				
4.1 4.2	1,5sq mm Material Installation	m m	0 0		
4.3 4.4	2,5sq mm Material Installation	m m	12000 12000		
4.5 4.6	4sq mm Material Installation	m m	6000 6000		
4.7 4.8	6sq mm Material Installation	m m	0 0		
	TOTAL CARRIED FORWARD				

TOTAL BROUGHT FORWARD   Stranded Bare Copper Earth Wire	ITEM	DESCRIPTION	UNIT	Qty	Rate	TOTAL
1.5sq mm				,		
4.10   Material   mm		Stranded Bare Copper Earth Wire				
4.10   Material   mm						
4.10   Installation						
2.5sq mm   Material   Installation   m   6000   m   3000   m   6000   m   6						
4.11   Material   Installation	4.10	Installation	m	0		
4.11   Material   Installation		2 5sg mm				
4.12   Installation						
4,0sq mm  4,13			m	6000		
4.13   Material   Installation   m   3000   m   3000			m			
4.14   Installation		4,0sq mm				
Galvanized Draw wire   1,5sq mm			m			
1,5sq mm Material Installation  SWITCHES, SOCKET OUTLETS AND ISOLATORS FOR FLUSH INSTALLATION INCLUDING COVERPLATES  Switches 16 A Single Lever 1 way Material Installation 16A 1 Lever 2 way 5.3 Material Installation Socket Outlets with switch 16A 3 pin Double 100 x 100 Material Installation  Socket Outlets with switch 16A 3 pin Double 100 x 100 Material Installation  Vo 92  Isolators  20A 2 pole, 100 x 100 Material Installation  No 35	4.14	Installation	m	3000		
1,5sq mm Material Installation  SWITCHES, SOCKET OUTLETS AND ISOLATORS FOR FLUSH INSTALLATION INCLUDING COVERPLATES  Switches 16 A Single Lever 1 way Material Installation 16A 1 Lever 2 way 5.3 Material Installation Socket Outlets with switch 16A 3 pin Double 100 x 100 Material Installation  Socket Outlets with switch 16A 3 pin Double 100 x 100 Material Installation  Vo 92  Isolators  20A 2 pole, 100 x 100 Material Installation  No 35						
4.15		Gaivanized Draw wire				
4.15		1 5cg mm				
4.16   Installation	4 15		m	6000		
SWITCHES, SOCKET OUTLETS AND ISOLATORS FOR FLUSH INSTALLATION INCLUDING COVERPLATES						
Switches						
Switches	5	SWITCHES, SOCKET OUTLETS AND ISOLATORS FOR				
16 A Single Lever 1 way   No   94	3	FLUSH INSTALLATION INCLUDING COVERPLATES				
16 A Single Lever 1 way   No   94						
5.1       Material       No       94         5.2       Installation       94         16A 1 Lever 2 way       No       94         5.3       Material       Installation         Socket Outlets with switch       16A 3 pin Double 100 x 100         Material       No       92         Installation       No       92         Isolators       20A 2 pole, 100 x 100       No       35         40A 2 pole, 100 x 100       No       35         40A 2 pole, 100 x 100       No       35						
5.2       Installation 16A 1 Lever 2 way         5.3       Material Installation         5.4       Installation         Socket Outlets with switch 16A 3 pin Double 100 x 100         5.5       Material No 92         Installation No 92         Isolators         20A 2 pole, 100 x 100 Material Installation No 35 Installation No 35         40A 2 pole, 100 x 100	E 1		No	0.4		
5.3       Material         5.4       Installation         Socket Outlets with switch       16A 3 pin Double 100 x 100         5.5       Material       No       92         5.6       Installation       No       92         Isolators       20A 2 pole, 100 x 100       No       35         5.6       Material       No       35         5.7       Installation       No       35         40A 2 pole, 100 x 100       No       35			_			
5.3       Material Installation         Socket Outlets with switch 16A 3 pin Double 100 x 100       No 92         5.5       Material No 92         Installation No 92       No 92         Isolators       Vo 35         20A 2 pole, 100 x 100       No 35         5.7       Installation No 35         40A 2 pole, 100 x 100       No 35	0.2		''	01		
Socket Outlets with switch   16A 3 pin Double 100 x 100   No   92	5.3					
16A 3 pin Double 100 x 100  Material  Installation  No  92  Isolators  20A 2 pole, 100 x 100  Material  Installation  No  35  No  40A 2 pole, 100 x 100	5.4	Installation				
16A 3 pin Double 100 x 100  Material  Installation  No  92  Isolators  20A 2 pole, 100 x 100  Material  Installation  No  35  No  40A 2 pole, 100 x 100						
5.5       Material Installation       No       92 No         Isolators       20A 2 pole, 100 x 100 Material Installation       No       35 No         40A 2 pole, 100 x 100       No       35 No						
5.6       Installation       No       92         Isolators       20A 2 pole, 100 x 100       No       35         5.6       Material       No       35         Installation       No       35         40A 2 pole, 100 x 100       No       35			<b> </b>	00		
Isolators			_			
20A 2 pole, 100 x 100  Material Installation  40A 2 pole, 100 x 100	5.6	Installation	INO	92		
20A 2 pole, 100 x 100 Material Installation  40A 2 pole, 100 x 100  No 35 No 35		Isolators				
5.6 Material No 35 No 35 No 35 No 35 No 35						
5.6       Material       No       35         5.7       Installation       No       35         40A 2 pole, 100 x 100       100       35		20A 2 pole, 100 x 100				
40A 2 pole, 100 x 100	5.6	Material				
	5.7	Installation	No	35		
		100.0				
I 5.8 IMBTERIAL I NO I 36 I I	- A		N1 -	00		
5.9 Installation No 36						
3.5 Installation	5.9	in istaliation	110	30		
TOTAL CARRIED FORWARD		TOTAL CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	Qty	Rate	TOTAL
	TOTAL BROUGHT FORWARD				
6	SQUARE TUBING				
	POWER SKIRTING				
	Supply and installation of power skirting complete with covers				
	and end caps. Tenderers shall make provision for plugs,				
	telephone points, computer points and isolators on the power				
6.1	skirting Material				
6.2	Installation				
0.2	inotaliation				
7	PHOTOCELL / DAYLIGHT SWITCH				
	Royce Thompson type or equal				
7.1	Material	No	9		
7.2	Installation	No	9		
	BONDING OF DISTRIBUTION BOARDS TO WATER AND				
8	ROOF				
	Installation	lot	9		
9	EARTHING AND LIGHTING PROTECTION				
9.1	Material	lot	9		
9.2	Installation	lot	9		
0.2	inotaliation	101	Ü		
10	TESTS OF THE COMPLETE ELECTRICAL INSTALLATION				
10	AND ISSUING OF COC'S				
10.1	Installation	lot	9		
-	Total for Bill 2 carried to summary sheet				
	rotal for bill 2 duffled to duffilliary officet				

ITEM	DESCRIPTION	UNIT	Qty	Rate	TOTAL
	BILL 3				
11	LIGHT FITTINGS				
	Tenderer shall include tubes or lamps and 5A unswitched plug				
	in his tender rates. The light fittings shall be installed complete				
	with lamps. Colour to be advised where not specified				
	Light Fittings samples shall be submitted for approval before				
	final order is made				
	TYPE 1 - (Surface mounted LED Open Channel, IP20, fitted				
11.1	with 2 x 18W LED tubes, minimum 2320lm output per tube,				
	colour temp 4000k)				
	Material	No	252		
	Installation	No	252		
11.2	TYPE 2 - IP65, vapour proof, open channel with 2 x 24W T8				
	LED tubes with lumen output of 1720lm per tube.	NI.	0		
	Material	No No	0 0		
	Installation TYPE B1 - IP65 Wall and ceiling mounted mounted bulkhead	NO	U		
11.3	complete with 1 x 30W LED bulb .				
	Material	No	78		
	Installation	No	78		
44.4	Type 3 - Open Channel complete with 2 x 24W T8 LED tubes				
11.4	.Each tube to have a lumen output of 2315lm.				
	Material	No	0		
	Installation	No	0		
					]
					]
	Total for Bill 3 carried to summary sheet				

ITEM	DESCRIPTION	UNIT	Qty	Rate	TOTAL
	BILL 4				
12	DISTRIBUTION BOARDS AND KIOSKS				
12.1	Site Kiosk. Refer to the Kiosk Schematics Material	No	1		
12.2	Installation, including Kiosk plinth	No	1		
12.3 12.4	Block DBs, Refer to Schematics Material Installation	No No	9 9		
	Telephone and Computer Distribution Board				
	500 x 500 x 250 mm surface type distribution board installed flush				
12.5 12.6	Material Installation	No No	1 1		
	Telephone point	No			
12.7 12.8	Material Installation	No No	5 5		
	Computer point				
12.9	Material	No	5		
12.10	Installation	No	5		
	Total for Bill 4 carried to summary sheet				

#### SUMMARY OF QUANTITIES

BILL	DESCRIPTION	Scheduled Value
2	Conduit Work	
3	Light Fittings	
4	Distribution Board	
	SUB TOTAL	

#### Site Reticulation Bill- Chita Kekana Sec School

	DESCRIPTION	UNIT	Qty	Rate	TOTAL
	BILL 5				
13	LOW VOLTAGE CABLES				
	Low Voltage cables 600 to 1000 PVC insulated steel wire armoured underground cable				
	Cable in trenches, sleeves and building duct also in ceiling void if necessary				
	70 mm sq x 4 core				
	Material Installation	m m	0 0		
	50mm sq x 4 core				
	Material Installation	m m	0 0		
	25mm sq x 2 core				
13.5 13.6	Material Installation	m m	100 100		
	16mm sq x 2 core				
13.7 13.8	Material Installation	m m	600 600		
	10mm sq x 2 core				
	Material Installation	m m	0 0		
	TERMINATIONS				
	70mm sq x 4 core				
	Material Installation	No No	0 0		
	50mm sq x 4 core				
	Material Installation	No No	0 0		
	25mm sq x 2 core				
	Material Installation	No No	2 2		
	TOTAL CARRIED FORWARD				

	DESCRIPTION	UNIT	Qty	Rate	TOTAL
1	TOTAL BROUGHT FORWARD				
1	16mm sq x 4 core				
13.17 N 13.18 I	Material Installation	No No	20 20		
1	10mm sq x 3 core				
13.19 N 13.20 I	Material Installation	No No	0 0		
14 (	COPPER EARTH WIRE				
7	70mm sq				
	Material Installation	m m	0		
2	25mm sq				
	Material Installation	m m	100 100		
1	16mm sq				
	Material Installation	m m	600 600		
1	10mm sq				
	Material Installation	m m	0 0		
6	6mm sq				
	Material Installation	m m	0 0		
15	Yellow Cable Marker / Danger Tape				
	Material Installation	m m	25 25		
	TOTAL CARRIED FORWARD TO CUMMARDY				
	TOTAL CARRIED FORWARD TO SUMMARY SUMMARY OF QUANTITIES				

BILL	DESCRIPTION	Scheduled Value
5	LOW VOLTAGE CABLES	
	SUB TOTAL	

#### Site Reticulation Bill- Chita Kekana Sec School

ITEM	DESCRIPTION	UNIT	Qty	Rate	TOTAL
	BILL 6				
16	PVC SLEEVES FOR ELECTRIC AND COMMUNICATION				
	PVC SLEEVES complete with bends 100mm dim				
16.1	Material	m	0		
16.2	Installation	m	0		
	50mm dim				
16.3	Material	m	200		
16.4	Installation	m	200		
	Excavation				
16.5	Soft Rock and Earth	m3	100		
16.6	Hard Rock	m3	250		
16.7	Very Hard Rock	m3	0		
	Sifted Soil Bedding and Cover				
16.8	Material	m3	50		
16.9	Labour	m3	50		
17	Prepare As Built Drawings for all Layouts				
	As Built Drawings	lot	1		
18	Steel cover				
18.1	Material	No	4		
18.2	Labour	No	4		
19	Concrete Cable Markers				
19.1	Material	Lot	1		
19.2	Labour	Lot	1		
	TOTAL CARRIED TO SUMMARY				
	10 1/12 O/IIIIIED 10 OOMINI/IIII	İ			

ITEM	DESCRIPTION	UNIT	Qty	Rate	TOTAL
20	BILL 7 HVAC  HVAC: Supply, delivery, installation, commissioning and testing of a 2.4 kW cooling capacity high wall split units complete with insulated refrigerant piping, condensate drains, trunking, electric wiring and connection and controls (heat pump), RECOMMENDED BRANDS are GREE, CARRIER, YORK AND LG				
	High-wall split units, 2.4 kW cooling capacity/ 9000 BTU (heat pump) unit.				
20.1	Material	No.	6		
20.2	Installation	No.	6		
	Refrigerant piping pair (liquid and gas)	m			
21	Material	m	100		
	Installation	m	100		
	Drain piping				
21.1	Material	m	100		
21.2	Installation	m	100		
23 23.1 23.2	Hand Dryers Hand drier (XLERATOR or equivalent) at toilets (1400W high speed air jet, motor speed of at least 20000 RPM)  Material	No	2		
23.2	Installation	No	2		
	TOTAL CARRIED FORWARD TO SUMMARY				

#### SUMMARY OF QUANTITIES

BILL	DESCRIPTION	Scheduled Value
6 7	PVC SLEEVES FOR ELECTRIC AND COMMUNICATION  HVAC	
	SUB TOTAL	

## REPUBLIC OF SOUTH AFRICA

## LIMPOPO DEPARTMENT OF PUBLIC WORKS & INFRASTRUCTURE

CHITA KEKANA SECONDARY SCHOOL

LDPWRI-B/20216

## PART C CIVIL WORKS BILLS OF QUANTITIES

## CHITA KEKANA SS EARTHWORKS

Item	Payment Reference	Description	Unit	Qty	Rate	Amount
	SABS 1200 D	SCHEDULE NO. 1: EARTHWORKS				
		SITE CLEARANCE				
Alternative see	8.3.1	Clear and grub area for				
1200C 1200DM		Buildings	m²	3 461.50		
Alternative		PREPARATION AND STRIPPING OF SITE				
1200DB 1200DM	8.3.1	Remove topsoil to a depth of 150mm and				
1200DW		Stockpile on site within freehaul distance and maintain	m³	519.23		
		Spoil at designated spoil site	m³	207.69		
		EXCAVATION				
	8.3.2	Excavate in all materials and use as fill, compacted to 90% mod AASHTO density for:				
		Platforms	m³	623.07		
	8.3.2	Extra over item 8.3.2 (a) for				
		Intermediate excavation	m³	186.92		
		Hard rock excavation	m³	124.61		
		Boulder excavation class A	m³	12.46		
		Boulder excavation class B	m³	12.46		
		COMMERCIAL MATERIAL				
	8.3.4	Extra over item 8.3.2 (a) for importation of materials from:				
		Commercial sources selected by the Contractor	m³	415.38	1	
TOTAL CARR	IED FORWAR	D				

Civil Works 1 218

Item	Payment Reference	Description	Unit	Qty	Rate	Amount
ITEM NO.	PAYMENT REFER.	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		TOTAL BROUGHT FORWARD				
		DESIGNATED BORROW PIT (ARRANGED BY EMPLOYER)				
	8.3.4	Extra over item 8.3.2 (a) for importation of materials from				
		Designated borrow pits	m³	2 076.90	1	
	8.3.4	Opening up and closing down of designated borrow pit	sum	1.00	1	
		OVERHAUL				
	8.3.6	Overhaul (Provisional)				
		Limited overhaul	m³	623.07	1	
		Long overhaul	m³.km	415.38		
		COMPACTION OF BACKFILLING				
	8.3.9	Selected material compacted to 93% mod AASHTO density	m³	2 492.28		
		Mod AASHTO Tests	No.	50.00	1	
Carried forv	vard to Sumi	nary of Schedules				

Civil Works 2 219

## CHITA KEKANA SS ROAD WORKS

ITEM NO.	PAYMENT REFER.	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		SCHEDULE 2: EARTHWORKS (ROADS AND SUBGRADE)				
1	SANS	EARTHWORKS				
1.2		TREATMENT OF ROAD-BED				
1.2.1	8.3.3(a)	Road-bed preparation and compaction of material compacted to 93% MOD AASHTO maximum density	m <sup>3</sup>	205.01		
1.2.2	8.3.3(b)	In-place treatment of road-bed in intermediate or hard material				
		Ripping	m <sup>3</sup>	41.00		
1.3		EARTHWORKS				
1.3.1	8.3.4	Cut to fill				
		Compact to 90 % mod. AASHTO maximum density	m <sup>3</sup>	102.50		
		Selected layer compacted to 93 % mod. AASHTO maximum density	m <sup>3</sup>	102.50		
1.3.2	8.3.6	Extra-over items 1.3.1 inclusive for excavating and breaking down material in:				
		Intermediate excavation	m <sup>3</sup>	20.50		
		Hard excavation	m <sup>3</sup>	10.25		
1.3.3	8.3.7	Cut to spoil from				
		Soft excavation	m <sup>3</sup>	205.01		
		Intermediate excavation	m <sup>3</sup>	41.00		
		Hard excavation	m <sup>3</sup>	6.15		
1.3.4	8.3.8	Removal of oversize material	m <sup>3</sup>	3.08		
TOTAL CA	RRIED FORWAR	D		•	•	

ITEM NO.	PAYMENT REFER.	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		TOTAL BROUGHT FORWARD				
1.4	SABS 1200 DM	SUNDRIES				
	8.3.10	Materials bladed to windrow	m <sup>3</sup>	0.00		
	8.3.11	Extra-over items 8.3.7 and 8.3.8 for temporary stockpiling of material	m <sup>3</sup>	30.00		I
		Construction of storm water berm allong the designated areas by engineer				
			m <sup>3</sup>	0.00		
1.5	SABS 1200 ME	SECTION: SUBBASE				
	8.3.1	Construct gravel wearing course with material from borrow pits in all materials				
		150mm to main carriageways	m <sup>3</sup>	205.01		
	8.3.4	Extra over items .1 to .2 inclusive for class of excavation				
		Intermediate excavation	m <sup>3</sup>	41.00		
		Hard rock excavation	m <sup>3</sup>	30.75		
1.6	SANS 1200 MFL	BASE				
	8.3.1	Construct base with material from borrow pit				
		Stabilized base using material from borrow150mm to 95% mod AASHTO				
			m <sup>3</sup>	205.01		
1.7	8.3.4	Stabilizing Agent				
		(b) Portland Cement	m <sup>3</sup>	6.15		
1.8	SANS 1200 MJ	SEGMENTED BLOCK PAVING TO THE ACCESS ROAD				
	8.2.2	80mm Type S-A 35mPa for roadway (Grey Colouring)	m²	0.00		
	8.2.2	60mm Type S-A 35mPa for roadway (Grey Colouring)	m²	1 366.73		
	8.2.1	The construction of edge restraints	m	60.74		
TOTAL CA	RRIED FORWARE	)	_			

ITEM NO.	PAYMENT REFER.	DESCRIPTION	UNIT	QTY	RATE	AMOUN
		TOTAL BROUGHT FORWARD				
1.8	SANS 1200 MK	KERBING AND CHANNELLING				
	8.2.2	Supply, bed, lay, & joint concrete sections:				
1.8.1		400X200Concrete edae strip (Class 20/19 Concrete Strenath).				
		a) 1m Length on straight	m	160.00		
		b) 330mm Length on curves	m	20.00		
1.8.2		300X150Barrier Kerb (SABS 927 Fig 3).	m	305.00		
1.8.3		Mountable Kerb (SABS 927 Fig 3).	m	61.00		
9	1200 DK	SUBSOIL DRAINS				
9.1	1200 DK 8.2	Supply and install A4 Bidim Geosynthetic materials to the subsoil drains, as per drawings.	m²	40.00		
9.2	1200 DK 8.2	Supply and install 110mm Class 6 HDPE perforated pipe to the subsoil drains outlet, as per drawings.	m	50.00		
9.3	1200 DK 8.2	Supply and install 1,5mm smooth HDPE Geomembrane as the liner to the channel, as per drawings.	m²	44.00		
9.4	1200 DK 8.2	Supply and install A7 Bidim Geosynthetic proetction layer to channel liner, as per drawings.	m²	60.00		
9.5 9.5.1	SANS 1200 AH 8.4.3	CONCRETE Supply, place and shape 25MPa concrete in hyson cells on the A10Bidim Geosynthetic proetction layer, as per drawings.	m³	50.03		
9.5.2	8.4.3	Supply, place and shape 25MPa concrete in hyson cells in the leachate outlet channel, as per drawings	m³	12.51		
OTAL CA	RRIED FORWARD					

ITEM NO.	PAYMENT REFER.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		TOTAL BROUGHT FORWARD				
10		STORMWATER MANAGEMENT				
	SANS	EARTHWORKS				
10.1		EXCAVATIONS				
10.1.1	1200 D 8.3.2	Excavate and prepare all cut off trenches and berms around the site as shown on the drawings and as directed by the Engineer.	m³	7.50		
10.1.2		Disposal of unsuitable or surplus material off site	m³	2.25		
10.2	SANS 1200 G	Concrete				
10.2.1	8.4.1	Mass concrete backfilling to replace unsuitable material, prescribed mix, Grade 10MPa/20 mm	m³	2.25		
10.2.2	8.4.2	Blinding layer, 50 mm minimum, prescribed mix, Grade 15MPa/20 mm	m²	2.50		
10.2.3	8.4.3	Strength concrete Grade 25 MPa/20 mm for:				
10.3		Concrete Channels	m³	11.25		
10.3.1	8.1.1	Formwork				
10.3.2	8.2.5	Rough, vertical, circular, maximum height 300 mm.	m	90.00		
10.3.3	8.2.5	Smooth, circular, vertical, 175 mm high to outer edge of base footing, (including forming of drainage lips with 110 mm dia drips)	m	20.00		
10.3.4	PSA8-11	Forming of drainage lips with 110 mm dia drips as per detail, Drawing	No	4.00		
10.3.5	8.4.4	Unformed surface finishes				
10.3.6		Steel float finish	m²	50.00		

## CHITA KEKANA SS FENCING

Item No.	Payment Refers	Description	Unit	Qty	Rate	Amount
2 2.1	SABS 1200A PCC-4.1	SCHEDULE 2 - STEEL PALISADE FENCING  Steel palisade fencingn 2,4m high according to specification including excavations, foundation concreting, posts, pales and ground beams. All as per drawing.	m	810.00		
2.2	PCC-4.1	Supply and install according to specification a 6m wide vehicular gate	No	1.00		
2.3	PCC-4.1	Supply and install according to specification 1.5m wide pedestrian gate as per drawing	No	1.00		
2.4	PCC-4.1	Repainting of the existing fence	m²	0.00		
SUB - TO	TAL CARRIED	CO SUMMARY				

Civil Works 7 224

## CHITA KEKANASS Water supplies

ITEM NO.	PAYMENT REFRES	DESCRIPTION	UNIT	Qty	RATE	AMOU
		SCHEDULE 4: WATER SUPPLY PIPELINES AND WATER SOURCE				
		SOFIED DE 4. WATER OUT FETT II EEINES AND WATER OOSTIGE				
	SABS 1200DB	EARTHWORKS: PIPE TRENCHES				
3.1		SITE CLEARANCE				
3.1.1	8.3.1(a)	Clear 2m wide vegetation and trees of girth up to 1m	m	445.00		
3.1.2	8.3.1(b)	Remove trees over 1 m and up to 2 m qirth	No.	0.00		
3.2	PSDB12	EXCAVATION				
3.2.1		Excavate in all materials for trenches for pipes with a diameter between 20 mm and 100 mm, backfill compact and dispose of surplus/unsuitable material				
		Up to 1,5m in depth	m³	445.00		
3.2.1.1	8.3.2(b)	Extra-over item 3.2.1 incl. for excavation (provisional) in :				
		a) Intermediate material b) Hard rock material	m³ m³	89.00 66.75		
3.2.1.2		Extra over Item 3.2.1				
		a) Backfill and compact by means of labour intensive construction methods in layers of 200mm compacted to 90% mod AASHTO	m³	445.00		
3.2.2		EXCAVATION ANCILLARIES				
3.2.2.1	8.3.3.1(a)	Imported backfill materials from designated borrow pits (Only if approved by Engineer)	m³	155.75		
3.2.2.2	8.3.3.2	Opening up and closing down of designated borrow pit	P.Sum	1.00		
3.2.2.3	8.3.3.3	Compaction in road reserves	m³	0.00		
3.2.2.4	8.3.3.4	Overhaul :				
		a) Short haul b) Truck haul	m³ m³/km	-		
3.2.4 3.2.4.1	SABS1200LB 8.2.1	PROVISION OF BEDDING (PIPES) Provision of bedding material from trench excavations				
		a) Selected granular material b) Selected fill material	m³ m³	66.75 155.75		
3.2.4.2		Provision of bedding material by importation from other necessary excavations (freehaul within the village boundaries)				
		a) Selected granular material b) Selected fill material	m³ m³	80.10 186.90		

Civ/Works 8 **225** 

ITEM NO.	PAYMENT REFRES	DESCRIPTION	UNIT	Qty	RATE	AMOU
OTAL BROUG	GHT FORWARD					
3.2.4.4	8.2.3	Concrete bedding	m³	5.00		
3.2.4.5	8.2.4	Encasing of pipes in Class 19/20 concrete	m³	5.00		
3.2.4.6	8.2.5	Overhaul of material for bedding cradle and selected fill blanket	m³km	0.00		
3.2.5	1200L	PIPEWORK				
	8.2.1	Supply, lay, joint, bed, test and disinfect the following pipes complete with couplings and fittings to the relevant SABS standards including short lengths (all uPVC pipes to comply with DWS1160)				
3.2.5.1		uPVC pipes				
		a) 75 Class 12 b) 75 Class 9	m m	-		
3.2.5.2		HDPE pipes Type IV				
		a) 20 mm class 6 b) 50 mm class 6 c) 75 mm class 10	m m m	40.00 385.00 20.00		
3.2.5.3		GMS pipes (medium duty)				
		a) 15 mm 0 b) 20 mm 0 c) 25 mm 0	m m m	-		
3.2.6		VALVES				
3.2.6.1		Line valve assemblies.				
		Extra over item F.6 for supplying, installing, bedding and testing line valve assemblies as per Drawing complete cutting of pipes and couplings included (all valves to comply with DWS 2510)				
		a) 50 mm b) 75 mm	No. No.	4.00 0.00		
3.2.6.2		Scour valve assemblies				
		Extra over item F.6 for supplying, installing, bedding and testing scour valve assemblies as per Drawing complete. Scour tee, cutting of pipes and couplings included.				
		a) On 50 mm dia main	No.	5.00		
3.2.6.3		Ditto for 40 Ø and smaller pipes as detailed in Drawing for the following diameters				
		a) 25 Ø b) 32 Ø c) 40 Ø	No. No. No.	-		
3.2.6.4		Air valve assemblies				
		Extra over item D.6 for supplying, installing and testing air valve assemblies as per Drawing complete				
		a) On 50 mm and 64 mm Ø main	No.	1.00		

Civ/Works 9 **226** 

TEM NO.	PAYMENT REFRES	DESCRIPTION	UNIT	QTY	RATE	AMOU
TAL BROUG	HT FORWARD					
3.2.10		FITTINGS FOR HDPE PIPES				
3.2.11		SUNDRIES				
3.2.11.3		Thrust blocks as per typical details on specification Drawing				
		a) Concrete Class 15/19 b) Rough formwork	m³ m²	1.00 1.00		
3.2.14		BOREHOLE DEVELOPMENT - (PROVISIONAL)				
		Geohydrological Servies Sitting of drilling sites. Alowance to be made for desk study, site assessment, drilling supervision, testing supervision, and reporting.	No	1.00		
		Borehole Drilling				
		Site Establishment/De-establishment				
		Mobilisation and set up of plant to/at first borehole. Rate to include inter-borehole moves and de- establishment from site of the drilling batch.	No	1.00		
		Drilling				
		Drilling of 165mm diameter borehole in non-collapsible material.	m	100.00		
		Odex drilling in collapsible material and where ordered by the Geohydrologist of 254mm diameter borehole. Rate to include supply, delivery and installation of at least 6mm sidewall Odex casing.	No	120.00		
		Steel casing (plain), 165 mm (state wall thickness here as 3 mm)	m	35.00		
		Steel casing (slotted), 165 mm (state wall thickness here as 4 mm)	m	0.00		
		Pump testing of borehole.				
		Rate to include the following:installation of pump testing equipment and remove after, calibration testing, 24hr constant testing, recovery measurements, data recording and reporting.	No	1.00		
		Sampling for water quality testing	No	1.00		
		Site finishing				
		Borehole finishing, rate to include borehole disinfection, concrete collar in Grade 20Mpa concrete, normal saintarv seal. borehole makino. Reporting	No	1.00		
		Complete Geohydrology report signed by a registered personnel	No	1.00		
3.2.15		BOREHOLE REHABILITATION - (PROVISIONAL)				
		Site Establishment/De-establishment				
		Mobilisation and set up of plant to/at first borehole. Rate to include inter-borehole moves and de- establishment from site	No	1.00		
		Removal of existing pumphouse	No	1.00		
		Removal of existing pump	No	1.00		
		Positive displacement pump Removal using cable-tool (jumper) drilling rig of columns instalations diameter, 25mm-100mm upto 120m. Rate to include all pipe work and fittings	No	1.00		

CiviWorks 10 **227** 

ITEM NO.	PAYMENT REFRES	DESCRIPTION	UNIT	QTY	RATE	AMOU
OTAL BROUG	HT FORWARD					
		Site Establishment/De-establishment				
		Mobilisation and set up of plant to/at first borehole. Rate to including inter-borehole moves and de- estalishment from Site, of the given drilling batch	No	1.00		
		Pump testing of borehole.				
		Rate to include the following:installation of pump testing equipment and remove after, calibration testing. 24hr constant testing, recovery measurements, data recording and reporting.	No	1.00		
		Sampling for water quality testing	No	1.00		
		BOREHOLE PUMPS AND APPURTENANCES				
3.2.16		NEW BOREHOLE INSTALLATION Supply and commissioning and testing of New Borehole complete with electric wiring and connection and controls. Allunits are to be made good and neat in accodance to manufactures and Engineers' specification.				
		Submersible pumpsets and fittings				
		Supply and install new submersible pump - Grundfos or similar Quality. All internals of wet-end shall be 316 stainless steel/brass. Electrical motor will be 316 stainless steel. Complete with corrosion protection.				
		Engineer to approve prior to installation. Pump Installation, Head & Flow fas per borehole test report	No	1.00		
		Electric Motor installation, as per pump size requirements determined in item above.	No	1.00		
		Pump Protection				
		Mechanical pressure switch, PN16, Complete with cabling to panel : Limits between 160m and 80m. WIKA PSM-550 or Equivalent	No	1.00		
		Mechanical flow switch, PN16, Complete with cabling to panel	No	1.00		
		Float Switch for Switching off Pump on Low Level, c/w wiring to panel's liquid level control relay.	No	1.00		
		Electric Motor Control Panel				
		Supply and install control panel with all fittings required to operate pumps and motors efficiently, including 0-20 second delay timer and 0-24 hour timer.	No	1.00		
		Pipework Supply and install borehole discharge pipework complete with flow meter, non return and pressure valves on the following pipework.				
		Submersed pipe: Ø 63mmHDPE, Class 12, 7,1mm Wall thickness, SANS 4427, Borehole to Surface	m	110.00		
		Metal Base plate - Double choke	No.	1.00		
		65 NB Schedule 40 pipe discharge Galvanised Steel pipe, Incl Elbows and fittings	m	5.00		
		65 NB Threaded Brass Type Isolation valve, PN10	No.	2.00		

Civ/Works 11 228

	YMENT DESCRIPTION	UNIT	QTY	RATE	AMOU
OTAL BROUGHT FO	PRWARD				
	65 NB Flanged Non Return Valve, tilted disc type, PN 10	No.	1.00		
	65 NB Flanged Mechanical flow meter, PN 10	No.	1.00		
	M16 galvanised bolts and nuts	No.	96.00		
	65 NB Gaskets, Incl Consumables	No.	24.00		
	Mechanical Pressure Gauge, Wika (100mm dial and filled with glycerine), with a range from 400 kPa to 1600 kPa. complete with ball isolating valve and piping	No.	1.00		
	T-Pieces and Bushes to mount Pressure gauge. Pressure Switch and Flow Switch Submersible pump steel cage	No.	3.00		
	Supply and install borehole discharge pipework complete as per drawing	No	1.00		
3.2.18	TESTING AND COMMISSIONING				
	Testing and commission borehole installation includibg pumps, motrs, control system and verify discharge and head characteristics	No	1.00		
	Eletricity Supply				
	Supply material and erect a three phase electricity power line to the new borehole	No	1.00		
	Mark-up on item 4.2.1				
	Supply all material and install a 25kVa transformer	No	1.00		
	WATER TREATMENT (PROVISIONAL)				
	10kl PVC pre-treatment tank	No.	1		
	Supply, installation, connections, testing and handing over in working order of a 20m³/hr packar water treatment plant	ge Prov. Sum	1		
	Overheads, charges and profit.	%	350 000.00		
OTAL CARRIED FO	RWARD				

