CONTRACT No. LDPWRI-B/20291



BID NUMBER: LDPWRI-B/20291

APPOINTMENT OF A CONTRACTOR FOR DEMOLITION OF 4 CLASSROOMS, COOKING ROOM AND 12 PIT TOILETS, REFURBISHMENT OF 4 CLASSROOMS AND 4 SEATER ENVIROLOO TOILETS, CONSTRUCTION OF 4 CLASSROOMS, NUTRITION CENTRE, NEW 8 SEATER ENVIROLOO TOILETS, GUARD HOUSE, STEEL PALISADE FENCE AND EXTERNAL WORKS AT PFUMBADA PRIMARY SCHOOL IN MAMOHOHI VILLAGE, VHEMBEDISTRICT

for

LIMPOPO DEPARTMENT OF EDUCATION (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 :....

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PART T1: TENDERING PROCEDURE

			Pfumbada	PS
			Amount	
_				
33	Attendance	Item		
	WORK EXECUTED BY SEPARATE DIRECT CONTRACTORS (SF)			
	The following work will be executed by contractors under direct agreement with the employer. The contractor is to accommodate these direct contractors and allow them to execute their work unhindered and allow them the use of water and toilet facilities. Damage caused by these contractors to work completed by the principal contractor is to be recorded in detail to enable the employer to counter-charge the direct contractors the cost of making good such damages.			
34	Social Facilitator	Item	250 000 0)0
35	Profit	Item		
36	Attendance	ltom		
30	Allendance	item		
	Carried To Section Summary	R		
	Section No. 9 Bill No. 1 Provisional Sums			
	278			

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 4 CLASSROOMS, COOKING ROOM AND 12 PIT TOILETS, REFURBISHMENT OF 4 CLASSROOMS AND 4 SEATER ENVIROLOO TOILETS, CONSTRUCTION OF 4 CLASSROOMS, NUTRITION CENTRE, NEW 8 SEATER ENVIROLOO TOILETS, GUARD HOUSE, STEEL PALISADE FENCE AND EXTERNAL WORKS AT PFUMBADA PRIMARY SCHOOL IN MAMOHOHI VILLAGE, VHEMBEDISTRICT FOR LIMPOPO DEPARTMENT OF EDUCATION (LDOE) 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

Project Name	APPOINTMENT OF A CONTRACTOR FOR DEMOLITION OF 4 CLASSROOMS,			
-	COOKING ROOM AND 12 PIT TOILETS, REFURBISHMENT OF 4 CLASSROOMS			
	AND 4 SEATER ENVIROLOO TOILETS, CONSTRUCTION OF 4 CLASSROOMS,			
	NUTRITION CENTRE, NEW 8 SEATER ENVIROLOO TOILETS, GUARD HOUSE,			
	SCHOOL IN MAMOHOHI VILLAGE, VHEMBEDISTRICT FOR LIMPOPO			
Tender Number	L DPW/RI- B/20291			
Tender documents	Limpopo Department of	Public Works, Roads and Infrastructure website		
availability	Limpopo Department of Public Works, Roads and Intrastructure Website			
Address for submission	DEPARTMENT OF PUE	BLIC WORKS, ROADS & INFRASTRUCTURE.		
or tenders	Physical address: Corne	er River and Blaauwberg Streets, Ladanna, 0699.		
Closing date of the	As per Tender invite			
Closing time of the	Ac par Tandar invita			
tender	As per Tender Invite			
Compulsory briefing	Yes 🗆 No			
sign the attendance register	Meeting venue	As per Tender invite		
in the name of the tendering				
entity. Addenda (if any) will				
be issued only to those	Date As per Tender invite			
tendering entities appearing	Time:	As per Tender invite		
ierraering erraiee appearing				
on the attendance register)				
on the attendance register) Evaluation criteria	1. Compliance with	n mandatory or compulsory requirements		
on the attendance register) Evaluation criteria	1. Compliance with 2. Risk assessmer	n mandatory or compulsory requirements nt on current projects		
on the attendance register) Evaluation criteria	 Compliance with Risk assessmer Price 	n mandatory or compulsory requirements nt on current projects		
on the attendance register) Evaluation criteria	1. Compliance with 2. Risk assessmer 3. Price 4. Preference	n mandatory or compulsory requirements nt on current projects		
on the attendance register) Evaluation criteria Mandatory or	 Compliance with Risk assessmer Price Preference Only tenderers who a 	n mandatory or compulsory requirements nt on current projects are appointed on category A registered with the		
on the attendance register) Evaluation criteria Mandatory or Compulsory	 Compliance with Risk assessmer Price Preference Only tenderers who a Construction Industry Detender 	n mandatory or compulsory requirements nt on current projects are appointed on category A registered with the evelopment Board (CIDB) with designation of 7 GB or		
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on the attendance register) Evaluation criteria Mandatory or Compulsory Requirements (failure to submit or comply with these requirements will lead to	 Compliance with Risk assessmer Price Preference Only tenderers who a Construction Industry De higher than a contractor the sum tendered, or a (1P) or 25(7A) of the Construction 	n mandatory or compulsory requirements nt on current projects are appointed on category A registered with the evelopment Board (CIDB) with designation of 7 GB or r grading designation determined in accordance with value determined in accordance with Regulation 25 Construction Industry Development Regulations are		
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on the attendance register) Evaluation criteria Mandatory or Compulsory Requirements (failure to submit or comply with these requirements will lead to automatic disqualification)	 Compliance with Risk assessmer Price Preference Only tenderers who a Construction Industry De higher than a contractor the sum tendered, or a (1B) or 25(7A) of the C eligible to have their ten Completed and signed F 	n mandatory or compulsory requirements nt on current projects are appointed on category A registered with the evelopment Board (CIDB) with designation of 7 GB or r grading designation determined in accordance with value determined in accordance with Regulation 25 Construction Industry Development Regulations are ders evaluated Form of Offer		
on the attendance register) Evaluation criteria Mandatory or Compulsory Requirements (failure to submit or comply with these requirements will lead to automatic disqualification)	 Compliance with Risk assessmer Price Preference Only tenderers who a Construction Industry Dehigher than a contractor the sum tendered, or a (1B) or 25(7A) of the Celigible to have their ten Completed and signed F Priced Bills of Quantities 	n mandatory or compulsory requirements nt on current projects are appointed on category A registered with the evelopment Board (CIDB) with designation of 7 GB or r grading designation determined in accordance with value determined in accordance with Regulation 25 Construction Industry Development Regulations are ders evaluated Form of Offer		
on the attendance register) Evaluation criteria Mandatory or Compulsory Requirements (failure to submit or comply with these requirements will lead to automatic disqualification)	 Compliance with Risk assessmer Price Preference Only tenderers who a Construction Industry De higher than a contractor the sum tendered, or a (1B) or 25(7A) of the C eligible to have their ten Completed and signed F Priced Bills of Quantities Record of addenda to te 	n mandatory or compulsory requirements nt on current projects are appointed on category A registered with the evelopment Board (CIDB) with designation of 7 GB or r grading designation determined in accordance with value determined in accordance with Regulation 25 Construction Industry Development Regulations are ders evaluated Form of Offer sender documents		
on the attendance register) Evaluation criteria Mandatory or Compulsory Requirements (failure to submit or comply with these requirements will lead to automatic disqualification)	 Compliance with Risk assessmer Price Preference Only tenderers who a Construction Industry De higher than a contractor the sum tendered, or a (1B) or 25(7A) of the C eligible to have their ten Completed and signed F Priced Bills of Quantities Record of addenda to ter Proposed amendments 	n mandatory or compulsory requirements nt on current projects are appointed on category A registered with the evelopment Board (CIDB) with designation of 7 GB or r grading designation determined in accordance with value determined in accordance with Regulation 25 Construction Industry Development Regulations are ders evaluated Form of Offer s ender documents and qualifications		
on the attendance register) Evaluation criteria Mandatory or Compulsory Requirements (failure to submit or comply with these requirements will lead to automatic disqualification)	 Compliance with Risk assessmer Price Preference Only tenderers who a Construction Industry De higher than a contractor the sum tendered, or a (1B) or 25(7A) of the C eligible to have their ten Completed and signed F Priced Bills of Quantities Record of addenda to ter Proposed amendments Declaration on the statu 	n mandatory or compulsory requirements nt on current projects are appointed on category A registered with the evelopment Board (CIDB) with designation of 7 GB or r grading designation determined in accordance with value determined in accordance with Regulation 25 Construction Industry Development Regulations are ders evaluated Form of Offer sender documents and qualifications s of Administration compliance		
on the attendance register) Evaluation criteria Mandatory or Compulsory Requirements (failure to submit or comply with these requirements will lead to automatic disqualification)	 Compliance with Risk assessmer Price Preference Only tenderers who a Construction Industry De higher than a contractor the sum tendered, or a (1B) or 25(7A) of the C eligible to have their ten Completed and signed F Priced Bills of Quantities Record of addenda to ter Proposed amendments Declaration on the statu CIDB grading certificate 	n mandatory or compulsory requirements nt on current projects are appointed on category A registered with the evelopment Board (CIDB) with designation of 7 GB or r grading designation determined in accordance with value determined in accordance with Regulation 25 Construction Industry Development Regulations are ders evaluated Form of Offer s ender documents and qualifications s of Administration compliance (Valid CIDB)		



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 No. 36190 of 25 February 2013. In this case, contractor shall provide a minimum Contract Participation Goal (CPG) of 5% 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

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 : <u>ModjadjiM@dpw.limpopo.gov.za</u>			
	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			
	Failure to attend the site briefing will result in the bidders not being considered for the project			
	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 by writing in non- erasable black ink (<i>Black pen</i>)			
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 120 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 			

	CIDB Grading Certificate				
	Tenders are required to provide proof of registration with the CIDB register of contractors indicating the category of registration, grading as well as the CRS number of the tenderer.				
	Letter of Good Standing				
	Tenderer's are required to submit, bound with the tender submission, a letter of good standing from the compensation commissioner indicating that the bidder is in good standing.				
C3.2	Notwithstanding any requests for confirmation of receipt of Addenda issued, the tenderer shall be deemed to have received such addenda if the employer can show proof of transmission thereof (or a notice in respect thereof) via electronic mail, facsimile or registered post.				
C.3.4.1	Tenders will not be opened immediately after the closing time for tenders.				
C.3.11	11 The tenderers will be evaluated in four stages (i) Stage 1: Compliance with mandatory requirements as stated in Part T1.1 (ii) Stage 2: Risk assessment on current projects (iii) Stage 3: Price (iv) Stage 4: Preference				
	The technical capacity (functionality) of the contractors will not be evaluated any further during evaluation of the RFQ. However, the contractors will be required to declare the status of their key staff and any administrative compliance. In cases where there are changes in the key staff, the contractor should provide CVs and qualifications of the new staff to LDPWR&I. The new staff should have similar skills, qualifications and experience as the staff submitted during tender. Similarly, the contractors will be expected to provide an update on any changes in their administrative compliances – and should submit the required SBD document/forms in such cases.				
	The award will only be issued to contractors with valid Tax Clearance certificates, active Cl grading and the contractor who meets all the legislative requirement – this shall be verified by S 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. ¹				
	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. Should it exceed, the bidder will therefore not be appointed.				

Sta	age 3 and 4:
The The folle	e procedure for final evaluation of responsive tenders is Method 2 (Financial offer and preference). e total number of tender evaluation points (T_{EV}) shall be determined in accordance with the owing 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:
	$! = \# * \% 1 - \frac{(*) \# * }{*}$
	Where:
	A is 80 since the estimated financial value of works inclusive of VAT is equals or is less thar R 50,000,000.00.
	P is the points awarded to the bid under consideration
	!% is the lowest Comparative bid price
	!&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

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PART T2: RETURNABLE DOCUMENTS



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:

A -- MANDATORY REQUIREMENTS

2.1 Fully completed Form of Offer (Fully Completed and Signed Form of Offer)

2.2 Bills of Quantities (P&Gs are allowed to have a lump sum total in the P&Gs Summary Page and the rest of the Bill of Quantities trades must be completed in full (Rates and Amounts))

2.3 Record of Addenda to tender documents (Records of addendum must be captured in full, whether applicable of not)

2.5 Declaration on the status of Administration compliance (Fully completed, circled and signed)

2.6 CIDB grading certificate (Valid CIDB)

2.7 Declaration of current projects (Fully completed, circled and signed)

B – NON- MANDATORY REQUIREMENTS

2.8 SBD 1 (Fully Completed and Signed)

2.9 SBD 4 (Fully Completed and Signed). False declaration by the bidder will render the proposal non-responsive and will not be considered

2.9 SBD 6.1 (Failure on the part of a bidder to complete and submit proof or documentation required in terms of this tender to claim points for specific goals with tender, will be interpreted to mean that preference points for specific goals are not claimed)

SPECIFIC GOALS	REQUIRED ATTACHMENT	
Persons who had no franchise in national elections prior to 1983 and 1993	Attach certified copy of South African ID as proof	
Women	Attach Director's certified copy of South African ID	
	as proof + company registration documents	
Disabled Persons	Bidder with disability must attach medical certificate completed by registered medical practitioner which is registered with Health Professions Council of South Africa (HPCSA) as proof	
Promotion of SMMEs	Attach latest financial statement as proof	
Enterprises located in Limpopo Province	 N.B: The physical address given in the SBD 1 will be used and it should be consistent or the same as the preferred address in the Central Supplier Database Report a) A Title deed, Letter from a Traditional Authority or Municipal Statement which must not be older than three (3) months; or b) A Formal Lease Agreement together with Lessor's Municipal Account or Letter from Traditional Authority 	
Promotion of Youth	Attach Director's certified copy of South African ID as proof	
South African owned enterprises	Attach Director's certified copy of South African ID as proof + company registration documents	

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2.10 Attach full CSD Report (For verification of the required attachments above)

2.11 Proposed amendments and qualifications (Proposed amendments and qualifications must be captured in full, whether applicable of not)

Failure by the service provider to submit or complete item 2.1, 2.2, 2.3, 2.5, 2.6, and 2.7 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.

C -- SPECIAL NOTES TO BIDDERS AND DEPARTMENTAL RIGHTS

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

I.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.

I.3 LDPWR&I reserves the right to appoint the bidder that proves to be fully capable and qualifies to handle and execute the job.

I.4 The proposals submitted must be in line with the detailed specification.

I.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 these services; or
- ii. Funds are no longer available to cover the total envisaged expenditure; or
- iii. No acceptable bods 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 Quotation/Tender.

1.12 Quotations/Tenders 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



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	□Yes □No
4.	Proposed amendments and qualifications	□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.	Full CSD Report	□Yes □No
11.	Declaration of current projects	□Yes □No



Declaration on the status of administrative compliance

Please indicate, by circling either **Yes or No**, whether the administrative information submitted with the original framework tender documents have changed or not. If yes, kindly provide the particulars below with any supporting documents.

Signed	 Date	
Name	 Position	
Enterprise		

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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.						

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Attach additional pages if more space is required.

Signed	Date
Name	Position
Tenderer	

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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	
Signe	ed .	Date	
Name	9	Position	
Tend	erer		

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SBD 1 PART A: INVITATION TO BID

YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF THE LIMPOPO DEPARTMENT OF PUBLIC WORKS, ROADS AND INFRASTRUCTURE								
			CLOSING [DATE	As per Tender			As per Tender
DESCRIPTION	LDPWRI-B/20291 REFURBISHMEN		S AT PFUM	BADA PRIMA	Advert	CLOSI	NG TIME:	Advert
BID RESPONSE	DOCUMENTS MAY E	BE DEPOSITED IN T	THE BID BOX	SITUATED A	AT (STREET ADD	RESS)		
DEPARTMEN	T OF PUBLIC WC	RKS, ROADS &	INFRAST	RUCTURE.				
Physical addre	ess: Corner River a	and Blaauwberg	Streets, La	idanna, 069	9.			
BIDDING PROCE	EDURE ENQUIRIES N	AY BE DIRECTED	то					
CONTACT PERS	ON	Mr. NJ Motsopye						
TELEPHONE NU	MBER	0152847126	E-MAIL A	DDRESS		motsop	yen@dpw.limpop	o.gov.za
CONTACT PERS	ON (TECHNICAL)	Mr. K Modjadji	-					
TELEPHONE NU	MBER	083 673 5436	E-MAIL A	DDRESS		Modjad	jiM@dpw.limpopo	.gov.za
SUPPLIER INFO	RMATION	[
NAME OF BIDDE	R							
POSTAL ADDRE	SS							
STREET ADDRE	SS							
TELEPHONE NU	MBER	CODE			NUMBER			
CELLPHONE NU	MBER							
E-MAIL ADDRES	S							
VAT REGISTRAT				1				
SUPPLIER COMI	PLIANCE STATUS	LAX COMPLIANCE		OR	SUPPLIER			
		SYSTEM PIN:			DATABASE No	: MAA	AA A	
		1		1			1	
						тис	TYes	ΠNo
SOUTH AFRIC	CA FOR THE	□Yes	No	GOODS /	SERVICES /W			
GOODS /SER	VICES /WORKS			OFFERED?			IF YES, ANSW	ER THE RE BELOW 1
OFFERED?							QUEUTION	
QUESTIONNAIR	e to bidding fore	IGN SUPPLIERS						
IS THE ENTITY A	RESIDENT OF THE	REPUBLIC OF SOL	JTH AFRICA	(RSA)?			□ Y	ES 🗌 NO
DOES THE ENTITY HAVE A BRANCH IN THE RSA?								
DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA?								
DOES THE ENTITY HAVE ANY SOURCE OF INCOME IN THE RSA?					ES 🗌 NO			
IS THE ENTITY LIABLE IN THE RSA FOR ANY FORM OF TAXATION?					ES 🗌 NO			
IF THE ANSWER IS "NO" TO ALL OF THE ABOVE, THEN IT IS NOT A REQUIREMENT TO REGISTER FOR A TAX COMPLIANCE STATUS SYSTEM PIN CODE FROM THE SOUTH AFRICAN REVENUE SERVICE (SARS) AND IF NOT REGISTER AS PER 2.3 BELOW.								

CONTRACT No. LDPWRI-B/20291

1. BID SUBMISSION:

- 1.1. BIDS MUST BE DELIVERED BY THE STIPULATED TIME TO THE CORRECT ADDRESS. LATE BIDS WILL NOT BE ACCEPTED FOR CONSIDERATION.
- 1.2. ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS PROVIDED-(NOT TO BE RE-TYPED) OR IN THE MANNER PRESCRIBED IN THE BID DOCUMENT.
- 1.3. 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.
- 1.4. 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	

DATE:

SBD 4

BIDDER'S DISCLOSURE

1. PURPOSE OF THE FORM

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

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

YES/NO

2. Bidder's declaration

2.1 Is the bidder, or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest2 in the enterprise,

employed by the state?

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

Full Name	Identity Number	Name of State institution

- 2.2 Do you, or any person connected with the bidder, have a relationship with any person who is employed by the procuring institution? **YES/NO**
- 2.2.1 If so, furnish particulars:

.....

² the power, by one person or a group of persons holding the majority of the equity of an enterprise, alternatively, the person/s having the deciding vote or power to influence or to direct the course and decisions of the enterprise. **22**

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

.....

3 DECLARATION

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

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

business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

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

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

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

.....

Signature

Date

.....

Position

Name of bidder

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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.

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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).

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FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES 3.