CiviWorks 12 229

WATER STORAGE  Water Tanks 5 000 Litre polyethylene water tank (JoJo make or equiva-lent). Tank complete with 50 x 40 DN nylon bushes sealed into all inlets and outlets. Include for anchorage onto tank stand platform with 4mm diameter calvanized steel wire (bloudraad). 2 Strands/Anchor.  10 000 Litre polyethylene water tank (JoJo make or equiva-lent). Tank complete with 50 x 40 DN nylon bushes sealed into all inlets and outlets. Include for anchorage onto tank stand platform with 4mm diameter calvanized steel wire (bloudraad). 2 Strands/Anchor.  Elevated 4.5m Steel Stand Tankstand Refurbishment including, modification to concrete foundations, pipe work, brackets, surface preparation and re-o-aintino	No No	0		
Water Tanks 5 000 Litre polyethylene water tank (JoJo make or equiva-lent). Tank complete with 50 x 40 DN nylon bushes sealed into all inlets and outlets. Include for anchorage onto tank stand platform with 4mm diameter oalvanized steel wire (bloudraad). 2 Strands/Anchor.  10 000 Litre polyethylene water tank (JoJo make or equiva-lent). Tank complete with 50 x 40 DN nylon bushes sealed into all inlets and outlets. Include for anchorage onto tank stand platform with 4mm diameter oalvanized steel wire (bloudraad). 2 Strands/Anchor.  Elevated 4.5m Steel Stand Tankstand Refurbishment including, modification to concrete foundations, pipe work, brackets, surface preparation and	No No			
5 000 Litre polyethylene water tank (JoJo make or equiva-lent). Tank complete with 50 x 40 DN nylon bushes sealed into all inlets and outlets. Include for anchorage onto tank stand platform with 4mm diameter calvanized steel wire (bloudraad). 2 Strands/Anchor. 10 000 Litre polyethylene water tank (JoJo make or equiva-lent). Tank complete with 50 x 40 DN nylon bushes sealed into all inlets and outlets. Include for anchorage onto tank stand platform with 4mm diameter calvanized steel wire (bloudraad). 2 Strands/Anchor. Elevated 4.5m Steel Stand Tankstand Refurbishment including, modification to concrete foundations, pipe work, brackets, surface preparation and	No No			
nylon bushes sealed into all inlets and outlets. Include for anchorage onto tank stand platform with 4mm diameter calvanized steel wire (bloudraad). 2 Strands/Anchor.  Elevated 4.5m Steel Stand Tankstand Refurbishment including, modification to concrete foundations, pipe work, brackets, surface preparation and	No	5		
Tankstand Refurbishment including, modification to concrete foundations, pipe work, brackets, surface preparation and				
i e e e e e e e e e e e e e e e e e e e	Sum	5		
Elevated 4.5m Steel Stand Refurbishment (Provisional) Refurbish existing steel stand - including repainintg, rust protection and replacing corroded purlins	P.Sum	1		
Outlet and overflow Pipe Schedule for items below:	Sum	1		
a) 1½" to 50mm MALE ELBOW (Plasson)				
b) 50mm Ø HDPE PIPE CLASS 10	m	5		Rate Only
c) 50mm Ø PLASSON ELBOW	No	5		Rate Only
d) 50mm Ø MALEADAPTER (Plasson)	No	5		Rate Only
e) 50GMS bend F/F	No	5		Rate Only
f) 50mm Ø x 3000 GMS STAND PIPE	No	5		Rate Only
g) 50mm Ø BRASS BALL VALVE (COBRA)	No	5		Rate Only
h) 50mm Ø GMS NIPPLE	No	5		Rate Only
i) 50mm Ø GMS UNION	No	5		Rate Only
k) 50mm Ø GMS PIPE 6000 LONG	No	5		Rate Only
I) 50mm Ø GMS ELBOW F/F	No	5		Rate Only
m) 50mm Ø GMS STAND PIPE 300 LONG (400 long in sandy conditions)	No	5		Rate Only
n) 50mm Ø GMS STAND PIPE 700 LONG	No	5		Rate Only
o) 50mm Ø GMS SOCKET	No	5		Rate Only
p) 50mm Ø GMS STAND PIPE 150mm	No	5		Rate Only
n n	50mm Ø GMS ELBOW F/F n) 50mm Ø GMS STAND PIPE 300 LONG (400 long in sandy conditions) n) 50mm Ø GMS STAND PIPE 700 LONG 50mm Ø GMS SOCKET	50mm Ø GMS ELBOW F/F   No     50mm Ø GMS STAND PIPE 300 LONG (400 long in sandy conditions)   No     50mm Ø GMS STAND PIPE 700 LONG   No     50mm Ø GMS SOCKET   No	50mm Ø GMS ELBOW F/F n) 50mm Ø GMS STAND PIPE 300 LONG (400 long in sandy conditions) No 5 somm Ø GMS STAND PIPE 700 LONG No 5 Somm Ø GMS SOCKET No 5	50mm Ø GMS ELBOW F/F  n) 50mm Ø GMS STAND PIPE 300 LONG (400 long in sandy conditions)  No 5  Somm Ø GMS STAND PIPE 700 LONG  No 5  Somm Ø GMS SOCKET  No 5

CiviWorks 13 **230** 

EM NO.	PAYMENT REFRES	DESCRIPTION	UNIT	QTY	RATE	AMOU
AL BROUG	HT FORWARD					
		Inlet Pipe Schedule (From Pump)	Sum	1		
		a) 1½ "TO 40mm MALE ELBOW (Plasson)	No	5		
		b) 40mm Ø HDPE PIPE CLASS 10	m	5		
		c) 40mm Ø PLASSON ELBOW	No	5		
		d) 40mm Ø MALEADAPTER (Plasson)	No	5		
		k) 40mm Ø GMS PIPE 6000 LONG	No	5		
		I) 40mm Ø GMS ELBOW F/F	No	5		
		m) 40mm Ø GMS STAND PIPE 300 LONG (400 long in	No	5		
		sandy conditions)				
		n) 40mm Ø GMS STAND PIPE 700 LONG	No	5		
		o) 40mm Ø Galvanised socket	No	5		
		p) 40mm Ø Galvanised standpipe 150 mm long	No	5		
3.2.7		DRAW-OFFS				
3.2.7.1		Complete supply, install and test single rudimentary domestic drawoff standard type as detailed in Drawing with:				
		i) 2 Taps	No.	4.00		
		ii) 4 Taps	No.	0.00		
3.2.7.3		Complete supply, install and test garden standpipe as detailed in Drawing	No.	1.00		
		DECOMMISSIONING OF OLD SERVICES				
		Removal of old water supply equipment including old tanks, tank stands, and pumps etc.	No	2		

CiviWorks 14 231

## CHITA KEKANA SS External Sewer

Item	Description	Unit	Qty	Rate	Amount
	SCHEDULE 5 : EXTERNAL SEWER RETICULATION				
4.1	EARTHWORKS (PIPE TRENCHES)				
4.1.1	Excavation				
	Excavate in all material for trenches, backfill, compact and dispose of surplus material for pipes over 25mm dia up to 400mm dia for depths:				
	a) Exceeding 0,0m but not more than 1,0m	m <sup>3</sup>	70.00		
	b) Exceeding 1,0m but not exceeding 2.0m	m <sup>3</sup>	3.50		
4.2	Extra-over all excavations in pickable material irrespective of depth, for excavating in:-				
4.2.1	Intermediate excavation	m <sup>3</sup>	14.00		
4.2.2	Hard rock excavation	m <sup>3</sup>	10.50		
4.3	Excavation Ancilliaries				
4.3.1	Excavate and dispose of unsuitable material from trench bottom (provisional)	m <sup>3</sup>	3.50		
4.3.2	Make deficiency in backfill material (Provisional)				
	a) from other necessary excavation on Site	m <sup>3</sup>	3.50		
	b) by importation designated borrow pits	m <sup>3</sup>	3.50		
	c) Compaction in platform reserves	m <sup>3</sup>	3.50		
4.4	Existing services				
	a) Services that adjoin a trench	m	12.00		
	b) Services that intersect a trench	No	5.00		
Amount C	arried Forward	<u> </u>	<u> </u>	l	

Civil Works 15 232

Item	Description	Unit	Qty	Rate	Amount
mount E	brought Forward				
4.5	BEDDING (PIPES)				
4.5.1	Provision of Bedding from Trench Excavation				
	a) Selected granular material	m <sup>3</sup>	10.50		
	b) Selected fill material	m <sup>3</sup>	29.40		
4.5.2	Supply only of Bedding by Importation From Commercial Sources (provisional)				
	a) Selected granular material	m <sup>3</sup>	10.50		
	b) Selected fill material	m <sup>3</sup>	29.40		
4.6	SEWERS PIPELINES				
4.6.1	Supply, Lay, Joint and Bed PVC Heavy Duty Class 34 solid wall pipe (conformina to SABS 891). complete with fittings				
	a) 110mm dia	m	70.00		
	b) 150mm diameter	m	-		
	c) 225mm diameter	m	-		
	d) 375mm diameter	m	-		
4.6.2	Extra over items 11.3.1 for specials				
	a) 110mm Access bends	No	12.00		
	b) 110mm Access junctions	No	6.00		
	c) 160mm Bends	No			
	d) 160mmAccess bends	No	-		
	e) 160mmAccess Junctions	No	-		

Civil Works 16 233

Item	Description	Unit	Qty	Rate	Amount
Amount Bı	rought Forward				
4.7	Sundries				
4.7.1	Breaking into and connecting into existing manhole	No	6.00		
4.8	MANHOLES				
4.8.1	Supply and install manholes & slabs (SABS 1294)				
4.8.1.1	Precast concrete manholes 1200mm diameter, exceeding 750mm and not exceeding 1m deep, complete with precast concrete heavy duty cover and frame TYPE 4A	No	1.00		
4.8.1.1	Precast concrete manholes 1200mm diameter, exceeding 1000mm and not exceeding 1250m deep, complete with precast concrete heavy duty cover and frame TYPE 4A	No	1.00		
4.8.1.1	Precast concrete manholes 1200mm diameter, exceeding 1250mm and not exceeding 1500m deep, complete with precast concrete heavy duty cover and frame TYPE 4A	No	2.00		
4.9	PIPE ANCILLARIES				
4.9.1	Encasing around pipe				
4.9.1.1 4.9.1.2	Anchor blocks in strength concrete 25Mpa /19mm including all formwork, reinforcement. reinforcement. etc. Anchor block size 600 x 600mm	No	10.00		
4.10	EXISTING SERVICES				
4.10.1	Connection to existing sewer				
1.10.1.1	200mm Diameter pipe to existing manhole	No	1.00		
1.10.2	Raising or lowering of existing manholes	No	1.00		
1.10.2.1	Remove cover and frame then lower the manhole to required level, complete with all necessary accessories.	No	1.00		

234

4.11 4.11.1	ought Forward				
4.11.1	SEPTIC TANK				
	Septic tank:				
	Excavate in soft material exceeding 2m deep.	m³	582.912	1	
	Extra over septic tank excavations for carting away surplus material from excavations or stock piles to a dumping site to be located by the Contractor.	m³	87.44	I	
	Risk of collapse to sides septic tank excavations not exceeding 1,5m deep.	m²	176.54		
	Earthfilling obtained from the excavations or stock piles compacted to 93% in septic tank.	m³	87.44	ı	
	Modified AASHTO density tests	No	2	1	
	Extra over excavation in soft material for pipe trenches, chambers, etc. for excavation in intermediate material.	Item	1.5	ı	
	25 MPa Reinforced concrete top slab.	m³	43.72	1	
	25 MPa Reinforced concrete base.	m³	43.72	1	
	Backfilling to sides of septic tank.	m³	58.29	ı	
	Type 395 fabric reinforcement in concrete surface beds, floor slabs, etc.	m²	295	ı	
	Rough formwork to soffit of slab.	m²	291.46	ı	
	Plaster to vertical surfaces.	m²	176.54	ı	
	One brick wall in commons including wire ties for septic tank walls.	m²	36.432	1	
	Two brick wall in commons including wire ties for septic tank walls.	m²	176.54	1	
	Lintels as permanent shatters	m	291.456	ı	
	600 x 600mm Cast iron manhole covers	No	2	ı	
	Pipework				
	Extra over excavation in soft material for pipe trenches, chambers, etc. for excavation in intermediate material.	m³	35		
	Connecting 110mm uPVC pipe including 110mm channel junction and makina good concrete benching.	No	2	ı	
	Connecting 160mm pipe including inserting 160mm channel junction and makina good concrete benching.	No	2	ı	
	Allow for testing the complete drainage installation by visual and Air Pressure test to the satisfaction of the Employer. (All defective work to be replaced at the Contractor's expense).	Item	1	1	
	160mm uPVC slotted drainage pipe laid in and including trench not exceeding 1,00m deep with 500 x 500mm washed 25mm stone casing wrapped in u24 non-woven, spun-bonded, punched continuous polyester fabric including fill ram carting away etc.	m	35		

Civil Works 18 235

Item	Description	Unit	Qty	Rate	Amount
Amount B	rought Forward			•	
	Soakaway: Excavate in earth for and build French drain size as indicated on drawings, fill in with 20mm crushed stone to within 0,2m of top, enclose stone with geofabric u 24 and fill in with earth filling.  Extra over soakaway excavations for carting away surplus material from excavations to a dumping site to be located by the Contractor.  Risk of collapse to sides of soakaway excavations exceeding 1,5m and not	m m³	35 5		
	exc. 2m deep.  One layer of 250 micron waterproof sheeting and sealed at overlaps with pressure sensitive tape laid over soak away	m² m² m²	28 35 35		
	0,6mm IBR sheeting laid across walls.  Lintels laid above soakaway	m⁴ m	35		
Amount C	arried to Final Summary				

Civil Works 19 236

## CHITA KEKANA SS Walkways and Carports

ITEM NO.	PAYMENT REFRES	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	SABS 1200 GB	SCHEDULE 6: WALKWAYS AND CARPORTS				_
5.1		FORMWORK				
5.1.1	8.2.1(b)	Normal formwork to				
		c) Column Foundations	m <sup>3</sup>	142.08		
5.2		REINFORCEMENT				
5.2.1	8.2.4	Mild steel bars of nominal diameter				
5.2.1.1		12mm	t	5.68		
5.2.2		High-tensile steel bars of nominal diameter				
5.2.2.1		16mm	t	8.52		
5.2.3		High-tensile welded mesh of nominal mass				
5.2.3.1		a) 3.95 kg/m <sup>2</sup>	m <sup>2</sup>	0.00		
5.3		CONCRETE				
5.3.1	8.2.5	Strength concrete, Grade 25MPa/19 mm in Column Footings	m <sup>3</sup>	14.21		
5.3.2		Blinding layer, Grade 10/19,0 mm	m <sup>3</sup>	1.78		
5.3.4	8.2.6	Unformed surface finishes				
5.3.4.1		Wood-float to all floors except	m²	35.52		
	SABS 1200 AH	SECTION: STRUCTURAL STEELWORK				
5.5	8.3.1	PRELIMINARY AND GENERAL				
5.5.1	8.3.1	SUPPLY AND FABRICATION				
5.5.1.1	8.3.1.1	Preparation of shop detail drawings	Sum	1.00		
5.5.2	8.3.1.2	Supply, delivery and installation of steelwork (see Drawings) complete with all the necessary cleats, brackets, packets,				
		a) Using steel to SABS 1431 Grade 350WA for walkways				
5.5.2.1		Simple SquareTubing - columns (welded)	t	2.28		
5.5.2.2		SquareTubing Beams - beams (welded)	t	0.79		
5.5.2.3		SauareTubina purlins	t	2.32		
5.5.2.4		Unequal Angle rafter bracing	t	2.68		
5.5.2.5		200 x 200 x 6mm Base Plates	No.	129.00		
		Fasteners for angles hexhead bolts with washers - Grade 8.8	No.	387.00		
		Sika Non-shrink grout or Similar	m <sup>3</sup>	1.03		
		M12 Holding Down Bolta - Grade 8.8 hexhead bolts	No.	516.00		
		b) Using steel to SABS 1431 Grade 350WA for assembly				
		Simple SauareTubina - columns (welded)	t	1.04		
		SquareTubing Beams - beams (welded)	t	0.98		
		SauareTubina purlins	t	1.14		
		Unequal Angle rafter bracing	t	1.17		
TOTAL CA	ARRIED FORWARD					

237 Civil Works 20

ITEM NO.	PAYMENT REFRES	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
TOTAL BRO	OUGHT FORWAR	D .				
		200 x 200 x 6mm Base Plates	No.	51.00		
		Fasteners for angles hexhead bolts with washers - Grade 8.8	No.	153.00		
		Sika Non-shrink grout or Similar	m <sup>3</sup>	0.41		
		M12 Holding Down Bolta - Grade 8.8 hexhead bolts	No.	204.00		
		c) Using steel to SABS 1431 Grade 350WA for carports				
		Simple SquareTubing - columns (welded)	t	1.54		
		SquareTubing Beams - beams (welded)	t	0.96		
		SquareTubing purlins	t	3.21		
		Unequal Angle rafter bracing	t	2.45		
		Steel Fascia beams	t	1.54		
		200 x 200 x 6mm Base Plates	No.	42.00		
		Fasteners for angles hexhead bolts with washers - Grade 8.8	No.	126.00		
		Sika Non-shrink grout or Similar	m <sup>3</sup>	0.34		
		M12 Holding Down Bolta - Grade 8.8 hexhead bolts	No.	168.00		
5.5.5	8.3.5	SITE WELDING				
5.5.5.1		Site weld items inclusive	m	66.60		
		CLADDING AND SHEETING				
		ROOF CLADDING				
5.6		Supply, deliver to Site, erect and fix green chromedeck sheeting/cladding etc, including the supply of all necessary fasteners etc. and cutting and notching: (See Drawings)	m²	792.80		
		Approved troughed profile-sheeting to roofs. 0.6mm				
5.6.2	8.2.3	Ridge flashing 450-600mm girth x 1mm - 3 bends, baked enamel external finish	m	24.00		
	8.3.1	GUTTERS AND RAINWATER PIPES				
		Galvanized mild steel				
		3mm Thick box gutter, 100mm girth 6 times bent along length to detail, including straps, stiffeners,etc as per drawing	m	317.00		
		Extra for stopped end	no	6.00		
		Extra for 150mm diameter outlet	no	42.75		
		1mm Thick 150mm diameter rainwater pipe including straps, fixed to steel columns	m	111.15		
		Extra for 45° bend	no	42.75		
	RRIED FORWARI					

Civil Works 21 238

ITEM NO.	PAYMENT REFRES	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
TOTAL BR	OUGHT FORWARE					
	SABS 1200 HC	CORROSION PROTECTION OF STRUCTURAL STEELWORK  Steelwork included under Items 1 to 7inclusive, of Section 1200H (Supply, Fabrication and Erection)	t	12.40		
5.7	8.2.1	SURFACE DRESSING AND REPAIRS AT PLACE OF FABRICATION  Remove slag and weld spatter, grind welds to smooth profile, radius share edges as specified.	t	12.40		
5.7.1 5.7.1.1	8.2.3	SURFACE PREPARATION AND COATING APPLICATION  Shoowork: Prepage surface and apoly coat(s) as specified.	,	12.40		
5.7.2		Sitework. Clean down surfaces, touch up damaged shop coats and apply finish coats as specified	t	12.40		
5.7.2.1		Cold-formed sections  Tonnage shall be gross quantities inclusive of unpainted steel (e.g. embedded portions and underside of baseplate,etc.				
			t	12.40		
TOTAL CA	RRIED TO SUMMA	RY		•		•

Civil Works 22 239

## LDPWRI

## CHITA KEKANA SECONDARY SCHOOL

## **BOQ FOR CIVIL ENGINEERINGS SERVICES**

## **SUMMARY OF BILL OF QUANTITIES**

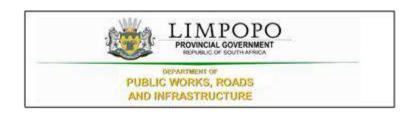
SCHEDULE NO. 1: EARTHWORKS	
SCHEDULE 2: EARTHWORKS (ROADS AND SUBGRADE)	
SCHEDULE 2: STEEL PALISADE FENCE	
SCHEDULE 3:WATER SUPPLY PIPELINES AND WATER SOURCE	
SCHEDULE 4:EXTERNAL SEWER RETICULATION	
SCHEDULE 5:COVERED WALKWAYS	
TENDER (CONTRACT) SUM (CIVIL AND STRUCTURAL WORKS)	

## PART C3 SCOPE OF WORKS

## **SCOPE OF WORKS**

**BID NUMBER: LDPWRI-B/20288** 

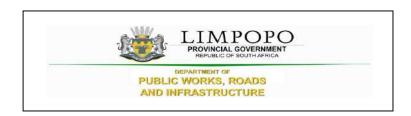
APPOINTMENT OF A CONTRACTOR FOR DEMOLITION OF 12 CLASSROOMS, OFFICES AND PIT 4 PIT TOILTES, REFURBISHMENT OF 10 CLASSROOMS, GUARD HOUSE AND 27 SEATER ENVIROLOO TOILETS, CONSTRUCTION OF 20 CLASSROOMS, MEDIUM ADMINISTARTION BLOCK, NEW 20 SEATER ENVIROLOO TOILETS, STEEL PALISADE FENCE AND EXTERNAL WORKS AT CHITA KEKANA SECONDARY SCHOOL.



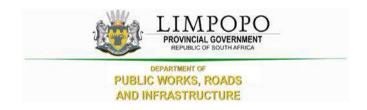
## PART C3.1: SPECIAL NOTES TO BIDDERS

The following special conditions are for compliance and attention to bidders:

- 1.1.LDPWR&I reserve the right to call interviews with short-listed bidders before final selection.
- 1.2.LDPWR&I reserve the right to conduct supplier due diligence prior to final award or at any time during the contract period. This may include surprise site visits.
- 1.3.LDPWR&I reserve the right to appoint the bidder that proves to be fully capable and qualified to handle and execute the job.
- 1.4. The proposals submitted must be in line with the detailed specification.
- 1.5. LDPWR&I reserve the right to cancel or withdraw this bid if:
  - i. Due to changed circumstances, there is no longer a need for this services; or
  - ii. Funds are no longer available to cover the total envisaged expenditure; or
  - iii. No acceptable bids are received; or
  - iv. There is a material irregularity in the Bid process.
- 1.6. In the case of sub-contracting or joint venture agreement, LDPWR&I will enter into a single contract with the principal bidder.
- 1.7. Bidders who are not registered on Central Supplier Database (CSD) must register before submission of bids.
- 1.8. Any completion of the bid document in pencil or erasable ink will not be acceptable and will automatically disqualify the submitted bid.
- 1.9. Successful bidder will be required to sign and enter into a formal contract upon the award.
- 1.10. Notwithstanding shortcomings and/or inconsistencies, if any, in this specification, which is only a minimum specification, a bidder shall make provision for a complete solution that will deliver the required service efficiently and cost-effectively.
- 1.11. Bid documents must be submitted physically to the closing address as reflected on the Request for Quotations/Tender.
- 1.12. Quotations received after the closing date and time will not be accepted for consideration.
- 1.13. This request for bid document contains confidential information about LDPWR&I, which has been provided to supply potential bidders with the data necessary to provide a holistic response.
- 1.14. No part of the contents may be used, copied, disclosed or conveyed in whole or in part to any party, in any manner whatsoever without the prior written permission of LDPWR&I.
- 1.15. Any reproduction or transmission of information contained in this document except for the sole purpose of responding to this bid is strictly prohibited.
- 1.16. References to LDPWR&I must not be made in any literature, promotional material, and brochures or sales presentations without the express written consent of LDPWR&I.



## **PART C3.2: OHS SPECIFICATIONS**



## **PART C4 SITE INFORMATION**

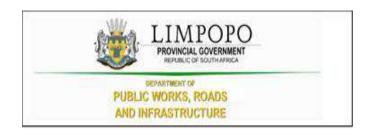
## SITE INFORMATION

**BID NUMBER: LDPWRI-B/20288** 

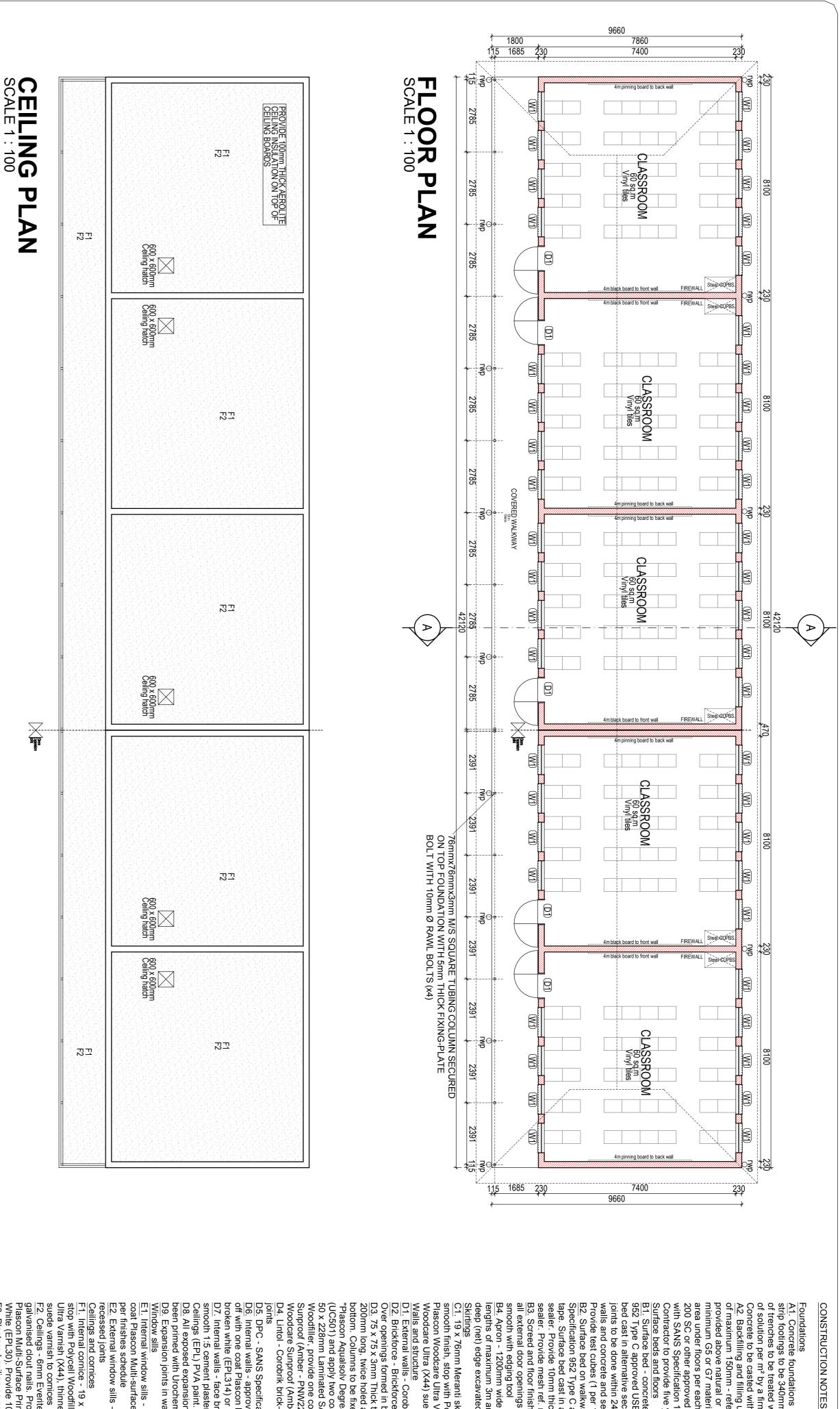
CHITA KEKANA SECONDARY SCHOOL IN MOLETLANE VILLAGE, CAPRICON DISTRICT, LEPELLE-NKUMPI LOCAL MUNICIPALITY, LIMPOPO PROVINCE.

**CO-ORDINDATES** 

24°21'48.4"S 29°19'28.4"E



## **C4.1 DRAWINGS**



ROOF PLAN SCALE 1: 100

désign
Tx coats sealant on all exposed trusses (sand off all SABS & other markings)
Sy coats sealant on all exposed trusses (sand off all SABS & other markings)
Sy coats sealant on all exposed trusses (sand off all SABS & other markings)
Ty coats sealant on all exposed to be installed where there are ceilings in all areas that do not have ceilings
Ty West Facing Facades to have standardised aluminium louvres from below eaves to drop of 1200 mm
Trusses to be designed in accordance with SABS 0400 & approved by Project Engineers

1) Workmanship to comply with Standard Specification of materials methods to be used - SABS 0400
2) Light Switch in Disabled tollet to be at 1200 mm above FFL 3) If Step over 900 mm Build in Balustrade 4) Gulley positions to be determined as per site prescribed overall draina design

f site prescribed overall drainage (sand off all SABS & other

**NOTES** 

nent according to structural engineer's drawings. Top of (1 per 15m³ or 1 per batch). Fini shed sides and bottoms or approved type applied at a rate of not less than 5 litres ecification 1165 and SANS Code of Practice 0124. vide five year guarantee. pacted to at least 93% Mod. AASHTO density in layers poor soil conditions. Minimum of 170mm filling to be ng to be approved by engineer (imported filling to be tests to be provided at a rate of one test per 125m² filling der floors to be treated with ant poison of the Prothor s of solution per m² by a firm of specialists in accordance rete to be casted within 24 hours of application.

area under floors per each layer of 150mm compacted filling. Filling under floors to be treated with ant poison of the Prothor 200 SC or other approved type applied at a rate of not less than 5 litres of solution per m³ by a firm of specialists in accordance with SANS Specification 1165 and SANS Code of Practice 0124. Concrete to be casted within 24 hours of application. Contractor to provide five year guarantee

Surface beds - concrete mix as described on structural engineer's drawings but minimum 85mm thick on SANS Specification 952 Type C approved USB Green 250 micron waterproofing membrane with Joints to be done within 24 hours after casting of concrete. Provide 10mt hick bitumen impregnated soft board between all walls and concrete and seal joint with polysulfide sealer. Provide test cubes (1 per 15m³ or 1 per batch)

B2. Surface bed on walkways - concrete mix as described on structural engineer's drawings but minimum 85mm thick on SANS Specification 952 Type C approved USB Green 250 micron waterproofing membrane with laps sealed with pressure sensitive tape. Surface bed on walkways - concrete mix as described on structural engineer's drawings but minimum 85mm thick on SANS Specification 952 Type C approved USB Green 250 micron waterproofing membrane with laps sealed with pressure sensitive tape. Surface bed cast in alternative sections of maximum 20m² with expansion joints with joints filled up with polysulfide sealer. Provide 10mm thick bitumen impregnated soft board between all walls and concrete and seal joint with polysulfide sealer. Provide mesh ref. no. 193 as per structural engineer's drawings. Provide tast cubes (1 per 15m³ or 1 per batch) B3. Screed and floor finish on walkways - Average 30mm thick wood floated 1:4 granolithic screed sloping towards edges. At all external door openings external surface beds must be level with granolithic threshold finish. Finish off edges of screed smooth with edging tool.

B4. Apron - 1200mm wide 15MPa mass concrete apron with wood floated finish. Apron to be ca

x 76mm Meranti skirting plugged to walls at 400mm c/c with 19mm in finish, stop with Polycell Woodfiller, stain with Plascon Woodcare on Woodcare Ultra Varnish (X44), thinned with 1:3 mineral turpentine care Ultra (X44) suede varnish to skirtings and structure (ternal walls - Corobrik face bricks in stretcher bond with 10mm wide ickforce - Brickforce to 115 and 230mm foundation walls - every 2nd n meranti quadrand bead plated on. Sand down to a Stain (W-range)(colour meranti), apply one coat e (AZH1) and apply two finishing coats Plascon

e x 6mm deep square recessed joints d course. Superstructure walls - every 6th cou

External walls - Corobrik face bricks in stretcher bond with 10mm wide x6 Brickforce - Brickforce to 115 and 230mm foundation walls - every 2nd co Brickforce - Brickforce to 115 and 230mm foundation walls - every 2nd co ropenings formed in brickwork as per table below 75 x 75 x 3mm Thick tubular section steel columns with 250mm girth x 4.5 mm long, twice holed and welded to top, 200 x 200 x 10mm thick flat section. Columns to be fixed to top of brickwork below copings with four M10 x scon Aqualsolv Degreaser (GR1)", remove rust with "Plascon Rust Remox 501) and apply two coats Plascon Enamel Door & Trims high gloss enamed 228mm Laminated SA Pine beam twice bolted to steel columns. Sand doubtiller, provide one coat raw linseed oil thinned with 1:3 mineral turpentine proof (Amber - PNW22) suede varnish thinned with 1:3 mineral turpentine odcare Sunproof (Amber - PNW22) suede varnish Lintol - Corobrik brick-on-edge face brick lintol over all window, door and one is at section baseplate, four times holed and welded to at section baseplate, four times holed and welded to Ir M10 x 75mm masonry anchor bolts. Degrease with Remover (RR1)", prime with Plascon Metal Primer enamel paint - colour as per finishes schedule. Sand down to a smooth finish, stop with Polycell rpentine (AZH1), apply one coat Plascon Woodcare pentine (AZH1) and apply two finishing coats Plascon

and clear openings with 10 x 6mm square recessed

DPC - SANS Specification 952 Type B approved 375 micron black dpc in walls at floor level and under all window sills internal walls - approved stockbrick walls in stretcher bond above to receive one coat smooth 1:5 cement plaster finished ith one coat Plascon Plaster Primer (UC56) and two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour en white (EPL314) or French Chartreuse (Y5-D2-3) as per Principal Agent internal walls - face brick plinth up to 850mm with approved stockbrick walls in stretcher bond above to receive one coat oth 1:5 cement plaster finished off with one coat Plascon Plaster Primer (UC56) and two coats Plascon Polvin Walls & ngs (EPL) PVA paint. Colour as per finishes schedule.