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:

90/10 80/20 or

 $! = \$ \% \& -\frac{()^{*} + (), -()}{(), -()}$ or $! = * \% \& -\frac{()^{*} + (), -()}{(), -()}$

Where

Ps Points scored for price of tender under consideration =

Pt Price of tender under consideration =

Pmin = Price of lowest acceptable tender

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

3.2.1. POINTS AWARDED FOR PRICE

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

80/20	or	90/10
! " = \$ % & ' +), / 0) o r	! " = * % 8	$(x + \frac{(x + 1)(x + 1)(x)}{(x + 1)(x + 1)(x + 1)})$

Where

Ps Points scored for price of tender under consideration =

Pt Price of tender under consideration =

Price of highest acceptable tender Pmax =

POINTS AWARDED FOR SPECIFIC GOALS 4.

- 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

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(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.)

The specific goals allocated points in terms of this tender	Number of points allocated (80/20 system) (To be completed by the organ of state)	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	6	
Women	3	
Disabled persons	2	
Promotion of SMMEs	2	
Enterprises located in Limpopo Province	4	
Promotion of youth	1	
South African owned enterprises	2	

DECLARATION WITH REGARD TO COMPANY/FIRM

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

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points claimed, based on the specific goals as advised in the tender, qualifies the company/ firm for the preference(s) shown and I acknowledge that:

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

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



ATION OF CURRENT PROJECTS

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

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

ects at the moment the bidder must indicate/write on this table.

sentation of facts will render your bid non-responsive.

st of current projects executed by the bidder

o you have the current projects being executed Yes/No? (circle the correct answer)

ease note that it is compulsory to answer the question above and if the answer is yes, complete the table below. Failure by the service ovider/bidder to answer the question above or complete the table below will render their proposal not responsive and will not be consid

Description	Project Value	Start date	Planned end date	Client Name	Contact Perso

29

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 PFUMBADA PRIMARY SCHOOL IN MAMOHOHI VILLAGE, VHEMBE 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 acceptance part of this form of offer and acceptance and returning one copy of this document to the tenderer before the end of the period of validity stated in the tender data, whereupon the tenderer becomes the party named as the contractor in the conditions of contract identified in the contract data.

Name & signature of	 Date
For the tenderer:	
Capacity	
Name(s)	
Signature(s)	

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 Employer

Signature	
Name	
Capacity	

Name and address of organization

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 *Employer* and the Tenderer agree to and accept the foregoing schedule of deviations as the only deviations from and amendments to the documents listed in the Tender Data and addenda thereto as listed in the returnable schedules, as well as any confirmation, clarification or changes to the terms of the offer agreed by the Tenderer and the *Employer* during this process of offer and acceptance.

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

.....


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

SECTION NO. 1

Preliminaries and Generals

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



Carried to Collection

	NITIONS	
A1	DEFINITIONS AND INTERPRETATIONS	
Clause	1.0 Clause	
1.1 De	finition of "Commencement Date" is added:	
" COMI agreer Accepta	MENCEMENT DATE" means the date that the nent , made in terms of the Form of Offer and ance, comes into effect.	
Clause replacir	1.1 Definition of "Construction Period" is amended by ng it with the following:	
"CONS on the comple	STRUCTION PERIOD " means the period commencing commencement date and ending on the date of practical tion.	
Clause with the	1.1 Definition of "Interest" is amended by replacing it e following:	
INTER whethe be in te and in	EST means the interest rates applicable on this contract, er specifically indicated in the relevant clauses or not, will erms of the legislation of the Republic of South Africa, 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	
(a) (b)	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 in respect of interest owed to the employer , 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.	
(a) (b) Clause	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 in respect of interest owed to the employer , 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.	
(a) (b) Clause	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 in respect of interest owed to the employer , 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.	
(a) (b) Clause	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 in respect of interest owed to the employer , 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.	
(a) (b) Clause	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 in respect of interest owed to the employer , 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.	

Bill No. 1

	No clause		
	Eivadu Valua relatedu		
	Time related:	item	
	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	R	
	Section No. 1		

PRELIMINARIES Bill No. 1

6	A6	SITE REPRESENTATIVE		
	Clause 6	.0		
	Fixed:	Value related:		
	Time rela	ated:	item	
7	A7	COMPLIANCE WITH REGULATION		
	Clause 7	.0		
	Note: T all the re 2003 issu 1993 (Ac 5(1) req well as R construct See also	he provisions herein include inter alia, compliance with equirements set out in the Construction Regulations, and under the Occupational Health and Safety Act, et No 85 of 1993), and in particular with Regulation uiring the compilation of a health and safety plan, as egulation 6(1) requiring the appointment of a etion supervisor clause C10 of Section C - Specific Preliminaries		
	Fixed: Time rela	Value related: ated:	item	
8	A8	WORKS RISK		
	Clause 8	.0		
	Fixed:	Value related:	item	
		dicu	licent	
9	A9	INDEMNITIES		
	Clause 9	.0		
	Fixed: Time rela	Value related: ated:	item	
10	A10			
10	AIU	WORKS INSURANCES		
	Fixed:	Value related:		
	i ime reia	ated :		
	Clause 1	0.0		
	Clause 1 clauses:	0.0 is amended by the addition of the following	item	
		Carried to Collection	R	
	1		1	 <u>I</u>
	Sectior	n No. 1		

10.5 Damage to the Works

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



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10.6 Injury to Persons or loss of or damage to Properties

- (a) The contractor shall be liable for and hereby indemnifies the employer 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 works unless due to any act or neglect of any person for whose actions the employer is legally liable
- (b) The contractor shall be liable for any hereby indemnifies the employer against any liability, loss, claim or proceeding consequent upon loss of or damage to any moveable or immovable or personal property or property contiguous to the site, whether belonging to or under the control of the employer or any other body or person, arising out of or in the course of or by reason of the execution of the works unless due to any act or neglect of any person for whose actions the employer is legally liable
- (c) The contractor shall, upon receiving a contract instruction from the principal agent, cause the same to be made good in a perfect and workmanlike manner at his own cost and in default therefore the employer shall be entitled to cause it to be made good and to recover the cost thereof from the contractor or to deduct the same from amounts due to the contractor
- (d) The contractor shall be responsible for the protection and safety of such portions of the premises placed under his control by the employer for the purpose of executing the works until the issue of the certificate of practical completion
- (e) Where the execution of the works involves the risk of removal of or interference with support to adjoining properties including land or structures or any structures to be altered or added to, the **contractor** shall 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 **works** has been completed

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

10.7 High risk insurance

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

10.7.1 Damage to the works

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

When so instructed to do so by the principal agent, the contractor shall proceed immediately to remove and/or dispose of any debris arising from damage to or destruction of the works and to rebuild, restore, replace and/or repair the works at the contractor's own costs

10.7.2 Injury to persons or loss of or damage to property

The **contractor** shall be liable for and hereby indemnifies and holds harmless the **employer** against any liability, loss, claim or proceeding arising at any time during the period of the contract whether arising in common law or by statute, consequent upon personal injuries to or the death of any person whomsoever resulting from, arising out of or caused by a catastrophic ground movement as mentioned above

The **contractor** shall be liable for and hereby indemnifies the **employer** against any and all liability, loss, claim or proceeding consequent upon loss of or damage to any moveable or immovable or personal property or property contiguous to the **site**, whether belonging to or under the control of the **employer** or any other body or person whomsoever arising out of or caused by a catastrophic ground movement, as mentioned above, which occurred during the period of the contract

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Fixed:Value related: item 11 A11 LIABILITY INSURANCES Clause 11.0 Fixed:Value related: item 12 A12 EFFECTING INSURANCES item 12 A12 EFFECTING INSURANCES item 12 A12 EFFECTING INSURANCES item 13 A13.0 No clause item 14 A14 SECURITY item 13 A13.0 No clause item 14 A14 SECURITY item Clause 14.0 Clause 14.1 - 14.8 are amended by replacing them with the following: item 14.1. In respect of contracts with a contract sum up to R1 million, the security to be submitted by the contractor to the employer will be as a payment reduction of five per cent (5%) of the value certified in the payment certificate (excluding VAT)		 10.7.3 It is the responsibility of the contractor 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 contractors obligations in terms of the contract, the contractor shall, within twenty-one (21) calendar days of the commencement date but before commencement of the works, submit to the employer 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 contractors 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 contractor or by deducting the same from any amount still due under this contract or under any other contract presently or hereafter existing between the employer and the contractor and for this purpose all these contracts shall be considered one indivisible whole 	
11 A11 LIABILITY INSURANCES Clause 11.0 Fixed:Value related: Time related: 12 A12 EFFECTING INSURANCES Clause 12.0 Fixed:Value related: Time related: Time related: 13 A13.0 No clause 14 A14 SECURITY Clause 14.0 Clause 14.1 - 14.8 are amended by replacing them with the following: 14.1. In respect of contracts with a contract sum up to R1 million, the security to be submitted by the contractor to the employer will be as a payment reduction of five per cent (5%) of the value certified in the payment certificate (excluding VAT)		Time related:	item
Clause 11.0 item Fixed:Value related:	11	A11 LIABILITY INSURANCES	
Fixed:Value related: item 12 A12 EFFECTING INSURANCES Clause 12.0 Fixed: Fixed:Value related: item 13 A13.0 No clause 14 A14 SECURITY Clause 14.0 Clause 14.1 - 14.8 are amended by replacing them with the following: 14.1. In respect of contracts with a contract sum up to R1 million, the security to be submitted by the contractor to the employer will be as a payment reduction of five per cent (5%) of the value certified in the payment certificate (excluding VAT) Carried to Collection R		Clause 11.0	
Time related: item 12 A12 EFFECTING INSURANCES Clause 12.0 Fixed:		Fixed:Value related:	
12 A12 EFFECTING INSURANCES Clause 12.0 Fixed:Value related: item 13 A13.0 No clause 14 A14 SECURITY Clause 14.0 Clause 14.1 - 14.8 are amended by replacing them with the following: Item 14.1. In respect of contracts with a contract sum up to R1 million, the security to be submitted by the contractor to the employer will be as a payment reduction of five per cent (5%) of the value certified in the payment certificate (excluding VAT) Carried to Collection R		Time related:	item
Clause 12.0 Fixed:Value related: item 13 A13.0 No clause item 14 A14 SECURITY item Clause 14.0 Clause 14.1 - 14.8 are amended by replacing them with the following: item 14.1. In respect of contracts with a contract sum up to R1 million, the security to be submitted by the contractor to the employer will be as a payment reduction of five per cent (5%) of the value certified in the payment certificate (excluding VAT) R	12	A12 EFFECTING INSURANCES	
Fixed:Value related: item 13 A13.0 No clause 14 A14 SECURITY Clause 14.0 Clause 14.0 Clause 14.1 - 14.8 are amended by replacing them with the following: If a contract sum up to R1 million, the security to be submitted by the contractor to the employer will be as a payment reduction of five per cent (5%) of the value certified in the payment certificate (excluding VAT) Carried to Collection R		Clause 12.0	
13 A13.0 No clause 14 A14 SECURITY Clause 14.0 Clause 14.1 - 14.8 are amended by replacing them with the following: 14.1. In respect of contracts with a contract sum up to R1 million, the security to be submitted by the contractor to the employer will be as a payment reduction of five per cent (5%) of the value certified in the payment certificate (excluding VAT) Carried to Collection R		Fixed:Value related: Time related:	item
14 A14 SECURITY Clause 14.0 Clause 14.1 - 14.8 are amended by replacing them with the following: 14.1. In respect of contracts with a contract sum up to R1 million, the security to be submitted by the contractor to the employer will be as a payment reduction of five per cent (5%) of the value certified in the payment certificate (excluding VAT) R	13	A13.0 <i>No clause</i>	
Clause 14.0 Clause 14.1 - 14.8 are amended by replacing them with the following: 14.1. In respect of contracts with a contract sum up to R1 million, the security to be submitted by the contractor to the employer will be as a payment reduction of five per cent (5%) of the value certified in the payment certificate (excluding VAT) Carried to Collection R	14	A14 SECURITY	
Clause 14.1 - 14.8 are amended by replacing them with the following: 14.1. In respect of contracts with a contract sum up to R1 million, the security to be submitted by the contractor to the employer will be as a payment reduction of five per cent (5%) of the value certified in the payment certificate (excluding VAT)		Clause 14.0	
14.1. In respect of contracts with a contract sum up to R1 million, the security to be submitted by the contractor to the employer will be as a payment reduction of five per cent (5%) of the value certified in the payment certificate (excluding VAT) Carried to Collection R		Clause 14.1 - 14.8 are amended by replacing them with the following:	
Carried to Collection R		14.1. In respect of contracts with a contract sum up to R1 million, the security to be submitted by the contractor to the employer will be as a payment reduction of five per cent (5%) of the value certified in the payment certificate (excluding VAT)	
		Carried to Collection	R

14.1.1. The payment reduction of the value certified in a **payment certificate** shall be *mutatis mutandi* in terms of 31.8(A)

14.1.2. The **employer** shall be entitled to recover expense and loss from the payment reduction in terms of 33.0 provided that the **employer** complies with the provisions of 33.4 in which event the **employers** entitlement shall take precedence over his obligations to refund the payment reduction security or portions thereof to the **contractor**

14.2. In respect of contracts with a **contract sum** above R1 million, the **contractor** shall have the right to select the **security** to be provided in terms of 14.3, 14.4, 14.5, 14.6, or 14.7 as stated in the **schedule**. Such **security** shall be provided to the **employer** within twenty-one (21) **calendar days** from **commencement date**. Should the **contractor** fail to select the **security** to be provided or should the **contractor** fail to provide the **employer** with the selected **security** within twenty-one (21) **calendar days** from **commencement date**. The selected **security** within twenty-one (21) **calendar days** from **commencement date**, the **security** in terms of 14.7 shall be deemed to have selected.

14.3. Where **security** as a cash deposit of ten per cent (10%) of the **contract sum** (excluding VAT) has been selected:

14.3.1. The **contractor** shall furnish the **employer** with a cash deposit equal in value of ten per cent (10%) of the **contract sum** (excluding VAT) within twenty-one (21) **calendar days** from **commencement date**

14.3.2. Within twenty-one (21) **calendar days** of the date of **practical completion** of the **works** the **employer** shall reduce the cash deposit to an amount equal to three per cent (3%) of the **contract value** (excluding VAT), and refund the balance to the **contractor**

14.3.3. Within twenty-one (21) **calendar days** of the date of **final completion** of the **works** the **employer** shall reduce the cash deposit to an amount equal to one per cent (1%) of the **contract value** (excluding VAT) and refund the balance to the **contractor**

14.3.4. On the date of payment of the amount in the final **payment certificate**, the **employer** shall refund the remainder of the cash deposit to the **contractor**

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14.3.5. The **employer** shall be entitled to recover expense and loss from the cash deposit in terms of 33.0 provided that the **employer** complies with the provisions of 33.4 in which event the **employers** entitlement shall take precedence over his obligations to refund the cash deposit **security** or portions thereof to the **contractor**

14.3.6. The parties expressly agree that neither the **employer** nor the **contractor** shall be entitled to cede the rights to the deposit to any third party

14.4. Where **security** as a variable construction guarantee of ten percent (10%) of the **contract sum** (excluding VAT) has been selected.

14.4.1. The **contractor** shall furnish the **employer** with an acceptable variable construction guarantee equal in value to ten percent (10%) of the **contract sum** (excluding VAT) within twenty-one (21) **calendar days** from **commencement date**

14.4.2. The variable construction guarantee shall reduce and expire in terms of the Variable Construction Guarantee form include in the invitation to tender

14.4.3. The **employer** shall return the variable construction guarantee to the **contractor** within fourteen (14) **calendar days** of it expiring

14.4.4. Where the **employer** has a right of recovery against the **contractor** in terms of 33.0, the **employer** shall issue a written demand in terms of the variable construction guarantee

14.5. Where **security** as a fixed construction guarantee of five per cent (5%) of the **contract sum** (excluding VAT) and a five per cent (5%) payment reduction of the value certified in the payment certificate (excluding VAT) has been selected:

14.5.1. The **contractor** shall furnish a fixed construction guarantee to the **employer** equal in value to five per cent (5%) of the **contract sum** (excluding VAT)

14.5.2. The fixed construction guarantee shall come into force on the date of issue and shall expire on the date of **practical completion**

14.5.3. The **employer** shall return the fixed construction guarantee to the **contractor** within fourteen (14) **calendar days** of it expiring

14.5.4. The payment reduction of the value certified in a **payment certificate** shall be in terms of 31.8 (A) and 34.8

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14.5.5. Where the **employer** has a right of recovery against the **contractor** in terms of 33.0, the **employer** shall be entitled to issue a written demand in terms of the fixed construction guarantee or may recover from the payment reduction or may do both

14.6. Where **security** as a cash deposit of five per cent (5%) of the **contract sum** (excluding VAT) and a payment reduction of five per cent (5%) of the value certified in the **payment certificate** (excluding VAT) has been selected:

14.6.1. The **contractor** shall furnish the **employer** with a cash deposit equal in value to five per cent (5%) of the **contract sum** (excluding VAT) within twenty-one (21) **calendar days** from **commencement date**

14.6.2. Within twenty-one (21) **calendar days** of the date of **practical completion** of the **works** the **employer** shall refund the cash deposit in total to the **contractor**

14.6.3. The payment reduction of the value certified in a **payment certificate** shall be *mutatis mutandi* in terms of 31.8(A)

14.6.4. Where the **employer** has a right of recovery against the **contractor** in terms of 33.0, the **employer** may issue a written notice in terms of 33.4 or may recover from the payment reduction or may do both

14.7. Where **security** as a payment reduction of ten per cent (10%) of the value certified in the **payment certificate** (excluding VAT) has been selected:

14.7.1. The payment reduction of the value certified in a **payment certificate** shall be *mutatis mutandi* in terms of 31.8(B)

14.7.2. The **employer** shall be entitled to recover expenses and loss from the payment reduction in terms of 33.0 provided that the **employer** complies with the provisions of 33.4 in which event the **employers** entitlement shall take precedence over his obligations to refund the payment reduction or portions thereof to the **contractor**

14.8. Payments made by the guarantor to the **employer** in terms of the fixed or variable construction guarantee shall not prejudice the rights of the **employer** or **contractor** in terms of this **agreement**

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	14.9. Should the contractor fail to furnish the security in terms of 14.2, the employer , in his sole discretion and without notification to the contractors selected form the security 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:Value related:	item	
	EXECUTION		
15	A15 PREPARATION FOR AND EXECUTION OF THE WORKS		
	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:Value related: 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	
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18	A18 SETTING OUT OF THE WORKS		
	Clause 18.0		
	Fixed:Value related: Time 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	R	
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22	AZZ EMPLOTERS DIRECT CONTRACTORS		
	Fixed :Value related : Time related :	item	
23	A23 CONTRACTOR'S DOMESTIC SUBCONTRACTORS		
	Fixed:Value related: Time related:		
24	A24 PRACTICAL COMPLETION		
	Clause 24.0		
	Fixed:Value related:		
25	A25 WORK'S COMPLETION		
	Clause 25.0		
	Fixed:Value related: Time related:	item	
26	A26 FINAL COMPLETION		
	Clause 26.0		
	Fixed :Value related : 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	
	Carried to Collection	R	
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lause 29	9.0	
ixed:	Value related:	
ime rela	ted:	item
30	PENALTY FOR NON-COMPLETION	
ixed:	Value related:	
ime rela	ted:	item
PAYME	NT	
31	INTERIM PAYMENT TO THE CONTRACTOR	
lause 31	.0	
lause 31	.8 is amended by replacing it with the following two	
lternativ	e clauses:	
lternat	ive A	
1.6, the nd goo ertified	value of the works in terms of 31.4.1 and materials ds in terms of 31.4.2 shall be certified in full. The value shall be subject to the following percentage adjustments:	
1.8(A).2 aymen omplet 1.8(A).3 aymen	Ninety-seven per cent (97%) of such value in interim t certificates issued on the date of practical tion and up to but excluding the date of final completion Ninety-nine per cent (99%) of such value in interim t certificates issued on the date of final completion	
1.8(A).2 aymen omplet 1.8(A).3 aymen nd up to f 34.6	Ninety-seven per cent (97%) of such value in interim t certificates issued on the date of practical tion and up to but excluding the date of final completion Ninety-nine per cent (99%) of such value in interim t certificates issued on the date of final completion o but excluding the final payment certificate in terms	
1.8(A).2 aymen omplet 1.8(A).3 aymen nd up tr f 34.6 1.8(A).4 nal pay mount c ne paym pplicabl	 Ninety-seven per cent (97%) of such value in interim t certificates issued on the date of practical tion and up to but excluding the date of final completion Ninety-nine per cent (99%) of such value in interim t certificates issued on the date of final completion to but excluding the final payment certificate in terms One hundred per cent (100%) of such value in the ment certificate in terms of 34.6 except where the tertified is in favour of the employer. In such an event tent reduction shall remain at the adjustment level to the final payment certificate 	
1.8(A).2 aymen omplet 1.8(A).3 aymen nd up tr f 34.6 1.8(A).4 nal pay mount c ne paym pplicabl	 Ninety-seven per cent (97%) of such value in interim at certificates issued on the date of practical ation and up to but excluding the date of final completion Ninety-nine per cent (99%) of such value in interim at certificates issued on the date of final completion to but excluding the final payment certificate in terms One hundred per cent (100%) of such value in the ment certificate in terms of 34.6 except where the certified is in favour of the employer. In such an event nent reduction shall remain at the adjustment level e to the final payment certificate 	
1.8(A).2 aymen omplet 1.8(A).3 aymen nd up tr f 34.6 1.8(A).4 nal pay mount c ne paym pplicabl	 P. Ninety-seven per cent (97%) of such value in interim at certificates issued on the date of practical ation and up to but excluding the date of final completion P. Ninety-nine per cent (99%) of such value in interim at certificates issued on the date of final completion to but excluding the final payment certificate in terms P. One hundred per cent (100%) of such value in the ment certificate in terms of 34.6 except where the exertified is in favour of the employer. In such an event hent reduction shall remain at the adjustment level e to the final payment certificate 	
1.8(A).2 aymen omplet 1.8(A).3 aymen nd up tr f 34.6 1.8(A).4 nal pay mount c ne paym pplicabl	 P. Ninety-seven per cent (97%) of such value in interim the certificates issued on the date of practical from and up to but excluding the date of final completion P. Ninety-nine per cent (99%) of such value in interim the certificates issued on the date of final completion to but excluding the final payment certificate in terms P. One hundred per cent (100%) of such value in the ment certificate in terms of 34.6 except where the the certified is in favour of the employer. In such an event thent reduction shall remain at the adjustment level to the final payment certificate 	

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	31.8(b).1 Ninety per cent (90%) of such value in interim		
	payment certificates issued up to the date of practical 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		
	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 payment certificate 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		
	payment reduction shall remain at the adjustment level applicable to the final payment certificate		
	Clause 31.12 is amended by deleting the following:		
	Payment shall be subject to the employer giving the contractor a tax invoice for the amount due		
	Fixed:Value related: Time related:	item	
32	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 contractor "		
	Fixed:Value related: Time related:	item	
	Carried to Collection	R	

A33	RECOVERY OF EXPENSE AND LOSS		
Clause 33. Clause 33.	.0 .2 is amended by adding the following clauses:		
33.2.9 the works on	contractors failure or neglect to commence with the the the other the dates prescribed in the contract		
33.2.10 tł works in	ne contractors failure or neglect to proceed with the terms of the contract		
33.2.11 th complete	e contractors failure or neglect for any reason to the works in accordance with the contract		
33.2.12 t with any c instructio contract	the contractors refusal or neglect to comply strictly of the conditions of contract or any contract ons and/or orders in writing given in terms of the		
33.2.13 tr surrender Republic (red in terms of the insolvency laws in force within the of South Africa		
Fixed: Time relat	Value related:	item	
A34	FINAL ACCOUNT AND FINAL PAYMENT		
Clause 34.	0		
Clause 34. with twent subject to the amour	.13 is amended by replacing seven (7) calendar days ty-one (21) calendar days and deleting the words the employer giving the contractor a tax invoice for nt due		
Fixed: Time relat	Value related:	item	
A35	PAYMENT TO OTHER PARTIES		
Clause 35.	0		
Fixed: Time relat	Value related:	item	

A36 DEFAUL	CANCELLATION BY EMPLOYER - CONTRACTORS T		
Clause 36	5.0		
Clause 36 and repla	5.3 is amended by removing the reference to No clause acing the words principal agent with employer		
Clause 36	5.0 is amended by the addition of the following clause:		
36.7 Not of this ag or for an instruction withdraw entitled to any lien of whatsoev	hwistanding any clause to the contrary, on cancellation greement either by the employer or the contractor; y reason whatsoever, the contractor shall on written on, discontinue with the works on a date stated and himself from the site. The contractor shall not be o refuse to withdraw from the works on the grounds of or right of retention or on the grounds of any other right ver		
Fixed:	Value related:		
Time rela	ted:	item	
A37 DAMAG	CANCELLATION BY EMPLOYER - LOSS AND E		
Clause 37	7.0		
Clause 37	7.0 is amended by the addition of the following clause:		
37.5 Not this agre for any re instruction withdraw entitled to any lien of whatsoev	withstanding any clause to the contrary, on cancellation of ement either by the employer or the contractor; or eason whatsoever, the contractor shall on written on, discontinue with the works on a date stated and y himself from the site. The contractor shall not be o refuse to withdraw from the works on the grounds of or right of retention or on the grounds of any other right yer		
Fixed: Time rela	Value related:	item	
A38 DEFAUL	CANCELLATION BY CONTRACTOR - EMPLOYERS		
	3.0		
Clause 36			

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<pre>ise 40.7.1 is amended by replacing (10) with (15) and by the itions of the following ether or not mediation resolves the dispute, the parties shall r their own cost concerning the mediation and equally share the s of the mediator and related costs d:Value related: e related:</pre>	item		
<pre>ise 40.7.1 is amended by replacing (10) with (15) and by the itions of the following ether or not mediation resolves the dispute, the parties shall r their own cost concerning the mediation and equally share the s of the mediator and related costs d:Value related: e related:</pre>	item		
<pre>ise 40.7.1 is amended by replacing (10) with (15) and by the itions of the following ether or not mediation resolves the dispute, the parties shall r their own cost concerning the mediation and equally share the s of the mediator and related costs d:Value related: e related:</pre>	item		
<pre>ise 40.7.1 is amended by replacing (10) with (15) and by the itions of the following ether or not mediation resolves the dispute, the parties shall r their own cost concerning the mediation and equally share the s of the mediator and related costs d:Value related: e related:</pre>	item		
<pre>ise 40.7.1 is amended by replacing (10) with (15) and by the itions of the following ether or not mediation resolves the dispute, the parties shall r their own cost concerning the mediation and equally share the s of the mediator and related costs d:Value related: e related:</pre>	item		
<pre>ise 40.7.1 is amended by replacing (10) with (15) and by the itions of the following ether or not mediation resolves the dispute, the parties shall r their own cost concerning the mediation and equally share the s of the mediator and related costs d:Value related: e related:</pre>	item		
<pre>ise 40.7.1 is amended by replacing (10) with (15) and by the itions of the following ether or not mediation resolves the dispute, the parties shall r their own cost concerning the mediation and equally share the s of the mediator and related costs d:Value related:e related:Value related:</pre>	item		
use 40.7.1 is amended by replacing (10) with (15) and by the itions of the following ether or not mediation resolves the dispute, the parties shall r their own cost concerning the mediation and equally share the s of the mediator and related costs			
ise 40.7.1 is amended by replacing (10) with (15) and by the itions of the following ether or not mediation resolves the dispute, the parties shall r their own cost concerning the mediation and equally share the s of the mediator and related costs			
use 40.7.1 is amended by replacing (10) with (15) and by the itions of the following			
ise 40.7.1 is amended by replacing (10) with (15) and by the itings of the following			
clause			
se 40.6 is amended by removing the reference to:			
ise 40.2.2 is amended by replacing one (1) year with three (3) 's			
ise 40.0			
DISPUTE SETTLEMENT			
e related:	item		
d:Value related:			
ise 39.0			
CESSATION- CANCELLATION OF THE WORKS			
d:Value related: e related:	item		
draw himself from the site . The contractor shall not be ted to refuse to withdraw from the works on the grounds of lien or right of retention or on the grounds of any other right tsoever			
his agreement either by the employer or the contractor ; or any reason whatsoever, the contractor shall on written ruction, discontinue with the works on a date stated and			
Notwithstanding any clause to the contrary, on cancellation			
se 38.0 is amended by the addition of the following clause:			
	se 38.0 is amended by the addition of the following clause: Notwithstanding any clause to the contrary, on cancellation is agreement either by the employer or the contractor ; or iny reason whatsoever, the contractor shall on written uction, discontinue with the works on a date stated and draw himself from the site . The contractor shall not be led to refuse to withdraw from the works on the grounds of lien or right of retention or on the grounds of any other right scover 1:Value related: related: CESSATION- CANCELLATION OF THE WORKS se 39.0 1:Value related: related: DISPUTE SETTLEMENT se 40.0 se 40.2.2 is amended by replacing one (1) year with three (3) s se 40.6 is amended by removing the reference to: thuse	se 38.0 is amended by the addition of the following clause: Notwithstanding any clause to the contrary, on cancellation is agreement either by the employer or the contractor ; or iny reason whatsoever, the contractor shall on written uction, discontinue with the works on a date stated and draw himself from the site . The contractor shall not be led to refuse to withdraw from the works on the grounds of lien or right of retention or on the grounds of any other right scover t:Value related: e related: e related: term DISPUTE SETTLEMENT se 40.0 se 40.2.2 is amended by replacing one (1) year with three (3) s se 40.6 is amended by removing the reference to: flause	se 38.0 is amended by the addition of the following clause: Notwithstanding any clause to the contrary, on cancellation is agreement either by the employer or the contractor ; or iny reason whatsoever, the contractor shall on written uction, discontinue with the works on a date stated and draw himself from the site . The contractor shall not be led to refuse to withdraw from the works on the grounds of lien or right of retention or on the grounds of any other right scover it:

	SUBSTITUTE PROVISIONS		
40	A41 STATE CLAUSES		
	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	
	Carried to Collection	R	

Availability of construction documentation		
Fixed:Value related:	item	
	licin	
Interests of agents		
Fixed:Value related:		
Time related:	item	
Priced documents		
Fixed:Value related:		
Time related:	item	
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		
Defined works area		
Fixed Value related		
Time related:	item	
Geotechnical investigation		
Fixed Value related		
Time related:	item	
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		

52	Existing premised occupied	
	Fixed:Value related:	
	Time related:	
53	Previous work dimensional accuracy	
	Fixed: Value related:	
	Time related:	
54	Previous work defects	
	Fixed: Value related:	
	Time related:	
55	Services known	
	Time related:	
56	Services unknown	
50		
	Fixed:Value related:	
57	Protection of trees	
	Fixed:Value related:	
	Time related:	
58	Articles of value	
	Fixed: Value related:	
	Time related:	
50	T	
59	Inspection of adjoining properties	
	Fixed:Value related:	
	I ime related :	
		-
	Carried to Collectio	n

	MANAGEMENT OF CONTRACT		
60	Management of the works		
	Fixed:Value related: Time related:	item	
61	Programme for the works		
	Fixed:Value related: Time related:	item	
62	Progress meetings		
	Fixed:Value related: Time related:	item	
63	Technical meetings		
	Fixed:Value related: Time 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: Time related:	item	
66	Workmanship samples		
	Fixed:Value related: Time related:	item	
67	Shop drawings		
	Fixed:Value related: Time related:	item	
	Carried to Collection	R	

Deposits and fees		
Fixed:Value related:		
Time 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:		
Time 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	

70	Tologon munication for ilitics		
78			
	Time related:	item	
79	Ablution facilities		
	Fixed:Value related:		
	lime 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 nominated subcontractors and other contractors , will be adjusted only if the scope of the work has changed		
	Fixed:Value related: Time related:	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	

	FINANCIAL ASPECTS		
84	Statutory taxes, duties and levies		
	Fixed:Value related: Time related:	item	
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		
	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		
	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	

			1	
92	Disturbance			
	Fixed: Value r	elated:		
	Time related:		item	
	Environmental disturbai	nce		
	Fixed Value r	elated		
	Time related:		item	
4	Works cleaning and clea	ring		
		alatad		
	Time related:		item	
5	Vermin			
-				
	Fixed:Value r	elated:	itom	
			litern	
6	Overhand work			
	Fixed:Value r	elated :		
	Time related:		item	
7	Instruction manuals and	l guarantees		
	Fixed: Value r	elated :		
	Time related:		item	
3				
	Fived: Value r	elated		
	Time related:		item	
9	Tenant installations			
	Fixed: Volue r	alatad		
	Time related:Value		item	
		Carried to Collection	R	
	Section No. 1			L
	PRELIMINARIES			
	Bill No. 1			

		I	
	SCHEDULE OF VARIABLES		
100	Pre-tender information		
	Fixed:Value related: Time related:	item	
	This schedule contains all variables referred to in this document and is divided into pretender and post-tender categories. The pre-tender category must be completed in full and included in the tender documents. Both the pre-tender and post-tender categories form part of these Preliminaries. Spaces requiring information must be filled in, shown as not applicable or deleted and not left blank. Where choices are offered, the non-applicable items are to be deleted.		
	Carried to Collection	R	

12.1	PRE-TENDER INFORMATION		
12.1.1 <i>[2.2]</i>	Provisional Bills of Quantities The quantities are provisional		
	NO		
12.1.2	Availability of construction documentation		
[2.3]	Construction documentation is complete		
	YES		
12.1.3	Interest of agent		
[2.4]	Details:		
	Employer: Limpopo Department of of Roads &		
	<u>A3 Church Street</u>		
	Private Bag V0400		
	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		
	<u>Civil/Structural:</u>		
	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	
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	Carried to Collection	R	
12.1.13 <i>[6.4.3]</i>	Offices 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.		
12.1.12 <i>6.2]</i>	<i>Enclosure of the works</i> Specific requirements:		
12.1.11 <i>[3.11]</i>	<i>Inspection of adjoining properties</i> Specific requirements:		
12.1.10 <i>[3.9]</i>	<i>Protection of trees</i> Specific requirements:		
	N/A		
12.1.9 <i>[3.7</i>]	<i>Services - known</i> Details:		
	N/A		
12.1.8 <i>[3.6]</i>	Previous work - defects Details:		
	N/A		
12.1.7 <i>[3.5]</i>	Previous work - dimensional accuracy Details		
	N/A		
12.1.6 <i>[3.4]</i>	<i>Existing premises occupies</i> Specific requirements:		
	Refer to Principal Agent		
12.1.5 <i>[3.2]</i>	<i>Geotechnical investigation</i> Details:		
	Site as per land surveyor		
12.1.4 <i>[3.1]</i>	<i>Defined works area</i> Details:		

12.1.15 51 [6.6] 51 12.1.16 12 [7.2] 01 01 01 12.1.17 12 [7.3] 01 01 01 12.1.18 72 [7.3] 01 01 12 12.1.18 74 12.1.19 12 [7.5] 01 [12.1.20 Pi [11.2] Pr	Dption C (by employer - metered) Telecommunications Felephone Facsimile E-mail Ablution facilities Dption A (by contractor) Dption B (by employer) Protection of existing/sectionally occupied Protection is required	NO YES YES YES NO WORKS		
12.1.15 51 12.1.15 51 12.1.15 51 12.1.16 12 12.1.17 12 12.1.17 12 12.1.17 12 12.1.17 12 12.1.17 12 12.1.18 72 12.1.18 74 12.1.19 14 12.1.19 14 12.1.20 12 12.1.20 12 12.1.20 12	Dption C (by employer - metered) Telecommunications Telephone Facsimile E-mail Ablution facilities Dption A (by contractor) Dption B (by employer) Protection of existing/sectionally occupied Protection is required	NO YES YES YES YES NO Works NO		
ro fix 12.1.15 Si [6.6] Sr 12.1.16 M [7.2] Or 0 Or 12.1.17 Ei [7.3] Or 01 Or 12.1.18 Te [7.4] Te 12.1.19 Ai [7.5] Or 12.1.20 Pi	Dption C (by employer - metered) Telecommunications Telephone Facsimile E-mail Ablution facilities Dption A (by contractor) Dption B (by employer) Protection of existing/sectionally occupied	NO YES YES YES YES		
ro fix to or ive da ass in: 12.1.15 <i>[6.6]</i> S 12.1.16 <i>[7.2]</i> O 0 12.1.17 <i>[7.3]</i> O 0 12.1.18 <i>[7.4]</i> Te Fa <i>[7.4]</i> Fa <i>[7.5]</i> O	Dption C (by employer - metered) Telecommunications Felephone Facsimile E-mail Ablution facilities Dption A (by contractor) Dption B (by employer)	NO YES YES YES		
ro fix to or ive da ass in: 12.1.15 <i>[6.6]</i> S 12.1.16 <i>[7.2]</i> Op Op 12.1.17 <i>[7.3]</i> Op Op 12.1.18 <i>[7.4]</i> Te Fa E- 12.1.19 <i>[7.5]</i> Op	Dption C (by employer - metered) Telecommunications Felephone Facsimile E-mail Ablution facilities Dption A (by contractor)	NO YES YES YES		
12.1.15 51 [6.6] 51 12.1.16 M [7.2] 01 01 01 12.1.17 [7.3] 01 01 12.1.18 72 12.1.18 72 12.1.18 72 12.1.18 74 12.1.19 44	Dption C (by employer - metered) Telecommunications Felephone Facsimile E-mail Ablution facilities	NO YES YES YES		
ro fix to or ive da as in: 12.1.15 <i>Si</i> <i>[6.6]</i> Sr 12.1.16 <i>[7.2]</i> Or Or 12.1.17 <i>[7.3]</i> Or Or 12.1.18 <i>[7.4]</i> Te Fa E-	Dption C (by employer - metered) Telecommunications Felephone Facsimile E-mail	NO YES YES		
ro fix to or ive da ass in: 12.1.15 <i>[6.6]</i> Sp 12.1.16 <i>[7.2]</i> Op Op 12.1.17 <i>[7.3]</i> Op Op 12.1.18 <i>[7.4]</i> Te Fa	Dption C (by employer - metered) <i>Telecommunications</i> Felephone Facsimile	NO YES YES		
ro fix to or ive da ass in: 12.1.15 [6.6] Sr 12.1.16 [7.2] Or Or 12.1.17 [7.3] Or Or 12.1.18 [7.4] Te	Dption C (by employer - metered) <i>Telecommunications</i> Felephone	NO		
ro fix to or ive da as in: 12.1.15 <i>[6.6]</i> Sr 12.1.16 <i>[7.2]</i> Or Or 12.1.17 <i>[7.3]</i> Or Or 12.1.18 <i>[7.4]</i>	Dption C (by employer - metered) Telecommunications	NO		
ro fix to or ive da as in: 12.1.15 <i>[6.6]</i> Sp 12.1.16 <i>[7.2]</i> Op 0p 12.1.17 <i>[7.3]</i> Op 0p	Dption C (by employer - metered)	NO		
ro fix to or ive da as in: 12.1.15 <i>[6.6]</i> Sp 12.1.16 <i>[7.2]</i> Op 0p 12.1.17 <i>[7.3]</i> Op				
ro fix to or ive da as in: 12.1.15 <i>St</i> <i>[6.6]</i> Sp 12.1.16 <i>[7.2]</i> Op 0p 12.1.17 <i>[7.3]</i> Op	Dption B (by employer - free of charge)	NO		1
ro fix to or ive da as in: 12.1.15 <i>St</i> <i>[6.6]</i> Sp 12.1.16 <i>[7.2]</i> Op 0p 12.1.17 <i>Et</i>	Dption A (by contractor)	YES		
ro fix to or ivc da as in: 12.1.15 St [6.6] Sp 12.1.16 M [7.2] Op Op	Electricity	NO		
ro fix to or ive da as in: 12.1.15 St [6.6] Sp 12.1.16 M [7.2] Op	Dption C (by employer - metered)	NO		
ro fix to or ive da as in: 12.1.15 St [6.6] Sp 12.1.16 M [7.2] Op	Dption B (by employer - free of charge)	YES		
ro fix to or ivc da as in: 12.1.15 St [6.6] Sp	<i>water</i> Option A (by contractor)			
ro fix to or ive da as in: 12.1.15 Se [6.6] Sr		YES/NO		
ro fix to or ivo da as in:	Subcontractor's notice board			
[6.5] Sp Th ma no co su ed	Specific requirements: The contractor shall provide, erect where directer maintain and remove on completion of the works notice board size 3 x 3m as type Drawing GEN 06 constructed of suitable boarding with flat smooth surface and with edging bead 19mm thick aroun edges and projecting 12mm from face of boardir rounded on front edge. The board shall be secu- fixed to hoarding, where hoarding is provided, o to and including a suitable supporting structure or tubular posts and braces. The board is to be vory white and the bead and 12mm wide dividin dark green. All wording shall be inscribed in dar as per the coat of arms of SA. All working shall be nscribed in dark green painted sans serif letterir	ed, a 33, d outer g and urely r fixed of timber painted g lines rk green e ng.		