All exposed expansion joints in walls and floors to be filled in with Urochem 205 polysulfide joint sealant after surfaces have primed with Urochem 614 primer

Expansion joints in walls and ceilings to be covered with 2 x 50mm Migua KF250/30 aluminium cover strips have some sills.

ternal window sills - 15 x 150mm nutec-cement window sills, bedded and set flat in 1:4 cement mortar. Prime with one lascon Multi-surface Primer (WUP1) and apply two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour as ishes schedule cternal window sills - Middelwit Fynbos Geel face brick-on-edge sloping sill to match walls with a first control of the properties of the proper

smm SAP brandering at 400mm centres maximum with ting strips to be pre-painted. Prime ceilings with one coat scon Polvin Walls & Ceilings (EPL) PVA paint. Colour n centres maximum. Sand down to a smooth finish, e)(colour meranti), apply one coat Plascon Woodcare two finishing coats Plascon Woodcare Ultra (X44)

Ceilings and cornices

F1. Internal cornice - 19 x 76mm Meranti cornice nailed to walls at 400mm ceistop with Polycell Woodfiller, stain with Plascon Woodcare Stain (W-range)(could be with Polycell Woodfiller, stain with Plascon Woodcare Stain (W-range)(could be with Varnish (X44), thinned with 1:3 mineral turpentine (AZH1) and apply two suede varnish to cornices

F2. Ceilings - 6mm Everite Nutec fibre-cement boards nailed to 38 x 38mm S/galvanised clout nails. Provide H-profile galvanised jointing strips. Jointing str Plascon Multi-Surface Primer (WUP1) and finish off with two coats Plascon Provide (EPL30). Provide 100mm thick Aerolite insulation on top of ceilings

F3. Plastered ceiling as per finishes schedule

F4. 610 x 610mm Trap door formed of 50 x 65mm SA pine rebated frame with ceiling board and fitted flush in opening. Provide 18 x 50mm meranti surround ceiling. Trap door opening between trusses to be formed with 38 x 114mm SA Roof and fascias with 38 x 38mm SA pine cross brander covered with bund. Trap door and surround to be painted as for SA pine bearers, nailed to trusses

Roof and fascias

G1: Roof sheeting - 0.58mm Brownbuilt Kilp-lok roof sheeting with Globalcoat finish (colour Traffic Green) on 50 x 76mm SAP gurlins at maximum 1200mm centres on patent and approved pre-fabricated truss system. Roof sheeting to be done by specialist installer providing a five year guarantee

G2: Ridge and hip flashings - 0.8mm galvanised sheet iron standard factory manufactured FK3 ridge or hip flashing with Globalcoat finish (colour Traffic Green)

G3: Rascia boards - 10 x 300mm Everite Nutec-cement fascia boards screw fixed to truss ends and counter batten with countersunk brass screws. Prime fascias and bagge boards with one coat Plascon Multi-Surface Primer (WUP1) and finish off with two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint Colour as per finishes schedule.

G4: Truss system - MiTek or other approved patent timber pre-fabricated truss system at maximum 100mm centres and before fixing. Truss manufacturer to provide certificate and guarantee for design and erection of trusses as well as detailed shop drawings. Shop drawings to be provided to the Principal Agent for approval before manufacturing All sections in contact with wet trades to be carbolineum treated before fixing in position. Trusses to be secured to with 2.5mm diameter galvanised steel wire, twice wrapped around and tied around rafters and purlins. All exposed parts of trusses, purlins, etc. to be sanded smooth, seal knots with Plascon Knot Seal (FK2), prime with one coat Plascon Wood Primer (UC2) and apply two coats Plascon Enamel Doors & Trims paint. Colour as per finishes schedule.

G5. Gutters - 100 x 100mm Diameter downpipes formed of 0.58mm galvanised sheet iron with Globalcoat finish (colour Gemsbok Sand), All holderbats, brackets, etc. to be pre-coated with Globalcoat to match colour of gutters

G7. Barge flashing were barge boards at louvres - 0.8mm galvanised sheet iron standard factory manufactured FK8 headwall flashing and Fittings

Vitrex Model 2400 (code 2404) enameled green folding type writing board with wall mounted centre board 2000 x 1200mm - Note two wall mounted side boards each 1000 x 1200mm high & two swing leaves each 1000 x 1200mm high with permanent

ninium chalk rail

Vitrex System 2000 (code 2317) light grey wall mounted pinning board, size 2000 x 1200mm high with perman Greenfield G25 double door steel cupboard with standard baked enameled finish, 760 x 610 x 1700mm high with four slves (2 per classroom)

Five rows of 19mm Thick laminated SA Pine shelving, 350mm wide, evenly spaced & fixed from underside to 305mm versives to a poxy powder coated steel brackets. Brackets to be fixed to 25mm wide x 2134mm long double slotted epoxy powder coated steel brackets. Brackets to be fixed to 25mm wide x 2134mm long double slotted epoxy powderly one coat Plascon Woodcare Ultra Varnish (X44) thinned with 1:3 mineral turpentine (AZH1) then apply two shing coats Plascon Woodcare Clear Ultra Varnish to shelves

DATE

RESPONSIBLE PROFESSIONAL SIGNATURE

PR NUMBER

DRAWN

DRAWING CO-ORDINATED

CONSULTANT

evenly spaced & fixed from underside to 305mm wide m wide x 2134mm long double slotted epoxy powder m c/c. Sand down to a smooth finish, stop with Polycell d with 1:3 mineral turpentine (AZH1) then apply two lves

ckplate with chamfered edges. Sand down to a dcare Ultra (X44) suede varnish thinned with 1:3 lcare Ultra (X44) suede varnish to back plate. Provide Union AL5066-E08/2AS aluminium red down arrow n AL5066-06ASE05 aluminium engraved red fire rrow sign above fire hose reel. Water supply in posed parts of pipes with Plascon Aquasolv me with Plascon Metal Primer (UC501) and apply two (G7). Provide 150 x 150mm Union AL5066-E05/2AS ign above fire hose reel.

ruben reddy architects

Suite 4 No 6 Ismini Office
6 Ismini Street, Poliokwane, D69
Tel: +27 15 065 0645, Fox: +27
Email: info@rubenreddyara
Web: www.rubenreddyara
CONTRACTOR

Office Building, s, D699 South Africa sex: +27 11 475 8364, exity-co.za ddyarch.co.za

SYSTEM

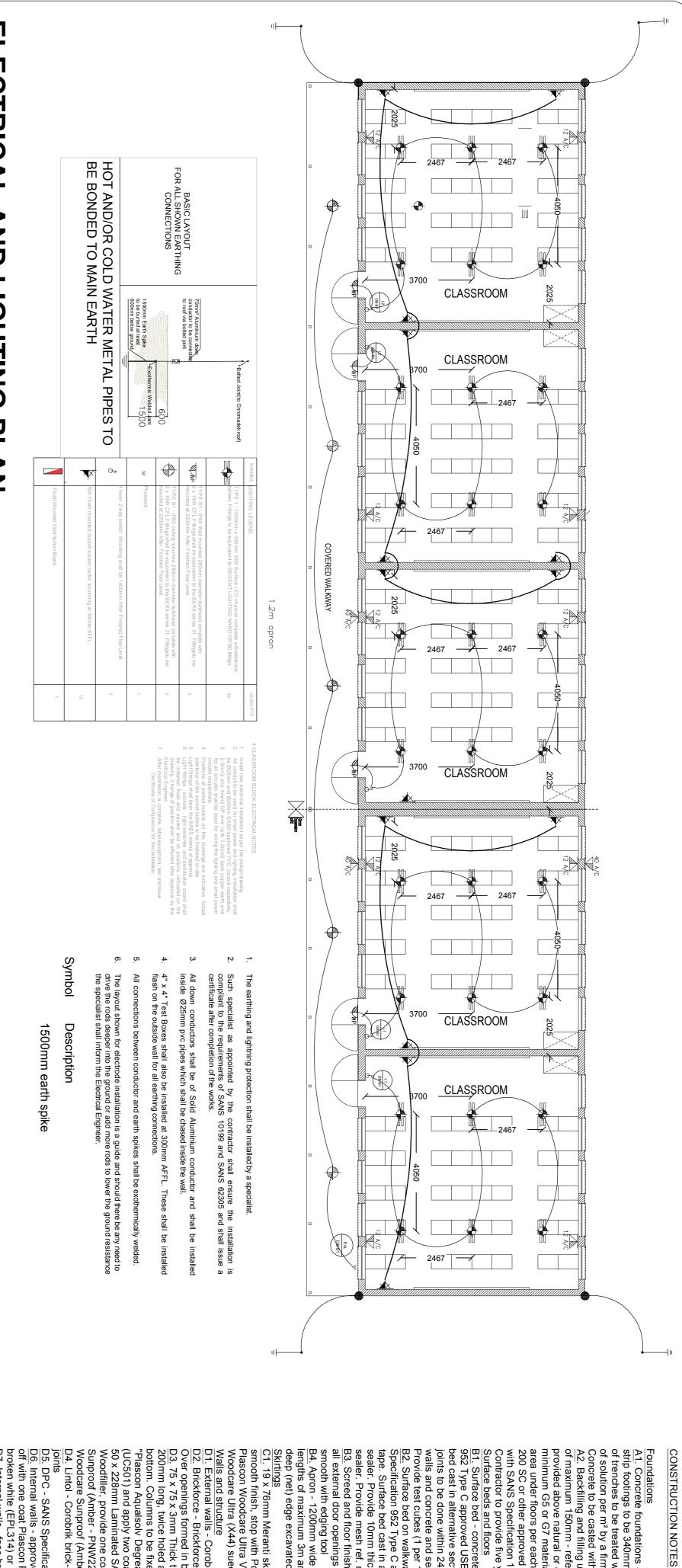
2020\_61-5CL-100

 $\triangleright$ 

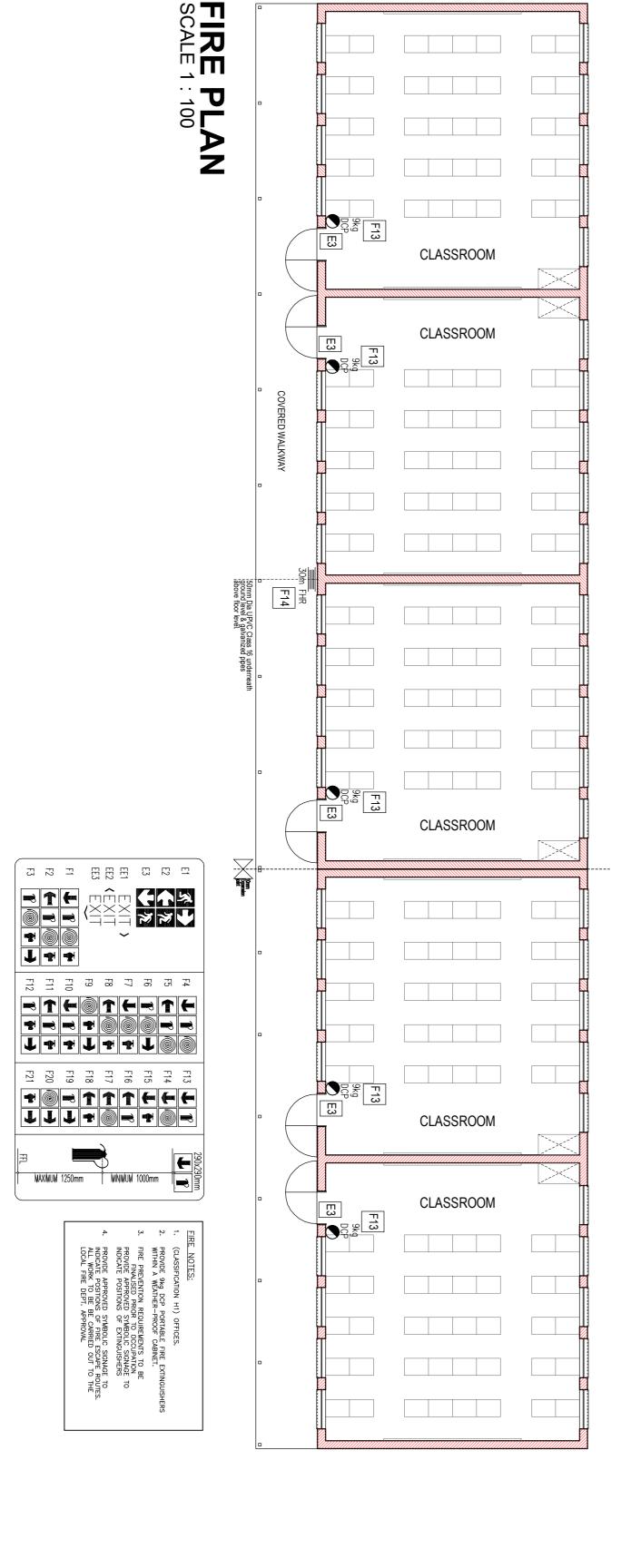
DRAWING NUMBER

PLAN EXAMINER
FIRE CONTROL
ENVIRONMENTAL OFFICER
ROADS / STORMWATER
WATER AND SANITATION
ENVIRONMENTAL OFFICER REV No CONTRACT - SECTION

DOCUMENTATION & PROCUREMENT **NEW BUILDINGS & ALTERATIONS** 921230023 INSTITUTION
CHITA KEKANA SECONDARY SCHOOL
INSTITUTION EMIS NUMBER FLOOR, CEILING AND ROOF PLAN DATE : SIZE ON ORIGINAL DRAWING 100 mm SIGNATURE TABLE ARCHITECTURAL 5 CLASSROOM BLOCK PROVINCIAL GOVERNMENT REPUBLIC OF SOUTH AFRICA **Public Works** DESCRIPTION ယ



## ELECTRICAL SCALE 1: 100 **AND LIGHTING** PLAN



désign
5) 2 x coats sealant on all exposed trusses (sand off all SABS & other markings)
6) 50 mm mineral wool insulation to be installed where there are ceilings.
6) 50 mm mineral wool insulation to be installed with wire supports in Bubble plastic insulation with foil backing to be installed with wire supports in all areas that do not have ceilings
7) West Facing Facades to have standardised aluminium louvres from below eaves to drop of 1200 mm
8) Trusses to be designed in accordance with SABS 0400 & approved by Project Engineers

Workmanship to comply with Standard Specification of methods to be used - SABS 0400
 Light Switch in Disabled toilet to be at 1200 mm above F 3 If Step over 900 mm Build in Balustrade
 Gulley positions to be determined as per site prescribed design.

of material and le FFL

r site prescribed overall drainage (sand off all SABS & other

**NOTES** 

48

nent according to structural engineer's drawings. Top of (1 per 15m³ or 1 per batch). Fini shed sides and bottoms or approved type applied at a rate of not less than 5 litres ecification 1165 and SANS Code of Practice 0124. vide five year guarantee. pacted to at least 93% Mod. AASHTO density in layers poor soil conditions. Minimum of 170mm filling to be ng to be approved by engineer (imported filling to be tests to be provided at a rate of one test per 125m² filling der floors to be treated with ant poison of the Prothor s of solution per m² by a firm of specialists in accordance rete to be casted within 24 hours of application.

awings but minimum 85mm thick on SANS Specification with laps sealed with pressure sensitive tape. Surface ith joints filled up with polysulfide sealer. All saw cut m thick bitumen impregnated soft board between all ref. no. 193 as per structural engineer's drawings.

area under toors per each layer of 150mm compacted tiling. Hilling under floors to be treated with ant poison of the Prothor 200 SC or other approved type applied at a rate of not less than 5 litres of solution per m² by a firm of specialists in accordance with SANS Specification 1165 and SANS Code of Practice 0124. Concrete to be casted within 24 hours of application. Contractor to provide five year guarantee

Surface bed - concrete mix as described on structural engineer's drawings but minimum 85mm thick on SANS Specification 952 Type C approved USB Green 250 micron waterproofing membrane with laps sealed with pressure sensitive tape. Surface bed cast in alternative sections of maximum 20m² with saw cut joints with joints filled up with polysulfide sealer. All saw cut joints to be done within 24 hours after casting of concrete. Provide 10mm thick bitumen impregnated soft board between all walls and concrete and seal joint with polysulfide sealer. Provide mesh ref. no. 193 as per structural engineer's drawings but minimum 85mm thick on SANS Specification 952 Type C approved USB Green 250 micron waterproofing membrane with laps sealed with pressure sensitive tape. Surface bed cast in alternative sections of maximum 20m² with expansion joints with joints filled up with polysulfide sealer. Provide 10mm thick bitumen impregnated soft board between all walls and concrete and seal joint with polysulfide sealer. Provide mesh ref. no. 193 as per structural engineer's drawings. Provide test cubes (1 per 15m³ or 1 per batch)

B3. Screed and floor finish on walkways - Average 30mm thick wood floated 1:4 granolithic screed sloping towards edges. At all external door openings external surface beds must be level with granolithic threshold finish. Finish off edges of screed smooth with edging tool

B4. Apron - 1200mm wide 15MPa mass concrete apron with wood floated finish. Apron to be cast in alternative sections in lengths of maximum 20m² with each of finish apron to be cast in alternative sections in lengths of maximum 20m al engineer's drawings but minimum 85mm thick on SANS ofing membrane with laps sealed with pressure sensitive expansion joints with joints filled up with polysulfide all walls and concrete and seal joint with polysulfide gs. Provide test cubes (1 per 15m³ or 1 per batch) floated 1:4 granolithic screed sloping towards edges. At ranolithic threshold finish. Finish off edges of screed

n meranti quadrand bead plated on. Sand down to a Stain (W-range)(colour meranti), apply one coat e (AZH1) and apply two finishing coats Plascon

e x 6mm deep square recessed joints d course. Superstructure walls - every 6th cou

1. 19 x 76mm Meranti skirting plugged to walls at 400mm c/c with 19mm me mooth finish, stop with Polycell Woodfiller, stain with Plascon Woodcare Stai ascon Woodcare Ultra Varnish (X44), thinned with 1:3 mineral turpentine (A: oodcare Ultra (X44) suede varnish to skirtings force Ultra (X44) suede varnish to skirtings and structure

[1. External walls - Corobrik face bricks in stretcher bond with 10mm wide x 6 on the prick of the p rth x 4.5mm thick flat section U-shaped fixing bracket, lat section baseplate, four times holed and welded to r M10 x 75mm masonry anchor bolts. Degrease with t Remover (RR1)", prime with Plascon Metal Primer senamel paint - colour as per finishes schedule. Sand down to a smooth finish, stop with Polycell rpentine (AZH1), apply one coat Plascon Woodcare pentine (AZH1) and apply two finishing coats Plascon and clear openings with 10 x 6mm square recessec

DPC - SANS Specification 952 Type B approved 375 micron black dpc in walls at floor level and under all window sills Internal walls - approved stockbrick walls in stretcher bond above to receive one coat smooth 1:5 cement plaster finished ith one coat Plascon Plaster Primer (UC56) and two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour en white (EPL314) or French Chartreuse (Y5-D2-3) as per Principal Agent Internal walls - face brick plinth up to 850mm with approved stockbrick walls in stretcher bond above to receive one coat oth 1:5 cement plaster finished off with one coat Plascon Plaster Primer (UC56) and two coats Plascon Polvin Walls & ngs (EPL) PVA paint. Colour as per finishes schedule.

All exposed expansion joints in walls and floors to be filled in with Urochem 205 polysulfide joint sealant after surfaces have sills.

Expansion joints in walls and ceilings to be covered with 2 x 50mm Migua KF250/30 aluminium cover strips have sills.

ternal window sills - 15 x 150mm nutec-cement window sills, bedded and set flat in 1:4 cement mortar. Prime with one lascon Multi-surface Primer (WUP1) and apply two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour as ishes schedule dernal window sills - Middelwit Fynbos Geel face brick-on-edge sloping sill to match walls with 40 - 0

Ceilings and cornices

F1. Internal cornice - 19 x 76mm Meranti cornice nailed to walls at 400mm ceistop with Polycell Woodfiller, stain with Plascon Woodcare Stain (W-range)(co Ultra Varnish (X44), thinned with 1:3 mineral turpentine (AZH1) and apply two suede varnish to comices

F2. Ceilings - 6mm Everite Nutec fibre-cement boards nailed to 38 x 38mm S/galvanised clout nails. Provide H-profile galvanised jointing strips. Jointing str Plascon Multi-Surface Primer (WUP1) and finish off with two coats Plascon Powhite (EPL30). Provide 100mm thick Aerolite insulation on top of ceilings

F3. Plastered ceiling as per finishes schedule

F4. 610 x 610mm Trap door formed of 50 x 65mm SA pine rebated frame with ceiling board and fitted flush in opening. Provide 18 x 50mm meranti surround ceiling. Trap door opening between trusses to be formed with 38 x 114mm SA Roof and fascias nm SAP brandering at 400mm centres maximum witng strips to be pre-painted. Prime ceilings with one con Polvin Walls & Ceilings (EPL) PVA paint. Colour n centres maximum. Sand down to a smooth finish e)(colour meranti), apply one coat Plascon Woodca two finishing coats Plascon Woodcare Ultra (X44)

with 38 x 38mm SA pine cross brander covered wi ound. Trap door and surround to be painted as for n SA pine bearers, nailed to trusses

Ceiling. Traip dour overing versions and second and fascias.

G1. Roof and fascias.

G1. Roof sheeting - 0.58mm Brownbuilt Klip-lok roof sheeting with Globalcoat finish (colour Traffic Green) on 50 x 76mm SAP gurlins at maximum 1200mm centres on patient and approved pre-fabricated truss system. Roof sheeting to be done by specialist installer providing a five year guarantee.

G2. Ridge and hip flashings - 0.8mm galvanised sheet iron standard factory manufactured FK3 ridge or hip flashing with Globalcoat finish (colour Traffic Green)

G3. Racia boards - 10 x 300mm Everite Nutrec-cement fascia boards screw fixed to truss ends and counter batten with countersunk brass screws. Barge boards - 200 x 80mm Everite socketless barge boards screw fixed to trusses or purlins with countersunk brass screws. Prime fascias and barge boards with one coat Plascon Multi-Surface Primer (WUP1) and finish off with two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint Colour as per finishes schedule.

G4. Truss system - MiTek or other approved patent timber pre-fabricated truss system at maximum 1100mm centres with 20 degrees pitch, 50 x 76mm SAP purlins at maximum 1200mm centres. 38 x 114mm SAP wall plate to be carbolineum treated before fixing. Truss manufacturer to provide certificate and guarantee for design and erection of trusses as well as detailed shop drawings. Shop drawings to be provided to the Principal Agent for approval before manufacturing. All sections in contact with well trades to be carbolineum treated before fixing in position. Trusses to be secured to walls with 2.5mm diameter galvanised steel wire, twice wrapped around and tied around rafters and purlins. All exposed parts of trusses, purlins, etc. to be pre-coated before fixing in position. Trusses to be secured with 2.5mm diameter galvanised steel wire, which was a frascon Wood Primer (UC2) and exply two coats Plascon Enamel Doors & Trims paint. Colour as per finishes schedule.

G5. Gutters - 100 x 100mm planeter downplops formed of 0.58mm galvanised sheet

ings Vitrex Model 2400 (code 2404) enameled green folding type writing board with wall mounted centre board 2000 x 1200m h, two wall mounted side boards each 1000 x 1200mm high & two swing leaves each 1000 x 1200mm high with permane

ninium chalk rail

Vitrex System 2000 (code 2317) light grey wall mounted pinning board, size 2000 x 1200mm high with permander System 2000 (code 2317) light grey wall mounted pinning board, size 2000 x 1200mm high (2 per classroom)

Greenfield G25 double door steel cupboard with standard baked enameled finish, 760 x 610 x 1700mm high with four lives (2 per classroom)

Five rows of 19mm Thick laminated SA Pine shelving, 350mm wide, evenly spaced & fixed from underside to 305mm five epoxy powder coated steel brackets. Brackets to be fixed to 25mm wide x 2134mm long double slotted epoxy powded Shelco type FT6 wall bands, plugged to walls at maximum 600mm c/c. Sand down to a smooth finish, stop with Powdhiller, apply one coat Plascon Woodcare Ultra Varnish (X44) thinned with 1:3 mineral turpentine (AZH1) then apply to shing coats Plascon Woodcare Clear Ultra (X44) suede varnish to shelves evenly spaced & fixed from underside to 305mm win wide x 2134mm long double slotted epoxy powden c/c. Sand down to a smooth finish, stop with Polyol with 1:3 mineral turpentine (AZH1) then apply two /es ckplate with chamfered edges. Sand down to a dcare Ultra (X44) suede varnish thinned with 1:3 lcare Ultra (X44) suede varnish to back plate. Provide Union AL5066-E08/2AS aluminium red down arrow

nion AL5066-06ASE05 aluminium engraved red fire arrow sign above fire hose reel. Water supply in exposed parts of pipes with Plascon Aquasolv prime with Plascon Metal Primer (UC501) and apply two ed (G7). Provide 150 x 150mm Union AL5066-E05/2AS w sign above fire hose reel. minium engraved red fire e reel. Water supply in ı Plascon Aquasolv

SYSTEM

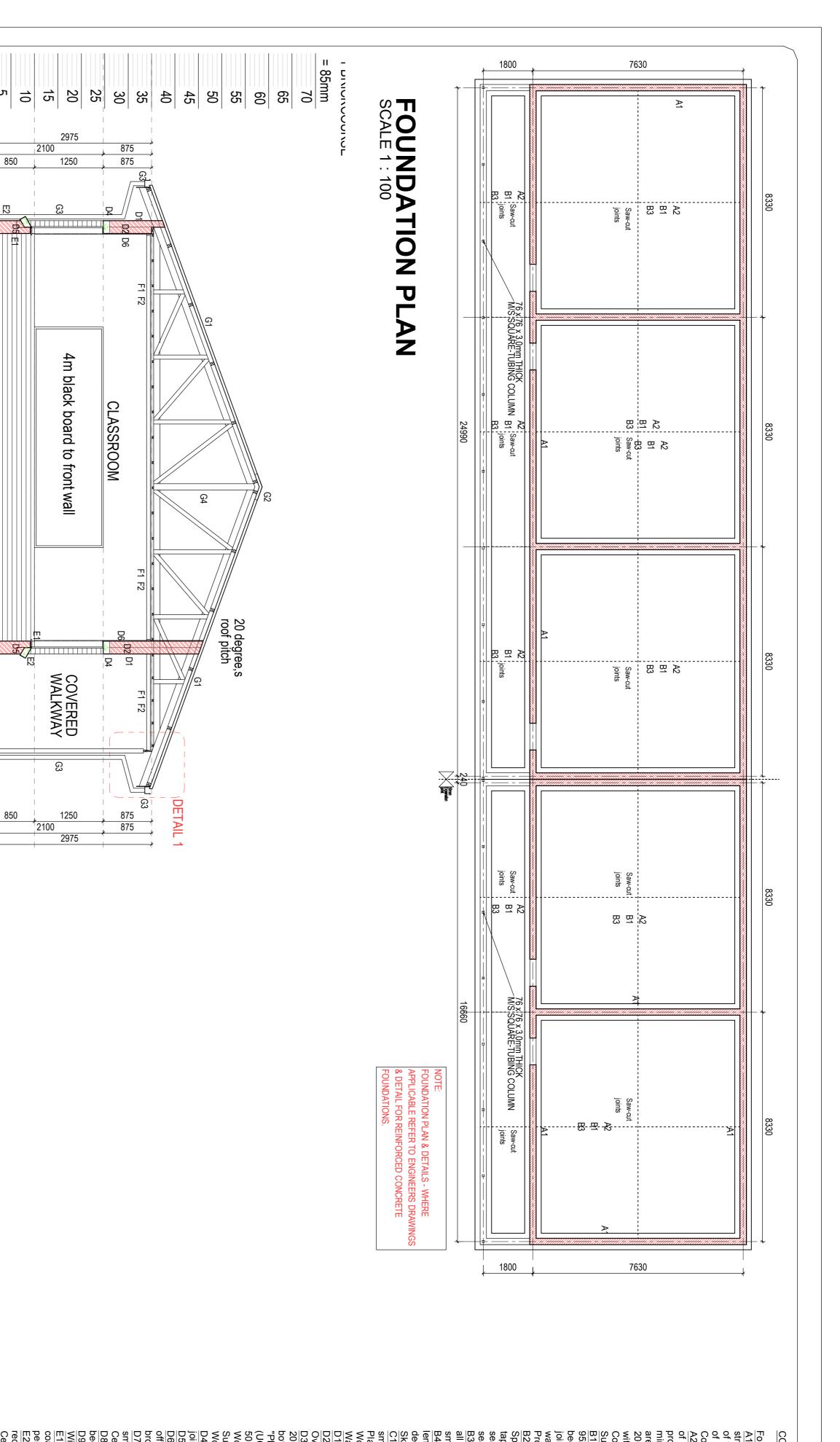
2020\_61-5CL-101

⋗

ruben reddy architects

Suite 4 No 6 Ismini Office Building,
6 Ismini Street, Polokwane, D699 South Africa
Tel: +27 11 5 065 0645, Fax: +27 11 475 8364,
Email: info@rubenreddyarch.co.za
Web: www.rubenreddyarch.co.za
CONTRACTOR:

CONSULTANT :		
DRAWING CO-ORDINATED		Sell sr
NAME SIGNATURE PR NUMBER	DATE	de
DRAWN	FILE No.	₹ =
, LIGHTING & FIRE PLAN	ELECTRICAL	3
CLASSROOM BLOCK	5 (	
WORK DESCRIPTION - SUB DIVISION	WOR	ς 
JRAL	AF	ook
DISCIPLINE PROJECT STAGE	DOCUMENTATION &	
		Ğ
NGS & ALTERATIONS	NEW BUILDINGS & AL	o 
SERVICE	821230023	Cţ.
INSTITUTION EMIS NUMBER	00400000	
(0	CHITA KEKANA	
INSTITUTION		# 5
Public Works		
Department of		0
PROVINCIAL GOVERNMENT REPUBLIC OF SOUTH AFRICA		<del></del>
LIMPOPO		
		:h oat
SIZE ON ORIGINAL DRAWING 100 mm	SIZE	are
DESCRIPTION:	REV No DATE :	
	ENVIRONMENTAL OFFICER	
	WATER AND SANITATION	
	ROADS / STORMWATER	ave
	ENVIRONMENTAL OFFICER	
	PLAN EXAMINER	
	CLIENT	0
SIGNATURE DATE	DISCIDI INF	
	2	



## CONSTRUCTION NOTES

désign
5) 2 x coats sealant on all exposed trusses (sand off all SABS & other markings)
6) 50 mm mineral wool insulation to be installed where there are ceilings.
Bubble plastic insulation with foil backing to be installed with wire supports in all areas that do not have ceilings
7) West Facing Facades to have standardised aluminium louvres from below eaves to drop of 1200 mm
8) Trusses to be designed in accordance with SABS 0400 & approved by Project Engineers

1) Workmanship to comply with Standard Specification of materials methods to be used - SABS 0400
2) Light Switch in Disabled tollet to be at 1200 mm above FFL 3) If Step over 900 mm Build in Balustrade 4) Gulley positions to be determined as per site prescribed overall draina design

site prescribed overall drainage (sand off all SABS & other

**NOTES** 

49

ment according to structural engineer's drawings. Top of (1 per 15m³ or 1 per batch). Finished sides and bottoms ar approved type applied at a rate of not less than 5 litres ecification 1165 and SANS Code of Practice 0124. wide five year guarantee.

Note that the second seco

strip footings to be 340mm minimum below N.G.L. Provide test cubes (1 per 15m² or 1 per batch). Finished sides and bottoms of trenches to be treated with ant poison of the Prothor 200 SC or other approved type applied at a rate of not less than 5 litres of solution per m² by a firm of specialists in accordance with SANS Specification 1165 and SANS Code of Practice 0124. Concrete to be casted within 24 hours of application. Contractor to provide five year guarantee.