	Carried to Collection		R	
12.2.3	<i>Additional agreed preliminaries items</i> Details:			
	Option B (detailed breakdown)	YES/NO		
12.2.2 <i>[10.3]</i>	Adjustment of preliminaries Option A (three categories) YES/NO			
		YES/NO		
[10.2]	Option A (prorated)	YES/NO		
12.2.1	Payment of preliminaries			
12.2	POST-TENDER INFORMATION			
12.1.24 <i>[11.6]</i>	<i>Environmental disturbance</i> Specific requirements:			
12.1.23 <i>[11.5]</i>	Disturbance Specific requirements: The contractor shall keep the site, structures watered during operations to prevent dust a provide and erect and remove on completion works all necessary temporary dust screens a satisfaction of the principal agent			
12.1.22 <i>[11.1]</i>	Protection of works Specific requirements			
12.1.23 <i>[11.5]</i>	Disturbance Specific requirements: The contractor shall keep the site, structures watered during operations to prevent dust a provide and erect and remove on completion works all necessary temporary dust screens a satisfaction of the principal agent			
12.1.22 <i>[11.1]</i>	Protection of works Specific requirements			
	<i>Subcontractor</i> (4) details:			
	Subcontractor (3) details:			
	<i>Subcontractor</i> (2) details:			
12.1.21 <i>[9.2]</i>	Special attendance Subcontractor (1) details:			
12 1 21	Creation de la companya			
	SECTION C: SPECIFIC PRELIMINARIES			
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	<u>Section C contains specific preliminary items which apply to this contract except where N/A (Not Applicable) appears against an item</u>			
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 principal agent			
	Fixed:Value related:	itom		
102		item		
	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 bills of quantities 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		

Section No. 1 PRELIMINARIES Bill No. 1

33

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 site 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 site for tendering purposes		
	Fixed:Value related: Time related:	item	
106	C6 COMMENCEMENT OF WORKS IN SECURITY AREAS		
100	As the works falls within a security area the contractor must give the unit commander or other responsible officer notice before commencement of the works . Should the contractor fail to make such arrangements, admission to the site may be refused and any additional costs will be for the contractors account		
	Fixed :Value related : Time related :	item	
	Carried to Collection	R	
	Section No. 1		

107	C7 ENTRANCE PERMITS TO SECURITY AREAS
	As the works falls within a security area the contractor 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:
108	C8 SECURITY CHECK OF PERSONNEL
	The principal agent may require the contractor to have his personnel and workmen, or a certain number of them, security classified
	In the event of the principal agent requesting the removal of a person or persons from the works for security reasons, the contractor shall do so forthwith and shall thereafter ensure that such person or persons are denied access to the works and the site and/or to any document or information relating to the works
	Fixed :Value related :Time related :
100	
109	C9 PROHIBITION ON TAKING OF PHOTOGRAPHS
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.
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:
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:
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: Carried to Collection

item item item R

Section No. 1 PRELIMINARIES Bill No. 1

C10	HIV/AIDS AWARENESS		
It is requi Specificat together Section of Provision C10.1 TO requireme be priced of measur in this reg	red of the contractor to thoroughly study the HIV/AIDS ion of the Department that must be read with and is deemed to be incorporated under this the Bills of Quantities. for pricing of HIV/AIDS awareness is made under items C10.5 hereafter and it is explicity pointed out that all ents of the aforementioned specification are deemed to hereunder, as the said items represent the only method ement and no additional items or extras to the contract yard shall be entertained		
The cont Specificat compliance of Clause Preliminar reserves t certificat compliance compensa such dela	ractor must take note that compliance with the HIV/AIDS ion is compulsory. In the event of partial or total non- ce, the principal agent , notwithstanding the provisions A 31 of Section A: ries (Section A) or any other clause to the contrary, he right to delay issuing any progress payment te until the contractor provides satisfactory proof of ce. The contractor shall not be entitled to any ation of whatsoever nature, including interest, due to y of payment		
C10.1	AWARENESS CHAMPION		
Selection, Awarenes all in acco	appointment, briefing and making available of an s Champion including provision of all relevant services, ordance with the HIV/AIDS Specification		
Fixed: Time relat	Value related: ed:	item	
C10.2	AWARENESS WORKSHOPS		
Selection approved Workshop workshop technique tuition ma accordan	and appointment of a completed Services Provider by the principal agent , provision of a Service Provider Plan and a suitable venue, conducting of awareness s by means of traditional and/or modern multi-media es, including follow-up courses, making available all terial and performing assessment procedures, all in ce with the HIV/AIDS Specification		
Fixed: Time relat	Value related:	item	
	Carried to Collection	R R	

PRELIMINARIES

Bill No. 1

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 construction period , all in accordance with the HIV/AIDS Specification		
	Fixed:Value related: 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 construction period , all in accordance with the HIV/AIDS Specification		
	Fixed:Value related:		
	I ime related :	item	
114	C10.5 MONITORING		
	Monitoring HIV/AIDS awareness of workers, providing the Principal Agent with access to information including making available all reports, thoroughly completed and reflecting the correct information, for the duration of the construction period and close out, all in accordance with the HIV/AIDS Specification		
	Fixed:Value related: Time related:	item	
	Carried to Collection	R	
	Section No. 1		

Section No. 1 PRELIMINARIES Bill No. 1

Section No.1

PRELIMINARIES

Bill No.1

COLLECTION

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Section No. 1 PRELIMINARIES Bill No. 1

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PRELIMINARIES		
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PRELIMINARIES Bill No. 1		

SECTION NO. 2

Demo(4CR,12Pit,C-RM) and Renovation(4CR,4Enviro)

		Unit	Quantity	Rate	Amount	U
	SECTION NO. 2					
	<u>Demo(4CR,12Pit,C-RM) and Renovation(</u>					
	4CR.4Enviro)					
	BILL NO. 1					
	DEMOLITIONS					
	PREAMBLES					
	Preambles see "Specifications and methods to be used - PW371"					
	DEMOLITIONS					
	Demolishing and removing					
1	Single storey building with pitched roof, 330m2 on plan and 3m high at eaves, comprising unreinforced concrete surface bed, one brick external walls, 230mm thick internal walls and corrugated roof covering on timber trusses	No	1			
2	12 seat pit toilets, 2.7m high at eaves, comprising unreinforced concrete surface bed, one brick external walls, 115mm thick internal walls, corrugated roof covering on timber rafters including sucking waste, backfilling and level the ground					
	backning and level the ground	No	1			
3	Temporary kitchen of corrugated sheeting 30m2 on plan including corrugated roof coverings and concrete slab	No	1			
	Carried To Section Summary			R		
	Bill No. 1					
	Demolitions					
	42					

1		Unit	Quantity	Rate	Amount	
	SECTION NO. 2					
	Demo(4CR.12Pit.C-RM) and Renovation(
	4CR.4Enviro)					
	BILL NO. 2					
	ALTERATIONS					
	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	50			
	Taking out and removing fencing, gates, etc					
2	1800mm high steel fence	m	835			
	REMOVAL OF EXISTING WORK					
	Taking down and removing roofs, floors, panelling,					
	<u>ceilings, partitions, etc:</u>					
3	10 x 250mm fascia and barge boards	m	105			
4	Take out and remove roof sheeting from roof trusses	m²	403			
	Taking out and removing sundry joinery work, fittings, etc					
5	Chalk boards size 4800 x 1220mm high from brick wall.	No	4			
6	Pinning boards size 2440 x 1220mm high from brick walls.	No	8			
	Taking out/off and removing glass and mirrors					
7	Glass from steel windows, including cleaning out rebates and preparing for new glass	m²	55			
	Taking down and removing roofs, floors, panelling, ceilings, partitions, etc					
8	Nutec fibre cement ceilings, including cornices, timber brandering, etc	m²	350			
	Taking out doors, windows, etc					
9	Timber single door size 813 x 2032mm high overall from steel frames.	No	10			
	Carried to Collection			R		
	Section No. 2					
	Bill No. 2					
	Alterations					
	43					

		Unit	Quantity	Rate	Amount
10	Steel gate size 813 x 2032mm high overall from steel frames.	No	6		
	Breaking up and removing unreinforced concrete				
11	100mm Thick surface beds	m²	240		
12	Concrete paving	m²	87		
	Hack up and removing granolithic screeds, plaster , etc from concrete or brickwork and preparing				
10	surfaces for new screed, plaster, etc		050		
13	30mm screed from hoors	m²	350		
	Clean existing surfaces				
14	Clean existing face brick surfaces	m²	321		
	Carried to Collection			R	
	Bill No. 2				
	Alterations				
	44				

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

		Unit	Quantity	Rate	Amount	415
			-			
	SECTION NO. 2 Demo(4CR,12Pit,C-RM) and Renovation(4CR,4Enviro) BILL NO. 3 FARTHWORKS					
	PREAMBLES Preambles see "Specifications and methods to be used - PW371"					
	COMPACTION					
	Compaction of surfaces					
1	Compaction of surfaces	m²	417			
	WEED KILLERS, INSECTICIDES, ETC					
	Soil insecticide in accordance with SANS 5859					
2	Under floors etc, including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m²	417			
	Carried To Section Summary Section No. 2			R		
	Earthworks 46					

1		Unit	Quantity	Rate	Amount
	SECTION NO. 2 Demo(ACD 42Dit C DM) and Demovstian(
	4CR,4Enviro)				
	BILL NO. 4				
	CONCRETE, FORMWORK AND REINFORCEMENT				
	PREAMBLES				
	Preambles see "Specifications and methods to be used - PW371"				
	UNREINFORCED CONCRETE CAST AGAINST				
	EXCAVATED SURFACES				
	15Mpa/19mm concrete				
1	Ramps	m³	2		
2	Pavings cast in panels	m³	9		
3	Thickening down the edge of apron 150mm deep,				
	200mm top and tapering to 100mm at bottom including all excavations, formwork, backfilling, etc	m	90		
			30		
	EXCAVATED SURFACES				
	25MPa/19mm concrete				
4	Surface beds cast in panels	m³	24		
	TEST CUBES				
	Test Cubes				
5	Making and testing 150 x 150 x 150mm concrete strength test cube (Provisional)	No	8		
	CONCRETE SUNDRIES				
	Finishing top surfaces of concrete smooth with a wood float				
6	Pavings to falls	m²	90		
	REINFORCEMENT				
	Fabric reinforcement				
7	Type 193 fabric reinforcement in concrete surface beds	···· 2	447		
	eic	m-	417		
	Carried To Section Summary			R	
	Section No. 2				
	Bill No. 4				
	Concrete, Formwork And Reinforcement				
	47		I		

SECTION NO.2 DemdéCR.12PILC-RM) and Renovation(. GRAMENTAL BILL NO.3 MASONRX PERMBLES 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 consist of a minimum of e units. Sexcept those for walls described as load bearing 'shall consist of a minimum of e units. Sexcept shall consist of a minimum of e units. Sexcept those for walls described as load bearing 'shall consist of a minimum of e units. Sexcept solution to site. FACE BRICKWORK COPINGS, SLLS, ETC. Brick-on-edge header course copings, sills, st cot of face bricks of face. In apprint cost R550/000 delivered to site. FACE BRICKWORK COPINGS, SLLS, ETC. Brick-on-edge header course copings, sills, st cot of face bricks of face. Interface faces. 1 230mm Wide sill set sloping and slightly projecting. m 2 1 230mm Wide sill set sloping and slightly projecting. m 2	1		Unit	Quantity	Rate	Amount	•
SECTION NO. 2 Demc(4CR.12Pit.C-RM) and Renovation(4CR.4Enviro) 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 oderend to include equare recessed, bollow recessed, weathered pointing, etc. 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 form every 30 000 units delivered to site. FACE BRICKWORK COPINGS, SILLS, ETC. Brick-on-edge header course copings, sills, etc of face brick prime cost R500/1000 delivered to site excluding VAT and pointed with recessed joints on all exposed faces: 1 230mm Wide sill set sloping and slightly projecting. m 2 Section No. 2 Bill No. 5 Masonry m 2							
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		Unit	Quantity	Rate	Amount
	SECTION NO. 2				
	<u>Demo(4CR,12Pit,C-RM) and Renovation(</u> 4CR,4Enviro)				
	BILL NO. 6				
	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 "chromadek" finish one side,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.	m²	480		
	0.58mm galvanised sheet iron, with "chromadek" one side in:				
2	Standard type FK3 ridge or hip flashing	m	34		
				_	
	Carried To Section Summary Section No. 2			R	
	Bill No. 6				
	Roof Coverings				
	49				

SECTION NO. 2 DemotiGER.12Pit.C-RM) and Renovation(. GREARDUICS BULL NO. 7 CARPENTRY AND JOINERY Presentities see "Specification of materials and methods to be used - PW371 SUPLEMENTARY PREAMBLES Dariticle board shall comply with the following specifications: a) SABS 1300 Particle board: exterior and tooing type 50 SABS 1301 Particle board: exterior and tooing type 50 SABS 1301 Particle board: exterior and theoring specifications: a) SABS 1300 Particle board: interior type. Dimery Descriptions of frames shall be deemed to include frames, transom, mulicons, ratel, etc. Descriptions of armos shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete. Descriptions of the second to the pressure. Edge strips shall be but jointed at junctions with adjacent similar finish. Definish shall be glue under pressure. Edge strips shall be but jointed at junctions with adjacent similar finish. Definish shall be glue to the prespect of root trusses: Trusses are at maximum 1200mm centres Roof overing is specialist approved by the Architelet. All trusses are tabricated in a factory by specialists approved by the Architelet. All trusses are tabricated in a factory by the covings specified. The quarantee shall be designed, manufactured, and erected, to support the root covering ssecified. The quarantee shall be dated to 10(ten) years. Carried to Collection R Carried to Collection R Carried to Collection </th <th></th> <th>Unit</th> <th>Quantity</th> <th>Rate</th> <th>Amount</th> <th></th>		Unit	Quantity	Rate	Amount	
SECTION NO. 2 Demod4CR.12Ph.C.RM) and Renovation(4CR.4Envice) BiLL NO.7 CARPENTRY AND JOINERY PERMINES DEVELEMENTARY PREAMBLES DUPLEMENTARY PREAMBLES DUPLEMENTARY PREAMBLES Descriptions of shall comply with the following specifications: a) SABS 1300 Particle board: exterior and flooring type b) SABS 1301 Particle boards the deemed to nclude pelleting of bolt holes. Externation that the data stalle deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete. Pacteriot loor Trusses Stall Externation trusses stall be quied under pressure. Edge strips shall be duit jointed at junctions with adjacent similar finish. Patienter floor Trusses stall be respect of roof trusses: Trusses are tabrication on 75 x Stomm purins. Cellings are floor trusses stall be respected by the Architect. All trusses shall be designed, manufactured. All trusses shall be designed, manufactured. All resteed, to support the roof coverings specified. The quantee shall be valid for 10(ten) years. Carried to Collection Section No. 2 Bill No. 7 Carpenty And Joinery How the top the constance that the data SASS Code of Practice to availed the top the the d			-			
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Carried to Collection Section No. 2 Bill No. 7 Carpentry And Joinery 50	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 .					
Section No. 2 Bill No. 7 Carpentry And Joinery 50	Carried to Collection			R		
50 50	Section No. 2 Bill No. 7 Carpentry And Joinery					
	50					

Amount Unit Quantity Rate Sawn Softwood Roof construction to double pitched roof with two gable 1 ends approximately 330m2 (four classrooms) on plan overall including trusses, rafters, purlins, permanent bracing, etc (measured flat). Description Roof construction to double pitched roof with two gable ends approximately 483m2 (five classrooms) on plan overall including trusses, rafters, purlins, permanent bracing, etc (measured flat). No 1 **ROOF SUNDRIES** Sundries: Two coats creosote on sawn timbers. 91 2 m² EAVES, VERGES, ETC Everite FC77 or equal approved pressed fibrecement: 10 x 250mm Fascias and barge boards including 3 galvanised steel H-profile jointing strips. 105 m Wrought meranti doors: Wrought meranti doors hung to steel frames: 44mm Framed batten door 813 x 2032mm high of 44 x 4 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 6 SEMI SOLID CORE FLUSH DOORS Description SEMI SOLID CORE FLUSH DOORS 44 semi-solid flush doors with 3,2mm standard hardboard covering on both sides hung to steel frames: 5 40mm Door 813 x 2032mm high. Description Carried to Collection R Section No. 2 Bill No. 7 Carpentry And Joinery 51

	Unit	Quantity	Rate		a PS
40mm Door 813 x 2032mm nign.	NO	4			
Carried to Co	ollection		R		
Section No. 2					
Bill No. 7					
Carpentry And Joinery	52				
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			Amount	I
<u>BILL NO. 7</u> CARPENTRY AND JOIN COLLECTION	<u>ERY</u>	Page No		
	Brought Forward from Page	50 51 52		
	Carried To Section Summary	R		
Section No. 2 Bill No. 7 Carpentry And Joinery				
	53			

1		Unit	Quantity	Rate	Amount	
	SECTION NO. 2					
	Demo(4CR.12Pit.C-RM) and Renovation(
	<u>4CR,4Enviro)</u>					
	BILL NO. 8					
	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	350			
	Wrought softwood					
2	19 x 76mm cornices nailed	m	190			
	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	350			
4	Extra over ceiling for hinged trap door size 610 x 610mm	No	4			
	Carried To Section Summary			R		
	Section No. 2					
	Bill No. 8					
	Cenings Partitions and Access Flooring					
	54		I			

1		Unit	Quantity	Rate	Amount
	SECTION NO. 2 Demo(4CP 13Pit C PM) and Renovation(
	4CR,4Enviro)				
	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.				
	<u>SUNDRIES</u>				
	Brass or equal approved:				
1	Sliding stay plugged.	No	49		
2	Window handle plugged.	No	49		
	Locks or equal approved:				
	Solid or equal approved:				
3	CZ682-24-95SC"Gower" or equal approved three lever lockset.	No	10		
	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 and plugged	No	6		
	LOCKS				
	Solid or equal approved				
5	'Code 63' or equal approved padlock plugged.	No	6		
	PINNING BOARDS, WRITING BOARDS, PROJECTION SCREENS, ETC				
	Vitrex or or equal approved				
6	Pinning board 2400 x 1200mm high plugged.	No	8		
	Carried to Collection			R	
	Section No. 2				
	Bill INO. 9 Ironmongery				
	55				
	I			I	