A2. Backfilling and filling under floors - in general, approved filling compacted to at least 93% Mod. AASHTO density in layers of maximum 150mm - refer to engineer's drawings for detail in case of poor soil conditions. Minimum of 170mm filling to be provided above natural or compacted ground level under floors. All filling to the provide the over approved type applied at a rate of ront less than 5 litres of soution per m² by a firm of specialists in accordance with SANS Specification 1165 and SANS Code of Practice 0124. Compaction tests to be provided at a rate of one test per 125m² filling to be minimum 65 or G7 material as per engineer's drawings for detail in case of poor soil conditions. Minimum of 170mm filling to be provided with an experiment of 180mm compacted ground level under floors. All filling to be provided at a rate of one test per 125m² filling are under floors to be treated with ant poison of the Prothor 200 SC or other approved bype applied at a rate of not less than 5 litres of soution per m² by a firm of specialists in accordance with SANS Specification 1165 and SANS Code of Practice 0124. Concrete to be casted with ant poison of the Prothor 250 micron waterprocofing membrane with laps sealed with pressure sensitive tape. Surface bed cast in alternative sections of maximum 20m² with saw cut joints to be done within 24 hours after casting of concrete. Provide mesh ref. no. 193 as per structural engineer's drawings. But minimum 85mm thick on SANS Specification 952 Type C approved USB Green 250 micron waterpoofing membrane with lap awings but minimum 85mm thick on SANS Specification with laps sealed with pressure sensitive tape. Surface ith joints filled up with polysulfide sealer. All saw cut m thick bitumen impregnated soft board between all ref. no. 193 as per structural engineer's drawings.

ctural engineer's drawings but minimum 85mm thick on SANS proofing membrane with laps sealed with pressure sensitive with expansion joints with joints filled up with polysulfide and walls and concrete and seal joint with polysulfide wings. Provide test cubes (1 per 15m³ or 1 per batch) and floated 1:4 granolithic screed sloping towards edges. At granolithic threshold finish. Finish off edges of screed

76mm Meranti skirting plugged to walls at 400mm c/c with 19mm finish, stop with Polycell Woodfiller, stain with Plascon Woodcare Woodcare Ultra Varnish (X44), thinned with 1:3 mineral turpenting re Ultra (X44) suede varnish to skirtings e x 6mm deep square recessed joints d course. Superstructure walls - every 6th cou

n meranti quadrand bead plated on. Sand down to a Stain (W-range)(colour meranti), apply one coat e (AZH1) and apply two finishing coats Plascon

Plascon Woodcare Ultra Varnish (X44), thinned with 1:3 mineral turpentine (AZ Woodcare Ultra (X44) suede varnish to skirtings

Walls and structure

D1. External walls - Corobrik face bricks in stretcher bond with 10mm wide x 6i

D2. Brickforce - Brickforce to 115 and 230mm foundation walls - every 2nd cou

Over openings formed in brickwork as per table below

D3. 75 x 75 x 3mm Thick tubular section steel columns with 250mm girth x 4.5

200mm long, twice holed and welded to top, 200 x 200 x 10mm thick flat section

bottom. Columns to be fixed to top of brickwork below copings with four M10 x

"Plascon Aqualsolv Degreaser (GR1)", remove rust with "Plascon Rust Remov

(UC501) and apply two coats Plascon Enamel Door & Trims high gloss ename

50 x 228mm Laminated SA Pine beam twice bolted to steel columns. Sand do

Woodfiller, provide one coat raw linseed oil thinned with 1:3 mineral turpentine

Sunproof (Amber - PNW22) suede varnish thinned with 1:3 mineral turpentine

Woodcare Sunproof (Amber - PNW22) suede varnish

D4. Lintol - Corobrik brick-on-edge face brick lintol over all window, door and circles. at section baseplate, four times holed and welded to at section baseplate, four times holed and welded to Ir M10 x 75mm masonry anchor bolts. Degrease with Remover (RR1)", prime with Plascon Metal Primer enamel paint - colour as per finishes schedule. Sand down to a smooth finish, stop with Polycell rpentine (AZH1), apply one coat Plascon Woodcare pentine (AZH1) and apply two finishing coats Plascon

and clear openings with 10 x 6mm square recessed

DPC - SANS Specification 952 Type B approved 375 micron black dpc in walls at floor level and under all window sills internal walls - approved stockbrick walls in stretcher bond above to receive one coat smooth 1:5 cement plaster finished with one coat Plascon Plaster Primer (UC56) and two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour ken white (EPL314) or French Chartreuse (Y5-D2-3) as per Principal Agent Internal walls - face brick plinth up to 850mm with approved stockbrick walls in stretcher bond above to receive one coat looth 1:5 cement plaster finished off with one coat Plascon Plaster Primer (UC56) and two coats Plascon Polvin Walls & illings (EPL) PVA paint. Colour as per finishes schedule.

All exposed expansion joints in walls and floors to be filled in with Urochem 205 polysulfide joint sealant after surfaces have a primed with Urochem 614 primer.

Expansion joints in walls and ceilings to be covered with 2 x 50mm Migua KF250/30 aluminium cover strips and receive the primer wills.

ternal window sills - 15 x 150mm nutec-cement window sills, bedded and set flat in 1:4 cement mortar. Prime with one lascon Multi-surface Primer (WUP1) and apply two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour as schedule defined window sills - Middelwit Fynbos Geel face brick-on-edge sloping sill to match works. 14 primer and ceilings to be covered with 2 x 50mm Migua KF250/30 aluminium cover strips

NG

SECTION A-A
SCALE 1: 50

iron gutters with 20mm overlaps with ngstrip in between. Fix with pop—rivets 20mm Coat inside of gutter with bituminous paint.

Ceilings and comices

F1. Internal comices - 19 x 76mm Meranti comice nailed to walls at 400mm centres maximum. Sand down to a smooth finish, stop with Polycell Woodiller, stain with Plascon Woodcare Stain (Wr-ange)(colour merant), apply one coat Plascon Woodcare Ultra (X44) stude warnish to comices.

Stop with Polycell Woodiller, stain with Plascon Woodcare Stain (Wr-ange)(colour merant), apply one coat Plascon Woodcare Ultra (X44) such warnish (X44), thinned with 13 mineral turpentine (AZH1) and apply woo finishing coats Plascon Woodcare Ultra (X44) such warnish (X44), thinned with 13 mineral turpentine (AZH1) and apply woo finishing coats Plascon Woodcare Ultra (X44) such warnish (X44), thinned with 13 mineral turpentine (AZH1) and apply woo finishing coats Plascon Woodcare Ultra (X44) such warnish (X44), thinned with 13 mineral turpentine (X44), thinned with 14 mineral turpentine (X44), thinned

ttings 1. Vitrex Model 2400 (code 2404) enameled green folding type writing board with wall mounted centre board 2000 x 1200mm gh, two wall mounted side boards each 1000 x 1200mm high & two swing leaves each 1000 x 1200mm high with permanent

BEAM FIXING column welded to 200 base plate rawl-bolted to brickwor engineer's detail

SECTION

Galv.iron rainwater down— pipe treated as described for gutter

4mm fibre cement ceiling fixed u38 x 38 brandering

to

19mm x 50mm SAP Paint to match ceilir

fascia screwed to 32mm long x screws 2 per rafter. standard strips to all all around.

npregnated softboard

200 x 200 x 10mm rawl-bolted to brick

DETAIL SCALE 1: 10

n, two wall mounted side boards each 1000 x 1200mm high & two swing leaves each 1000 x 1200mm high with perman minium chalk rail

Vitrex System 2000 (code 2317) light grey wall mounted pinning board, size 2000 x 1200mm high (2 per classroom)

Greenfield G25 double door steel cupboard with standard baked enameled finish, 760 x 610 x 1700mm high with four sives (2 per classroom)

Five rows of 19mm Thick laminated SA Pine shelving, 350mm wide, evenly spaced & fixed from underside to 305mm vice epoxy powder coated steel brackets. Brackets to be fixed to 25mm wide x 2134mm long double slotted epoxy powderd to type FT6 wall bands, plugged to walls at maximum 600mm c/c. Sand down to a smooth finish, stop with Polodfiller, apply one coat Plascon Woodcare Ultra Varnish (X44) thinned with 1:3 mineral turpentine (AZH1) then apply two shing coats Plascon Woodcare Clear Ultra (X44) suede varnish to shelves evenly spaced & fixed from underside to 305mm wide m wide x 2134mm long double slotted epoxy powder m c/c. Sand down to a smooth finish, stop with Polycell d with 1:3 mineral turpentine (AZH1) then apply two lves

ckplate with chamfered edges. Sand down to a dcare Ultra (X44) suede varnish thinned with 1:3 lcare Ultra (X44) suede varnish to back plate. Provide Union AL5066-E08/2AS aluminium red down arrow n AL5066-06ASE05 aluminium engraved red fire rrow sign above fire hose reel. Water supply in posed parts of pipes with Plascon Aquasolv me with Plascon Metal Primer (UC501) and apply two (G7). Provide 150 x 150mm Union AL5066-E05/2AS ign above fire hose reel.

SYSTEM

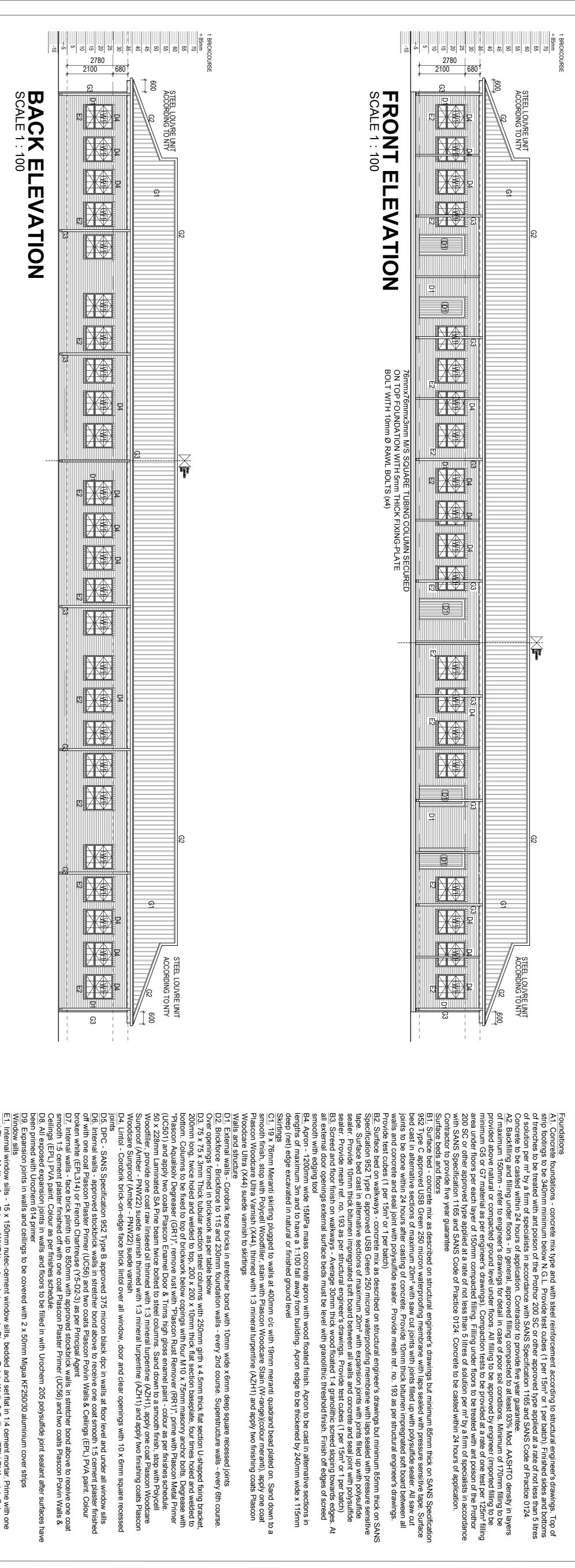
2020\_61-5CL-102

 $\triangleright$ 

DRAWING NUMBER

PLAN EXAMINER
FIRE CONTROL
ENVIRONMENTAL OFFICER
ROADS / STORMWATER
WATER AND SANITATION
ENVIRONMENTAL OFFICER FOUNDATION PLAN, SECTION & DETAIL REV No CONTRACT - SECTION

DOCUMENTATION & PROCUREMENT **NEW BUILDINGS & ALTERATIONS** 921230023 INSTITUTION
CHITA KEKANA SECONDARY SCHOOL
INSTITUTION EMIS NUMBER DATE : ruben reddy architects Suite 4 No 6 Ismini Office
6 Ismini Street, Poliokwane, D69
Tel: +27 15 065 0645, Fox: +27
Email: info@rubenreddyara
Web: www.rubenreddyara
CONTRACTOR SIZE ON ORIGINAL DRAWING 100 mm SIGNATURE TABLE ARCHITECTURAL RESPONSIBLE PROFESSIONAL SIGNATURE 5 CLASSROOM BLOCK PROVINCIAL GOVERNMENT REPUBLIC OF SOUTH AFRICA DRAWING CO-ORDINATED **Public Works** Office Building, p. D699 South Africa x: +27 11 475 8364, eddyarch.co.za DESCRIPTION PR NUMBER ယ



SIDE ELEVATION SCALE 1: 100 D1
76mmx76mmx3mm M/S SQUARE TUBING
COLUMN SECURED ON TOP FOUNDATION
WITH 5mm THICK FIXING-PLATE BOLT WITH
10mm Ø RAWL BOLTS (x4)

2780 2100

76mmx76mmx3mm M/S SQUARE TUBING COLUMN SECURED ON TOP FOUNDATION WITH 5mm THICK FIXING-PLATE BOLT WITH 10mm Ø RAWL BOLTS (x4)

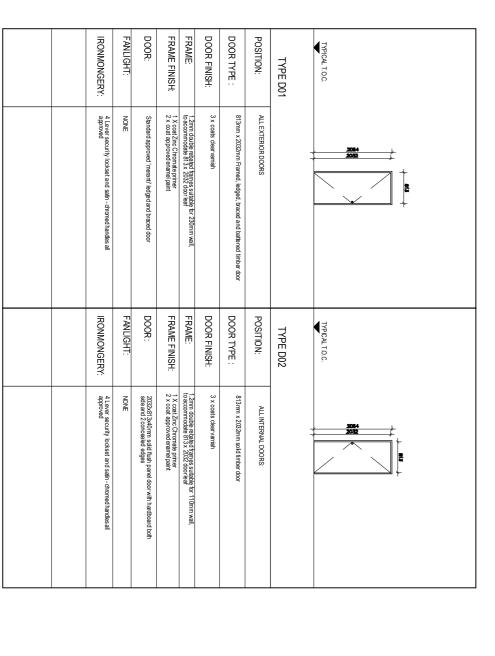
STEEL LOUVRE UNIT ACCORDING TO NTY

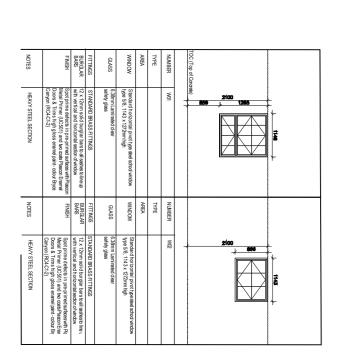
ď

SIDE SCALE 1

10**m** 

**EVATION** 





## CONSTRUCTION NOTES

nent according to structural engineer's drawings. Top of (1 per 15m³ or 1 per batch). Fini shed sides and bottoms or approved type applied at a rate of not less than 5 litres ecification 1165 and SANS Code of Practice 0124. vide five year guarantee. pacted to at least 93% Mod. AASHTO density in layers poor soil conditions. Minimum of 170mm filling to be ng to be approved by engineer (imported filling to be tests to be provided at a rate of one test per 125m² filling der floors to be treated with ant poison of the Prothor s of solution per m² by a firm of specialists in accordance rete to be casted within 24 hours of application.

désign
5) 2 x coats sealant on all exposed trusses (markings)
6) 50 mm mineral wool insulation to be installed where there are ceilings .
8) 50 mm mineral wool insulation to be installed with wire supports in all areas that do not have ceilings
7) West Facing Facades to have standardised aluminium louvres from below eaves to drop of 1200 mm
8) Trusses to be designed in accordance with SABS 0400 & approved by Project Engineers

Workmanship to comply with Standard Specification of methods to be used - SABS 0400
 Light Switch in Disabled toilet to be at 1200 mm above F 3 If Step over 900 mm Build in Balustrade
 Gulley positions to be determined as per site prescribed design.

of material and le FFL

r site prescribed overall drainage (sand off all SABS & other

**NOTES** 

n meranti quadrand bead plated on. Sand down to a Stain (W-range)(colour meranti), apply one coat e (AZH1) and apply two finishing coats Plascon

Skirtings

C1. 19 x 76mm Meranti skirting plugged to walls at 400mm *c/c* with 19mm meranti quadrand bead plated on. Sand down to a smooth finish, stop with Polycell Woodfiller, stain with Plascon Woodcare Stain (W-range)(colour meranti), apply one coat Plascon Woodcare Ultra Varnish (X44), thinned with 1:3 mineral turpentine (AZH1) and apply two finishing coats Plascon Woodcare Ultra (X44) suede varnish to skirtings

Walls and structure

D1. External walls - Corobrik face bricks in stretcher bond with 10mm wide x 6mm deep square recessed joints

D2. Brickforce - Brickforce to 115 and 230mm foundation walls - every 2nd course. Superstructure walls - every 6th course.

Over openings formed in brickwork as per table below

D3. 75 x 75 x 3mm Thick tubular section steel columns with 250mm girth x 4.5mm thick flat section U-shaped fixing bracket, 200mm long, twice holed and welded to top, 200 x 200 x 10mm thick flat section baseplate, four times holed and welded to bottom. Columns to be fixed to top of brickwork below copings with four M10 x 75mm masonry anchor bolts. Degrease with "Plascon Aqualsolv Degreaser (GR1)", remove rust with "Plascon Rust Remover (RR1)", prime with Plascon Metal Primer (UC501) and apply two coats Plascon Enamel Door & Trims high gloss enamel paint - colour as per finishes schedule. 50 x 228mm Laminated SA Pine beam twice bolted to steel columns. Sand down to a smooth finish, stop with Polycell Woodfiller, provide one coat raw linseed oil thinned with 1:3 mineral turpentine (AZH1), apply one coat Plascon Woodcare Sunproof (Amber - PNW22) suede varnish thinned with 1:3 mineral turpentine (AZH1) and apply two finishing coats Plascon Woodcare Sunproof (Amber - PNW22) suede varnish thinned with 1:3 mineral turpentine (AZH1) and apply two finishing coats Plascon Woodcare Sunproof (Amber - PNW22) suede varnish to over all window, door and clear openings with 10 x 6mm square recessed light to the proof of th jirth x 4.5mm thick flat section U-shaped fixing bracket, flat section baseplate, four times holed and welded to our M10 x 75mm masonry anchor bolts. Degrease with st Remover (RR1)", prime with Plascon Metal Primer ss enamel paint - colour as per finishes schedule. Sand down to a smooth finish, stop with Polycell curpentine (AZH1), apply one coat Plascon Woodcare prentine (AZH1) and apply two finishing coats Plascon

and clear openings with 10 x 6mm square recessor

DPC - SANS Specification 952 Type B approved 375 micron black dpc in walls at floor level and under all window sills internal walls - approved stockbrick walls in stretcher bond above to receive one coat smooth 1:5 cement plaster finished with one coat Plascon Plaster Primer (UC56) and two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour ken white (EPL314) or French Chartreuse (Y5-D2-3) as per Principal Agent Internal walls - face brick plinth up to 850mm with approved stockbrick walls in stretcher bond above to receive one coatooth 1:5 cement plaster finished off with one coat Plascon Plaster Primer (UC56) and two coats Plascon Polvin Walls & Ilings (EPL) PVA paint. Colour as per finishes schedule.

All exposed expansion joints in walls and floors to be filled in with Urochem 205 polysulfide joint sealant after surfaces lexpansion joints in walls and ceilings to be covered with 2 x 50mm Migua KF250/30 aluminium cover strips.

nternal window sills - 15 x 150mm nutec-cement window sills, bedded and set flat in 1:4 cement mortar. Prime with one Plascon Multi-surface Primer (WUP1) and apply two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour a nishes schedule external window sills - Middelwit Fynbos Geel face brick-on-edge sloping sill to match walls walls walls are a sed joints

<u>ttings</u> 1. Vitrex Model 2400 (code 2404) enameled green folding type writing board with wall mounted centre board 2000 x 1200 gh, two wall mounted side boards each 1000 x 1200mm high & two swing leaves each 1000 x 1200mm high with permar

n, two wall mounted side boards each 1000 x 1200mm high & two swing leaves each 1000 x 1200mm high with permaninium chalk rail

Vitrex System 2000 (code 2317) light grey wall mounted pinning board, size 2000 x 1200mm high (2 per classroom)

Greenfield G25 double door steel cupboard with standard baked enameled finish, 760 x 610 x 1700mm high with four lives (2 per classroom)

Five rows of 19mm Thick laminated SA Pine shelving, 350mm wide, evenly spaced & fixed from underside to 305mm elco epoxy powder coated steel brackets. Brackets to be fixed to 25mm wide x 2134mm long double slotted epoxy powdted Shelco type FT6 wall bands, plugged to walls at maximum 600mm c/c. Sand down to a smooth finish, stop with Poodfiller, apply one coat Plascon Woodcare Ultra Varnish (X44) thinned with 1:3 mineral turpentine (AZH1) then apply two shing coats Plascon Woodcare Clear Ultra (X44) suede varnish to shelves e, evenly spaced & fixed from underside to 305mm wic mm wide x 2134mm long double slotted epoxy powder mm c/c. Sand down to a smooth finish, stop with Polyc red with 1:3 mineral turpentine (AZH1) then apply two relves

ckplate with chamfered edges. Sand down to a dcare Ultra (X44) suede varnish thinned with 1:3 lcare Ultra (X44) suede varnish to back plate. Pro Union AL5066-E08/2AS aluminium red down a

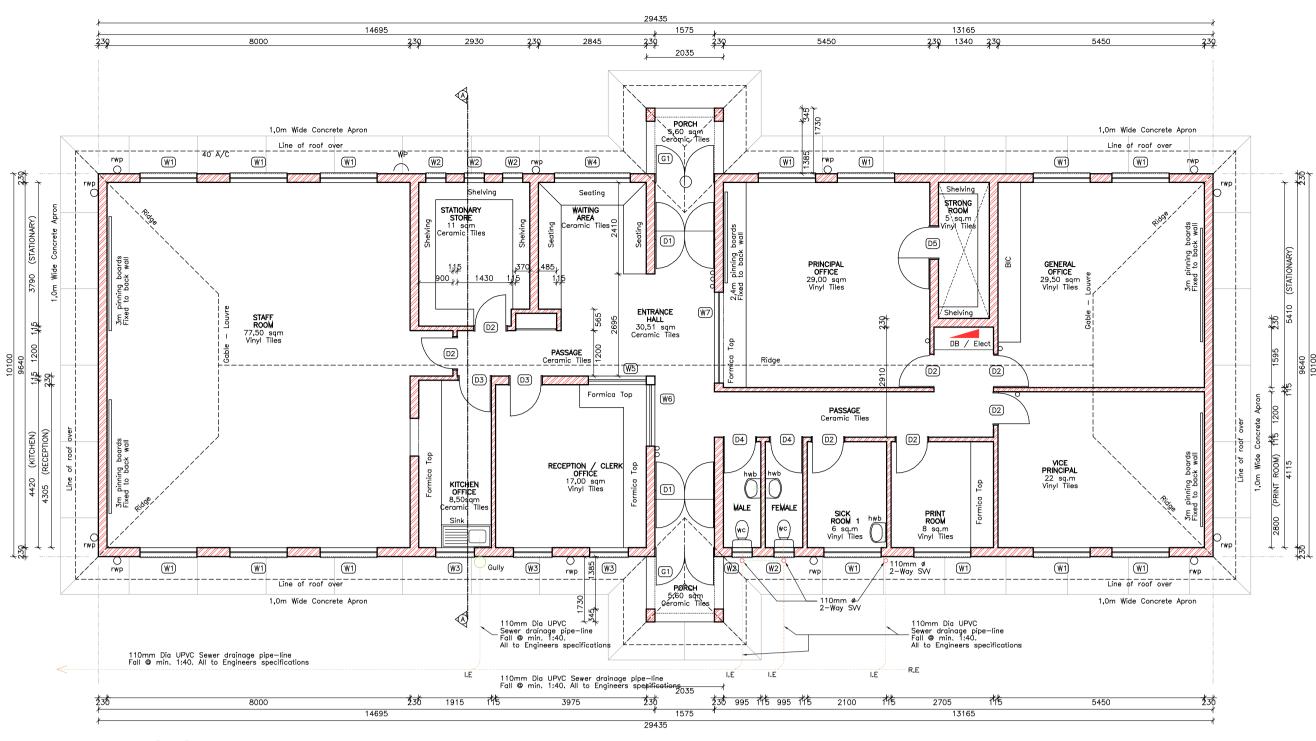
in AL5066-06ASE05 aluminium engraved red fire rrow sign above fire hose reel. Water supply in posed parts of pipes with Plascon Aquasolv me with Plascon Metal Primer (UC501) and apply two (G7). Provide 150 x 150mm Union AL5066-E05/2AS ign above fire hose reel. minium engraved red fire e reel. Water supply in ו Plascon Ariיפייי

SYSTEM

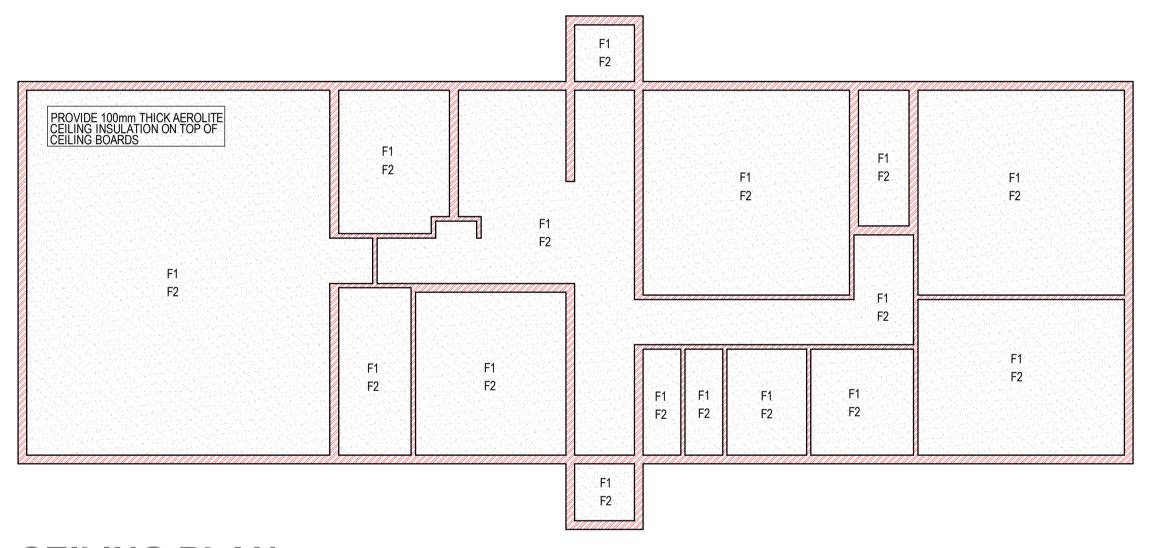
2020\_61-5CL-103

 $\triangleright$ 

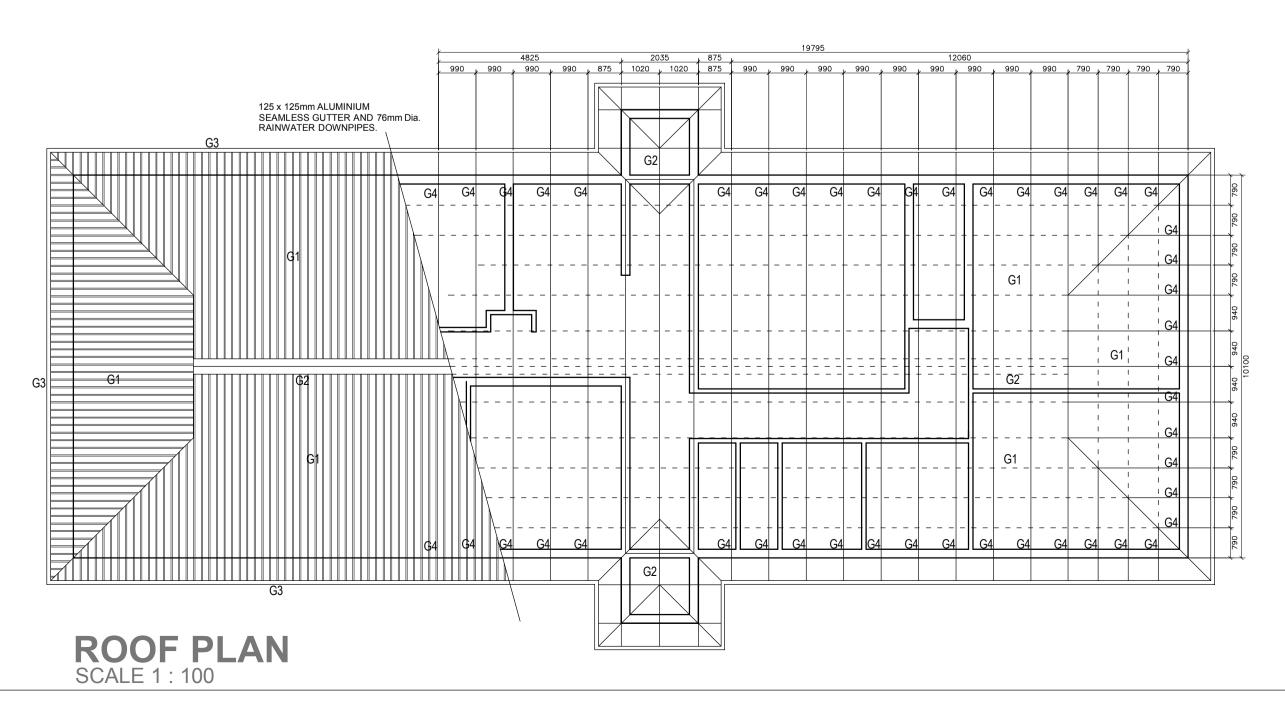
Suite 4 No 6 Ismini Office Building, 6 Ismini Street, Polokwane, D699 South Africa Tel: +27 15 065 0645, Fax: +27 11 475 8384, Email: info@rubenreddyarch.co.za Web: www.rubenreddyarch.co.za	arrow
CONSULTANT :	
DRAWING CO-ORDINATED	olycell wo
DATE NAME SIGNATURE PR NUMBER	wide e
DESIGN DRAY  SCALE 1: 100 CHECK	
	)0mm    nent
DRAWING DESCRIPTION  ELEVATIONS	nd
5 CLASSROOM BLOCK	· or
JRAL	nsbok
DOCUMENTATION & PROCUREMENT  DISCIPLINE PROJECT STAY	
NEW BUILDINGS & ALTERATIONS  CONTRACT - SECTION	ırlins,
921230023 SERVICE	d ntact
INSTITUTION EMIS NUMBER	ied C
CHITA KEKANA SECONDARY SCHOOL	n off
	with
	SAP
	with or
	with e coat our
SIZE ON ORIGINAL DRAWING 100 mm	<u>4</u>
REV NO DATE: DESCRIPTION:	sh, dcare
	ne as
ENVIRONMENTAL OFFICER	
WATER AND SANITATION	s have
ENVIRONMENTAL OFFICER	. <b>'</b>
FIRE CONTROL	oat
PLAN EXAMINER	
INE SIGNATURE	hed
SIGNATURE TABLE	sed
	Š



**FLOOR PLAN** SCALE 1: 100



CEILING PLAN SCALE 1: 100



## CONSTRUCTION NOTES:

A1. Concrete foundations - concrete mix type and with steel reinforcement according to structural engineer's drawings. Top of strip footings to be 340mm minimum below N.G.L. Provide test cubes (1 per 15m³ or 1 per batch). Finished sides and bottoms of trenches to be treated with ant poison of the Prothor 200 SC or other approved type applied at a rate of not less than 5 litres of solution per m<sup>2</sup> by a firm of specialists in accordance with SANS Specification 1165 and SANS Code of Practice 0124. Concrete to be casted within 24 hours of application. Contractor to provide five year guarantee

A2. Backfilling and filling under floors - in general, approved filling compacted to at least 93% Mod. AASHTO density in layers of maximum 150mm - refer to engineer's drawings for detail in case of poor soil conditions. Minimum of 170mm filling to be provided above natural or compacted ground level under floors. All filling to be approved by engineer (imported filling to be minimum G5 or G7 material as per engineer's drawings). Compaction tests to be provided at a rate of one test per 125m² filling area under floors per each layer of 150mm compacted filling. Filling under floors to be treated with ant poison of the Prothor 200 SC or other approved type applied at a rate of not less than 5 litres of solution per m<sup>2</sup> by a firm of specialists in accordance with SANS Specification 1165 and SANS Code of Practice 0124. Concrete to be casted within 24 hours of application. Contractor to provide five year guarantee

Surface beds and floors B1. Surface bed - concrete mix as described on structural engineer's drawings but minimum 85mm thick on SANS Specification 952 Type C approved USB Green 250 micron waterproofing membrane with laps sealed with pressure sensitive tape. Surface bed cast in alternative sections of maximum 20m<sup>2</sup> with saw cut joints with joints filled up with polysulfide sealer. All saw cut joints to be done within 24 hours after casting of concrete. Provide 10mm thick bitumen impregnated soft board between all walls and concrete and seal joint with polysulfide sealer. Provide mesh ref. no. 193 as per structural engineer's drawings. Provide test cubes (1 per 15m³ or 1 per batch)

B2. Surface bed on walkways - concrete mix as described on structural engineer's drawings but minimum 85mm thick on SANS Specification 952 Type C approved USB Green 250 micron waterproofing membrane with laps sealed with pressure sensitive tape. Surface bed cast in alternative sections of maximum 20m<sup>2</sup> with expansion joints with joints filled up with polysulfide sealer. Provide 10mm thick bitumen impregnated soft board between all walls and concrete and seal joint with polysulfide sealer. Provide mesh ref. no. 193 as per structural engineer's drawings. Provide test cubes (1 per 15m³ or 1 per batch) B3. Screed and floor finish on walkways - Average 30mm thick wood floated 1:4 granolithic screed sloping towards edges. At all external door openings external surface beds must be level with granolithic threshold finish. Finish off edges of screed smooth with edging tool

B4. Apron - 1200mm wide 15MPa mass concrete apron with wood floated finish. Apron to be cast in alternative sections in lengths of maximum 3m and to have a 1:100 fall away from building. Apron edge to be thickened by 240mm wide x 115mm deep (net) edge excavated in natural or finished ground level

C1. 19 x 76mm Meranti skirting plugged to walls at 400mm c/c with 19mm meranti quadrand bead plated on. Sand down to a smooth finish, stop with Polycell Woodfiller, stain with Plascon Woodcare Stain (W-range)(colour meranti), apply one coat Plascon Woodcare Ultra Varnish (X44), thinned with 1:3 mineral turpentine (AZH1) and apply two finishing coats Plascon Woodcare Ultra (X44) suede varnish to skirtings

D1. External walls - Corobrik face bricks in stretcher bond with 10mm wide x 6mm deep square recessed joints D2. Brickforce - Brickforce to 115 and 230mm foundation walls - every 2nd course. Superstructure walls - every 6th course.

D3. 75 x 75 x 3mm Thick tubular section steel columns with 250mm girth x 4.5mm thick flat section U-shaped fixing bracket, 200mm long, twice holed and welded to top, 200 x 200 x 10mm thick flat section baseplate, four times holed and welded to bottom. Columns to be fixed to top of brickwork below copings with four M10 x 75mm masonry anchor bolts. Degrease with "Plascon Aqualsoly Degreaser (GR1)", remove rust with "Plascon Rust Remover (RR1)", prime with Plascon Metal Primer (UC501) and apply two coats Plascon Enamel Door & Trims high gloss enamel paint - colour as per finishes schedule. 50 x 228mm Laminated SA Pine beam twice bolted to steel columns. Sand down to a smooth finish, stop with Polycell Woodfiller, provide one coat raw linseed oil thinned with 1:3 mineral turpentine (AZH1), apply one coat Plascon Woodcare Sunproof (Amber - PNW22) suede varnish thinned with 1:3 mineral turpentine (AZH1) and apply two finishing coats Plascon Woodcare Sunproof (Amber - PNW22) suede varnish

D4. Lintol - Corobrik brick-on-edge face brick lintol over all window, door and clear openings with 10 x 6mm square recessed

D5. DPC - SANS Specification 952 Type B approved 375 micron black dpc in walls at floor level and under all window sills D6. Internal walls - approved stockbrick walls in stretcher bond above to receive one coat smooth 1:5 cement plaster finished off with one coat Plascon Plaster Primer (UC56) and two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour broken white (EPL314) or French Chartreuse (Y5-D2-3) as per Principal Agent

D7. Internal walls - face brick plinth up to 850mm with approved stockbrick walls in stretcher bond above to receive one coat smooth 1:5 cement plaster finished off with one coat Plaster Primer (UC56) and two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour as per finishes schedule.

D8. All exposed expansion joints in walls and floors to be filled in with Urochem 205 polysulfide joint sealant after surfaces have been primed with Urochem 614 primer

D9. Expansion joints in walls and ceilings to be covered with 2 x 50mm Migua KF250/30 aluminium cover strips

E1. Internal window sills - 15 x 150mm nutec-cement window sills, bedded and set flat in 1:4 cement mortar. Prime with one coat Plascon Multi-surface Primer (WUP1) and apply two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour as per finishes schedule

E2. External window sills - Middelwit Fynbos Geel face brick-on-edge sloping sill to match walls with 10 x 6mm square recessed joints

Ceilings and cornices

Over openings formed in brickwork as per table below

F1. Internal cornice - 19 x 76mm Meranti cornice nailed to walls at 400mm centres maximum. Sand down to a smooth finish, stop with Polycell Woodfiller, stain with Plascon Woodcare Stain (W-range)(colour meranti), apply one coat Plascon Woodcare Ultra Varnish (X44), thinned with 1:3 mineral turpentine (AZH1) and apply two finishing coats Plascon Woodcare Ultra (X44) suede varnish to cornices

F2. Ceilings - 6mm Everite Nutec fibre-cement boards nailed to 38 x 38mm SAP brandering at 400mm centres maximum with galvanised clout nails. Provide H-profile galvanised jointing strips. Jointing strips to be pre-painted. Prime ceilings with one coat Plascon Multi-Surface Primer (WUP1) and finish off with two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour White (EPL30). Provide 100mm thick Aerolite insulation on top of ceilings

F3. Plastered ceiling as per finishes schedule F4. 610 x 610mm Trap door formed of 50 x 65mm SA pine rebated frame with 38 x 38mm SA pine cross brander covered with ceiling board and fitted flush in opening. Provide 18 x 50mm meranti surround. Trap door and surround to be painted as for ceiling. Trap door opening between trusses to be formed with 38 x 114mm SA pine bearers, nailed to trusses

Roof and fascias G1. Roof sheeting - 0.58mm Brownbuilt Klip-lok roof sheeting with Globalcoat finish (colour Traffic Green) on 50 x 76mm SAP purlins at maximum 1200mm centres on patent and approved pre-fabricated truss system. Roof sheeting to be done by

specialist installer providing a five year guarantee G2. Ridge and hip flashings - 0.8mm galvanised sheet iron standard factory manufactured FK3 ridge or hip flashing with

Globalcoat finish (colour Traffic Green) G3. Fascia boards - 10 x 300mm Everite Nutec-cement fascia boards screw fixed to truss ends and counter batten with

countersunk brass screws. Barge boards - 200 x 80mm Everite socketless barge boards screw fixed to trusses or purlins with countersunk brass screws. Prime fascias and barge boards with one coat Plascon Multi-Surface Primer (WUP1) and finish off with two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour as per finishes schedule. G4. Truss system - MiTek or other approved patent timber pre-fabricated truss system at maximum 1100mm centres with 20

degrees pitch, 50 x 76mm SAP purlins at maximum 1200mm centres, 38 x 114mm SAP wall plate to be carbolineum treated before fixing. Truss manufacturer to provide certificate and guarantee for design and erection of trusses as well as detailed shop drawings. Shop drawings to be provided to the Principal Agent for approval before manufacturing. All sections in contact with wet trades to be carbolineum treated before fixing in position. Trusses to be secured to walls with 2.5mm diameter galvanised steel wire ties, built into walls minimum 6 courses. Purlins nailed to trusses must also be secured with 2.5mm diameter galvanised steel wire, twice wrapped around and tied around rafters and purlins. All exposed parts of trusses, purlins, etc. to be sanded smooth, seal knots with Plascon Knot Seal (PK2), prime with one coat Plascon Wood Primer (UC2) and apply two coats Plascon Enamel Doors & Trims paint. Colour as per finishes schedule.

G5. Gutters - 100 x 100mm High gutters formed of 0.58mm galvanised sheet iron with Globalcoat finish (colour Gemsbok

Sand). All brackets, etc. to be pre-coated with Globalcoat to match colour of gutters G6. Downpipes - 100mm Diameter downpipes formed of 0.58mm galvanised sheet iron with Globalcoat finish (colour Gemsbok

Sand). All holderbats, brackets, etc. to be pre-coated to match colour of downpipes G7. Barge flashing over barge boards at louvres - 0.8mm galvanised sheet iron standard factory manufactured FK13 barge or gable flashing with Globalcoat finish (colour Traffic Green)

G8. Flashings at bottom of louvres - 0.8mm galvanised sheet iron standard factory manufactured FK8 headwall flashing and FK7 counter flashing with Globalcoat finish (Colour Traffic Green)

H1. Vitrex Model 2400 (code 2404) enameled green folding type writing board with wall mounted centre board 2000 x 1200mm high. two wall mounted side boards each 1000 x 1200mm high & two swing leaves each 1000 x 1200mm high with permanent aluminium chalk rail

H2. Vitrex System 2000 (code 2317) light grey wall mounted pinning board, size 2000 x 1200mm high (2 per classroom) H3. Greenfield G25 double door steel cupboard with standard baked enameled finish, 760 x 610 x 1700mm high with four shelves (2 per classroom)

H4. Five rows of 19mm Thick laminated SA Pine shelving, 350mm wide, evenly spaced & fixed from underside to 305mm wide Shelco epoxy powder coated steel brackets. Brackets to be fixed to 25mm wide x 2134mm long double slotted epoxy powder coated Shelco type FT6 wall bands, plugged to walls at maximum 600mm c/c. Sand down to a smooth finish, stop with Polycell Woodfiller, apply one coat Plascon Woodcare Ultra Varnish (X44) thinned with 1:3 mineral turpentine (AZH1) then apply two finishing coats Plascon Woodcare Clear Ultra (X44) suede varnish to shelves

I1 9 Kg DCP fire extinguisher fitted to 400 x 200 x 22mm thick meranti backplate with chamfered edges. Sand down to a smooth finish, stop with Polycell Woodfiller, apply one coat Plascon Woodcare Ultra (X44) suede varnish thinned with 1:3 mineral turpentine (AZH1) & then apply two finishing coats Plascon Woodcare Ultra (X44) suede varnish to back plate. Provide 150 x 150mm Union AL5066-E06/2AS aluminium fire extinguisher sign and Union AL5066-E08/2AS aluminium red down arrow sign above fire extinguisher

12 Safex fire hose reel with 30m hose. Supply 152 x 152 x 3mm thick Union AL5066-06ASE05 aluminium engraved red fire hose reel sign & Union Al5066-06ASE08 aluminium engraved red down arrow sign above fire hose reel. Water supply in buildings to fire hose reel to be 25mm galvanised mild steel. Degrease exposed parts of pipes with Plascon Aquasolv Degreaser (GR1), remove any rust with Plascon Rust Remover (RR1), prime with Plascon Metal Primer (UC501) and apply two coats Plascon Enamel Doors & trims (G-Range) paint - colour Signal Red (G7). Provide 150 x 150mm Union AL5066-E05/2AS aluminium fhr sign & Union AL5066-E08/2AS aluminium red down arrow sign above fire hose reel.

NOTES:

 Workmanship to comply with Standard Specification of methods to be used - SABS 0400
 Dight Switch in Disabled toilet to be at 1200 mm above 3) If Step over 900 mm Build in Balustrade all areas that do not have ceilings
7) West Facing Facades to have standardised aluminium louvres from below eaves to drop of 1200 mm
8) Trusses to be designed in accordance with SABS 0400 & approved by

	9	SIGNATU	RE TABLE		
DISCIPLINE		SIGNATURE		DATE	
CLIENT					
PLAN EXAM					
FIRE CONT	ROL ENTAL OFFICER				
	ORMWATER				
	D SANITATION				
	ENTAL OFFICER				
REV No	DATE :		DESCRIPTION	1:	
		REVISIO			
	SI	ZE ON ORIGINAL	DRAWING 100 mm		
		Public	Works		
	11TA 1/F1	INSTITU	UTION	0011	001
Cł	HITA KEH	INSTITU KANA SE(	UTION CONDARY		OOL
	HITA KEH 1230023	INSTITU KANA SE( INSTI	UTION CONDARY ITUTION EMIS NUME		00L
92	1230023	INSTITU (ANA SE( INSTI	UTION CONDARY ITUTION EMIS NUME	BER	OOL
92	1230023	INSTITU (ANA SE( INSTI	UTION CONDARY ITUTION EMIS NUME VICE ALTERATION	BER	OOL
92 NE	1230023 EW BUILI	INSTITUTE  KANA SEC  INSTITUTE  SERV  DINGS & A	UTION CONDARY ITUTION EMIS NUME VICE ALTERATION	ONS	
92 NE	1230023 EW BUILI DCUMEN	INSTITUTE  VANA SECULO  INSTITUTE  SERVI  DINGS & A  CONTRACT  ITATION & DISCIP	UTION CONDARY ITUTION EMIS NUME  //CE ALTERATION - SECTION PLINE	ONS REME	NT
92 NE	1230023 EW BUILI DCUMEN	INSTITUTE  KANA SEC  INSTITUTE  SERV  DINGS & A  CONTRACT  ITATION 6	UTION CONDARY ITUTION EMIS NUME  //CE ALTERATION - SECTION PLINE	ONS REME	NT
92 NE	1230023 EW BUILI DCUMEN	INSTITUTE  KANA SECTION SERVINGS & A  CONTRACT  ITATION SERVINGS & A  CONTRACT  ARCHITEC	UTION CONDARY ITUTION EMIS NUME  //CE ALTERATION - SECTION PLINE	ONS REME	NT OJECT ST/
92 NE	1230023 EW BUILI DCUMEN	INSTITUTE  VANA SECTION OF THE PROPERTY OF THE	UTION CONDARY ITUTION EMIS NUME  VICE ALTERATIO - SECTION SPENS CTURAL DN - SUB DIVISION STRATION BI	ONS REME	NT OJECT ST/
92 NE	1230023 EW BUILI DCUMEN	SERVE DINGS & A CONTRACT SITATION OF CORK DESCRIPTION OF CORK DESCRIPTION OF CORK DESCRIPTION ADMINISTRATION OF CORK DESCRIPTION OF CORK DESCRIPTION ADMINISTRATION OF CORK DESCRIPTION OF CORK	UTION CONDARY ITUTION EMIS NUME  VICE ALTERATION SECTION SECTOR STRATION BISSCRIPTION	ONS REME PR	INT OJECT ST/
92 NE	1230023 EW BUILI DCUMEN	SERVE DINGS & A CONTRACT SITATION OF CORK DESCRIPTION OF CORK DESCRIPTION OF CORK DESCRIPTION ADMINISTRATION OF CORK DESCRIPTION OF CORK DESCRIPTION ADMINISTRATION OF CORK DESCRIPTION OF CORK	UTION CONDARY ITUTION EMIS NUME  VICE ALTERATIO - SECTION SPENS CTURAL DN - SUB DIVISION STRATION BI	ONS REME PR	NT OJECT ST/ 3
92  NE  D(	1230023 EW BUILI DCUMEN	SERVE DINGS & A CONTRACT SITATION OF CORK DESCRIPTION OF CORK DESCRIPTION OF CORK DESCRIPTION ADMINISTRATION OF CORK DESCRIPTION OF CORK DESCRIPTION ADMINISTRATION OF CORK DESCRIPTION OF CORK	UTION CONDARY ITUTION EMIS NUME  VICE ALTERATION SECTION SECTOR STRATION BISSCRIPTION	ONS REME PR	INT OJECT ST/
92 NE	1230023 EW BUILL DCUMEN  MEDIL FLOOF	SERVE DINGS & A CONTRACT SITATION OF CORK DESCRIPTION OF CORK DESCRIPTION OF CORK DESCRIPTION ADMINISTRATION OF CORK DESCRIPTION OF CORK DESCRIPTION ADMINISTRATION OF CORK DESCRIPTION OF CORK	UTION CONDARY ITUTION EMIS NUME  VICE ALTERATION SECTION SECTOR STRATION BISSCRIPTION	ONS REME PR	INT OJECT ST/
92  NE  D(  FILE No.    DESIGN    SCALE	1230023 EW BUILI DCUMEN  MEDIL FLOOF	INSTITUTE  CANA SEC  INSTITUTE  SERV  DINGS & A  CONTRACT  ITATION & DISCIP  ARCHITEC  ORK DESCRIPTION  DRAWING DE  R, CEILIN  100  RESPONSIBLE F	UTION CONDARY ITUTION EMIS NUME VICE ALTERATION SECTION CONTRACTION STRATION BISSCRIPTION NG & ROCE PROFESSIONAL	ONS REME PR	NT OJECT ST/  3
92  NE  D(  FILE No. DESIGN	1230023 EW BUILI DCUMEN  MEDIL FLOOF	INSTITUTE  CANA SEC  INSTITUTE  SERVINGS & A  CONTRACT  ITATION & DISCIP  ARCHITECT  ORK DESCRIPTION  JM ADMINIST  DRAWING DE  R, CEILIN  100	UTION CONDARY ITUTION EMIS NUME VICE ALTERATION SECTION CONTRAL DIVISION STRATION BISSCRIPTION NG & ROO	ONS REME PR	NT OJECT ST/ 3
92  NE  D(  FILE No.    DESIGN    SCALE	1230023 EW BUILI DCUMEN  MEDIL FLOOF	INSTITUTE  CANA SEC  INSTITUTE  SERV  DINGS & A  CONTRACT  ITATION & DISCIP  ARCHITEC  ORK DESCRIPTION  DRAWING DE  R, CEILIN  100  RESPONSIBLE F	UTION CONDARY ITUTION EMIS NUME VICE ALTERATION SECTION CONTRACTION STRATION BISSCRIPTION NG & ROCE PROFESSIONAL	ONS REME PR	NT OJECT ST.  3

CONSULTANT

CONTRACTOR

2020 61- MAD- 100

AUTO CAD

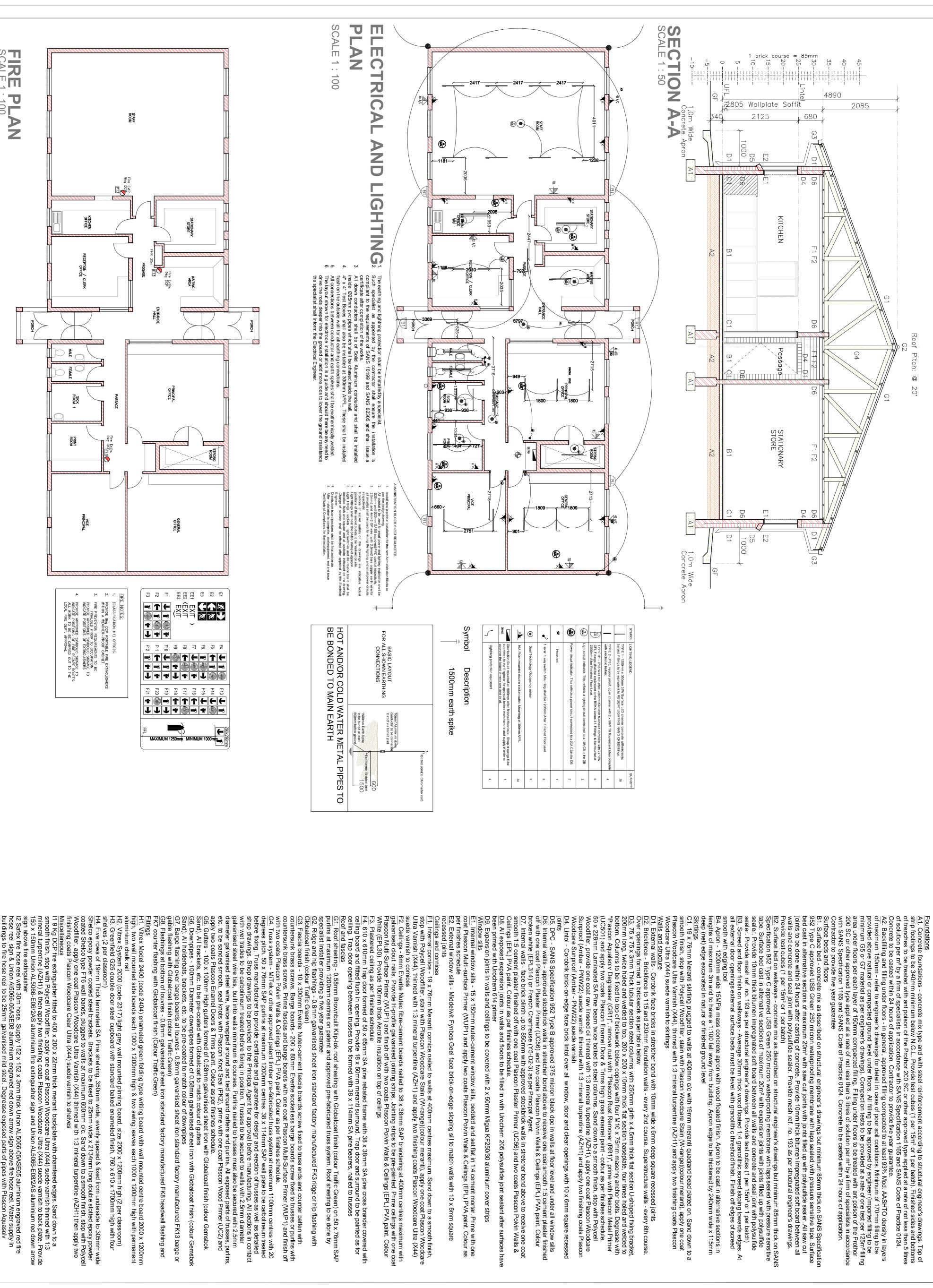
ruben reddy architects

Suite 4 No 6 Ismini Office Building, 6 Ismini Street, Polokwane, D699 South Africa Tel: +27 15 065 0645, Fox: +27 11 475 8364, Email: infogrubenreddyarch.co.zo Web: www.rubenreddyarch.co.zo

DRAWN

CHECKED

PR NUMBER



## CONSTRUCTION NOTES

ement according to structural engineer's drawings. Top of se (1 per 15m³ or 1 per batch). Finished sides and bottoms her approved type applied at a rate of not less than 5 litres specification 1165 and SANS Code of Practice 0124. Provide five year guarantee.

Sompacted to at least 93% Mod. AASHTO density in layers of poor soil conditions. Minimum of 170mm filling to be selling to be approved by engineer (imported filling to be under floors to be treated with ant poison of the Prothor res of solution per m² by a firm of specialists in accordance uncrete to be casted within 24 hours of application.

design
5) 2 x coats sealant on all exposed trusses (sand off all SABS & other markings)
markings
6) 50 mm mineral wool insulation to be installed where there are ceilings
Bubble plastic insulation with foil backing to be installed with wire supports in all areas that do not have ceilings
7) West Facing Facades to have standardised aluminium louvres from below eaves to drop of 1200 mm
8) Trusses to be designed in accordance with SABS 0400 & approved by Project Engineers

1) Workmanship to comply with Standard Specification of materials methods to be used - SABS 0400
2) Light Switch in Disabled tollet to be at 1200 mm above FFL 3) If Step over 900 mm Build in Balustrade 4) Gulley positions to be determined as per site prescribed overall draina design

f site prescribed overall drainage (sand off all SABS & other

**NOTES** 

n meranti quadrand bead plated on. Sand down to a Stain (W-range)(colour meranti), apply one coat e (AZH1) and apply two finishing coats Plascon

Skirtings
C1. 19 x 76mm Meranti skirting plugged to walls at 400mm c/c with 19mm meranti quadrand bead plated on. Sand down to a smooth finish, stop with Polycell Woodfiller, stain with Plascon Woodcare Stain (W-range)(colour meranti), apply one coat Plascon Woodcare Ultra (X44) suede varnish (X44), thinned with 1:3 mineral turpentine (AZH1) and apply two finishing coats Plascon Woodcare Ultra (X44) suede varnish to skirtings

Walls and structure
D1. External walls - Corobrik face bricks in stretcher bond with 10mm wide x 6mm deep square recessed joints
D2. Brickforce - Brickforce to 115 and 230mm foundation walls - every 2nd course. Superstructure walls - every 6th course.
Over openings formed in brickwork as per table below
D3. 75 x 75 x 3mm Thick tubular section steel columns with 250mm girth x 4.5mm thick flat section U-shaped fixing bracket, 200mm long, twice holed and welded to top, 200 x 200 x 10mm thick flat section baseplate, four times holed and welded to bottom. Columns to be fixed to top of brickwork below copings with four M10 x 75mm masonry anchor bolts. Degrease with "Plascon Aqualsolv Degreaser (GR1)", remove rust with "Plascon Rust Remover (RR1)", prime with Plascon Metal Primer (UC301) and apply two coats Plascon Enamel Door & Trims high gloss enamel paint - colour as per finishes schedule.
50 x 228mm Laminated SA Pine beam twice bolted to steel columns. Sand down to a smooth finish, stop with Polycell Woodfiller, provide one coat raw linseed oil thinned with 1:3 mineral turpentine (AZH1), apply one coat Plascon Woodcare Sunproof (Amber - PNW22) suede varnish
D4. Lintol - Corobrik brick-on-edge face brick lintol over all window, door and clear openings with 10 x 6mm square recessed loints jirth x 4.5mm thick flat section U-shaped fixing bracket, flat section baseplate, four times holed and welded to our M10 x 75mm masonry anchor bolts. Degrease with st Remover (RR1)", prime with Plascon Metal Primer ss enamel paint - colour as per finishes schedule. Sand down to a smooth finish, stop with Polycell curpentine (AZH1), apply one coat Plascon Woodcare prentine (AZH1) and apply two finishing coats Plascon

and clear openings with 10 x 6mm square recessed

5. DPC - SANS Specification 952 Type B approved 375 micron black dpc in walls at floor level and under all window sills 6. Internal walls - approved stockbrick walls in stretcher bond above to receive one coat smooth 1:5 cement plaster finished f with one coat Plascon Plaster Primer (UC56) and two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour oken white (EPL314) or French Chartreuse (Y5-D2-3) as per Principal Agent 7. Internal walls - face brick plinth up to 850mm with approved stockbrick walls in stretcher bond above to receive one coat mooth 1:5 cement plaster finished off with one coat Plascon Plaster Primer (UC56) and two coats Plascon Polvin Walls & eilings (EPL) PVA paint. Colour as per finishes schedule.

8. All exposed expansion joints in walls and floors to be filled in with Urochem 205 polysulfide joint sealant after surfaces have en primed with Urochem 614 primer

9. Expansion joints in walls and ceilings to be covered with 2 x 50mm Migua KF250/30 aluminium cover strips findow sills

PLAN EXAMINER
FIRE CONTROL
ENVIRONMENTAL OFFICER
ROADS / STORMWATER
WATER AND SANITATION
ENVIRONMENTAL OFFICER

SIGNATURE TABLE

Internal window sills - 15 x 150mm nutec-cement window sills, bedded and set flat in 1:4 cement mortar. Prime with one at Plascon Multi-surface Primer (WUP1) and apply two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour as External window sills - Middelwit Fynbos Geel face brick-on-edge slopints

REV No

DATE :

DESCRIPTION

SIZE ON ORIGINAL DRAWING 100 mm

LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

**Public Works** 

NEW BUILDINGS & ALTERATIONS

921230023

INSTITUTION
CHITA KEKANA SECONDARY SCHOOL
INSTITUTION EMIS NUMBER

CONTRACT - SECTION

DOCUMENTATION & PROCUREMENT

ARCHITECTURAL

ttings 1. Vitrex Model 2400 (code 2404) enameled green folding type writing board with wall mounted centre board 2000 x 1200mm gh, two wall mounted side boards each 1000 x 1200mm high & two swing leaves each 1000 x 1200mm high with permanent

h, two wall mounted side boards each 1000 x 1200mm high & two swing leaves each 1000 x 1200mm high with permanent minium chalk rail

Vitrex System 2000 (code 2317) light grey wall mounted pinning board, size 2000 x 1200mm high (2 per classroom)

Greenfield G25 double door steel cupboard with standard baked enameled finish, 760 x 610 x 1700mm high with four sives (2 per classroom)

Five rows of 19mm Thick laminated SA Pine shelving, 350mm wide, evenly spaced & fixed from underside to 305mm wide elco epoxy powder coated steel brackets. Brackets to be fixed to 25mm wide x 2134mm long double slotted epoxy powder ated Shelco type FT6 wall bands, plugged to walls at maximum 600mm c/c. Sand down to a smooth finish, stop with Polycell bodfiller, apply one coat Plascon Woodcare Ultra Varnish (X44) thinned with 1:3 mineral turpentine (AZH1) then apply two shing coats Plascon Woodcare Clear Ultra (X44) suede varnish to shelves

ckplate with chamfered edges. Sand down to a dcare Ultra (X44) suede varnish thinned with 1:3 lcare Ultra (X44) suede varnish to back plate. Provide Union AL5066-E08/2AS aluminium red down arrow

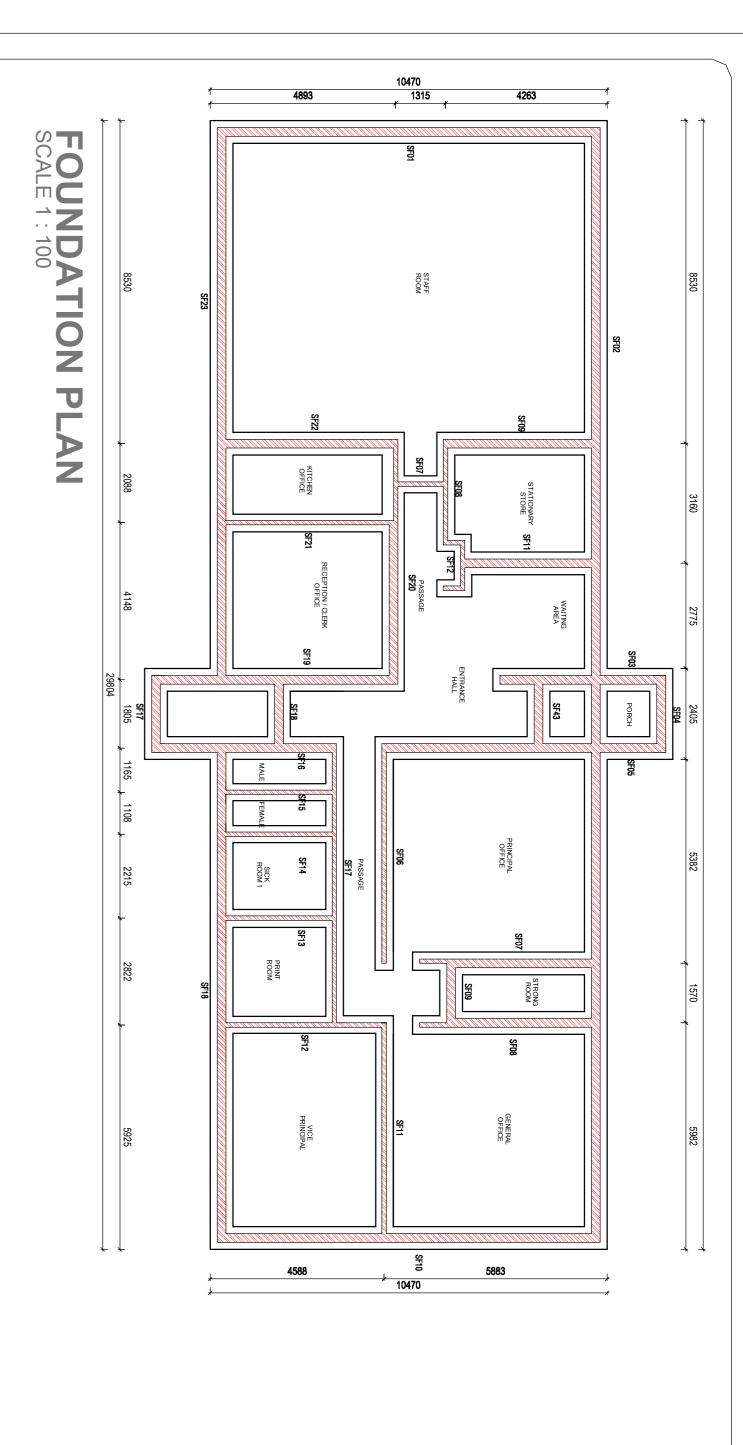
SYSTEM

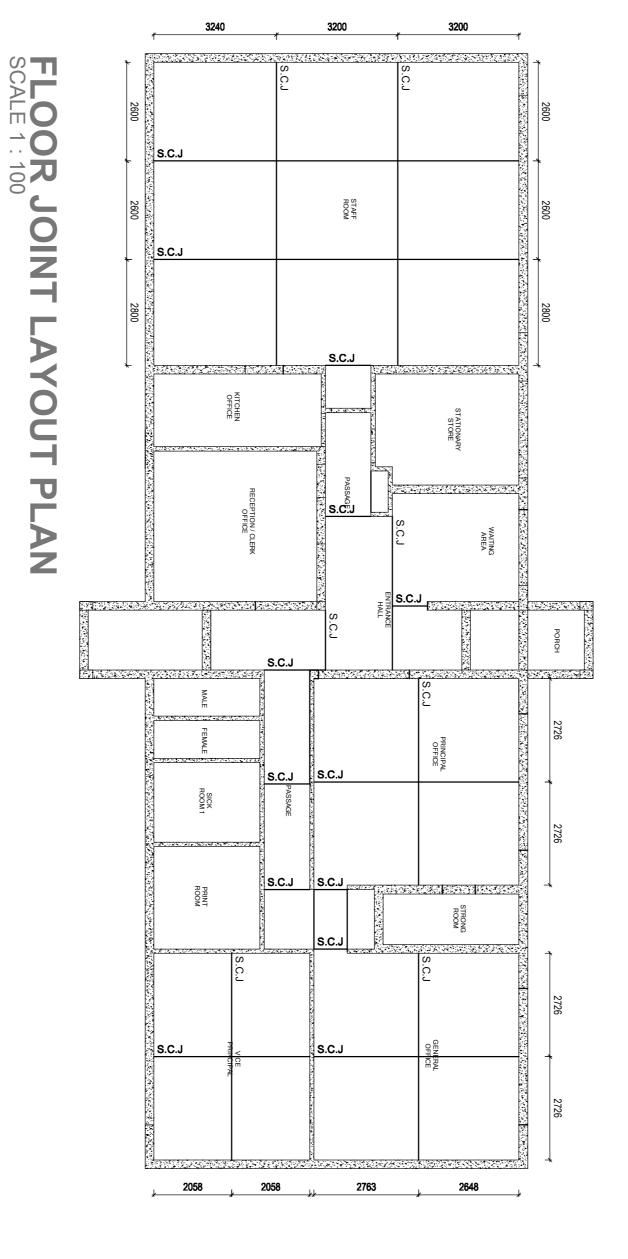
2020\_61- MAD- 101

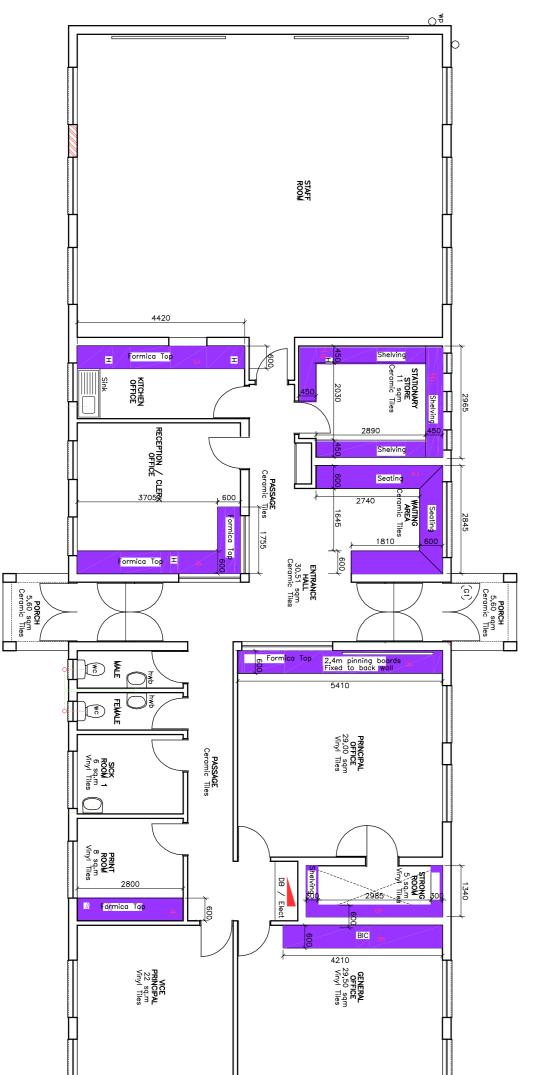
 $\triangleright$ 

DRAWING NUMBER

n AL5066-06ASE05 aluminium engraved red fire rrow sign above fire hose reel. Water supply in posed parts of pipes with Plascon Aquasolv me with Plascon Metal Primer (UC501) and apply two (G7). Provide 150 x 150mm Union AL5066-E05/2AS ign above fire hose reel. SECTION, ELECTRICAL AND FIRE PLAN ruben reddy architects MEDIUM ADMINISTRATION BLOCK Suite 4 No 6 Ismini Office 6 Ismini Street, Polokwane, D85 Tel: +27 I 5 085 0.645, Fox: +2 Email: info@rubenreddyor. Web: www.rubenreddyor. CONTRACTOR RESPONSIBLE PROFESSIONAL SIGNATURE DRAWING CO-ORDINATED CONSULTANT Office Building, p. D699 South Africa x: +27 11 475 8364, eddyarch.co.za PR NUMBER