Unit Quantity Rate Amount White magnetic writing board 2400 x 1200mm high with anodised alumnium frame plugged. 7 No 4 Greenfield steel lockers with standard baked enamel <u>finish</u> Double door steel cupboard 914 x 457 x 1828mm high with five shelves bolted to brickwork. 8 4 No Carried to Collection R Section No. 2 Bill No. 9 Ironmongery 56

Amount <u>BILL NO. 9</u> **IRONMONGERY COLLECTION** Page No Brought Forward from Page 55 56 Carried To Section Summary R Section No. 2 Bill No. 9 Ironmongery 57

I		Unit	Quantity	Rate	Amount	
	SECTION NO. 2 Demo(ACD 42Dit C DM) and Demovstian(
	<u>demo(4CR,12Pit,C-RM) and Renovation(</u> <u>4CR,4Enviro)</u>					
	BILL NO. 10					
	<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.					
	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	52			
	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	4			
	Repair to existing door frames					
3	Repair to existing door frames and including replacing of					
-	striking plates	No	10			
	Carried To Section Summary			R		
	Section No. 2					
	Bill No. 10					
	Metalwork					
	58					

		Unit	Quantity	Rate	Amount	
	SECTION NO. 2					
	<u>Demo(4CR,12Pit,C-RM) and Renovation(</u> 4CR 4Enviro)					
	BILL NO. 11 BI ASTERING					
	PREAMBLES For preambles see "Specification of materials and					
	SCREEDS					
	Screeds on concrete:					
	Screeds of wood floated on concrete to receive ceramic tiles:					
1	30mm Thick on floors and landings.	m²	240			
	GRANOLITHIC					
	Untinted wood floated granolithic on concrete					
2	30mm Thick on floors and landings.	m²	61			
	INTERNAL PLASTER					
	Cement plaster wood floated for tiles, on brickwork					
3	On walls	m²	321			
	Carried To Section Summary			P		
	Section No. 2			i v		
	Bill No. 11					
	Plastering					
	59					

		Unit	Quantity	Rate	Amount	
	SECTION NO. 2					
	<u>Demo(4CR,12Pit,C-RM) and Renovation(</u> 4CR,4Enviro)					
	BILL NO. 12 TILING					
	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	260			
2	Skirting formed of ceramic tile cut to 300 x 75mm high	m	105			
	Carried To Section Summary			P		
	Section No. 2			ĸ		
	Bill No. 12 Tiling					
	60					

	Unit	Quantity	Rate	Amount	
SECTION NO. 2 Demo(4CD 12Dit C DM) and Denovation(
4CR,4Enviro)					
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					
61					

1	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	
Bill No. 13				
Plumbing And Drainage				
62				

Unit Quantity Amount Rate 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: 100 x 100mm Eaves gutters 105 1 m 2 Extra over eaves gutter for stopped end No 8 3 Extra over eaves gutter for outlet for 75mm pipe. No 12 4 75mm Diameter rainwater pipes. m 48 5 Extra over rainwater pipe for bend. No 12 Extra over rainwater pipe for shoe. 6 No 12 Repair to enviro-loo units Allow an amount of R2 000.00 per each (Two Thousand 7 Rands) to repair enviro-loo units and leave in good order 4 No FIRE APPLIANCES ETC. 'Chubb' or equal approved: 5 8 9kg Dry chemical fire extinguisher plugged. No **RAINWATER HARVESTING Rainwater Harvesting** Allow a sum of R15 000.00/each (Fifteen Thousand 9 Rands) for provision of 5000l Jojo or equal approved tank complete with lid, fittings, tap, concrete plinth as per Architect details 2 No Carried to Collection R Section No. 2 Bill No. 13 Plumbing And Drainage 63

			Amount	
BILL NO. 13				
PLUMBING AND DRAINA	AGE			
COLLECTION				
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Bill No. 13				
Plumbing And Drainage	64			
	04			

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		Unit	Quantity	Rate	Amount	
	SECTION NO. 2 Demo(4CR,12Pit,C-RM) and Renovation(4CR,4Enviro) BILL NO. 14 GLAZING PREAMBLES For preambles see "Specification of materials and					
	GLAZING TO STEEL WITH PUTTY					
1	Smm Clear float glass:	m ²	55			
	Carried To Section Summary Section No. 2 Bill No. 14	m	55	R		
	Glazing					
	65					

I		Unit	Quantity	Rate	Amount
	SECTION NO. 2				
	Demo(4CR.12Pit.C-RM) and Renovation(
	<u>4CR.4Enviro)</u>				
	BILL NO. 15				
	PAINTWORK				
	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	321		
	ON FIBRE-CEMENT, ETC.				
	Prepare , etc as specified and apply two coats of super acrylic Pva paint:				
2	On ceilings and cornices.	m²	350		
3	On fascias and barge boards.	m	105		
	ON METAL				
	Prepare, etc as specified and apply two coats of gloss enamel paint on :				
4	Door frames	m²	15		
5	On windows with burglar bars (both sides measured).	m²	139		
6	On gates, grilles, burglar screens, balustrades, etc (both sides measured over the full flat area).	m²	124		
7	Palisade Fence (both sides measured over the full flat area).	m²	4 008		
	Inside eaves gutters				
8	Inside eaves gutters with waterproofing based paint	m²	37		
	ON WOOD, WOOD BOARD				
	Prepare, etc as specified and apply two coats of polyurethane suede varnish:				
9	On general surfaces of doors.	m²	20		
	Carried to Collection			R	
	Section No. 2				
	Paintwork				
	66				

		Unit	Quantity	Rate	Amount	F 3
10	ON EXISTING WOOD SURFACES Prepare, etc as specified and apply two coats of gloss enamel paint on Doors	m²	13			
	Carried to Collection			R		
	Section No. 2 Bill No. 15 Paintwork 67					

Amount <u>BILL NO. 15</u> PAINTWORK **COLLECTION** Page No Brought Forward from Page 66 67 Carried To Section Summary R Section No. 2 Bill No. 15 Paintwork 68
Amount

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	SECTION NO. 2			
	Demo(4CR,12Pit,C-RM) and Renovation(4CR,4Enviro)			
	SECTION SUMMARY			
Bill No.		Page		
1	DEMOLITIONS	42		
2	ALTERATIONS	45		
3	EARTHWORKS	46		
4	CONCRETE, FORMWORK AND REINFORCEMENT	47		
5	MASONRY	48		
6	ROOF COVERINGS	49		
7	CARPENTRY AND JOINERY	53		
8	CEILINGS PARTITIONS AND ACCESS FLOORING	54		
9	IRONMONGERY	57		
10	METALWORK	58		
11	PLASTERING	59		
12	TILING	60		
13	PLUMBING AND DRAINAGE	64		
14	GLAZING	65		
15	PAINTWORK	68		
	Carried to Final Summary	R		
	Section No. 2			
	69			

SECTION NO. 3

1 x 4 Classroom Block

I		Unit	Quantity	Rate	Amount
	SECTION NO. 3				
	1 x 4 Classroom Block				
	BILL NO. 2 FOUNDATIONS				
	TOURDATIONS				
	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	444		
	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	184		
	Extra over trench and hole excavations in earth for excavation:				
4	Soft rock.	m³	10		
5	Hard rock	m³	5		
	Risk of collapse of excavations:				
6	1,5m deep.	m²	350		
	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	46		
9	Under floors, steps, pavings, etc.	m³	60		
-					
	Carried to Collection			R	
	Section No. 3				
	Bill No. 2				
	Foundations				
	71				

1		Unit	Quantity	Rate	Amount
	Earth filling supplied by the Contractor and compacted to 95% Mod AASHTO density):				
10	Under floors, steps, pavings, etc.	m³	141		
11	Trenches	m³	55		
	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	17		
	Coarse river sand filling supplied by the Contractor:				
13	Under floors etc.	m³	19		
	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	337		
	Prescribed density tests on filling:				
15	Modified AASHTO Density test.	No	16		
	SOIL POISONING				
	Soil insecticide:				
16	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m ²	227		
	ranning.	m-	337		
17	To bottoms and sides of trenches etc.	m²	510		
	Carried to Collection Section No. 3 Bill No. 2 Foundations			R	
I	12		1	l	

Amount <u>BILL NO. 2</u> **FOUNDATIONS COLLECTION** Page No Brought Forward from Page 71 72 Carried To Section Summary R Section No. 3 Bill No. 2 Foundations 73

1		Unit	Quantity	Rate	Amount
	SECTION NO. 3				
	BILL NO. 3 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	3		
3	Thickening down the edge of apron 150mm deep, 200mm top and tapering to 100mm at bottom including all excavations, formwork, backfilling etc.		05		
		111	95		
	REINFORCED CONCRETE				
	25 MPa/19mm Concrete:				
4	Footings.	m³	31		
5	Surface beds cast in panels on waterproofing.	m³	34		
	TEST BLOCKS				
	Test blocks:				
6	Making and testing set of three 150 x 150 x 150mm concrete strength test cubes (Provisional).	Sets	10		
	FINISHING TOP SURFACE OF CONCRETE				
7	Paving to falls.	m²	95		
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	99		
	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	40		
	Carried to Collection			R	
	Section No. 3				
	Bill NO. 3 Concrete Formwork And Painforcoment				
I			1 I		I I

I		Unit	Quantity	Rate	Amount	
	Expansion joints with bitumen impregnated softboard between vertical concrete and brick					
11	12mm Joints not exceeding 300mm high	m	55			
12	6 x 38mm Angle iron step guard cast into concrete with					
	3x 6mm anchors	m	2			
	REINFORCEMENT(PROVISIONAL)					
	Fabric reinforcement:					
13	Type 193 fabric reinforcement in concrete surface beds, slabs, etc.	m²	337			
	Steel reinforcement to structural concrete work:					
14	Various sizes	Tonnes	5			
	Carried to Collection			R		
	Bill No. 3					
	Concrete, Formwork And Reinforcement					
	75					



I		Unit	Quantity	Rate	Amount	
	SECTION NO. 2					
	<u>SECTION NO. 3</u> 1 x 4 Classroom Block					
	BILL NO. 4					
	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	195			
	BRICKWORK IN SUPERSTRUCTURE					
	Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:					
2	One brick walls	m²	589			
	BRICKWORK SUNDRIES					
	Brickwork reinforcement:					
3	75mm Wide reinforcement built in horizontally.	m	94			
4	150mm Wide reinforcement built in horizontally.	m	2 512			
	Carried to Collection			R		
	Section No. 3					
	Bill No. 4					
	Masonry					
	11					

I		Unit	Quantity	Rate	Amount	
	Turning pieces:					
5	220mm Wide turning piece to lintels etc.	m	46			
	Galvanised wire ties etc:					
6	4mm Diameter roof tie 2m girth bent double with one					
	brickwork.(Provisional)	No	95			
	Colvenieed been iron grompe tige star					
7	30 x 1 6mm Cramp 500mm long with one and fixed to					
1	wood and other end built into brickwork.(Provisional)	No	95			
	Prestressed fabricated concrete lintels including necessary temporary supports					
8	115 x 100mm Lintels in lengths not exceeding 3m	m	4			
	FACE BRICKWORK					
	Face bricks (Prime cost R5 500/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints:					
9	Extra over brickwork for face brickwork.	m²	536			
10	Extra over brickwork for face brickwork in foundations					
	(Provisional).	M²	63			
11	Half brick in facings in beamfilling	m²	23			
	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:					
12	Extra over brickwork for brick-on-edge header course					
	lintel pointed on face and 110mm soffit.	m	50			
13	230mm Wide sill set sloping and slightly projecting.	m	46			
14	Coping on top of one brick wall pointed on exposed faces	m	42			
	NUTEC-CEMENT/FIBRE-CEMENT WINDOW SILLS					
	Natural grey sills in single lengths bedded in class I mortar including metal fixing lugs etc:					
15	12 x 152mm Wide sills set flat and slightly projecting.	m	46			
						—
	Carried to Collection			R		_
	Masonry					
	78					
1			1 I	I	I I	

Amount <u>BILL NO. 4</u> MASONRY **COLLECTION** Page No Brought Forward from Page 77 78 Carried To Section Summary R Section No. 3 Bill No. 4 Masonry 79

SECTION NO.3 1.x4. Classroom Block Bill NO.5 YATERPROOFING PREAMBLES For preambles see "Specification of materials and methods to be used - PW371 DAMPFROOFING OF WALLS AND FLOORS One layer of 375 micron Consol Plastics Brikgrip DPC embossed damp proof course: 1 In walls. m ² 2 Under surface beds. m ² 3 12 x 20mm in expansion joints in floors including taking cord, sond prior in varical expansion joint filler as necessary (Provisional) m 178 4 12 x 20mm in expansion joint in in walls including raking out expansion joint filler as necessary (Provisional) m 68 Kaing out expansion joint filler as necessary m 68			Unit	Quantity	Rate	Amount	
SECTION NO.3 1 x 4 Classroom Block BiLL NO.5 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 Brikarip DPC embossed damp proof course: 1 In walls. m² 2 Under your of 250 micron Consol Plastics Gunplas USB Green waterproof sheeting sealed at laps with Sunplas Pressure Sensitive Tape: 3337 3 JOINT SEALANTS ETC silicon expansion joints in floors including taking out expansion joint in floors including taking out expansion joint filler as necessary (Provisional) m 178 4 12 x 20mm in expansion joint filler as necessary (Provisional) m 178 4 12 x 20mm in expansion joint filler as necessary (Provisional) m 178 4 12 x 20mm in expansion joint filler as necessary (Provisional) m 178 4 12 x 20mm in expansion joint filler as necessary (Provisional) m 178 5 20 carried To Section Summary R Carried To Section Summary							
Lx 4. Classicom Block BILL NO. 5 WATTERPROOFING 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: 0ne layer of 250 micron Consol Plastics Gunplas USB Green waterproof sheeting sealed at laps with Cumplas Pressure Sensitive Tape: 2 Under surface beds. 3 12 x 20mm in expansion joints in floors including raking out expansion joint filler as necessary (Provisional) m 1778 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 Carried To Section Summary		SECTION NO. 3					
Bill_NO.5 WATERPROOFING PREAMBLES For preembles see 'Specification of materials and methods to be used - PW371 DAMPPROOFING OF WALLS AND FLOORS One laver of 375 micron Consol Plastics Britkgrip: DPC embossed damp proof course: 1 In walls. One laver of 250 micron Consol Plastics Gunplas VB Green waterproof sheeting sealed at laps with Gunplas Pressure Sensitive Tape: 2 Under surface beds. 3 12 x 20mm in expansion joints in floors including raking out expansion joints in some seasary (Provisional) 4 12 x 20mm in expansion joints in valls including raking out expansion joint filler as necessary m 68 Maing out expansion joint filler as necessary m 68 R Carried To Section Summary R Secton No. 3 Bill No. 5 Waterproofing Hermiter Section Summary		1 x 4 Classroom Block					
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: m² 40 In walls. m² 40 One layer of 250 micron Consol Plastics Gunplas USB Green waterproof sheeting sealed at laps with Gunplas Pressure Sensitive Tape: 337 JOINT SEALANTS ETC silicone sealing compound including backing cord, bond breaker, primer, etc 337 JOINT SEALANTS ETC silicone sealing compound including backing cord, bond breaker, primer, etc 337 JOINT SEALANTS ETC silicone sealing compound including backing cord, bond breaker, primer, etc 337 JOINT SEALANTS ETC silicone sealing compound including taking out expansion joints in floors including raking out expansion joint filler as necessary (Provisional) m 178 4 12 x 20mm in vertical expansion joints in valls including raking out expansion joint filler as necessary m 68 Carried To Section Summary M 8 178 Bill No. 3 Bill No. 5 Waterproofing 178		BILL NO. 5					
PREAMBLES For preambles see "Specification of materials and methods to be used - PW371 DAMPPROFINE OF WALLS AND FLOORS One layer of 375 micron Consol Plastics Brikgrip DPC embossed damp proof course: m² 1 In walls. m² 2 Under surface beds. m² 3 12 x 20mm in expansion joints in floors including raking out expansion joints in floors including raking out expansion joint filler as necessary m 4 12 x 20mm in vertical expansion joints in valls including raking out expansion joint filler as necessary m 4 12 x 20mm in vertical expansion joint filler as necessary m 68 Expansion joint filler		WATERPROOFING					
For preambles see "Specification of materials and methods to be used - PW371 DAMPPROOFING OF WALLS AND FLOORS One layer of 375 micron Consol Plastics Brilgrip DPC embossed damp proof course: m² 40 1 In walls. m² 40 One layer of 250 micron Consol Plastics Gunplas USB Green waterproof sheeting sealed at laps with Gunplas Pressure Sensitive Tape: m² 337 2 Under surface beds. m² 337 JOINT SEALANTS ETC Silicone sealing compound including backing cord, bond breaker,primer,etc m² 337 3 12 x 20mm in expansion joints in floors including raking out expansion joint filler as necessary (Provisional) m m 178 4 12 x 20mm in vertical expansion joints in walls including raking out expansion joint filler as necessary m 68 Carried To Section Summary Section No. 3 Bill No. 5 Section No. 3 Waterproofing		PREAMBLES					
DAMPPROOFING OF WALLS AND FLOORS Image: Composed conveximity of the second		For preambles see "Specification of materials and methods to be used - PW371					
Image: Del aver of 375 micron Consol Plastics Brikgrip m² 40 In walls. m² 40 One laver of 250 micron Consol Plastics Gunplas m² 40 USB Green waterproof sheeting sealed at laps with Gunplas Pressure Sensitive Tape: m² 337 2 Under surface beds. m² 337 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 178 178 4 12 x 20mm in vertical expansion joints in walls including raking out expansion joint filler as necessary m 68 Carried To Section Summary M R		DAMPPROOFING OF WALLS AND FLOORS					
1 In walls. m² 40 One layer of 250 micron Consol Plastics Gunplas USB Green waterproof sheeting sealed at laps with Gunplas Pressure Sensitive Tape: 337 2 Under surface beds. m² 337 3 J2 x 20mm in expansion joints in floors including raking out expansion joint filler as necessary (Provisional) m 178 4 12 x 20mm in vertical expansion joints in walls including raking out expansion joint filler as necessary m 68 K Carried To Section Summary Bill No. 5 Waterproofing R		One layer of 375 micron Consol Plastics Brikgrip DPC embossed damp proof course:					
One layer of 250 micron Consol Plastics Gunplas USB Green waterproof sheeting sealed at laps with Gunplas Pressure Sensitive Tape: m ² 337 2 Under surface beds. m ² 337 JOINT SEALANTS ETC silicone sealing compound including backing cord, bond breaker,primer,etc m 178 3 12 x 20mm in expansion joints in floors including raking out expansion joint filler as necessary (Provisional) m 178 4 12 x 20mm in vertical expansion joints in solutions in solutions and expansion joint filler as necessary m 68 Expansion joint filler as necessary m 68 m 68 Variation of the sealing compound including taking out expansion joint filler as necessary m 68 m Carried To Section Summary m 68 m m Section No. 3 Bill No. 5 Waterproofing m m m	1	In walls.	m²	40			
2 Under surface beds. m ² 337 JOINT SEALANTS ETC silicone sealing compound including backing cord, bond breaker,primer,etc a a a 3 12 x 20mm in expansion joints in floors including raking out expansion joint filler as necessary (Provisional) m 178 4 12 x 20mm in vertical expansion joints in walls including raking out expansion joint filler as necessary m 68 Edition Edition m 68 Carried To Section Summary m R Section No. 3 Bill No. 5 Waterproofing Edition m m		One layer of 250 micron Consol Plastics Gunplas USB Green waterproof sheeting sealed at laps with Gunplas Pressure Sensitive Tape:					
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Carried To Section Summary R	4	12 x 20mm in vertical expansion joints in walls including raking out expansion joint filler as necessary	m	68			
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		Unit	Quantity	Rate	Amount
	SECTION NO. 3				
	1 x 4 Classroom Block				
	BILL NO. 6				
	ROOF COVERINGS				
	PREAMBLES				
	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.	m²	388		
	0.58mm galvanised sheet iron, with "Globalcoat" one side in:				
2	Standard type FK3 ridge or hip flashing	m	43		
	Carried To Section Summary			R	
	Section No. 3				
	Roof Coverings				
	81				

SECTION NO. 3 1x 4. Classroom Block Number 10 1x 4. Classroom Block BLND.7 2xhPENTRY AND JOINERX DEADEDE Torpeambles see "Specification of materials and metridos to be used - PW371 SUPLIEMENTRY INFRAMBLES Definition of materials and metridos to be used - PW371 Descriptions of frames shall be deemed to include frames, transoms, multions, rails, etc. Descriptions of frames 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. Descriptions of thardwood joing pressure. Edge strips shall be but jointed at junctions with adjacent similar finish. shall be glued under pressure. Edge strips shall be but jointed at junctions with adjacent similar finish. Shall be glued under pressure. Edge strips shall be adjacent and strips of the Strips shall be adjoint on trusses frames and strips adjacent similar finish. REFERICATE ROOF TRUSSES, ETC. Descriptions of shall be glued under pressure. Edge strips shall be deeing of 3x. 50mm purtins. Celling are form sheeting on 3x. 50mm purtins. Celling are form, sheeting on 3x. 50mm purtins. Celling are form sheeting on 75 x. 50mm purtins. Celling are form sheeting on 75 x. 50mm purtins. Celling are form sheeting on 75 x. 50mm purtins. Celling are form sheeting on 75 x. 50mm purtins. Celling are form sheeting on 75 x. 50mm purtins. Celling are form sheeting on 75 x. 50m		Unit	Quantity	Rate	Amount	
SECTION NO. 3 1.4. Classroom Block BiLL NO. 2 CARPENTRY AND JOINERY PARELES Display the set "Specification of materials and methods to be used - PW371 SUPLEMENTARY PRAMELES Display the following specifications: a) SABS 1300 Particle board: interior type. Joinery Descriptions of frames shall be deemed to include frames, transoms, multions, raits, etc. Descriptions of frames shall be deemed to be fixed with hardened stele naits or shot pins to brickwork or concrete. Mainter finish shall be glude under pressure. Edge strips shall be but; jointed at junctions with adjacent similar finish. PERFARCATED ROOF TRUSSES. ETC. Descriptions of names shall be deemed to be fixed with hardened stele naits or shot pins to brickwork or concrete. Descriptions of names shall be due under pressure. Edge strips shall be but jointed at junctions with adjacent similar finish. PERFARICATED ROOF TRUSSES. ETC. Descriptions of the set on all to shot pins to brickwork or concrete. Prizese are lating and Budom centers Roof covering is Applicable in respect of roof trusses: Trusses are lating and S x 50mm purilis. Cellings are form sheeting on 3 x 50mm purilis. Cellings are form sheeting on 3 x 50mm purilis. Cellings are form sheeting on 3 x 50mm purilis. Cellings are form sheeting on 3 x 50mm purilis. Cellings are form sheeting on 76 x 50mm purilis. Cellings are for sign of Timber trusses. The manufacture of trusses shall supply a written quarantee that the trusses are designed by anothere trusses. The manufacture of trusses are designe						
Step 1 (DN NUL 3) 1x 4 Classroom Block BiLL NO. 7 CARPENTRY AND JOINERY PERABLES For preambles see "Specification of materials and methods to be used - PW37! SUPELMENTARY PREAMBLES Particle board Particle boards Particle boards Particle boards Particle boards Descriptions of frames shall be deemed to include frames, transoms, mullions, rails, etc. Descriptions of hardwood joinery shall be deemed to include frames, transoms, mullions, rails, etc. Descriptions of hardwood joinery shall be deemed to include frames, transoms, mullions, rails, etc. Descriptions of hardwood joinery shall be deemed to be fixed with hardened steel nails or shot plus to brickwork or concrete. Parinate finish shall be glue under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish. RefARCATED ROOF TRUSSES, ETC. Patiest board at maximum 200mm centres Roof covering is Klip-lok' roof sheeting on 76 x 50mm purlins. Cellings are forms sheeting on 38 x 50mm brandering. Refer to drawings at the end of these bills of quantities for ful details. All trusses are lasting and, manufactured, and erecta, to support the roof coverings specified. The quantite for 101 details. All trusses are lasting and professional Engineer(in accordance with the draft SABS Code of Practice for Design of Timber Trusses). The manufacture of trusses shall supply a written quanantee that the trusses find supp						
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	82					

I		Unit	Quantity	Rate	Amount	I
1	Sawn softwood: Roof construction to double pitched roof with two hipped ends approximately 370m2 (four 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	75			
3	114 x 38mm rafters exceeding 2.4m and not exceeding 3.9m.	m	15			
4	50 x 76mm purlins.	m	140			
5	50 x 250mm laminated beam.	m	43			
	ROOF SUNDRIES					
	Sundries:					
6	Two coats creosote on sawn timbers.	m²	26			
	FAVES, 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	80			
	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	4			
	DOORS ETC					
	40mm semi-solid flush doors with veneer					
9	40mm Door 813 x 2032mm high	No	4			
	<u>FITTINGS</u>					
	Fittings to Classroom Store					
10	Shelving 400mm wide made up of 25mm thick hardwood top and 250 x 250mm high triangular mild steel brackets					
		m	38			
	Carried to Collection			P		
	Section No. 3					<u> </u>
	Bill No. 7					
	Carpentry And Joinery					
	83					

			Amount
<u>BILL NO. 7</u> CARPENTRY AND JOINI	ERY		
COLLECTION		Page No	
	Brought Forward from Page	82 83	
Section No. 3 Bill No. 7	Carried To Section Summary	R	
Carpentry And Joinery	84		

		Unit	Quantity	Rate	Amount
	SECTION NO. 3				
	1 x 4 Classroom Block				
	BILL NO. 8				
	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	337		
	Wrought meranti				
2	19 x 76mm covedccornice nailed to brickwalls	m	169		
	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	337		
4	Extra over ceiling for hinged trap door size 610 x 610mm	No	4		
	Corriad To Soction Summary			-	
	Section No. 3			ĸ	
	Bill No. 8				
	Ceilings Partitions And Access Flooring				
	85				

	Unit	Quantity	Rate	Amount
SECTION NO. 2				
<u>SECTION NO. 3</u> 1 x 4 Classroom Block				
IRONMONGERY				
FREAMBLES				
methods to be used - PW371				
SUPPLEMENTARY PREAMBLES				
Finishes to ironmongery:				
Where applicable finishes to ironmongery are indica by suffixes in accordance with the following list: BS bronze lacquered : CH Chromium plated : SC Satin chromium plated : SE Silver enamelled : GE Grey enamelled : AS Anodised silver : AB Anodised bron AG Anodised gold : ABL Anodised black : PB Polish brass : PL Polished and lacquered : PT Epoxy coate	ited Satin ze : ied ed.			
CATCHES, CABIN HOOKS, ETC				
Solid or equal approved:				
1 100mm cabin hook and eye including 70 x 70 x 20m chamfered hardwood block twice oiled and plugged	nm No	4		
LOCKS				
Solid or equal approved:				
2 "Code 630" padlock.	No	4		
'Solid" or equal approved				
3 CZ6822461 "Gower" Four lever lockset.	No	8		
SUNDRIES				
Solid or equal approved:				
4 38mm Diameter rubber door stop plugged.	No	8		
PINNING BOARDS, WRITING BOARDS, PROJECTION SCREENS, ETC				
Vitrex or equal approved:				
5 Pinning board 2400 x 1200mm high plugged.	No	8		
6 White Magnetic Writing Board 4000 x 1200mm	No	4		
Carried to Colle	ection		R	
Bill No. 9				
Ironmongery				
86				

1		Unit	Quantity	Rate	Amount	
	SHELVES ETC					
	Proprietary type steel shelving with standard powder					
7	Heavy duty double slot wall band 1800mm long, plugged	No	63			
8	Heavy duty shelf bracket for 300mm shelf plugged	No	252			
	Carried to Collection			R		
	Section No. 3					
	Ironmongery					
	87					

Amount <u>BILL NO. 9</u> **IRONMONGERY COLLECTION** Page No Brought Forward from Page 86 87 Carried To Section Summary R Section No. 3 Bill No. 9 Ironmongery 88

		Unit	Quantity	Rate	Amount
	SECTION NO. 3				
	1 x 4 Classroom Block				
	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.				
	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	10		
	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	13		
	Carried to Collection			R	
	Section No. 3				
	Bill No. 10				
	Metalwork				
	89				

					Pfumbad	a PS
		Unit	Quantity	Rate	Amount	
3	COMBINATION DOOR FRAME WITH SECURITY GATE Classroom combination door frame with security gate "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	Νο	4			
	PRESSED STEEL DOOR FRAMES					
	1 2mm Rebated frames suitable for one brick walls:					
4	Frame for door 813 x 2032mm high.	No	4			
	Standard residential windows with 12 x 12(B33)					
	solid burglar bars to all sashes:					
5	Window Code 5/2 (NTY or equal approved), 1143 x 1332mm high.	No	36			
6	Window Code 5 (NTY or equal approved), 1143 x 846mm high.	No	4			
7	STEEL LOUVRES, ETC Purpose made louvres: 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			R		
	Bill No. 10					
	Metalwork					
	90					

Amount <u>BILL NO. 10</u> **METALWORK COLLECTION** Page No Brought Forward from Page 89 90 Carried To Section Summary R Section No. 3 Bill No. 10 Metalwork 91

		Unit	Quantity	Rate	Amount
	<u>SECTION NO. 3</u> 1 x 4 Classroom Block				
	BILL NO. 11				
	PLASTERING				
	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 to receive ceramic tiling.	m²	268		
	GRANOLITHIC				
	Untinted wood floated granolithic on concrete				
2	30mm Thick on floors and landings.	m²	69		
	INTERNAL PLASTER				
	Cement plaster steel trowelled, on brickwork				
3	On walls	m²	517		
4	On narrow widths not exceeding 300mm wide	m²	22		
	CORNER PROTECTORS, DIVIDING STRIPS, ETC				
5	30 x 3mm Flat section brass dividing strips between				
	different floor finishes.	m	4		
	Carried To Section Summary			D	
	Section No. 3			ĸ	
	Bill No. 11				
	Plastering				
	92				

		Unit	Quantity	Rate	Amount
	SECTION NO. 3				
	1 x 4 Classroom Block				
	BILL NO. 12				
	TILING				
	PREAMBLES				
	For preambles see "Specification of materials and methods to be used - PW371				
	FLOOR TILING				
	300 x 300 x 11.5mm glazed 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		000		
1	On moors and landings.	m	268		
2	Skirting formed of ceramic tile cut to 300 x 75mm high	m	169		
				_	
	Section No. 3			К	
	Bill No. 12				
	Tiling				
	93				

	Unit	Quantity	Rate	Amount	
SECTION NO. 3					
PLUMBING AND DRAINAGE					
PREAMBLES					
For preambles see "Specification of materials and methods to be used _ PW271					
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. 13					
Plumbing And Drainage					
94					

	Unit	Quantity	Rate	Amount	I
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			P		
Section No. 3 Bill No. 13			K		
Plumbing And Drainage					
55				11	l

Unit Quantity Amount Rate 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: 100 x 100mm Eaves gutters 97 1 m 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 Extra over rainwater pipe for bend. 5 No 26 Extra over rainwater pipe for shoe. 6 No 26 FIRE APPLIANCES ETC. 'Chubb' or equal approved: 7 9kg Dry chemical fire extinguisher fixed on and including 22mm thick x 400 x 200mm wide meranti timber back plate with chamfered edges No 4 **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 Carried to Collection R Section No. 3 Bill No. 13 Plumbing And Drainage 96

		I	Amount	
BILL NO. 13				
PLUMBING AND DRAINA	AGE			
COLLECTION				
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Plumbing And Drainage	07			
	31			

		Unit	Quantity	Rate	Amount	
	SECTION NO. 3					
	1 x 4 Classroom Block					
	BILL NO. 14					
	GLAZING					
	PREAMBLES					
	For preambles see "Specification of materials and					
	methods to be used - PW371					
	GLAZING TO STEEL WITH PUTTY					
1	<u>5 mm Clear float glass:</u> Papes not exceeding 0.1m2	m²	30			
1		111	39			
S	<u>5 mm obscure glass:</u>	m²	20			
Ζ	Panes not exceeding 0, mz.	m-	20			
	Carried To Section Summary			R		
	Section No. 3					
	Bill No. 14					
	98					
			1		n I	

		Unit	Quantity	Rate	Amount
	SECTION NO. 3				
	1 x 4 Classroom Block				
	BILL NO. 15				
	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	517		
	ON FIBRE-CEMENT, ETC.				
	Prepare , etc as specified and apply two coats of super acrylic Pva paint:				
2	On ceilings and cornices.	m²	337		
3	On fascias and barge boards.	m	97		
	ON METAL				
	Prepare, etc as specified and apply two coats of gloss enamel paint on :				
4	Door frames	m²	12		
5	On windows with burglar bars (both sides measured).	m²	113		
6	On gates, grilles, burglar screens, balustrades, etc (both sides measured over the full flat area).	m²	35		
7	Steel poles	m	39		
	Eaves Gutter				
8	Inside eaves gutter with waterproofing paint	m²	34		
	Prepare,etc as specified and apply two coats of				
0	Super acrylic PVa paint on:	m ²	12		
9			15		
	ON WOOD, WOOD BOARD Bronard, ato as analified and apply two costs of				
	polyurethane suede varnish:				
10	On general surfaces of doors.	m²	13		
11	On laminated beam.	m²	23		
				-	
	Section No. 3			ĸ	
	Bill No. 15				
	Paintwork				
	99				

1		Unit	Quantity	Rate	Amount	
12	On shelves.	m²	52			
13	On general surfaces of timber	m²	8			
	Carried to Collection			R		
	Section No. 3 Bill No. 15					
	Paintwork					
	100					

Amount <u>BILL NO. 15</u> PAINTWORK **COLLECTION** Page No Brought Forward from Page 99 100 Carried To Section Summary R Section No. 3 Bill No. 15 Paintwork 101

Amount

			Amount	
	SECTION NO. 3			
	1 x 4 Classroom Block			
	SECTION SUMMARY			
Bill No.		Page		
2	FOUNDATIONS	73		
3	CONCRETE, FORMWORK AND REINFORCEMENT	76		
4	MASONRY	79		
5	WATERPROOFING	80		
6	ROOF COVERINGS	81		
7	CARPENTRY AND JOINERY	84		
8	CEILINGS PARTITIONS AND ACCESS FLOORING	85		
9	IRONMONGERY	88		
10	METALWORK	91		
11	PLASTERING	92		
12	TILING	93		
13	PLUMBING AND DRAINAGE	97		
14	GLAZING	98		
15	PAINTWORK	101		
	Carried to Final Summarv	R		
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	SECTION SUMMARY			
	102			

SECTION NO. 4

1 x Grade R Facility

I		Unit	Quantity	Rate	Amount
	<u>SECTION NO. 4</u> 1 x Grade R. Facility				
	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	292		
	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	157		
	Extra over trench and hole excavations in earth for excavation:				
4	Soft rock.	m³	13		
5	Hard rock.	m³	5		
	Risk of collapse of excavations:				
6	Sides of trench and hole excavations not exceeding 1,5m deep.	m²	430		
	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	90		
9	Under floors, steps, pavings, etc.	m³	73		
-					
	Carried to Collection			R	
	Section No. 4				
	Bill No. 1				
	Foundations				
	104				
		Unit	Quantity	Rate	Amount
----	---	------	----------	------	--------
	Earth filling supplied by the Contractor and compacted to 95% Mod AASHTO density):				
10	Under floors, steps, pavings, etc.	m³	103		
11	Trenches	m³	85		
	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	30		
	Coarse river sand filling supplied by the Contractor:				
13	Under floors etc.	m³	13		
	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	255		
	Prescribed density tests on filling:				
15	Modified AASHTO Density test.	No	16		
	SOIL POISONING				
	Soil insecticide:				
16	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming.	m²	255		
47			200		
17	To bottoms and sides of trenches etc.	m²	384		
	Carried to Collection			R	
	Section No. 4 Bill No. 1				
	Foundations				
	105				

Amount <u>BILL NO. 1</u> **FOUNDATIONS COLLECTION** Page No Brought Forward from Page 104 105 Carried To Section Summary R Section No. 4 Bill No. 1 Foundations 106

Unit Quantity Amount Rate **SECTION NO. 4** 1 x Grade R Facility **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 Aprons cast in panels. 7 1 m³ 2 Ramps. m³ 3 3 Thickening down the edge of apron 150mm deep, 200mm top and tapering to 100mm at bottom including all excavations, formwork, backfilling etc 71 m **REINFORCED CONCRETE** 25MPa/19mm Concrete: Surface beds cast in panels on waterproofing. m³ 26 4 5 23 Footings. m³ **TEST BLOCKS** Test blocks: Making and testing set of three 150 x 150 x 150mm 6 concrete strength test cubes (Provisional). Sets 15 FINISHING TOP SURFACE OF CONCRETE Finishing top surfaces 76 Paving to falls. m² 7 **ROUGH FORMWORK Rough Formwork to Sides:** Edges and reveals not exceeding 300mm high or wide. 8 91 m **MOVEMENT JOINTS ETC** Two layers of .5mm galvanised mild steel slip joints between horizontal concrete and brick surfaces including cement mortar bed: Not exceeding 300mm wide. 9 70 m Carried to Collection R Section No. 4 Bill No. 2 Concrete, Formwork And Reinforcement

107

		Unit	Quantity	Rate	Amount	
	Expansion joints with bitumen impregnated					
	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	9			
	REINFORCEMENT(PROVISIONAL)					
	Fabric reinforcement:					
12	Type 193 fabric reinforcement in concrete surface beds, slabs, etc.	m²	255			
	Mild steel reinforcement to structural concrete work:					
13	10mm Diameter bars.	Tonnes	1.00			
	High tensile steel reinforcement to structural concrete work:					
14	20mm Diameter bars.	Tonnes	1.00			
15	16mm Diameter bars.	Tonnes	3.00			
16	12mm Diameter bars.	Tonnes	1.00			
	Carried to Collection			R		
	Section No. 4					
	Bill No. 2 Concrete Formwork And Painforcement					
	108					



I		Unit	Quantity	Rate	Amount
	SECTION NO. 4				
	1 x Grade R Facility				
	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	19		
2	One brick walls	m²	131		
	BRICKWORK IN SUPERSTRUCTURE				
	Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:				
3	Half brick walls	m²	58		
4	One brick walls	m²	398		
	BRICKWORK SUNDRIES				
	Brickwork reinforcement:				
5	75mm Wide reinforcement built in horizontally.	m	255		
	Carried to Collection			D	
	Section No. 4			ĸ	
	Bill No. 3				
	Masonry				
	110				