PLAN

## CONSTRUCTION NOTES

design
5) 2 x coats sealant on all exposed trusses (sand off all SABS & other markings)
6) 50 mm mineral wool insulation to be installed where there are ceilings .
Bubble plastic insulation with foil backing to be installed with wire supports in all areas that do not have ceilings
7) West Facing Facades to have standardised aluminium louvres from below eaves to drop of 1200 mm
8) Trusses to be designed in accordance with SABS 0400 & approved by Project Engineers

Workmanship to comply with Standard Specification of methods to be used - SABS 0400
 Light Switch in Disabled toilet to be at 1200 mm above FI 3 If Step over 900 mm Build in Balustrade
 Gulley positions to be determined as per site prescribed design.

of material and le FFL

r site prescribed overall drainage (sand off all SABS & other

**NOTES** 

nent according to structural engineer's drawings. Top of (1 per 15m³ or 1 per batch). Fini shed sides and bottoms or approved type applied at a rate of not less than 5 litres ecification 1165 and SANS Code of Practice 0124. vide five year guarantee. pacted to at least 93% Mod. AASHTO density in layers poor soil conditions. Minimum of 170mm filling to be ng to be approved by engineer (imported filling to be tests to be provided at a rate of one test per 125m² filling der floors to be treated with ant poison of the Prothor s of solution per m² by a firm of specialists in accordance rete to be casted within 24 hours of application.

awings but minimum 85mm thick on SANS Specification with laps sealed with pressure sensitive tape. Surface ith joints filled up with polysulfide sealer. All saw cut m thick bitumen impregnated soft board between all ref. no. 193 as per structural engineer's drawings.

area under floors per each layer of 150mm compacted filling. Filling under floors to be treated with ant poison of the Prothor 200 SC or other approved type applied at a rate of not less than 5 litres of solution per m² by a firm of specialists in accordance with SANS Specification 1165 and SANS Code of Practice 0124. Concrete to be casted within 24 hours of application. Contractor to provide five year guarantee

Surface beds and floors

B1. Surface bed - concrete mix as described on structural engineer's drawings but minimum 85mm thick on SANS Specification 952 Type C approved USB Green 250 micron waterproofing membrane with laps sealed with pressure sensitive tape. Surface bed cast in alternative sections of maximum 20m² with saw cut joints with joints filled up with polysulfide sealer. All saw cut joints to be done within 24 hours after casting of concrete. Provide 10mm thick bitumen impregnated soft board between all walls and concrete and seal joint with polysulfide sealer. Provide test cubes (1 per 15m² or 1 per batch)

B2. Surface bed on walkways - concrete mix as described on structural engineer's drawings but minimum 85mm thick on SANS Specification 952 Type C approved USB Green 250 micron waterproofing membrane with laps sealed with pressure sensitive tape. Surface bed cast in alternative sections of maximum 20m² with expansion joints with joints filled up with polysulfide sealer. Provide 10mm thick bitumen impregnated soft board between all walls and concrete and seal joint with polysulfide sealer. Provide mesh ref. no. 193 as per structural engineer's drawings. Provide test cubes (1 per 15m² or 1 per batch)

B3. Screed and floor finish on walkways - Average 30mm thick wood floated 1.4 granolithic screed sloping towards edges. At all external door penings external surface beds must be level with granolithic threshold finish. Finish off edges of screed smooth with edging tool

B4. Apron - 1200mm wide 15MPa mass concrete apron with wood floated finish. Apron to be cast in alternative sections in length al engineer's drawings but minimum 85mm thick on SANS ofing membrane with laps sealed with pressure sensitive expansion joints with joints filled up with polysulfide all walls and concrete and seal joint with polysulfide gs. Provide test cubes (1 per 15m³ or 1 per batch) floated 1:4 granolithic screed sloping towards edges. At ranolithic threshold finish. Finish off edges of screed

n meranti quadrand bead plated on. Sand down to a Stain (W-range)(colour meranti), apply one coat e (AZH1) and apply two finishing coats Plascon

Skirtings

C1. 19 x 76mm Meranti skirting plugged to walls at 400mm c/c with 19mm meranti quadrand bead plated on. Sand down to a smooth finish, stop with Polycell Woodfiller, stain with Plascon Woodcare Stain (W-range)(colour meranti), apply one coat Plascon Woodcare Ultra Varnish (X44), thinned with 1:3 mineral turpentine (AZH1) and apply two finishing coats Plascon Woodcare Ultra (X44) suede varnish to skirtings

Walls and structure

D1. External walls - Corobrik face bricks in stretcher bond with 10mm wide x 6mm deep square recessed joints

D2. Brickforce - Brickforce to 115 and 230mm foundation walls - every 2nd course. Superstructure walls - every 6th course.

Over openings formed in brickwork as per table below

D3. 75 x 75 x 3mm Thick tubular section steel columns with 250mm girth x 4.5mm thick flat section U-shaped fixing bracket, 200mm long, twice holed and welded to top, 200 x 200 x 10mm thick flat section baseplate, four times holed and welded to bottom. Columns to be fixed to top of brickwork below copings with four M10 x 75mm masonry anchor bolts. Degrease with "Plascon Aqualsolv Degreaser (GR1)", remover rust with "Plascon Rust Remover (RR1)", prime with Plascon Metal Primer (UC501) and apply two coats Plascon Enamel Door & Trims high gloss enamel paint - colour as per finishes schedule.

S0 x 228mm Laminated SA Pine beam twice bolted to steel columns. Sand down to a smooth finish, stop with Polycell Woodfiller, provide one coat raw linseed oil thinned with 1:3 mineral turpentine (AZH1), apply one coat Plascon Woodcare Sunproof (Amber - PNW22) suede varnish

D4. Lintol - Corobrik brick-on-edge face brick lintol over all window, door and clear openings with 10 x 6mm square recessed lints rth x 4.5mm thick flat section U-shaped fixing bracket, lat section baseplate, four times holed and welded to r M10 x 75mm masonry anchor bolts. Degrease with t Remover (RR1)", prime with Plascon Metal Primer senamel paint - colour as per finishes schedule. Sand down to a smooth finish, stop with Polycell rpentine (AZH1), apply one coat Plascon Woodcare pentine (AZH1) and apply two finishing coats Plascon and clear openings with 10 x 6mm square recessed

Internal walls - approved stockbrick walls in stretcher bond above to receive one coat smooth 1:5 cement plaster finished with one coat Plascon Plaster Primer (UC56) and two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour ken white (EPL314) or French Chartreuse (Y5-D2-3) as per Principal Agent Internal walls - face brick plinth up to 850mm with approved stockbrick walls in stretcher bond above to receive one coat lings (EPL) PVA paint. Colour as per finished off with one coat Plascon Plaster Primer (UC56) and two coats Plascon Polvin Walls & illings (EPL) PVA paint. Colour as per finishes schedule.

[All exposed expansion joints in walls and floors to be filled in with Urochem 205 polysulfide joint sealant after surfaces has an approach with Urochem 614 primer (DC56) and two coats Plascon Polvin Walls and sellings to be covered with 2 x 50mm Migua KF250/30 aluminium cover strips and become sills.

nternal window sills - 15 x 150mm nutec-cement window sills, bedded and set flat in 1:4 cement mortar. Prime with one Plascon Multi-surface Primer (WUP1) and apply two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour as external window sills - Middelwit Fynbos Geel face brick-on-edge אוויסיים בייים ביים בייים ביים בייים ביים בייים בייים בייים בייים בייים ביים ביים ביים ביים ביים ביים ב

<u>ttings</u> 1. Vitrex Model 2400 (code 2404) enameled green folding type writing board with wall mounted centre board 2000 x 1200m gh, two wall mounted side boards each 1000 x 1200mm high & two swing leaves each 1000 x 1200mm high with permane

h, two wall mounted side boards each 1000 x 1200mm high & two swing leaves each 1000 x 1200mm high with perman minium chalk rail

Vitrex System 2000 (code 2317) light grey wall mounted pinning board, size 2000 x 1200mm high (2 per classroom)

Greenfield G25 double door steel cupboard with standard baked enameled finish, 760 x 610 x 1700mm high with four sives (2 per classroom)

Five rows of 19mm Thick laminated SA Pine shelving, 350mm wide, evenly spaced & fixed from underside to 305mm velco epoxy powder coated steel brackets. Brackets to be fixed to 25mm wide x 2134mm long double slotted epoxy powdered shelco type FT6 wall bands, plugged to walls at maximum 600mm c/c. Sand down to a smooth finish, stop with Polyodfiller, apply one coat Plascon Woodcare Ultra Varnish (X44) thinned with 1:3 mineral turpentine (AZH1) then apply two shing coats Plascon Woodcare Clear Ultra (X44) suede varnish to shelves evenly spaced & fixed from underside to 305mm winn wide x 2134mm long double slotted epoxy powden c/c. Sand down to a smooth finish, stop with Polyc with 1:3 mineral turpentine (AZH1) then apply two /es

ckplate with chamfered edges. Sand down to a dcare Ultra (X44) suede varnish thinned with 1:3 lcare Ultra (X44) suede varnish to back plate. Provind Union AL5066-E08/2AS aluminium red down arro

n AL5066-06ASE05 aluminium engraved red fire rrow sign above fire hose reel. Water supply in posed parts of pipes with Plascon Aquasolv me with Plascon Metal Primer (UC501) and apply two (G7). Provide 150 x 150mm Union AL5066-E05/2AS ign above fire hose reel. minium engraved red fire e reel. Water supply in t Plascon Aquasolv

SYSTEM

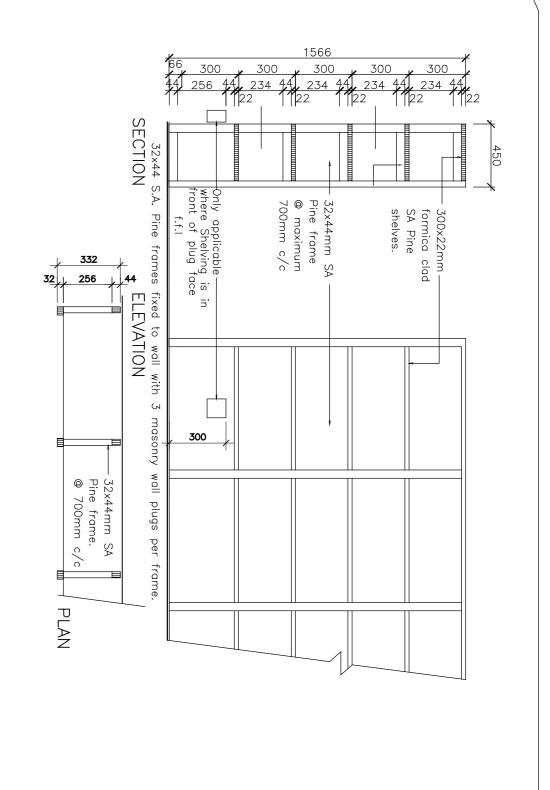
2020\_61- MAD- 102

⋗

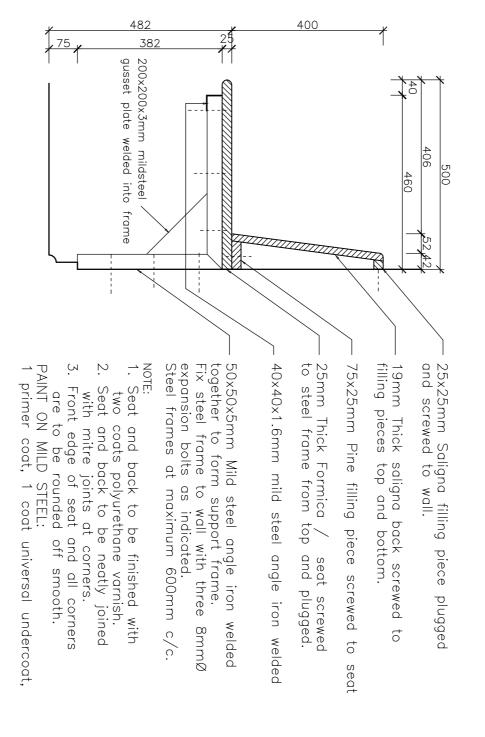
6 Ismini Tel: +27

South Africa 11 475 8364, h.co.za

		DATE	SCALE 1:	FILE No.	FOUNDATION	MEDIUM	W	•	DOCUMEN	NEW BUILDINGS & ALTERATIONS	921230023		CHITA KEKANA			SIZE	5	REV No DATE:	ENVIRONMENTAL OFFICER	ROADS / STORMWATER	FIRE CONTROL  ENVIRONMENTAL OFFICER	PLAN EXAMINER	CLIENT	DISCIPLINE
CONSULTANT	DRAWING CO-ORDINATED	NAME TAGE	1: 100		PL	M ADMINISTRATION OF THE PROPERTY OF THE PROPER	WORK DESCRIPTION - SUB DIVISION	ARCHITECTURAL	TATION &	DINGS & AL	SERVICE			Public Works	LIMI PROVINCIAL OF	ON OR	REVISIONS							SIGNATURE
	RDINATED	SIGNATURE	ALL SOLD IN THE SO		AN, JOINT & JOINERY	ADMINISTRATION BLOCK	- SUB DIVISION	[URAL	DOCUMENTATION & PROCUREMENT	_TERATION		INSTITUTION EMIS NUMBER	NSTITUTION SECONDARY SCHOOL	Works	APOPC	AWING 100 mm	S	DESCRIPTION:						DATE



## DETAIL 1 Section Scale -i Ω :>0 0 STORE ROOM SHELVES



seating

DETAIL

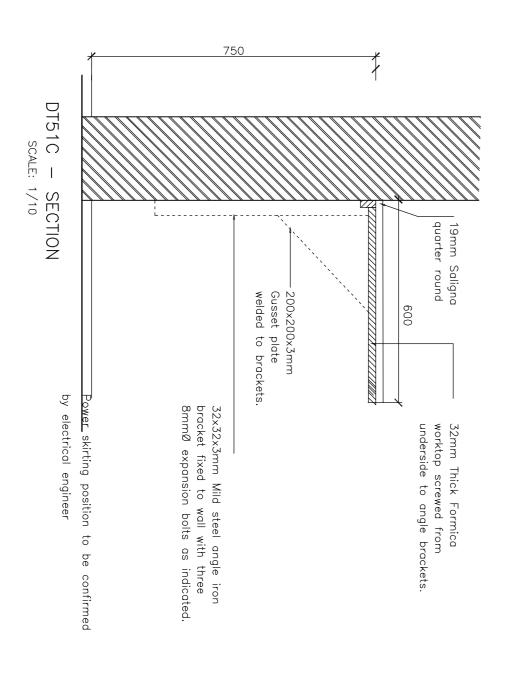
WAITING

AREA

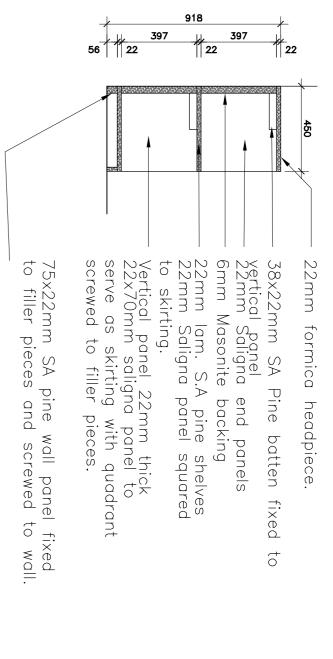
Section

Scale

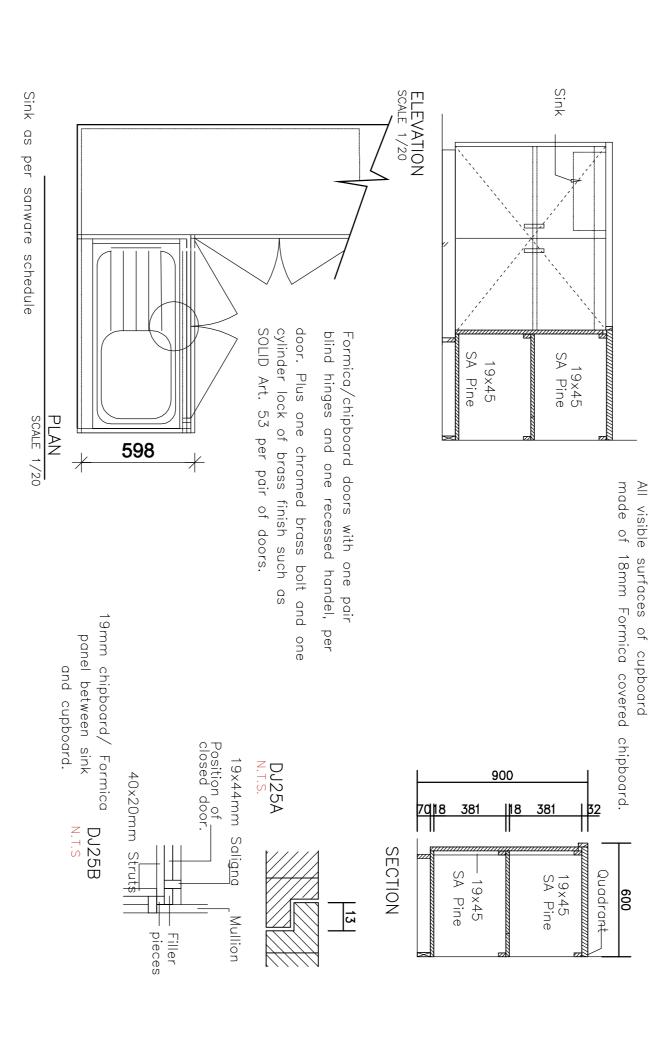
1:20



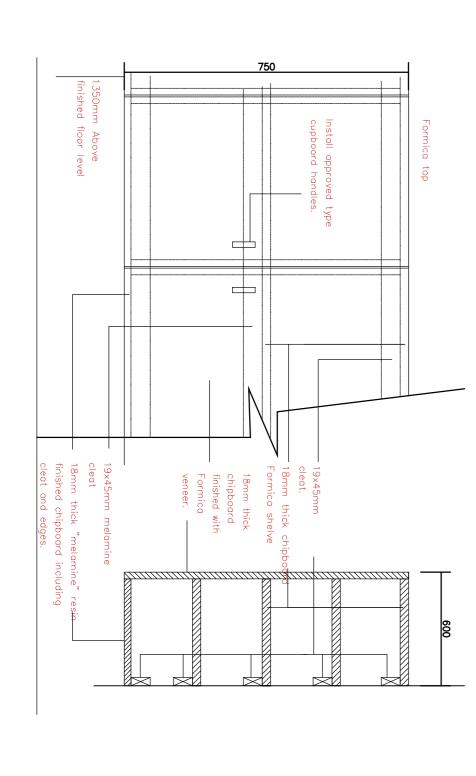
DETAIL 4
Section Scale 1:20 ormica  $\frac{1}{0}$ counters



## DETAIL Section S C Q \_\_\_\_\_ → O SHELVES



DETAIL Section Sc Scale 3 3 Kitchen 1:20 Cupboards



DETAIL 6 Section Scale 1:20 Office 

## CONSTRUCTION NOTES

5) 2 x coats sealant on all exposed trusses (sand off all SABS & other markings)
6) 50 mm mineral wool insulation to be installed where there are ceilings.
Bubble plastic insulation with foil backing to be installed with wire supports in all areas that do not have ceilings
7) West Facing Facades to have standardised aluminium louvres from below eaves to drop of 1200 mm
8) Trusses to be designed in accordance with SABS 0400 & approved by Project Engineers

1) Workmanship to comply with Standard Specification of materials methods to be used - SABS 0400
2) Light Switch in Disabled tollet to be at 1200 mm above FFL 3) If Step over 900 mm Build in Balustrade 4) Gulley positions to be determined as per site prescribed overall draina design

r site prescribed overall drainage (sand off all SABS & other

**NOTES** 

nent according to structural engineer's drawings. Top of (1 per 15m³ or 1 per batch). Fini shed sides and bottoms or approved type applied at a rate of not less than 5 litres ecification 1165 and SANS Code of Practice 0124. vide five year guarantee. pacted to at least 93% Mod. AASHTO density in layers poor soil conditions. Minimum of 170mm filling to be ng to be approved by engineer (imported filling to be tests to be provided at a rate of one test per 125m² filling der floors to be treated with ant poison of the Prothor s of solution per m² by a firm of specialists in accordance rete to be casted within 24 hours of application.

A2. Backfilling and filling under floors in general approved tilling compacted to be casted within 24 hours of application. Contractor to provide five year guarantee.

A2. Backfilling and filling under floors in general, approved filling compacted to at least 33% Mod. AASHTO density in layers of maximum 150mm - refer to engineer's drawings for detail in case of poor soil conditions. Minimum of 170mm filling to be provided above natural or compacted ground level under floors. All filling to be approved by engineer (imported filling to be provided above natural or compacted ground level under floors. All filling to be approved by engineer (imported filling to be provided above natural or compacted ground level under floors. All filling to be approved by engineer (imported filling to be provided above natural or compacted filling area under floors per each layer of 150mm compacted filling. Filling under floors to be treated with ant poison of the Prothor 200 SC or other approved type applied at a rate of not less than 5 litres of solution per m² by a firm of specialists in accordance with SANS specification 1165 and SANS Code of Practice 0124. Concrete to be casted within 24 hours of application. Confractor to provide tive year guarantee.

B1. Surface bed3 and floors

B1. Surface bed3 and floors

B2. Surface bed4 on walkways - concrete mix as described on structural engineer's drawings but minimum 85mm thick on SANS specification 952 Type C approved USB Green 250 micron waterproofing membrane with laps sealed with pressure sensitive tape. Surface bed on walkways - concrete mix as described on structural engineer's drawings but minimum 85mm thick on SANS specification 952 Type C approved USB Green 250 micron waterproofing membrane with laps sealed with pressure sensitive tape. Surface bed on walkways - concrete mix as described on structural engineer's drawings but minimum 85mm thick on SANS specification 952 Type C approved USB Green 250 micron waterproofing membrane with laps sealed with pressure sensitive tape.

n meranti quadrand bead plated on. Sand down to a Stain (W-range)(colour meranti), apply one coat e (AZH1) and apply two finishing coats Plascon

Skirtings

C1. 19 x 76mm Meranti skirting plugged to walls at 400mm c/c with 19mm meranti quadrand bead plated on. Sand down to a smooth finish, stop with Polycell Woodfiller, stain with Plascon Woodcare Stain (W-range)(colour meranti), apply one coat Plascon Woodcare Ultra (X44) suede varnish (X44), thinned with 1:3 mineral turpentine (AZH1) and apply two finishing coats Plascon Woodcare Ultra (X44) suede varnish to skirtings

Walls and structure

D1. External walls - Corobrik face bricks in stretcher bond with 10mm wide x 6mm deep square recessed joints

D2. Brickforce - Brickforce to 115 and 230mm foundation walls - every 2nd course. Superstructure walls - every 6th course.

Over openings formed in brickwork as per table below

D3. 75 x 75 x 3mm Thick tubular section steel columns with 250mm girth x 4.5mm thick flat section U-shaped fixing bracket, 200mm long, twice holed and welded to top, 200 x 200 x 10mm thick flat section baseplate, four times holed and welded to bottom. Columns to be fixed to top of brickwork below copings with four M10 x 75mm masonry anchor bolts. Degrease with "Plascon Aqualsolv Degreaser (GR1)", remove rust with "Plascon Rust Remover (RR1)", prime with Plascon Metal Primer (UC501) and apply two coats Plascon Enamel Door & Trims high gloss enamel paint - colour as per finishes schedule.

50 x 228mm Laminated SA Pine beam twice bolted to steel columns. Sand down to a smooth finish, stop with Polycell Woodfiller, provide one coat raw linseed oil thinned with 1:3 mineral turpentine (AZH1), apply one coat Plascon Woodcare Sunproof (Amber - PNW22) suede varnish thinned with 1:3 mineral turpentine (AZH1) and apply two finishing coats Plascon Woodcare Sunproof (Amber - PNW22) suede varnish

D4. Lintol - Corobrik brick-on-edge face brick lintol over all window, door and clear openings with 10 x 6mm square recessed brints at section baseplate, four times holed and welded to rr M10 x 75mm masonry anchor bolts. Degrease with Remover (RR1)", prime with Plascon Metal Primer enamel paint - colour as per finishes schedule. Sand down to a smooth finish, stop with Polycell rpentine (AZH1), apply one coat Plascon Woodcare pentine (AZH1) and apply two finishing coats Plascon and clear openings with 10 x 6mm square recessed

DPC - SANS Specification 952 Type B approved 375 micron black dpc in walls at floor level and under all window sills internal walls - approved stockbrick walls in stretcher bond above to receive one coat smooth 1:5 cement plaster finished with one coat Plascon Plaster Primer (UC56) and two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour ken white (EPL314) or French Chartreuse (Y5-D2-3) as per Principal Agent Internal walls - face brick plinth up to 850mm with approved stockbrick walls in stretcher bond above to receive one coat looth 1:5 cement plaster finished off with one coat Plascon Plaster Primer (UC56) and two coats Plascon Polvin Walls & illings (EPL) PVA paint. Colour as per finishes schedule.

All exposed expansion joints in walls and floors to be filled in with Urochem 205 polysulfide joint sealant after surfaces have a primed with Urochem 614 primer.

Expansion joints in walls and ceilings to be covered with 2 x 50mm Migua KF250/30 aluminium cover strips and receive the primer wills.