1		Unit	Quantity	Rate	Amount	
6	150mm Wide reinforcement built in horizontally.	m	1 964			
	Prestressed fabricated lintels:					
7	110 x 75mm Lintels in lengths not exceeding 3m.	m	15			
	Turning pieces:					
8	220mm Wide turning piece to lintels etc.	m	18			
	Galvanised wire ties etc:					
9	4mm Diameter roof tie 2m girth bent double with one end fixed to timber and other end built into brickwork.(Provisional)	No	71			
	Galvanised hoop iron cramps, ties, etc:					
10	30 x 1,6mm Cramp 500mm long with one end fixed to wood and other end built into brickwork.(Provisional)	No	71			
	FACE BRICKWORK					
	Face bricks (Prime cost R5 500/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints:					
11	Extra over brickwork for face brickwork.	m²	217			
12	Extra over brickwork for face brickwork in foundations (Provisional).	m²	91			
13	Half brick in facings in beamfilling	m²	65			
	FACE BRICKWORK COPINGS, SILLS, ETC.					
	Brick-on-edge header course copings, sills, etc of face bricks (Prime cost R5 5 00/1000 delivered to site excluding VAT) and pointed with recessed joints on all exposed faces:					
14	Extra over brickwork for brick-on-edge header course lintel pointed on face and 110mm soffit.	m	20			
15	230mm Wide sill set sloping and slightly projecting.	m	26			
16	Coping on top of one brick wall pointed on exposed faces	m	33			
	NUTEC-CEMENT/FIBRE-CEMENT WINDOW SILLS					
	Natural grey sills in single lengths bedded in class I mortar including metal fixing lugs etc:					
17	12 x 152mm Wide sills set flat and slightly projecting.	m	31			
	Weedkiller					
18	Weedkiller under paving	m²	40			
	Corried to Collection			Б		
	Section No. 4			ĸ		
	Bill No. 3					
	Masonry					
	111					

		Unit	Quantity	Rate	Amount	
	PAVING ETC					
	60mm thick precast concrete paving blocks with butt joints on 25mm thick river sand bed with sand-and- cement mixture swept into joints and hosed down, including preparation of ground or filling					
19	Paving in stretcher bond	m²	40			
20	220mm Wide brick-on-flat header course edgings on 10mm thick mortar bed, including necessary excavation	m	30			
	Carried to Collection			R		
	Section No. 4 Bill No. 3 Masonny					
	112					

Amount <u>BILL NO. 3</u> MASONRY **COLLECTION** Page No Brought Forward from Page 110 111 112 Carried To Section Summary R Section No. 4 Bill No. 3 Masonry 113

		Unit	Quantity	Rate	Amount
	SECTION NO 4				
	<u>1 x Grade R Facility</u>				
	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	30		
	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	255		
	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	44		
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				
	Waterproofing				
	114				

		Unit	Quantity	Rate	Amount	
	SECTION NO. 4					
	<u>1 x Grade R Facility</u>					
	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 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	400			
	0.58mm galvanised sheet iron, with "Globalcoat" one side in:					
2	Standard type FK3 ridge or hip flashing	m	36			
	Carried To Section Summary			R		
	Section No. 4					
	Bill No. 5 Roof Coverings					
	115					

	Unit	Quantity	Rate	Amount	
SECTION NO. 4					
CARPENTRY AND JOINERY					
<u>PREAMBLES</u>					
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		
Bill No. 6					
Carpentry And Joinery					
116					

I		Unit	Quantity	Rate	Amount
	Sawn softwood:				
1	Roof construction to double pitched roof with two hipped ends approximately 255m2 (Grade R 2 Classroom) on plan including trusses, hipped ends, jack rafters, purlins, permanent bracing, etc (measured flat).	No	1		
	ROOF CONSTRUCTION				
	Sawn softwood :				
2	114 x 38mm Wall plates.	m	120		
3	50 x 228mm laminated beam	m	30		
	ROOF SUNDRIES				
	Sundries:				
4	Two coats creosote on sawn timbers.	m²	25		
	EAVES, VERGES, ETC				
	Everite FC77 pressed fibre-cement:				
5	10 x 250mm Fascias and barge boards including galvanised steel H-profile jointing strips.	m	78		
	SKIRTINGS				
	Wrought meranti				
6	20 x 75mm Skirtings including 40mm quadrant bead, nailed	m	24		
	DOORS ETC				
	Wrought meranti doors hung to steel frames:				
7	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	2		
	SEMI SOLID CORE FLUSH DOORS				
	44 semi-solid flush doors with 3,2mm standard hardboard covering on both sides hung to steel frames:				
8	40mm Door 813 x 2032mm high.	No	3		
9	40mm Door 900 x 2032mm high.	No	1		
	Corried to Collection			в	
	Section No. 4			ĸ	
	Bill No. 6				
	Carpentry And Joinery				
	117				

		I	Amount	I
BILL NO. 6 CARPENTRY AND JOINE COLLECTION	<u>=RY</u>	Page No		
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	Carried To Section Summany			
Section No. 4	Cameu TO Section Summary	K		
Bill No. 6 Carpentry And Joinery				
	118			

		Unit	Quantity	Rate	Amount
	SECTION NO. 4				
	1 x Grade R Facility				
	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	243		
	Meranti cornice				
2	19 x 76mm coved cornice nailed to brickwork	m	173		
	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	243		
4	Extra over ceiling for hinged trap door size 610 x 610mm	No	2		
	Carried to Collection			R	
	Section No. 4				
	Bill No. 7				
	Ceilings Partitions And Access Flooring				
	119				

Pfumbada PS Unit Quantity Rate Amount **TOILET CUBICLES (CPAP WORK GROUP NO. 138)** "Vitrex" cubicles consisting of 20mm thick partitions, doors and stiles of laminated construction with outer skins of vitreous enamelled steel sheets bonded to wood particle board, all framed in natural anodised aluminium channel section beading, top rails and fixing components and fitted with all necessary ironmongery comprising standard indicating bolts, combined coat hooks and door stops, toilet roll holders and rubber **buffers** Partition 1800 x 1800mm high 3 5 No Door 750 x 1800mm high 6 No 4 7 Full stile 210 x 2000mm high No 6 End stile 145 x 2000mm high 5 8 No 9 Wall stile 105 x 2000mm high No 4 Extra over for chromium plated rising butt hinge 4 10 No 11 Extra over for powder coating to aluminium beading, brackets and ironmongery - per cubicle No 4 Carried to Collection R Section No. 4 Bill No. 7 Ceilings Partitions And Access Flooring 120

Amount <u>BILL NO. 7</u> **CEILINGS PARTITIONS AND ACCESS FLOORING COLLECTION** Page No Brought Forward from Page 119 120 Carried To Section Summary R Section No. 4 Bill No. 7 Ceilings Partitions And Access Flooring 121

Unit Quantity Rate Amount **SECTION NO. 4** 1 x Grade R Facility BILL NO. 8 **FLOOR COVERINGS FLOOR COVERINGS** 300 x 300 x 2.5mm semi flexible vinyl tiles On floors m² 18 1 POLISH, SEALERS, ETC <u>Polish</u> Wax polish on vinyl flooring 2 m² 18 Carried To Section Summary R Section No. 4 Bill No. 8 Floor Coverings 122

		Unit	Quantity	Rate	Amount	
	1 x Grade R Facility					
	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.					
	HINGES, FLOOR SPRING HINGES, BOLTS, PANIC BOLTS, ETC					
	"Solid" or equal approved:					
1	CZ 80941 or equal approved WC indicator bolt with keep fixed to metal.	No	4			
	CATCHES, CABIN HOOKS, ETC					
	Solid or equal approved					
2	100mm cabin hook and eye including 70 x 70 x 20mm chamfered hardwood block twice oiled and plugged.	No	4			
	LOCKS					
	Solid or equal approved					
3	"Code 630" or equal approved padlock.	No	4			
	'Solid' or equal approved					
4	CZ6822461 "Gower" Four lever lockset.	No	6			
	DOOR CLOSERS					
	"Yale" or equal approved					
5	Y202RC Door closer with cover fixed to metal	No	1			
	BATHROOM FITTINGS					
	Kimberley-Clark or equal approved:					
6	19mm Diameter chromium plated towel rail 900mm long including flanged end brackets.	No	4			
	Carried to Callection			Б		-
	Section No. 4			ĸ		_
	Bill No. 9					
	Ironmongery					
	123					

		Unit	Quantity	Rate	Amount	
7	Lockable toilet roll holder plugged.	No	4			
	Chairman Industries or equal approved brushed stainless steel grab rails:					
8	32mm Code DL2 side grab rail, plugged	No	1			
9	32mm Code DL2 rear grab rail, plugged	No	1			
	SUNDRIES					
	Solid or equal approved:					
10	38mm Diameter rubber door stop plugged.	No	4			
	<u>PINNING BOARDS, WRITING BOARDS,</u> PROJECTION SCREENS, ETC					
	Vitrex or equal approved:					
11	Pinning board 2400 x 1200mm high plugged.	No	8			
12	White Magnetic Writing Board 4000 x 1200mm	No	2			
				-		
	Section No. 4			ĸ		
	Bill No. 9					
	Ironmongery					
	124					

Amount <u>BILL NO. 9</u> **IRONMONGERY COLLECTION** Page No Brought Forward from Page 123 124 Carried To Section Summary R Section No. 4 Bill No. 9 Ironmongery 125

		Unit	Quantity	Rate	Amount	
	SECTION NO 4					
	1 x Grade R Facility					
	BILL NO. 10					
	STRUCTURAL STEELWORK					
	STEEL COLUMNS AND BEAMS					
	Mild steel beams in single lengths with flat section					
	bearer and connection plates bolted to 76mm columns					
1	150 x 150 x 75mm beam	m	90.00			
	BOLTS. FASTENERS. ETC					
	Bolts					
2	High tensile bolts (class 8.8)	Tonnes	1.00			
	Carried To Section Summary			R		
	Bill No. 10					
	Structural Steelwork					
	126					

I		Unit	Quantity	Rate	Amount	
	SECTION NO. 4					
	<u>SECTION NO. 4</u> 1 x Grade R Facility					
	BILL NO 11					
	METALWORK					
	DEAMDLES					
	For preambles see "Specification of materials and methods to be used _ PW271					
	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	46			
	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	12			
	WELDED SCREENS, GATES, ETC.					
	Gates to external doors					
3	Double gate and frame 1535 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	1			
	Carried to Collection			R		
	Section No. 4					
	Bill No. 11					
	Metalwork					
	127					

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		Unit	Quantity	Rate	Amount	l
4	COMBINATION DOOR FRAME WITH SECURITY GATE Classroom combination door frame with security gate "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	Unit	Quantity	Rate	Amount	
	at angles and fitted with three hinges welded to gate and frame, frame factory welded at maximum 250mm centres to door frame.	No	2			
	PRESSED STEEL DOOR FRAMES					
	1,2mm Rebated frames suitable for half brick walls:					
5	Frame for door 813 x 2032mm high.	No	3			
6	Frame for door 914 x 2032mm high.	No	1			
	1,2mm Rebated frames suitable for one brick walls:					
7	Frame for door 813 x 2032mm high.	No	1			
	STEEL WINDOWS, DOORS, ETC.					
	Standard residential windows with 12 x 12(B33) solid burglar bars to all sashes:					
8	Window type NE1, size 533 X 654mm high.	No	9			
9	Window type NG5, 359 x 533mm high.	No	4			
10	Window type 14B-4, 854 x 889mm high.	No	20			
	STEEL LOUVRES,ETC					
	Purpose made louvres:					
11	Ditto but approximately 3700 x 1000mm high overall	No	2			
	Carried to Collection			R		
	Section No. 4					
	Bill No. 11					
	Metalwork 128					
	.20		1 1		1	I

Amount <u>BILL NO. 11</u> **METALWORK COLLECTION** Page No Brought Forward from Page 127 128 Carried To Section Summary R Section No. 4 Bill No. 11 Metalwork 129

1		Unit	Quantity	Rate	Amount
	<u>SECTION NO. 4</u> 1 x Grade R. Eacility				
	BILL NO. 12				
	PLASTERING				
	PREAMBLES				
	For preambles see "Specification of materials and methods to be used - PW371				
	<u>SCREEDS</u>				
	Screeds on concrete:				
	Screeds of wood floated on concrete to receive ceramic tiles:				
1	30mm Thick on floors to receive vinyl tiles	m²	18		
2	30mm Thick on floors to receive tiles	m²	168		
	GRANOLITHIC				
	Untinted wood floated granolithic on concrete				
3	30mm Thick on floors and landings.	m²	60		
4	Granolithic skirting	m	16		
	INTERNAL PLASTER				
	Cement plaster on brickwork:				
5	On walls.	m²	413		
6	On narrow widths.	m²	9		
	CORNER PROTECTORS, DIVIDING STRIPS, ETC				
7	30 x 3mm Flat section brass dividing strips between different floor finishes.	m	6		
				_	
	Carried To Section Summary			R	
	Bill No. 12				
	Plastering				
	130				

		Unit	Quantity	Rate	Amount	
	SECTION NO. 4					
	<u>1 x Grade R Facility</u>					
	BILL NO. 13					
	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):					
1	On walls in isolated panels, splashbacks, etc.	m²	45			
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	168			
4	Skirting formed of ceramic tile cut to 300 x 75mm high	m	94			
	Carried To Section Summary			Р		
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	Bill No. 13					
	Tiling					
	131		I			I

	Unit	Quantity	Rate	Amount	
<u>SECTION NO. 4</u> 1 x Grade R Facility					
BILL NO. 14					
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			D		
Section No. 4			IX.		
Bill No. 14					
Plumbing And Drainage					
132					

1	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.					
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Section No. 4			ĸ		
Bill No. 14					
Plumbing And Drainage					
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Unit Quantity Amount Rate 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: 100 x 100mm Eaves gutters 78 1 m 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 20 5 75mm Diameter rainwater pipes. m 88 6 Extra over rainwater pipe for bend. No 20 7 Extra over rainwater pipe for shoe. 20 No SANITARY FITTINGS 'Citimetal' stainless steel: Series single end bowl overlay sink, size 1200 x 535mm 8 fitted to top of cabinet. 2 No "Vaal" or equal approved 510 x 405mm "Hibiscus" (code 7050) white vitreous 9 china rounded lavatory basin with two tapholes supported on and including two bolts(code 84467Z0) No 4 White vitreous china "Daisy" semi-close coupled 10 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 5 No Protea 750246 or equal approved wall hung paraplegic 11 WC pan with cradle bracket and legs and Kestrel double flap or equal approved white epoxy painted wooden seat (flush valve elsewhere) No 1 WASTE UNIONS ETC 'Cobra Watertech" or equal approved 38mm "Cobra 316" unslotted waste and plug with chain No 4 12 Carried to Collection R Section No. 4 Bill No. 14 Plumbing And Drainage

		Unit	Quantity	Rate	Amount	
	TRAPS ETC					
	<u>"Marley' or equal approved</u>					
13	40mm Flexi butyl rubber trap with reseal "P" trap	No	2			
	"Cobra Watertech" or equal approved					
14	"Cobra Ref. 365/40" CP Bottle trap.	No	2			
	TAPS, VALVES, ETC					
	'Cobra Watertech' or equal approved:					
15	15mm basin mixer plugged	No	4			
16	15mm Gate valves plugged	No	11			
17	"Cobra Ref. 232/350' Angle regulating valve	No	4			
18	"Cobra Ref. 166/041 wall type "Star" sink mixer with overarm swivel outlet	No	2			
	SANITARY PLUMBING					
	uPVC pipes:					
19	50mm Pipes	m	100			
20	110m Pipes.	m	75			
21	50mm Pipes laid in and including trenches not exceeding 1m deep.	m	50			
22	110mm Pipes laid in and including trenches not exceeding 1m deep under surface beds.	m	55			
	Extra over uPVC pipes for fittings:					
23	50mm Bend.	No	20			
24	100mm Bend.	No	18			
25	110mm Junction.	No	9			
26	50mm Junction.	No	24			
27	110mm Reducing junction.	No	9			
28	110mm Double junction.	No	18			
29	110mm Pan connector	No	6			
30	110mm "G1 Two-way " vent valve	No	9			
	Sundries:					
31	Testing waste pipe system.	Item				
				-		_
	Section No. 4			ĸ		_
	Bill No. 14					
	Plumbing And Drainage					
	135					

I		Unit	Quantity	Rate	Amount
	WATER SUPPLIES				
	Class 9 uPVC pressure pipes:				
32	63mm Pipes laid in and including trenches not exceeding 1000mmm deep	m	80		
	Extra over uPVC pressure pipes for solvent welded pressure fittings:				
33	63mm Elbow	No	15		
34	63mm Tee	No	8		
35	63mm Reducer.	No	4		
	Class o copper pipes:				
36	15mm Pipes	m	100		
37	22mm Pipes.	m	80		
	Extra over class o copper pipes for capillary fittings:				
38	15mm Fittings.	No	40		
39	22mm Fittings.	No	35		
	Copper overflow and service pipes:				
40	15mm Service pipe 300mm girth.	No	1		
	Sundries:				
41	450 x 450m cast iron stopcock box including brick chamber below not exceeding 750mm deep internally.	No	1		
42	'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" or equal approved				
43	150 litre Horizontally floor mounted electric water heater	No	1		
	Testing:				
44	Testing water pipe system.	Item			
	FIRE APPLIANCES ETC.				
	<u>'Chubb' or equal approved:</u>				
45	9kg Dry chemical fire extinguisher fixed on and including 22mm thick x 400 x 200mm wide meranti timber back plate with chamfered edges	No	3		
	Carried to Collection			R	
	Bill No 14				
	Plumbing And Drainage				
	136				

					Pfumbada	a PS
1		Unit	Quantity	Rate	Amount	
46	RAINWATER HARVESTING Rainwater Harvesting Allow a sum of R15 000.00/each (Fifteen Thousand Rands) for provision of 5000I Jojo or equal approved tank complete with lid, fittings, tap, concrete plinth as per Architect details	No	2			
	Carried to Collection Section No. 4 Bill No. 14 Plumbing And Drainage 137			R		

Amount

			Amount	
DILL NO. 14				
PLUMBING AND DRAINA	<u>IGE</u>			
COLLECTION				
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Section No. 4				
Bill No. 14				
Plumbing And Drainage				
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		Unit	Quantity	Rate	Amount	
	1 x Grade R Facility					
	BILL NO. 15					
	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	16			
	5mm Rough cast glass:					
2	Panes exceeding 0,1m2 and not exceeding 0,5m2.	m²	3			
	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	4			
	Carried To Section Summary			R		
	Section No. 4					
	Bill No. 15					
	Glazing					
	139					

		Unit	Quantity	Rate	Amount
	1 x Grade R Facility				
	BILL NO. 16				
	PAINTWORK				
	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	413		
	ON FIBRE-CEMENT, ETC.				
	Prepare , etc as specified and apply two coats of super acrylic Pva paint:				
2	On ceilings and cornices.	m²	255		
3	On fascias and barge boards.	m	78		
	ON METAL				
	Prepare, etc as specified and apply two coats of gloss enamel paint on :				
4	Door frames	m²	9		
5	On windows with burglar bars (both sides measured).	m²	38		
6	On gates, grilles, burglar screens, balustrades, etc (both sides measured over the full flat area).	m²	13		
7	On steel poles and members	m	126		
	Inside eaves gutters				
8	Inside eaves gutters with waterproofing based paint	m²	28		
	Prepare,etc as specified and apply two coats of super acrylic Pva paint on:				
9	General surfaces of doors (interior).	m²	27		
	ON WOOD, WOOD BOARD				
	Prepare, etc as specified and apply two coats of polyurethane suede varnish:				
10	On doors	m²	7		
11	On laminated beam.	m²	13		
	Carried to Collection			R	
	Section No. 4				
	Bill No. 16				
	Paintwork				
	140		1		
1		Unit	Quantity	Rate	
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12	On slatted seating	m ²	6		
12	Conoral curfaces of timber	m ²	1		
13			1		
	Carried to Collection	on		R	
	Section No. 4				
	Paintwork				
	141				