PLAN EXAMINER
FIRE CONTROL
ENVIRONMENTAL OFFICER
ROADS / STORMWATER
WATER AND SANITATION
ENVIRONMENTAL OFFICER

SIGNATURE TABLE

nternal window sills - 15 x 150mm nutec-cement window sills, bedded and set flat in 1:4 cement mortar. Prime with one Plascon Multi-surface Primer (WUP1) and apply two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour as nishes schedule External window sills - Middelwit Fynbos Geel face brick-on-edge sloping sill to match walls with 40 - 0

REV No

DATE :

DESCRIPTION

SIZE ON ORIGINAL DRAWING 100 mm

LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

**Public Works** 

Ceilings and cornices
Ef. Internal cornices
Ff. Internal cornices
Stop with Polyceil Woodfiller, stain with Plascon Woodcare Stain (W-range) (colour merant), apply one coal Plascon Woodcare
Ultra Varnish (X44), thinned with 1.3 mineral turpentine (AZH1) and apply we finishing coats Plascon Woodcare Ultra (X44)
sucke varnish to cornices
Ff. Ceilings - form Evente Nutec fibre-cement boards nailed to 38 x 38mm SAP brandering at 400mm centres maximum with
galvanised court hals. Provide H profile galvanised jointing strips. Jointing strips to be pre-painted. Prime ceiling such that for the provide H profile galvanised jointing strips. Jointing strips to be pre-painted. Prime ceilings with one coat
Plascon Multi-Surface Prince (WUPT) and finish of with two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour
White (EPL30). Provide 100mm thick Aerolite insulation on top of ceilings.
Ff. 1610 x 610mm Trap door opening between trusses to be formed with 38 x 114mm SA pine beares, nalled to trusses brander covered with
Ff. 1610 x 610mm Trap door opening between trusses to be formed with 38 x 114mm SA pine beares, nalled to trusses brander covered with 38 x 114mm SA pine beares, nalled to trusses brander covered with 38 x 114mm SA pine beares, nalled to trusses brander covered with 38 x 114mm SA pine beares, nalled to trusses brander covered with 38 x 114mm SA pine beares, nalled to trusses brander covered with 39 x 114mm SA pine beares, nalled to trusses brander covered with 39 x 114mm SA pine beares, nalled to trusses brander covered with 39 x 114mm SA pine beares, nalled to trusses brander covered with 50 x 114mm SA pine beares, nalled to trusses brander covered with 50 x 114mm SA pine beares, nalled to trusses brander covered with 50 x 114mm SA pine beares, nalled to trusses as with 50 x 50mm SA pine beares with 50 x 50mm SA pine beares with 50 x 50mm SA pine beares with 50 x 50mm

CONTRACT - SECTION

DOCUMENTATION & PROCUREMENT

NEW BUILDINGS & ALTERATIONS

921230023

INSTITUTION
CHITA KEKANA SECONDARY SCHOOL
INSTITUTION EMIS NUMBER

<u>ttings</u> 1. Vitrex Model 2400 (code 2404) enameled green folding type writing board with wall mounted centre board 2000 x 1200mm gh, two wall mounted side boards each 1000 x 1200mm high & two swing leaves each 1000 x 1200mm high with permanent

ninium chalk rail

Vitrex System 2000 (code 2317) light grey wall mounted pinning board, size 2000 x 1200mm high with permar Greenfield G25 double door steel cupboard with standard baked enameled finish, 760 x 610 x 1700mm high with four lives (2 per classroom)

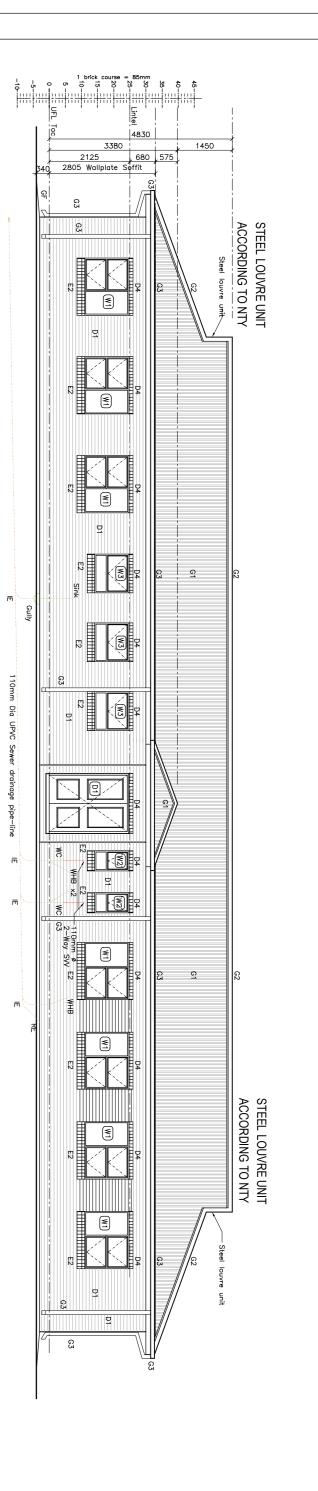
Five rows of 19mm Thick laminated SA Pine shelving, 350mm wide, evenly spaced & fixed from underside to 305mm in Five rows powder coated steel brackets. Brackets to be fixed to 25mm wide x 2134mm long double slotted epoxy powded to type FT6 wall bands, plugged to walls at maximum 600mm c/c. Sand down to a smooth finish, stop with Polodfiller, apply one coat Plascon Woodcare Ultra Varnish (X44) thinned with 1:3 mineral turpentine (AZH1) then apply two shing coats. evenly spaced & fixed from underside to 305mm wide m wide x 2134mm long double slotted epoxy powder m c/c. Sand down to a smooth finish, stop with Polycell d with 1:3 mineral turpentine (AZH1) then apply two lves

ckplate with chamfered edges. Sand down to a dcare Ultra (X44) suede varnish thinned with 1:3 lcare Ultra (X44) suede varnish to back plate. Provide ld Union AL5066-E08/2AS aluminium red down arrow

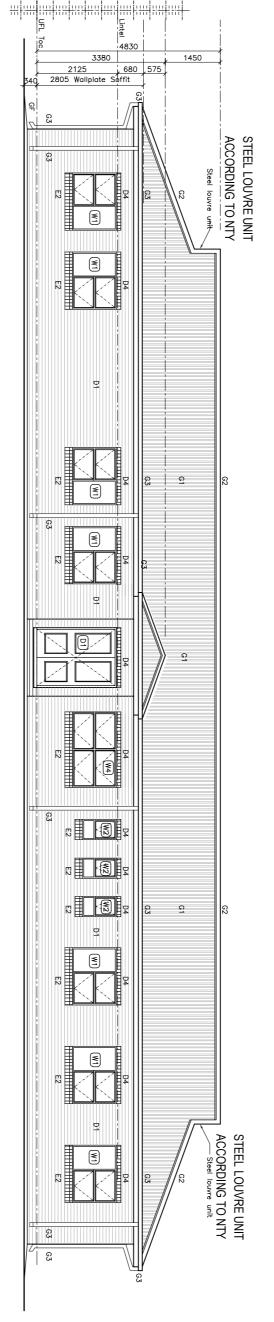
n AL5066-06ASE05 aluminium engraved red fire rrow sign above fire hose reel. Water supply in posed parts of pipes with Plascon Aquasolv me with Plascon Metal Primer (UC501) and apply two (G7). Provide 150 x 150mm Union AL5066-E05/2AS ign above fire hose reel. minium engraved red fire e reel. Water supply in n Plascon Aquasolv SYSTEM FILE No.
DESIGN
SCALE DATE ruben reddy architects MEDIUM ADMINISTRATION BLOCK Suite 4 No 6 Ismini Of 6 Ismini Street, Polokwone, I Tel: +27 15 065 0645, Fox: Email: info@rubenredd JOINERY DETAILS ARCHITECTURAL RESPONSIBLE PROFESSIONAL SIGNATURE DRAWING CO-ORDINATED DRAWING NUMBER CONSULTANT Office Building, p. D699 South Africa x: +27 11 475 8364, eddyarch.co.za PR NUMBER ယ DRAWN

2020\_61- MAD- 103

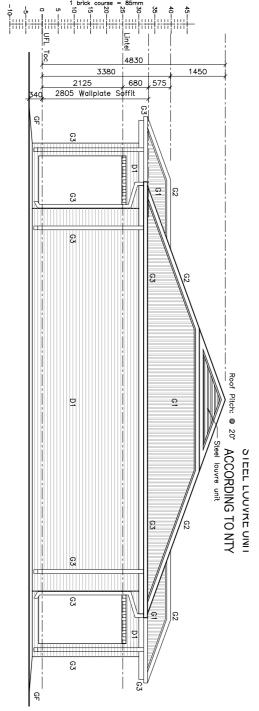
 $\triangleright$ 



## FRONT E П П VATION



## SCALE 1: 100 Ш VATION

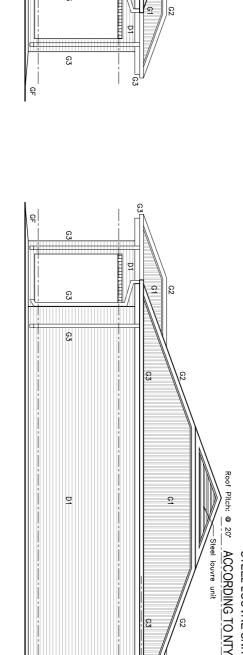


SCALE 1

100

П

ATION



## CONSTRUCTION NOTES

design
5) 2 x coats sealant on all exposed trusses (sarru un and strings)
6) 50 mm mineral wool insulation to be installed where there are ceilings
6) 50 mm mineral wool insulation to be installed with wire supports in all areas that do not have ceilings
7) West Facing Facades to have standardised aluminium louvres from below eaves to drop of 1200 mm
8) Trusses to be designed in accordance with SABS 0400 & approved by Project Engineers

Workmanship to comply with Standard Specification of methods to be used - SABS 0400
 Light Switch in Disabled toilet to be at 1200 mm above FI 3 If Step over 900 mm Build in Balustrade
 Gulley positions to be determined as per site prescribed design.

of material and le FFL

r site prescribed overall drainage (sand off all SABS & other

**NOTES** 

nent according to structural engineer's drawings. Top of (1 per 15m³ or 1 per batch). Fini shed sides and bottoms or approved type applied at a rate of not less than 5 litres ecification 1165 and SANS Code of Practice 0124. vide five year guarantee. pacted to at least 93% Mod. AASHTO density in layers poor soil conditions. Minimum of 170mm filling to be ng to be approved by engineer (imported filling to be tests to be provided at a rate of one test per 125m² filling der floors to be treated with ant poison of the Prothor s of solution per m² by a firm of specialists in accordance rete to be casted within 24 hours of application.

Concrete to be casted within 24 hours of application. Contractor to provide five year guarantee.

A2. Backfilling and filling under floors - in general, approved filling compacted to at least 93% Mod. AASHTO density in layers of maximum 150mm - refer to engineer's drawings for detail in case of poor soil conditions. Minimum of 170mm filling to be provided above natural or compacted ground level under floors. All filling to be approved by engineer in the provided above natural or compacted ground level under floors and fling to be provided at a rate of floor sper each layer of 150mm compacted filling. Fling under floors be reated with ant poison of the Prothor 200 SC or other approved type applied at a rate of not less than 5 litres of solution per m² by a firm of specialists in accordance with SANS Specification 1165 and SANS Code of Practice 0124. Concrete to be casted with ant poison of the Prothor Surface bed - concrete mix as described on structural engineer's drawings but minimum 85mm thick on SANS Specification 952 Type C approved USB Green 250 micron waterproofing membrane with laps sealed with pressure sensitive tape. Surface bed cast in alternative sections of maximum 20m² with saw cut joints with loints filled up with polysulfide sealer. All saw cut joints to be done within 24 hours after casting of concrete. Provide mesh ref. no. 193 as per structural engineer's drawings but minimum 85mm thick on SANS Specification 952 Type C approved USB Green 250 micron waterproofing membrane with laps sealed with pressure sensitive tape. Surface bed on walkways - concrete mix as described on structural engineer's drawings but minimum 85mm thick on SANS Specification 952 Type C approved USB Green 250 micron waterproofing membrane with laps sealed with pressure sensitive sealer. Provide mesh ref. no. 193 as per structural engineer's drawings. Provide test cubes (1 per 15m² or 1 per batch)

B1. Surface bed on walkways - concrete mix as described on structural engineer's drawings but minimum 85mm thick on SANS Specifi

9 x 76mm Meranti skirting plugged to walls at 400mm c/c with 19mm th finish, stop with Polycell Woodfiller, stain with Plascon Woodcare on Woodcare Ultra Varnish (X44), thinned with 1:3 mineral turpentine scare Ultra (X44) suede varnish to skirtings and structure and structure ternal walls - Corobrik face bricks in stretcher bond with 10mm wide rickforce - Brickforce to 115 and 230mm foundation walls - every 2nd n meranti quadrand bead plated on. Sand down to a Stain (W-range)(colour meranti), apply one coat e (AZH1) and apply two finishing coats Plascon

External walls - Corobrik face bricks in stretcher bond with 10mm wide x 6mm deep square recessed joints
Brickforce - Brickforce to 115 and 230mm foundation walls - every 2nd course. Superstructure walls - every 6th course.

75 x 75 x 3mm Thick tubular section steel columns with 250mm girth x 4.5mm thick flat section U-shaped fixing bracket, rmm long, twice holed and welded to top, 200 x 200 x 10mm thick flat section baseplate, four times holed and welded to com. Columns to be fixed to top of brickwork below copings with four M10 x 75mm masonry anchor bolts. Degrease with ascon Aqualsolv Degreaser (GR1)", remove rust with "Plascon Rust Remover (RR1)", prime with Plascon Metal Primer 228mm Laminated SA Pine beam twice bolted to steel columns. Sand down to a smooth finish, stop with Polycell offiller, provide one coat raw linseed oil thinned with 1:3 mineral turpentine (AZH1), apply one coat Plascon Woodcare proof (Amber - PNW22) suede varnish thinned with 1:3 mineral turpentine (AZH1) and apply two finishing coats Plascon codcare Sunproof (Amber - PNW22) suede varnish

Lintol - Corobrik brick-on-edge face brick lintol over all window, door and clear openings with 10 x 6mm square recessed to

Internal walls - approved stockbrick walls in stretcher bond above to receive one coat smooth 1:5 cement plaster finished with one coat Plascon Plaster Primer (UC56) and two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour ken white (EPL314) or French Chartreuse (Y5-D2-3) as per Principal Agent I:5 cement plaster finished off with one coat Plascon Plaster finished off with one coat Plascon Plaster walls in stretcher bond above to receive one coat lings (EPL) PVA paint. Colour as per finishes schedule.

[All exposed expansion joints in walls and floors to be filled in with Urochem 205 polysulfide joint sealant after surfaces haven primed with Urochem 614 primer

[Expansion joints in walls and ceilings to be covered with 2 x 50mm Migua KF250/30 aluminium cover strips]

ternal window sills - 15 x 150mm nutec-cement window sills, bedded and set flat in 1:4 cement mortar. Prime with one lascon Multi-surface Primer (WUP1) and apply two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour as ishes schedule ternal window sills - Middelwit Fynbos Geel face brick-on-edge sloping sill to match walls with 10 x 6mm square sed joints

Cellings and comices

Ft. Internal comices - 19 x 76mm Meranti comice nalled to walls at 400mm centres maximum. Sand down to a smooth finish, stop with Polyceil Woodfiler, stain with Plascon Moodcare Stain (W4-range)(colour merant), apply one coat Plascon Woodcare Ultra Varnish (X44), thinned with 1:3 mineral turpentine (AZH1) and apply two finishing coats Plascon Woodcare Ultra Varnish (X44), thinned with 1:3 mineral turpentine (AZH1) and apply two finishing coats Plascon Woodcare Ultra Varnish (X44), thinned with 1:3 mineral turpentine (AZH1) and apply two finishing coats Plascon Woodcare Ultra (X44) stellade yearnish to comices

FZ. Cellings s form Everte Nutle in the Aprofile galvanised joining stips. Jointing stips to be pre-painted. Prime cellings with one coat Plascon Multi-Stufface Primer (WUP1) and finish off with two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour White (EPL30), Provide 10mm thick Aerolite installation on top of ceilings

F3. Plastered coating as sper finishes scheebule.

F4. 610 x 610mm Trap door formed of 50 x 65mm SA pine rebated frame with 38 x 38mm SA pine cross brander covered with ceiling. Irap door opening between trusses to be formed with 38 x 14mm SA pine between Tursses to the formed with 38 x 14mm SA pine teaters, nalled to trusses Standard and fitted flush in opening. Provide 18 x 50mm meranti surround 17 rap door and surround to be painted as for ceiling. Irap door opening between trusses to be formed with 38 x 14mm SA pine between F1. Sandard flower provides to the formed with 38 x 14mm SA pine teaters, nalled to trusses streams. F1. Sandard flower provides the first of the second with 38 x 14mm SA pine teaters, nalled to trusses streams. F1. Sandard flower provides certificate and proved pre-fabricated truss system. Roof sheeting to be done by specialist installation provides part of the principal Agent to approval before manufacturing 4 sections in contact with wo coats Plascon Polinic WIP-13 and based on the secure of trusses as well as cetalied shop de

<u>ttings</u> 1. Vitrex Model 2400 (code 2404) enameled green folding type writing board with wall mounted centre board 2000 x 1200ml gh, two wall mounted side boards each 1000 x 1200mm high & two swing leaves each 1000 x 1200mm high with permaner

h, two wall mounted side boards each 1000 x 1200mm high & two swing leaves each 1000 x 1200mm high with permarminium chalk rail

Vitrex System 2000 (code 2317) light grey wall mounted pinning board, size 2000 x 1200mm high (2 per classroom)

Greenfield G25 double door steel cupboard with standard baked enameled finish, 760 x 610 x 1700mm high with four lives (2 per classroom)

Five rows of 19mm Thick laminated SA Pine shelving, 350mm wide, evenly spaced & fixed from underside to 305mm velco epoxy powder coated steel brackets. Brackets to be fixed to 25mm wide x 2134mm long double slotted epoxy powd ted Shelco type FT6 wall bands, plugged to walls at maximum 600mm c/c. Sand down to a smooth finish, stop with Polodfiller, apply one coat Plascon Woodcare Ultra Varnish (X44) thinned with 1:3 mineral turpentine (AZH1) then apply two shing coats Plascon Woodcare Clear Ultra (X44) suede varnish to shelves evenly spaced & fixed from underside to 305mm widn wide x 2134mm long double slotted epoxy powdern c/c. Sand down to a smooth finish, stop with Polycy with 1:3 mineral turpentine (AZH1) then apply two /es

in AL5066-06ASE05 aluminium engraved red fire rrow sign above fire hose reel. Water supply in posed parts of pipes with Plascon Aquasolv me with Plascon Metal Primer (UC501) and apply two (G7). Provide 150 x 150mm Union AL5066-E05/2AS ign above fire hose reel. minium engraved red fire e reel. Water supply in 1 Plascon Aquasolv

SYSTEM

2020\_61- MAD- 104

⋗

Suite 4 No 6 Ismini 6 Ismini Street, Polokwane Tel: +27 15 065 0645, Fax Email: info@rubenre

South Africa 11 475 8364, n.co.za .co.za

ddy architects	Cruben reddy al	dcare Ultra (X44) suede varnish thinned with 1:3 lcare Ultra (X44) suede varnish to back plate. Provide nd Union AL5066-E08/2AS aluminium red down arrow
ANT :	CONSULTANT :	ckplate with chamfered edges. Sand down to a
		with 1:3 mineral turpentine (AZH1) then apply two
ORDINATED	DRAWING CO-ORDINATE	n wide x 2134mm long double slotted epoxy powder n c/c. Sand down to a smooth finish, stop with Polycell
SIGNATURE PR NUMBER	DATE NAME	evenly spaced & fixed from underside to 305mm wide
2	1: 100	d, size 2000 x 1200mm high (2 per classroom)
DRAWN	FILE No.	ng leaves each 1000 x 1200mm high with permanent
TIONS	ELEVATION	oard with wall mounted centre board 2000 v 1200mm
SCRIPTION	DRAWING DESCRIPTION	rd factory manufactured FK8 headwall flashing and
MEDIUM ADMINISTRATION BLOCK	MEDIUM ADMINIS	et iron standard factory manufactured FK13 barge or
N SUB DIVISION	WORK DESCRIPTION - SUB DIVISI	sed sheet iron with Globalcoat linish (colour Gemsbok
PROJEC		of gutters
CUREM	DOCUMENTATION & PRO	e with one coat Plascon Wood Primer (UC2) and es schedule.
* SECTION	CONTRACT - SECTION	ters and purlins. All exposed parts of trusses, purlins,
	SERVICE SERVICE	s to be secured to walls with 2.5mm diameter
O I O I Daniel I O III Daniel I	921230023	x 114mm SAP wall plate to be carbolineum treated design and erection of trusses as well as detailed
UECCINDAXT OCTOOL		truss system at maximum 1100mm centres with 20
		s barge boards screw fixed to trusses or purlins with Plascon Multi-Surface Primer (WUP1) and finish off
		ory manufactured FK3 ridge or hip flashing with
Public Works	Public	coat finish (colour Traffic Green) on 50 x 76mm SAP ted truss system. Roof sheeting to be done by
PROVINCIAL GOVERNMENT REPUBLIC OF SOUTH AFRICA	PROVIN REPU	with 38 x 38mm SA pine cross brander covered with ound. Trap door and surround to be painted as for SA pine bearers, nailed to trusses
		m SAP brandering at 400mm centres maximum with g strips to be pre-painted. Prime ceilings with one coat on Polvin Walls & Ceilings (EPL) PVA paint. Colour
DRAWING 100 mm	SIZE ON ORIGINAL DRAWING	two finishing coats Plascon Woodcare Ultra (X44)
DESCRIPTION:	REV No DATE: REVISIONS	n centres maximum. Sand down to a smooth finish, e)(colour meranti), apply one coat Plascon Woodcare
		oing sill to match walls with 10 x 6mm square
		d and set flat in 1:4 cement mortar. Prime with one olvin Walls & Ceilings (EPL) PVA paint. Colour as
	ENVIRONMENTAL OFFICER	igua KF250/30 aluminium cover strips
	ROADS / STORMWATER	ochem 205 polysulfide joint sealant after surfaces have
	ENVIRONMENTAL OFFICER	ner (UC56) and two coats Plascon Polvin Walls &
	FIRE CONTROL	k walls in stretcher bond above to receive one coat
	CLIENT DI AN EXAMINER	olvin Walls & Cellings (EPL) PVA paint. Colour
DATE	DISCIPLINE SIGNATURE	oc in walls at floor level and under all window sills eceive one coat smooth 1:5 cement plaster finished
RE TABLE	SIGNATURE	and clear openings with 10 x omm square recessed

NOTES	FINISH	BURGLAR BARS	FITTINGS	GLASS	WINDOW	AREA	TYPE	NUMBER	Toc (Top or Concrete)		
HEAVY STEEL SECTION	Spot prime defects in pre-primed surfaces with Plascon Metal Primer (UC501) and two coats Plascon Enamel Doors & Trims high gloss enamel paint - colour Bryce Canyon (RC4-C1-2)	12 x 12mm solid burglar bars to all sashes to line up with vertical and horizontal section of window	STANDARD BRASS FITTINGS	6.38mm Laminated clear safety glass	Standard horizontal pivot type steel school window type 5/8, 151 1mm x 1168mm high			WO1	(Black	932	2100
NOTES	FINISH	BURGLAR BARS	FITTINGS	GLASS	WINDOW	AREA	TYPE	NUMBER			
HEAVY STEEL SECTION	Spot prime defects in pre-primed surfaces with Plascon Metal Primer (UC501) and two coats Plascon Enamel Doors & Trims high gloss enamel paint - colour Bryce Canyon (RC4-C1-2)	12 x 12mm solid burglar bars to all sashes to line up with vertical and horizontal section of window	STANDARD BRASS FITTINGS	6.38mm Laminated clear safety glass	Standard horizontal pivot type steel school window type 5/8, 533mm x 900mm high			W02		1200	900
NOTES	FINISH	BURGLAR BARS	FITTINGS	GLASS	WODDIW	AREA	TYPE	NUMBER			
HEAVY STEEL SECTION	Spot prime defects in pre-primed surfaces with Plascon Metal Primer (UC501) and two coats Plascon Enamel Doors & Trims high gloss enamel paint - colour Bryce Carnyon (RC4-C1-2)	12 x 12mm solid burglar bars to all sashes to line up with vertical and horizontal section of window	STANDARD BRASS FITTINGS	6.38mm Laminated clear safety glass	Standard horizontal pivot type steel school window type 5/8, 1022mm x 900mm high			W03		1200	2100
NOTES	FINISH	BARS	FITTINGS	GLASS	WINDOW	AREA	TYPE	NUMBER	1	932	2100
HEAVY STEEL SECTION	Spot prime defects in pre-primed surfaces with Plascon Metal Primer (UC501) and two coats Plascon Enamel Doors & Trims high gloss enamel paint - colour Bryce Canyon (RC4-C1-2)	12 x 12mm solid burglar bars to all sashes to line up with vertical and horizontal section of window	STANDARD BRASS FITTINGS	6.38mm Laminated clear safety glass	Standard horizontal pivot type steel school window type 5/8, 2000mm x 1168mm high			W04			2000
NOTES	FINISH	BURGLAR BARS	FITTINGS	GLASS	WINDOW	AREA	TYPE	NUMBER			
	NATURAL ANODIZED	N/A	SLIDING BOLT TO LOCK FROM INSIDE	6mm CLEAR SAFETY GLASS	PURPOSE MADE ALUMINIUM TO SUIT SLIDING SASH	ADMINISTRATION RECEPTION	N/A	W05		900	900 FIXED SLIDING PANE PANE
NOTES	FINISH	BURGLAR BARS	FITTINGS	GLASS	WINDOW	AREA	TYPE	NUMBER			
	NATURAL ANODIZED	N/A	SLIDING BOLT TO LOCK FROM INSIDE	6mm CLEAR SAFETY GLASS	PURPOSE MADE ALUMINIUM TO SUIT SLIDING SASH	ADMINISTRATION RECEPTION	N/A	W06		900	900 FIXED SLIDING PANE PANE

## CONSTRUCTION NOTES

désign
5) 2 x coats sealant on all exposed trusses (sand off all SABS & other markings)
6) 50 mm mineral wool insulation to be installed where there are ceilings.
6) 50 mm mineral wool insulation to be installed with wire supports in Bubble plastic insulation with foil backing to be installed with wire supports in all areas that do not have ceilings
7) West Facing Facades to have standardised aluminium louvres from below eaves to drop of 1200 mm
8) Trusses to be designed in accordance with SABS 0400 & approved by Project Engineers

Workmanship to comply with Standard Specification of methods to be used - SABS 0400
 Light Switch in Disabled toilet to be at 1200 mm above FI 3 If Step over 900 mm Build in Balustrade
 Gulley positions to be determined as per site prescribed design.

of materials and le FFL

r site prescribed overall drainage (sand off all SABS & other

**NOTES** 

**5**6

A1. Concrete foundations - concrete mix type and with steel reinforcement according to structural engineer's drawings. Top of strip footings to be 340mm minimum below N.G.L. Provide test cubes (1 per 15m² or 1 per batch). Finished sides and bottoms of the protocy of the per 15m² or 1 per batch). Finished sides and bottoms of the protocy of the per 15m² or 1 per batch). Finished sides and bottoms of the protocy of the per 15m² or 1 per batch). Finished sides and bottoms of the protocy of the per 15m² or 1 per batch). Finished sides and bottoms of the protocy of the per 15m² or 1 per batch). Finished sides and bottoms of the protocy of the per 15m² or 1 per batch). Finished sides and bottoms of the protocy of the per 15m² or 1 per 15m²

n meranti quadrand bead plated on. Sand down to a Stain (W-range)(colour meranti), apply one coat e (AZH1) and apply two finishing coats Plascon

Skirings
C1. 19 x 76mm Meranti skirting plugged to walls at 400mm c/c with 19mm meranti quadrand bead plated on. Sand down to a smooth finish, stop with Polycell Woodfiller, stain with Plascon Woodcare Stain (W-range)(colour meranti), apply one coat Plascon Woodcare Ultra Varnish (X44), thinned with 1:3 mineral turpentine (AZH1) and apply two finishing coats Plascon Woodcare Ultra (X44) suede varnish to skirtings
Walls and structure
D1. External walls - Corobrik face bricks in stretcher bond with 10mm wide x 6mm deep square recessed joints
D2. Brickforce - Brickforce to 115 and 230mm foundation walls - every 2nd course. Superstructure walls - every 6th course. Over openings formed in brickwork as per table below
D3. 75 x 75 x 3mm Thick tubular section steel columns with 250mm girth x 4.5mm thick flat section U-shaped fixing bracket, 200mm long, twice holed and welded to top, 200 x 200 x 10mm thick flat section baseplate, four times holed and welded to bottom. Columns to be fixed to top of brickwork below copings with four M10 x 75mm masonry anchor bolts. Degrease with "Plascon Aqualsolv Degreaser (GR1)", remove rust with "Plascon Rust Remover (RR1)", prime with Plascon Metal Primer (UC501) and apply two coats Plascon Enamel Door & Trims high gloss enamel paint - colour as per finishes schedule.
50 x 228mm Laminated SA Pine beam twice bolted to steel columns. Sand down to a smooth finish, stop with Polycell Woodfiller, provide one coat raw linseed oil thinned with 1:3 mineral turpentine (AZH1), apply one coat Plascon Woodcare Sunproof (Amber - PNW22) suede varnish thinned with 1:3 mineral turpentine (AZH1) and apply two finishing coats Plascon Moodcare Sunproof (Amber - PNW22) suede varnish thinned with 1:3 mineral turpentine (AZH1) and apply two finishing coats Plascon Woodcare Sunproof (Amber - PNW22) suede varnish thinned with 1:3 mineral turpentine (AZH1) and apply two finishing coats Plascon Woodcare Sunproof (Amber - PNW22) suede bened by the proof of the

900 900

SLIDING

ADMINISTRATION

PURPOSE MADE /
SLIDING SASH

MINIUM

NATURAL

SLIDING BOLT TO LOCK FROM INSIDE

DPC - SANS Specification 952 Type B approved 375 micron black dpc in walls at floor level and under all window sills 26. Internal walls - approved stockbrick walls in stretcher bond above to receive one coat smooth 1:5 cement plaster finished off with one coat Plascon Plaster Primer (UC56) and two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour proken white (EPL314) or French Chartreuse (Y5-D2-3) as per Principal Agent 27. Internal walls - face brick plinth up to 850mm with approved stockbrick walls in stretcher bond above to receive one coat smooth 1:5 cement plaster finished off with one coat Plascon Plaster Primer (UC56) and two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour as per finishes schedule.

28. All exposed expansion joints in walls and floors to be filled in with Urochem 205 polysulfide joint sealant after surfaces have pen primed with Urochem 614 primer (December 1:4 cement mortar. Prime with one coats Plascon Polvin Walls and ceilings to be covered with 2 x 50mm Migua KF250/30 aluminium cover strips (Vindow sills).

Et Internal window sills - 1s x 150mm nutec-cement window sills, bedded and set flat in 14 cement motars private internal window sills - 1s x 150mm nutec-cement window sills, bedded and set flat in 14 cement motars private internal window sills - 1s x 150mm set Plascon Multi-surface Primer (WUP1) and apply two coals Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour as per finishes schedule.

Et Internal comice: 19 x 75mm Meranti comice nailed to walls at 400mm centres maximum. Sand down to a smooth finish, stop with Polycell Woodflier, stain with Plascon Woodcare Stain (W4-ange)(colour meranti), apply one coal Plascon Woodcare Ultra Varnish (X44), thinned with 1.3 mineral furperline (AZH1) and apply two finishing coals Pascon Woodcare Ultra Varnish (X44), thinned with 1.3 mineral flurperline (AZH1) and apply two finishing coals Pascon Woodcare Ultra Varnish (X44), thinned with 1.3 mineral flurperline (AZH1) and apply two finishing coals Pascon Woodcare Ultra Varnish (X44), thinned with 1.3 mineral flurperline (AZH1) and apply two finishing coals Pascon Woodcare Ultra Varnish (X44), thinned with 1.3 mineral flurperline (AZH1) and apply two finishing coals Pascon Woodcare Ultra Varnish (X44), thinned with 1.3 mineral flurperline (AZH1) and apply two finishing coals Pascon Woodcare Ultra Varnish (X44), thinned with 1.3 mineral flurperline (AZH1) and apply two finishing coals Pascon Woodcare Ultra Varnish (X44), thinned with 1.3 mineral flurperline (AZH1) and apply two finishing coals Pascon Woodcare Ultra Varnish (X44) thinned with 1.3 mineral flurperline (AZH1) and apply two finishing coals Pascon Woodcare Ultra Varnish (X44). Thinned with 1.3 mineral flurperline (AZH1) and apply two finishing at the provide the provide to the format of the pascon Pown Walls & Ceilings (EPL) PVA paint. Colour Traffic Green) on 50 x 75mm SAP parline at maximum 1200mm centres on patent and approved pre-fabricated fruss system. A maximum 1200mm centres with 20 degrees pitch 50 x 75mm SAP parline pascon Pown Walls & Ceilings (E

ttings 1. Vitrex Model 2400 (code 2404) enameled green folding type writing board with wall mounted centre board 2000 x 1200mi gh, two wall mounted side boards each 1000 x 1200mm high & two swing leaves each 1000 x 1200mm high with permanen

evenly spaced & fixed from underside to 305mm widn wide x 2134mm long double slotted epoxy powdern c/c. Sand down to a smooth finish, stop with Polycy with 1:3 mineral turpentine (AZH1) then apply two /es

http. Vitrex involves a creation (ACM) in the control of the state of the control ckplate with chamfered edges. Sand down to a dcare Ultra (X44) suede varnish thinned with 1:3 lcare Ultra (X44) suede varnish to back plate. Provide Union AL5066-E08/2AS aluminium red down arrow

nn AL5066-06ASE05 aluminium engraved red fire rrow sign above fire hose reel. Water supply in posed parts of pipes with Plascon Aquasolv me with Plascon Metal Primer (UC501) and apply two (G7). Provide 150 x 150mm Union AL5066-E05/2AS ign above fire hose reel. minium engraved red fire e reel. Water supply in 1 Plascon Aquasolv

SYSTEM

2020\_61- MAD- 105

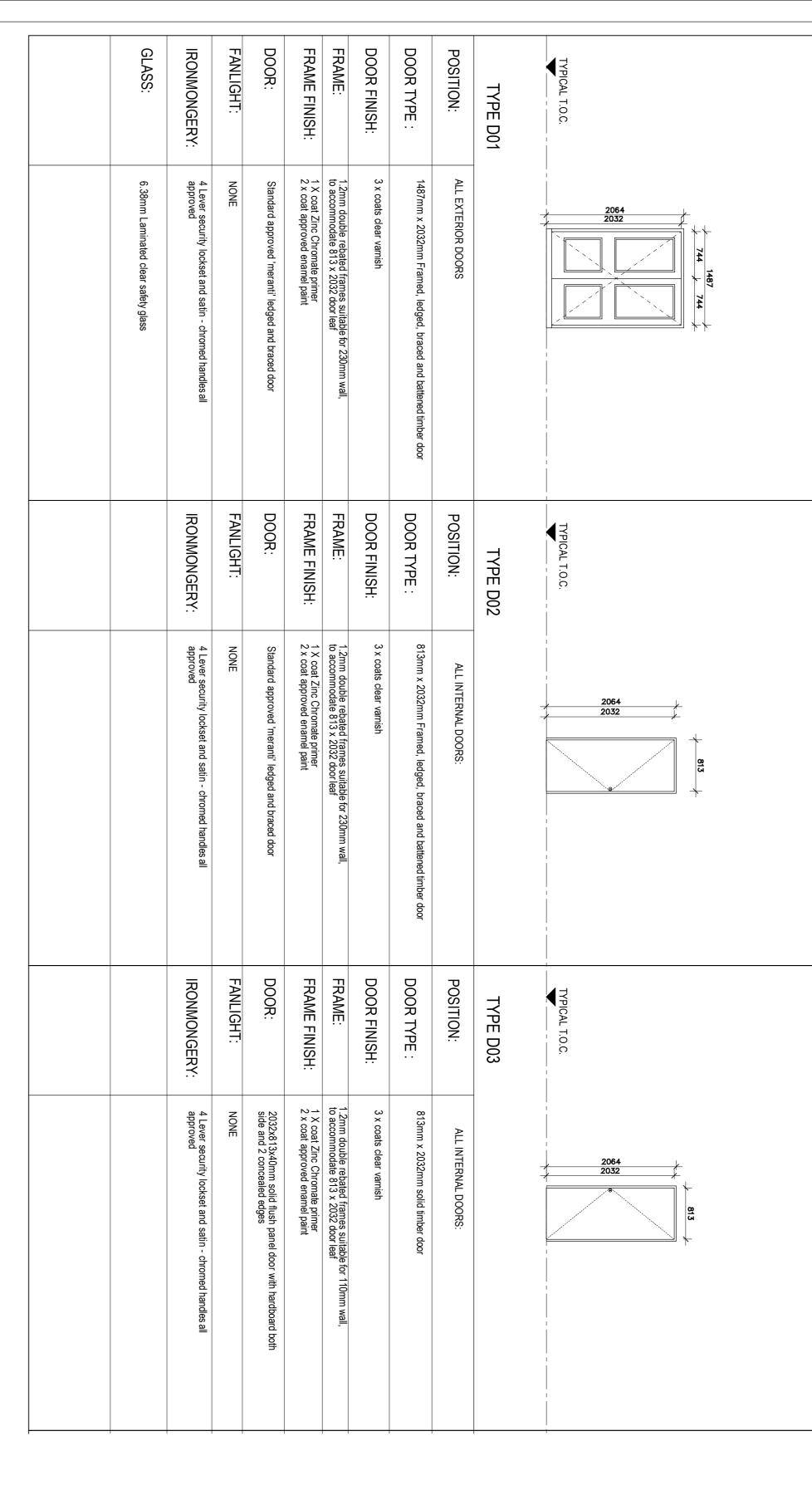
 $\triangleright$ 

Suite 4 No 6 Ismini Office
6 Ismini Street, Polokwone, D699
Tel: +27 15 065 0645, Fox: +27
Email: info@rubenreddyarch
Web: www.rubenreddyarch
CONTRACTOR

Office Building, e, D699 South Africa xx: +27 11 475 8384, eddyarch.co.za

ruben reddy architects

WESTON ORK DESIGNATION OF THE PART OF THE		DESIGN SCALE DATE		<b>A</b>	DOCUM	NEW B	921230023	СНІТА				REV No DATE	ENVIRONMENTAL OFFICER	WATER AND SANITATION	ENVIRONMENTAL OFFICER	PLAN EXAMINER FIRE CONTROL	CLIENT	DISCIPLINE
DESCRIPTION: DESCR	DRAWING CO-ORDINATED	1: 100  RESPONSIBLE PROFESSIONAL NAME SIGNATURE	DRAWING DESCRIPTION WINDOW SCHEDULE	WORK DESCRIPTION - SUB DIVISION  EDIUM ADMINISTRATION B	MENTATION & PROCUREMENT	JILDINGS & ALT			Public Works	LIMPOPO PROVINCIAL GOVERNMENT REPUBLIC OF SOUTH AFRICA	SIZE ON ORIGINAL DRAWING 100 mm			TION	FICER			



# CONSTRUCTION NOTES

design
5) 2 x coats sealant on all exposed trusses (various)

markings
6) 50 mm mineral wool insulation to be installed where there are ceilings .

Bubble plastic insulation with foil backing to be installed with wire supports in all areas that do not have ceilings
7) West Facing Facades to have standardised aluminium louvres from below eaves to drop of 1200 mm
8) Trusses to be designed in accordance with SABS 0400 & approved by Project Engineers

Workmanship to comply with Standard Specification methods to be used - SABS 0400
 2)Light Switch in Disabled toilet to be at 1200 mm about 1200 mm Build in Balustrade
 4) Gulley positions to be determined as per site prescription.

of material and le FFL

r site prescribed overall drainage (sand off all SABS & other

**NOTES** 

nent according to structural engineer's drawings. Top of (1 per 15m³ or 1 per batch). Fini shed sides and bottoms or approved type applied at a rate of not less than 5 litres ecification 1165 and SANS Code of Practice 0124. vide five year guarantee. pacted to at least 93% Mod. AASHTO density in layers poor soil conditions. Minimum of 170mm filling to be ng to be approved by engineer (imported filling to be tests to be provided at a rate of one test per 125m² filling der floors to be treated with ant poison of the Prothor s of solution per m² by a firm of specialists in accordance rete to be casted within 24 hours of application.

area under noors per each layer on comparison comparison.

200 SC or other approved type applied at a rate of not less than 5 litres of solution per m² by a firm of specialists in accordance with SANS Specification 1165 and SANS Code of Practice 0124. Concrete to be casted within 24 hours of application. Contractor to provide five year guarantee

Surface beds and floors

B1. Surface bed - concrete mix as described on structural engineer's drawings but minimum 85mm thick on SANS Specification 952 Type C approved USB Green 250 micron waterproofing membrane with laps sealed with pressure sensitive tape. Surface bed cast in alternative sections of maximum 20m² with saw cut joints to be done within 24 hours after casting of concrete. Provide mesh ref. no. 193 as per structural engineer's drawings but minimum 85mm thick on SANS Specification 952 Type C approved USB Green 250 micron waterproofing membrane with laps sealed with pressure sensitive tape. Surface bed on walkways - concrete mix as described on structural engineer's drawings but minimum 85mm thick on SANS Specification 952 Type C approved USB Green 250 micron waterproofing membrane with laps sealed with pressure sensitive tape. Surface bed cast in alternative sections of maximum 20m² with expansion joints with joints filled up with polysulfide sealer. Provide 10mm thick bitumen impregnated soft board between all walls and concrete and seal joint with polysulfide sealer. Provide 10mm thick bitumen impregnated soft board between all walls and concrete and seal joint with polysulfide sealer. Provide 10mm thick bitumen impregnated soft board between all walls and concrete and seal joint with polysulfide sealer. Provide 10mm thick wood floated 1:4 granolithic screed sloping towards edges. At all external door openings external surface beds must be level with granolithic threshold finish. Finish off edges of screed smooth with edging to be thickened by 240mm wide x 115mm deep (net) edge excavated in natural or finished ground level

n meranti quadrand bead plated on. Sand down to a Stain (W-range)(colour meranti), apply one coat e (AZH1) and apply two finishing coats Plascon

C1. 19 x 76mm Meranti skirting plugged to walls at 400mm c/c with 19mm meranti quadrand bead plated on. Sand down to a smooth finish, stop with Polycell Woodfiller, stain with Plascon Woodcare Stain (W-range)(colour meranti), apply one coat Plascon Woodcare Ultra Varnish (X44), thinned with 1:3 mineral turpentine (AZH1) and apply two finishing coats Plascon Woodcare Ultra (X44) suede varnish to skirtings

Walls and structure

D1. External walls - Corobrik face bricks in stretcher bond with 10mm wide x 6mm deep square recessed joints

D2. Brickforce - Brickforce to 115 and 230mm foundation walls - every 2nd course. Superstructure walls - every 6th course.

Over openings formed in brickwork as per table below

D3. 75 x 75 x 3mm Thick tubular section steel columns with 250mm girth x 4.5mm thick flat section U-shaped fixing bracket, 200mm long, twice holed and welded to top, 200 x 200 x 10mm thick flat section baseplate, four times holed and welded to bottom. Columns to be fixed to top of brickwork below copings with four M10 x 75mm masonry anchor bolts. Degrease with "Plascon Aqualsolv Degreaser (GR1)", remove rust with "Plascon Rust Remover (RR1)", prime with Plascon Metal Primer (UC501) and apply two coats Plascon Enamel Door & Trims high gloss enamel paint - colour as per finishes schedule. 50 x 228mm Laminated SA Pine beam twice bolted to steel columns. Sand down to a smooth finish, stop with Polycell Woodfiller, provide one coat raw linseed oil thinned with 1:3 mineral turpentine (AZH1), apply one coat Plascon Woodcare Sunproof (Amber - PNW22) suede varnish thinned with 1:3 mineral turpentine (AZH1) and apply two finishing coats Plascon Woodcare Sunproof (Amber - PNW22) suede varnish thinned with 1:3 mineral turpentine (AZH1) and apply two finishing coats Plascon Woodcare Sunproof (Amber - PNW22) suede varnish at section baseplate, four times holed and welded to at section baseplate, four times holed and welded to Ir M10 x 75mm masonry anchor bolts. Degrease with Remover (RR1)", prime with Plascon Metal Primer enamel paint - colour as per finishes schedule. Sand down to a smooth finish, stop with Polycell rpentine (AZH1), apply one coat Plascon Woodcare pentine (AZH1) and apply two finishing coats Plascon

and clear openings with 10 x 6mm square recessed

DPC - SANS Specification 952 Type B approved 375 micron black dpc in walls at floor level and under all window sills internal walls - approved stockbrick walls in stretcher bond above to receive one coat smooth 1:5 cement plaster finished with one coat Plascon Plaster Primer (UC56) and two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour ken white (EPL314) or French Chartreuse (Y5-D2-3) as per Principal Agent Internal walls - face brick plinth up to 850mm with approved stockbrick walls in stretcher bond above to receive one coat ooth 1:5 cement plaster finished off with one coat Plascon Plaster Primer (UC56) and two coats Plascon Polvin Walls & Ilings (EPL) PVA paint. Colour as per finishes schedule.

All exposed expansion joints in walls and floors to be filled in with Urochem 205 polysulfide joint sealant after surfaces have an primed with Urochem 614 primer (Expansion joints in walls and ceilings to be covered with 2 x 50mm Migua KF250/30 aluminium cover strips in the cover s

nternal window sills - 15 x 150mm nutec-cement window sills, bedded and set flat in 1:4 cement mortar. Prime with one Plascon Multi-surface Primer (WUP1) and apply two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour as nishes schedule external window sills - Middelwit Fynbos Geel face brick-on-edge sloping sill to match walls with the strips of the second points.

and cornices
rnal cornice - 19 x 76mm Meranti cornice nailed to walls at 400mm rnal cornice - 19 x 76mm Meranti cornice nailed to walls at 400mm rnal cornice - 19 x 76mm Meranti cornice Noodcare Stain (W-range Polycell Woodfiller, stain with Plascon Woodcare Stain (W-range Irrnish (X44), thinned with 1:3 mineral turpentine (AZH1) and apply arnish to cornices arnish to cornices ings - 6mm Everite Nutec fibre-cement boards nailed to 38 x 38mr ings - 6mm Everite Nutec fibre-cement boards nailed to 38 x 38mr ings - 6mm Everite Nutec fibre-cement boards nailed to 38 x 38mr ings - 6mm Everite Nutec fibre-cement boards nailed to 38 x 38mr ings - 6mm Everite Nutec fibre-cement boards nailed to 38 x 38mr ings - 6mm Everite Nutec fibre-cement boards nailed to 38 x 38mr ings - 6mm Everite Nutec fibre-cement boards nailed to 38 x 38mr ings - 6mm Everite Nutec fibre-cement boards nailed to 38 x 38mr ings - 6mm Everite Nutec fibre-cement boards nailed to 38 x 38mr ings - 6mm Everite Nutec fibre-cement boards nailed to 38 x 38mr ings - 6mm Everite Nutec fibre-cement boards nailed to 38 x 38mr ings - 6mm Everite Nutec fibre-cement boards nailed to 38 x 38mr ings - 6mm Everite Nutec fibre-cement boards nailed to 38 x 38mr ings - 6mm Everite Nutec fibre-cement boards nailed to 38 x 38mr ings - 6mm Everite Nutec fibre-cement boards nailed to 38 x 38mr ings - 6mm Everite Nutec fibre-cement boards nailed to 38 x 38mr ings - 6mm Everite Nutec fibre-cement boards nailed to 38 x 38mr ings - 6mm Everite Nutec fibre-cement boards nailed to 38 x 38mr ings - 6mm Everite Nutec fibre-cement boards nailed to 38 x 38mr ings - 6mm Everite Nutec fibre-cement boards nailed to 38 x 38mr ings - 6mm Everite Nutec fibre-cement boards nailed to 38 x 38mr ings - 6mm Everite Nutec fibre-cement boards nailed to 38 x 38mr ings - 6mm Everite Nutec fibre-cement boards nailed to 38 x 38mr ings - 6mm Everite Nutec fibre-cement nailed to 38 x 38mr ings - 6mm Everite Nutec fibre-cement nailed to 38 x 38mr ings - 6mm Everite Nutec fibre-cement nailed to 38 x 38 smm SAP brandering at 400mm centres maximum with ting strips to be pre-painted. Prime ceilings with one coat scon Polvin Walls & Ceilings (EPL) PVA paint. Colour n centres maximum. Sand down to a smooth finish, e)(colour meranti), apply one coat Plascon Woodcare two finishing coats Plascon Woodcare Ultra (X44)

POSITION:

TOILET CUBICLES

TYPE G01

TYPICAL T.O.C.

POSITION:

ENTRANCE

TYPE D04

TYPICAL T.O.C.

DOOR:

2032x813x40mm solid flush panel door side and 2 concealed edges

DOOR:

ainted mild steel gate consisting of 10x10mm mild steel bardlaced at 100mm centres at a 45° angle, colour to architect's pecification

IRONMONGERY:

4 Lever security lockset and satin - chromed handles all approved

FANLIGHT:

IRONMONGERY:

FRAME:

FRAME FINISH:

1 X coat Zinc Chromate primer 2 x coat approved enamel paint

1.2mm double rebated frames suitable to accommodate 813 x 2032 door leaf

FRAME:

1.2mm double rebated frames suitable for 230mm to accommodate 936 x 2032 door leaf

FRAME FINISH:

1 X coat Zinc Chromate pr 2 x coat approved enamel

DOOR FINISH:

DOOR TYPE:

1580mm x 2000mm

DOOR FINISH:

DOOR TYPE:

813mm x 2032mm solid timber door 150mm UNDERCUT

ultra Varnish (X44), tinnned with 1:3 mineral turpentine (AzH1) and apply two hinshing coats Hascon Woodcate Utira (X44) steele varnish to comices the control of colleges and the control of the Cellings - 6mm Everite Nutec fibre-cement boards nailed to 38 x 38mm SAP brandering at 400mm centres maximum with galvanised colur hals. Provide Hyorifie galvanised coluring strips, to be pre-painted 400mm centres maximum with galvanised colur hals. Provide Hyorifie galvanised coluring strips to be pre-painted with color of the Celling specific finishes scribedule.

F4, 610 x 610mm Trap door formed of 50 x 65mm SA pine rebated frame with 38 x 38mm SA pine cross brander covered with ceiling board and filted filtal is in opening. Provide 18 x 50mm meranti surround. Trap door and surround to be painted as for ceiling, Trap door opening between trusses to be formed with 38 x 114mm SA pine bearers, nailed to trusses. Roof and fiscidis.

F3, 18 for and fiscidis.

F3, 18 for and fiscidis.

F3, 18 for and fiscidis of the provide 18 x 50mm meranti surround. Trap door and surround to be painted as for ceiling, Trap door opening between trusses to be formed with 38 x 114mm SA pine bearers, nailed to trusses. Roof and fiscidis in the provide part of the provide firms of the strip of the door by specialist installer providing a five year guarantee.

F3, 18 fascia boards - 10 x 300mm Everite Nutec-cement fascia boards screw fixed to truss ends and counter batten with countersum brass screws. Prime fascias and barge boards with one coat Plascon Multi-Surface Primer (VuLP1) and finish of with two coats Plascon Polvin Walls & Cellings (EPL) PVA paint. Colour as per finishes schedule.

G4, 17 fuss yeisten. MiTek or other approved patent timber pre-fabricated truss system at maximum 1100mm centres with 20 degrees pitch 50 x 76mm SAP purifies at maximum 120mm centres. 3x 1 / 14mm SAP wall pilate to be carbolineum treated before fixing. Trusse manufacturer to provide entitle and guarantee for design and serior to walls with 25mm diameter gal r gutters ed sheet iron with Globalcoat finish (colour Gemsbok

<u>ttings</u> 1. Vitrex Model 2400 (code 2404) enameled green folding type writing board with wall mounted centre board 2000 x 1200mm gh, two wall mounted side boards each 1000 x 1200mm high & two swing leaves each 1000 x 1200mm high with permanent

evenly spaced & fixed from underside to 305mm wide n wide x 2134mm long double slotted epoxy powder n c/c. Sand down to a smooth finish, stop with Polycell with 1:3 mineral turpentine (AZH1) then apply two /es

n, two wall mounted side boards each 1000 x 1200mm high (2 per classroom)

Vitrex System 2000 (code 2317) light grey wall mounted pinning board, size 2000 x 1200mm high (2 per classroom)

Greenfield G25 double door steel cupboard with standard baked enameled finish, 760 x 610 x 1700mm high with four lives (2 per classroom)

Five rows of 19mm Thick laminated SA Pine shelving, 350mm wide, evenly spaced & fixed from underside to 305mm elco epoxy powder coated steel brackets. Brackets to be fixed to 25mm wide x 2134mm long double slotted epoxy powers ted Shelco type FT6 wall bands, plugged to walls at maximum 600mm c/c. Sand down to a smooth finish, stop with power apply one coat Plascon Woodcare Ultra Varnish (X44) thinned with 1:3 mineral turpentine (AZH1) then apply to shing coats Plascon Woodcare Clear Ultra (X44) suede varnish to shelves ckplate with chamfered edges. Sand down to a dcare Ultra (X44) suede varnish thinned with 1:3 lcare Ultra (X44) suede varnish to back plate. Provide ld Union AL5066-E08/2AS aluminium red down arrow

in AL5066-06ASE05 aluminium engraved red fire rrow sign above fire hose reel. Water supply in posed parts of pipes with Plascon Aquasolv me with Plascon Metal Primer (UC501) and apply two (G7). Provide 150 x 150mm Union AL5066-E05/2AS ign above fire hose reel. יחוחוum engraved red fire e reel. Water supply in ו Plascon Aחווספייה

SYSTEM

2020\_61- MAD- 106

⋗

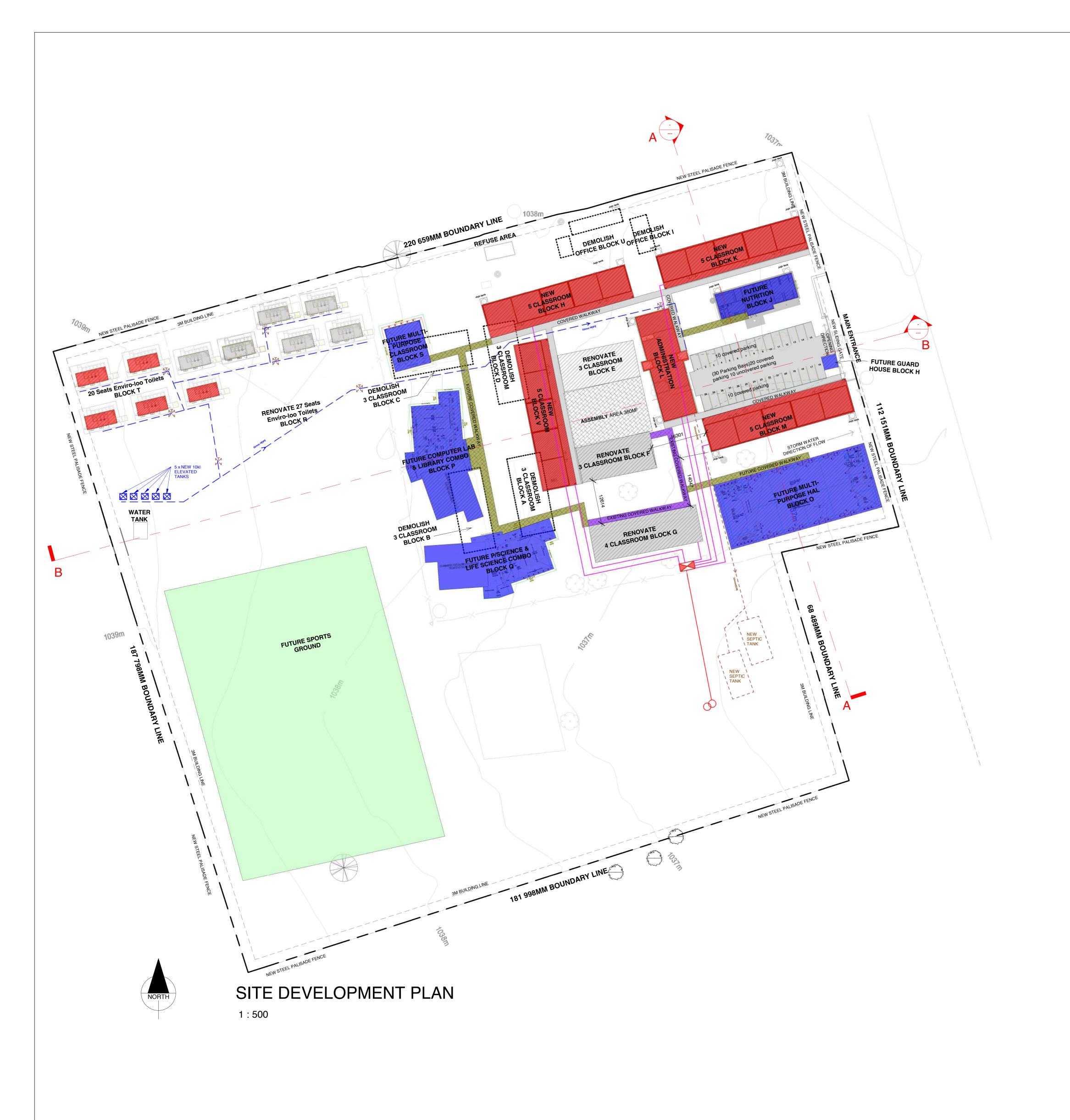
ruben reddy architects

CONSULTANT

6 Ismini Street, Polokwone, D69
Tel: +27 15 065 045, Fox: +27
Email: info@rubenreddyord
Web: www.rubenreddyord
CONTRACTOR

Office Building, s, D699 South Africa sex: +27 11 475 8364, exity-co.za ddyarch.co.za

	DESIGN SCALE					D D	K	92	ြ				ATT NO	REV No	ENVINCINI	WATER AND	ROADS / ST	ENVIRONME	FIRE CONTROL	PLAN EXAMINER	DISCIPLINE	
				MEDI		DOCUMENTATION & PROCUREMENT	NEW BUILDINGS & ALTERATIONS	921230023	CHITA KEKANA				DAII.	DATTE .	ENVIRONIMENTAL OFFICER	WATER AND SANITATION	ROADS / STORMWATER	ENVIRONMENTAL OFFICER	2			
RESPONSIBLE	1: 100	DOOR	DRAWIN	MEDIUM ADMINISTRATION B	ARCHITECTURAL	NTATIO	DINGS			Pub	PROL	SIZE ON ORIGINAL DRAWING 100 mm	REV					~			SIGNATURE	SIGNATURE
LE PROFESSI		H	DRAWING DESCRIPTION	NISTRAT	ECTUR	)N & PR(	IGS & ALTER	SERVICE	NSTITUTION SECONDARY SCHOOL NSTITUTION EMIS NUMBER	Public Works	IMI ROVINCIAL OF	NAL DRAWING	REVISIONS								묾	Ι.
PROFESSIONAL		SCHEDULE		ION BLOCK	AL	CURE	RATION		)ARY S	rks *	300E	3 100 mm	DESCRIPTION:	CRIPTION .							Ş	TABLE
	DRAWN CHECKED			웃	ယ	MENT PROJECT STAGE	S		CH00		)PC										DATE	

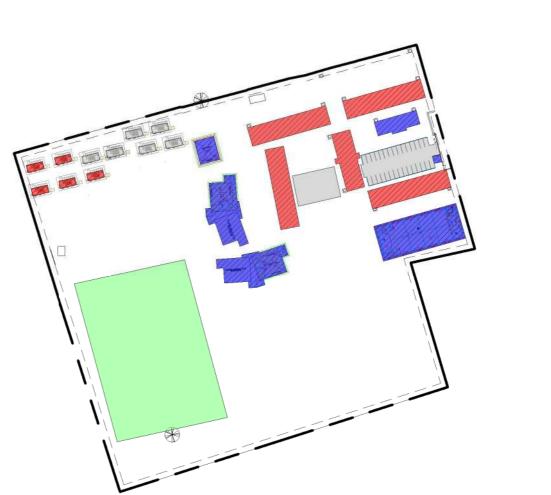




LOCALITY MAP

**KEY PLAN** 

1:2000



## **ELECTRICAL NOTES**

- 2 core XLPE copper cable to be used for site reticulation buried at 1200mm below surface
- ground level

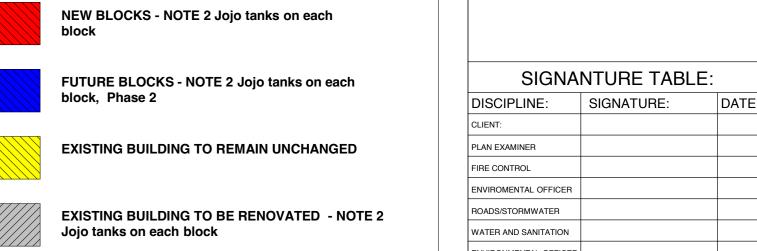
  2. Cables installation to be 800mm away from road edge and at least 3000mm away from nearest
- building wall.
  3. manholes to be used at road crossing and at cable bends of 90 degrees.
  4. PVC sleeves to be used to connect manholes
  5. Switching station to be finalised once ESKOM has defined the bulk power supply philosophy.

## **ELECTRICAL LEGEND**

SYMBOL	DESCRIPTION
$\infty$	16kVA Dedicated transformer with an associated Meter Box
	25mm² PVC Cu Cable
	16mm² PVC Cu Cable
	10mm² PVC Cu Cable

Chita Kekana Senior Secondary School Chita Kekana Senior Se		
	TABLE 2A: DEMOLITION WORKS	
The state of the s	NO. Building Usage	(sqm)
	01 3 Classroom Block (A,B,D & D)	235
	02 Office Block I	52
VRahman	03 4 Pit Toilets	
	04	
	05	
	06	
	07	
CHITA KEKANA SECONDARY SCHOOL	TABLE 2B: RENOVATION/REFURBRISH	
	NO. Building Usage	(sqm) 336
A THE RESERVE TO THE	01 4 Classroom Block G	
	02 3 Classroom Block F	237
Kingdom Hall Of Jehovah's Witnesses	03 3 Classroom Block E	237
Tangeen Hell St certerial St Mittessee	04 27 Seats Enviro-loo Toilets Block R	35
	05 Guard House Block H	17
	06	
	07	

	Guard House Blod	ж Н			17	01
06						
07						
T	ABLE 2C: N	NEW WORK	(S			
NO.	Building Usag	je			(sqm)	Quant
01	5 Classroom Blo	ock			410	04
02	Medium Adminis	stration Block L			325	01
03	Assembly area				200	01
04	Enviro-loo Block	0			35	13
05	30 Parking bays	(20 covered)			22	4 Seat
06						
07						
08						
TΑ	BLE 2D: F	UTURE WO	RKS		(sqm)	Quant
NO.	Multi-purpose Ha	II Block O			220	1
01	P/Science Lab C	ombo Block Q			514	1
02	Computer Lab ar	nd Library Combo Blo	ock P		514	1
03	Multi-purpose Cla	assroom Block S			134	1
04	Sports ground					
05	Nutrition Block J				185	01
05	Guard House Bl	ock H			410	01
	ssrooms to be demo					12
						1
						1
						1
TΑ	BLE 2F: S	TRUCTURE	S NOT ON S	ITE PLA	N DUE	
	BLE 2F: S		S NOT ON S	ITE PLA	N DUE	
			S NOT ON S	ITE PLA	N DUE	
			S NOT ON S	ITE PLA	N DUE	
			S NOT ON S	ITE PLA	N DUE	
			S NOT ON S	ITE PLA	N DUE	
			S NOT ON S	ITE PLA	N DUE	
	) LACK OF	SPACE			N DUE	
	) LACK OF	SPACE	S NOT ON S		N DUE	
TC	TABLE (	SPACE 01: SUMMARY	FOR HUMAN C	APITAL—		
TAB	TABLE (	SPACE 01: SUMMARY		APITAL—		
TC	TABLE (	SPACE 01: SUMMARY	FOR HUMAN C	APITAL—condary Scho	ol	
TC	TABLE ( BLE 1A: Grade Einber Of Pupils: GRADES	D1: SUMMARY	FOR HUMAN C	APITAL—condary Scho	ol	Quant
TC	TABLE ( BLE 1A: Grade Enber Of Pupils: GRADES 8	D1: SUMMARY	FOR HUMAN C	APITAL—condary Scho	ol	
TC	TABLE OF TABLE OF TABLE OF Pupils: GRADES 8 9	D1: SUMMARY	FOR HUMAN C	APITAL— condary Scho  TOTA  170  137	ol	
TC	TABLE ( BLE 1A: Grade Enber Of Pupils: GRADES 8 9 10	D1: SUMMARY	FOR HUMAN C	APITAL  condary Scho  TOTA  170  137  260	ol AL	
TAB	TABLE CONTROL OF Pupils: GRADES 8 9 10 11	D1: SUMMARY	FOR HUMAN C	APITAL—  TOTA  170  137  260  165	ol	
TAB	TABLE ( BLE 1A: Grade Enber Of Pupils: GRADES 8 9 10	D1: SUMMARY	FOR HUMAN C	APITAL  condary Scho  TOTA  170  137  260	ol	
TAB	TABLE CONTROL OF Pupils: GRADES 8 9 10 11	D1: SUMMARY	FOR HUMAN C	APITAL—  TOTA  170  137  260  165	ol	
TC	TABLE CONTROL OF Pupils: GRADES 8 9 10 11	D1: SUMMARY	FOR HUMAN C	APITAL—  TOTA  170  137  260  165	ol	



EXISTING BUILDING TO BE DEMOLISHED

**EXISTING WALKWAYS** FUTURE COVERED WALKWAYS

NEW COVERED WALKWAYS

TOTAL PUPILS TEACHERS

LEGEND

EXISTING MOBILE CLASSROOMS

EXISTING MOBILE CLASSROOMS — → WATER SUPPLY PIPES - HDPE CLASS 6 -->--SEWER PIPES - PVC CLASS 6

ISOLATION VALVE

ELEVATED WATER TANKS

WATER AN	D SANITATION			
ENVIRONM	ENTAL OFFICER			
REV No.	DATE:		DESCRIPTION	
	017	REVISIONS		
		PROVIN REPUB	MPC CIAL GOVER LIC OF SOUTH	RNMENT
CH		ISTITUTION EM	ONDARY SO	CHOOL
CH		NA SECO ISTITUTION EM 9212300	ONDARY SO DIS NUMBER 23	CHOOL
	IN	ISTITUTION EM 9212300 SERVICE	ONDARY SO DIS NUMBER 23	
	IN	ISTITUTION EM 9212300 SERVICE	DNDARY SO IIS NUMBER 23 ALTERA	
NEV	W BUILD	SERVICE INGS & CONTACT - S	DNDARY SO IIS NUMBER 23 ALTERA	ΓIONS
NEV DOG	W BUILD	9212300 SERVICE INGS & CONTACT - S DISPLINE	DNDARY SO  IS NUMBER  23  ALTERATECTION  & PROCU	ΓΙΟΝS JREME PROJECT
NEV DOG	W BUILD	9212300 SERVICE INGS & CONTACT - S DISPLINE	DNDARY SO  IS NUMBER  23  ALTERATECTION  & PROCU	TIONS JREME
NEV DOG	W BUILD	SERVICE INGS & CONTACT - S DISPLINE URAL K DESCRIPTION	DNDARY SO  IIS NUMBER  23  ALTERATECTION  & PROCU	JREME PROJECT 03
NEV DOG	W BUILD	SERVICE INGS & CONTACT - S DISPLINE URAL K DESCRIPTION	DNDARY SO IIS NUMBER  23  ALTERATECTION  & PROCU	JREME PROJECT 03
NEV DOG	W BUILD	SERVICE INGS & CONTACT - S DISPLINE URAL K DESCRIPTION	DNDARY SO  IIS NUMBER  23  ALTERATECTION  & PROCU	JREME PROJECT 03
NEV DOG	W BUILD	SERVICE INGS & CONTACT - S DISPLINE URAL K DESCRIPTION	DNDARY SO  IIS NUMBER  23  ALTERATECTION  & PROCU	JREME PROJECT 03
NEV DOG	W BUILD	SERVICE INGS & CONTACT - S DISPLINE URAL K DESCRIPTION	DNDARY SO  IIS NUMBER  23  ALTERATECTION  & PROCU	JREME PROJECT 03
NEV DOG	W BUILD	SERVICE INGS & CONTACT - S DISPLINE URAL K DESCRIPTION	DNDARY SO  IIS NUMBER  23  ALTERATECTION  & PROCU	JREME PROJECT 03
NEV DOG	W BUILD CUMENT CHITECT WORK	SERVICE INGS & CONTACT - S CATION O DISPLINE URAL K DESCRIPTION /ELOPME DRAWING DE	ALTERATECTION  PROCU	JREME PROJECT 03
NEV DOG	W BUILD CUMENT CHITECT WORK	SERVICE INGS & CONTACT - S DISPLINE URAL K DESCRIPTION	ALTERATECTION  PROCU	JREME PROJECT 03
NEV DOC ARC	W BUILD CUMENT CHITECT WORK	SERVICE INGS & CONTACT - S CATION O DISPLINE URAL K DESCRIPTION /ELOPME DRAWING DE	ALTERATECTION  N - SUB DIVISION  ENT PLAN (SESCRIPTION	JREME PROJECT 03

**GENERAL DRAWING NOTES** 

USED - sabs 0400

1) RKMANSHIP TO COMPLY WITH STANDARD SPECIFICATION OF MATERIALS AND METHODS TO BE

3) IF STEP OVER 900MM BUILD IN BALUSTRADE

PRESCRIBED OVERALL DRAINAGE DESIGN

OFF ALL sabs & OTHER MARKINGS)

2) IIGHT SWITCH IN DISABLED TOILET TO BE AT 1200MM

4) GULLEY POSITIONS TO BE DETRMINED AS PER SITE

5) 2 X COATS SEALANT O ALL EXPOSED TRUSSES (SAND

6) 50MM MINERAL WOOL INSULATION TO BE INSTALLED WHERE THERE ARE CEILINGS. BUBBLE PLASTIC

INSULATION WITH FALL BACKING TO BE INSTALLED WITH WIRE SUPPORTS IN ALL AREAS THAT DO NOT HAVE

7) WEST FACING FACADES TO HAVE STANDARDISED ALUMINIUM LOUVRES FROM BELOW EAVES TO DROP OF

8) TRUSSES TO BE DESIGNED IN ACCORDANCE WITH SABS 0400 & APPROVED BY PROJECT ENGINEER

CONSULTANT:

DRAWING NUMBER: 2020\_61-SDP-001