Amount <u>BILL NO. 16</u> PAINTWORK **COLLECTION** Page No Brought Forward from Page 140 141 Carried To Section Summary R Section No. 4 Bill No. 16 Paintwork 142

Amount

			Amount	
	SECTION NO. 4			
	<u>1 x Grade R Facility</u>			
	SECTION SUMMARY			
Bill No.		Page		
1	FOUNDATIONS	106		
2	CONCRETE, FORMWORK AND REINFORCEMENT	109		
3	MASONRY	113		
4	WATERPROOFING	114		
5	ROOF COVERINGS	115		
6	CARPENTRY AND JOINERY	118		
7	CEILINGS PARTITIONS AND ACCESS FLOORING	121		
8	FLOOR COVERINGS	122		
9	IRONMONGERY	125		
10	STRUCTURAL STEELWORK	126		
11	METALWORK	129		
12	PLASTERING	130		
13	TILING	131		
14	PLUMBING AND DRAINAGE	138		
15	GLAZING	139		
16	PAINTWORK	142		
	Carried to Final Summary	R		
	Section No. 4			
	SECTION SUMMARY			
	143			

SECTION NO. 5

<u>1 x Multipurpose Classroom</u>

I		Unit	Quantity	Rate	Amount
	<u>SECTION NO. 5</u>				
	1 x multipurpose classroom				
	<u>BILL NO. 1</u> 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	186		
	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	2		
	EXCAVATION, FILLING, ETC OTHER THAN BULK				
	Excavation in earth not exceeding 2m deep:				
3	Trenches.	m³	32		
	Extra over trench and hole excavations in earth for excavation:				
4	Soft rock.	m³	2		
5	Hard rock	m ³	2		
			2		
	Risk of collapse of excavations:				
6	1,5m deep.	m²	106		
	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	45		
9	Under floors, steps, pavings, etc.	m³	20		
	Carried to Collection			R	
	Section No. 5			· · · ·	
	Bill No. 1				
	Foundations				
	145				

I		Unit	Quantity	Rate	Amount
	Earth filling supplied by the Contractor and compacted to 95% Mod AASHTO density):				
10	Under floors, steps, pavings, etc.	m³	20		
	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	8		
	Coarse river sand filling supplied by the Contractor:				
12	Under floors etc.	m³	10		
	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	20		
	Prescribed density tests on filling:				
14	Modified AASHTO Density test.	No	9		
	SOIL POISONING				
	Soil insecticide:				
15	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming.	m²	98		
16	To bottoms and sides of trenches etc.	m²	138		
10			100		
	Carried to Collection			Б	
	Section No. 5			IX IX	
	Bill No. 1				
	Foundations				
	146				

Amount <u>BILL NO. 1</u> **FOUNDATIONS COLLECTION** Page No Brought Forward from Page 145 146 Carried To Section Summary R Section No. 5 Bill No. 1 Foundations 147

1		Unit	Quantity	Rate	Amount
	<u>SECTION NO. 5</u>				
	BILL NO 3				
	CONCRETE, FORMWORK AND REINFORCEMENT				
	FREAMDLES				
	methods to be used - PW371"				
	UNREINFORCED CONCRETE				
	15Mpa/19mm Concrete				
1	Aprons cast in panels.	m³	11		
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.	~	2		
		m	3		
	25 MPa/19mm Concrete:	2			
4	Footings.	m³	8		
5	Surface beds cast in panels on waterproofing.	m³	15		
	TEST BLOCKS				
	Test blocks:				
6	Making and testing set of three 150 x 150 x 150mm concrete strength test cubes (Provisional).	Sets	10		
	FINISHING TOP SURFACE OF CONCRETE				
7	Paving to falls.	m²	61		
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	4		
	MOVEMENT JOINTS ETC				
	Two layers of .5mm galvanised mild steel slip joints				
	including cement mortar bed:				
10	Not exceeding 300mm wide.	m	15		
				_	
	Carried to Collection			R	
	Bill No. 3				
	Concrete, Formwork And Reinforcement				
	148				

		Unit	Quantity	Rate	Amount	
	Expansion joints with bitumen impregnated softboard between vertical concrete and brick					
11	12mm Joints not exceeding 300mm high.	m	20			
			20			
12	6 x 38mm Angle iron step guard cast into concrete with 3x 6mm anchors	m	1			
	REINFORCEMENT(PROVISIONAL)					
	Fabric reinforcement:					
13	Type 193 fabric reinforcement in concrete surface beds, slabs, etc.	m²	98			
	Steel reinforcement to structural concrete work:					
14	Various sizes	Tonnes	2			
	Carried to Collection			R		
	Section No. 5					
	Bill No. 3 Concrete Formwork And Reinforcement					
	149					

Amount BILL NO. 3 CONCRETE, FORMWORK AND REINFORCEMENT **COLLECTION** Page No Brought Forward from Page 148 149 Carried To Section Summary R Section No. 5 Bill No. 3 Concrete, Formwork And Reinforcement 150

I		Unit	Quantity	Rate	Amount	
	SECTION NO. 5					
	1 x Multipurpose Classroom					
	BILL NO. 4					
	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	51			
	BRICKWORK IN SUPERSTRUCTURE					
	Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:					
2	One brick walls	m²	145			
	BRICKWORK SUNDRIES					
	Brickwork reinforcement:					
3	150mm Wide reinforcement built in horizontally.	m	678			
	Turning pieces:					
4	220mm Wide turning piece to lintels etc.	m	1			
	Carried to Collection			R		
	Section No. 5					
	Bill NO. 4 Masopry					
	151					
	1		. 1			•

I		Unit	Quantity	Rate	Amount	
	Only and wing the star					
F	Gaivanised wire ties etc:					
5	end fixed to timber and other end built into					
	brickwork.(Provisional)	No	1 325			
	Galvanised hoop iron cramps, ties, etc:					
6	30 x 1,6mm Cramp 500mm long with one end fixed to wood and other end built into brickwork.(Provisional)	No	825			
	Prestressed fabricated concrete lintels including necessary temporary supports					
7	115 x 100mm Lintels in lengths not exceeding 3m	m	2			
	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	163			
9	Extra over brickwork for face brickwork in foundations					
	(Provisional).	m²	12			
10	Half brick in facings in beamfilling	m²	8			
	FACE BRICKWORK COPINGS, SILLS, ETC.					
	Brick-on-edge header course copings, sills, etc of face bricks (Prime cost R3500/1000 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	163			
12	230mm Wide sill set sloping and slightly projecting.	m	10			
13	Coping on top of one brick wall pointed on exposed faces	m	603			
	NUTEC-CEMENT/FIBRE-CEMENT WINDOW SILLS					
	Natural grey sills in single lengths bedded in class l					
	mortar including metal fixing lugs etc:					
14	12 x 152mm Wide sills set flat and slightly projecting.	m	10			
	Carried to Collection			R		
	Section No. 5					
	Bill No. 4					
	iviasonry 152					
	132		1		I I	

Amount <u>BILL NO. 4</u> MASONRY **COLLECTION** Page No Brought Forward from Page 151 152 Carried To Section Summary R Section No. 5 Bill No. 4 Masonry 153

		Unit	Quantity	Rate	Amount	
	SECTION NO. 5					
	1 x Multipurpose Classroom					
	BILL NO. 5					
	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	12			
	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	98			
	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	24			
4	12 x 20mm in vertical expansion joints in walls including raking out expansion joint filler as necessary	m	10			
	Carried To Section Summary			R		
	Section No. 5					-
	Bill No. 5 Waterpreefing					
	154					
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I		Unit	Quantity	Rate	Amount
	SECTION NO. 5				
	<u>1 x Multipurpose Classroom</u>				
	BILL NO. 6				
	ROOF COVERINGS				
	PREAMBLES				
	For preambles see "Specification of materials and methods to be used - PW 371				
	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	130		
	<u>.8mm galvanised sheet iron, with "chromadek" one side in:</u>				
2	Standard type FK3 ridge or hip flashing	m	21		
	Carried To Section Summary			R	
	Section No. 5 Bill No. 6 Roof Coverings				
	155				

	Unit	Quantity	Rate	Amount	473
	Onic	Quantity	Tato	, another the	
SECTION NO. 5					
<u>1 x Multipurpose Classroom</u>					
BILL NO. 7					
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			D		
Section No. 5					
Bill No. 7					
Carpentry And Joinery					
156					

I		Unit	Quantity	Rate	Amount	
	Sawn softwood:					
1	Roof construction to double pitched roof with two hipped ends approximately 130m2 (One 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	44			
3	50 x 220mm support beam.	m	11			
	ROOF SUNDRIES					
	Sundries:					
4	Two coats creosote on sawn timbers.	m²	12			
	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	43			
	Wrought meranti doors:					
	Wrought meranti doors hung to steel frames:					
6	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	1			
	DOORS ETC					
	40mm semi-solid flush doors with veneer					
7	40mm Door 813 x 2032mm high	No	1			
		110				
8	Shelving 400mm wide made up of 25mm thick hardwood top and 250 x 250mm high triangular mild steel brackets bolted to					
	wall	m	27			
	Carried to Collection			R		
	Bill No 7					
	Carpentry And Joinery					
	157					
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		1	Amount	I
BILL NO. 7 CARPENTRY AND JOINI COLLECTION	<u>ERY</u>	Page No		
	Brought Forward from Page	156		
		157		
	Carried To Section Summary	R		
Section No. 5 Bill No. 7				
Carpentry And Joinery	158			
	100		11	I

		Unit	Quantity	Rate	Amount
	SECTION NO. 5				
	<u>1 x Multipurpose Classroom</u>				
	BILL NO. 8				
	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	87		
	Wrought softwood				
2	19 x 76mm cornices nailed	m	36		
	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	98		
4	Extra over ceiling for hinged trap door size 610 x 610mm	No	98		
	Carried To Section Summary			P	
	Section No. 5			IX.	
	Bill No. 8				
	Ceilings Partitions And Access Flooring				
	159				

I		Unit	Quantity	Rate	Amount	I
	1 x Multipurpose Classroom					
	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.					
	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" or equal approved padlock.	No	1			
	'Solid" or equal approved					
3	CZ6822461 "Gower" Four lever lockset.	No	1			
	<u>SUNDRIES</u>					
	Solid or equal approved:					
4	38mm Diameter rubber door stop plugged.	No	1			
	<u>PINNING BOARDS, WRITING BOARDS,</u> <u>PROJECTION SCREENS, ETC</u>					
	Vitrex or equal approved:					
5	Pinning board 2400 x 1200mm high plugged.	No	2			
6	White Magnetic Writing Board 4000 x 1200mm	No	1			
	Carried to Collection			R		
	Section No. 5					
	Bill No. 9					
	Ironmongery					
	160					

		Unit	Quantity	Rate		
	SHELVES ETC					
	Proprietary type steel shelving with standard powder					
	coated finish					
7	Heavy duty double slot wall band 1800mm long, plugged	No	15			
8	Heavy duty shelf bracket for 300mm shelf plugged	No	45			
	Carried to Collection			R		
	Section No. 5					
	Bill No. 9 Ironmongery					
	161					

Amount <u>BILL NO. 9</u> **IRONMONGERY COLLECTION** Page No Brought Forward from Page 160 161 Carried To Section Summary R Section No. 5 Bill No. 9 Ironmongery 162 202

I		Unit	Quantity	Rate	Amount	
	<u>SECTION NO. 5</u> 1 x Multipurpose Classroom					
	METALWORK					
	<u>PREAMBLES</u>					
	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	10			
	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	8			
	Carried to Collection			R		
	Section No. 5					_
	Bill No. 10					
	Metalwork					
	163					

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		Unit	Quantity	Rate	Amount	I
3	COMBINATION DOOR FRAME WITH SECURITY GATE Classroom combination door frame with security gate "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	Νο	1			
		110				
	<u>PRESSED STEEL DOOR FRAMES</u>					
1	Frame for door 813 x 2032mm high	No	1			
4		NU	I			
	STEEL WINDOWS, DOORS, ETC.					
	Standard residential windows with 12 x 12(B33) solid burglar bars to all sashes:					
5	Window Code 5 (NTY or equal approved), 1143 x 846mm high.	No	9			
	STEEL LOUVRES,ETC					
	Purpose made louvres:					
6	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			R		
	Section No. 5 Bill No. 10					
	Metalwork					
	164					

Amount <u>BILL NO. 10</u> **METALWORK COLLECTION** Page No Brought Forward from Page 163 164 Carried To Section Summary R Section No. 5 Bill No. 10 Metalwork 165

I		Unit	Quantity	Rate	Amount
	<u>SECTION NO. 5</u>				
	RILL NO 11				
	PLASTERING				
	PREAMBLES				
	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	98		
	<u>GRANOLITHIC</u>				
	Untinted wood floated granolithic on concrete				
2	30mm Thick on floors and landings.	m²	98		
	INTERNAL PLASTER				
	Cement plaster steel trowelled, on brickwork				
3	On walls	m²	309		
4	On narrow widths not exceeding 300mm wide	m²	2		
	CORNER PROTECTORS, DIVIDING STRIPS, ETC (CPAP Work Group No 136)				
5	30 x 3mm Flat section brass dividing strips between different floor finishes.	m	1		
	Carried To Section Summary			Б	
	Section No. 5			ĸ	
	Bill No. 11				
	Plastering				
	166				

Quantity For preambles see "Specification of materials and 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 m² 87 Skirting formed of ceramic tile cut to 300 x 75mm high 36 m

Rate

Unit

Carried To Section Summary

SECTION NO. 5

BILL NO. 12 TILING

PREAMBLES

FLOOR TILING

On floors and landings.

1

2

1 x Multipurpose Classroom

methods to be used - PW371

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Amount

	Unit	Quantity	Rate	Amount	aro
	Onit	Quantity	Nato	Amount	
SECTION NO. 5					
<u>1 x Multipurpose Classroom</u>					
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. 5					
Bill No. 13					
Plumbing And Drainage					
168					

	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.				
			-	
Section No. 5			ĸ	
Bill No. 13				
Plumbing And Drainage				
169				

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: 100 x 100mm Eaves gutters 44 1 m Extra over eaves gutter for angle/corner. 2 No 4 Extra over eaves gutter for outlet for 75mm pipe. 3 No 4 75mm Diameter rainwater pipes. 4 m 12 Extra over rainwater pipe for bend. 5 No 8 Extra over rainwater pipe for shoe. 6 No 4 FIRE APPLIANCES ETC. 'Chubb' or equal approved: 9kg Dry chemical fire extinguisher. 7 No 1 **RAINWATER HARVESTING Rainwater Harvesting** Allow a sum of R15 000.00/each (Fifteen Thousand 8 Rands) for provision of 5000l Jojo or equal approved tank complete with lid, fittings, tap, concrete plinth as per Architect details No 1 Carried to Collection R Section No. 5 Bill No. 13 Plumbing And Drainage 170

		1	Amount	
BILL NO. 13 PLUMBING AND DRAINA COLLECTION	AGE			
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Section No. 5	Camed to Section Summary	K		
Bill No. 13 Plumbing And Drainage				
r among Ana Diamage	171			

	Unit	Quantity	Rate	Amount
SECTION NO. 5				
1 x Multinurnose Classroom				
BILL NO 14				
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 not exceeding 0,1m2.	m²	9		
Carried To Section Sur	mmary		R	
Section No. 5 Bill No. 14				
Glazing				
17	2			

I		Unit	Quantity	Rate	Amount	
	SECTION NO. 5					
	<u>1 x Multipurpose Classroom</u>					
	BILL NO. 15					
	PAINTWORK					
	PREAMBLES					
	Description					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	Description					
	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	152			
	ON FIBRE-CEMENT, ETC.					
	Prepare , etc as specified and apply two coats of super acrylic Pva paint:					
2	On ceilings and cornices.	m²	98			
3	On fascias and barge boards.	m	44			
	ON METAL					
	Prepare, etc as specified and apply two coats of gloss enamel paint on :					
4	Door frames	m²	1			
5	On windows with burglar bars (both sides measured).	m²	9			
6	On gates, grilles, burglar screens, balustrades, etc (both sides measured over the full flat area).	m²	4			
7	Steel poles	m	13			
	Eaves Gutter					
8	Inside eaves gutter with waterproofing based paint	m²	8			
	Carried to Collection			R		
	Section No. 5					-
	Bill No. 15					
I	110		I			

Unit Quantity Amount Rate Prepare,etc as specified and apply two coats of super acrylic Pva paint on: General surfaces of doors (interior). 5 9 m² ON WOOD, WOOD BOARD Prepare, etc as specified and apply two coats of polyurethane suede varnish: 10 On general surfaces of doors. m² 6 On laminated beam. 11 m² 3 12 On shelves. m² 12 Carried to Collection R Section No. 5 Bill No. 15 Paintwork

Amount <u>BILL NO. 15</u> PAINTWORK **COLLECTION** Page No Brought Forward from Page 173 174 Carried To Section Summary R Section No. 5 Bill No. 15 Paintwork 175

Amount

			Amount	
	SECTION NO. 5			
	<u>1 x Multipurpose Classroom</u>			
	SECTION SUMMARY			
Bill No.		Page		
1	FOUNDATIONS	147		
3	CONCRETE, FORMWORK AND REINFORCEMENT	150		
4	MASONRY	153		
5	WATERPROOFING	154		
6	ROOF COVERINGS	155		
7	CARPENTRY AND JOINERY	158		
8	CEILINGS PARTITIONS AND ACCESS FLOORING	159		
9	IRONMONGERY	162		
10	METALWORK	165		
11	PLASTERING	166		
12	TILING	167		
13	PLUMBING AND DRAINAGE	171		
14	GLAZING	172		
15	PAINTWORK	175		
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	Section No. 5			
	176			
SECTION NO. 6

Nutritional Centre

		Unit	Quantity	Rate	Amount
	SECTION NO. 6				
	Nutritional Centre				
	FOUNDATIONS				
	PREAMBLES				
	methods to be used - PW371"				
	SITE CLEARANCE ETC				
	Site clearance:				
1	Digging up and removing rubbish, debris, vegetation,				
	bush, etc.	m²	221		
	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	152		
	Extra over trench and hole excavations in earth for				
4	excavation:	m ³	0		
4			0		
5	Hard rock.	m³	4		
	Risk of collapse of excavations:				
6	Sides of trench and hole excavations not exceeding	m²	230		
			230		
_	Keeping excavations free of water:				
1	subterranean water.	Item			
	Earth filling obtained from excavations and/or				
	prescribed stock piles on site compacted to 93%				
0	MOD AASHIU: Backfilling to tranches holes atc	m ³	40		
0		111	40		
9	Under floors, steps, pavings, etc.	m³	26		
				-	
	Section No. 6			К	
	Bill No. 1				
	Foundations				
	178				

I		Unit	Quantity	Rate	Amount
	Earth filling supplied by the Contractor and compacted to 95% Mod AASHTO density):				
10	Under floors, steps, pavings, etc.	m³	72		
	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	14		
	Coarse river sand filling supplied by the Contractor:				
12	Under floors etc.	m³	9		
	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	184		
	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	184		
16	To bottoms and sides of transhes atc	m ²	247		
10			547		
	Carried to Collection			Б	
	Section No. 6			Ň	
	Bill No. 1				
	Foundations				
	179				

Amount <u>BILL NO. 1</u> **FOUNDATIONS COLLECTION** Page No Brought Forward from Page 178 179 Carried To Section Summary R Section No. 6 Bill No. 1 Foundations 180

SECTION NO. 6 Nutritional Centre 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 Aprons cast in panels. 8 m³ Ramps. m³ 5 Thickening down the edge of apron 150mm deep, 200mm top and tapering to 100mm at bottom including all excavations, formwork, backfilling etc 79 m **REINFORCED CONCRETE** 25MPa/19mm Concrete: m³ 20 Footings. Surface beds cast in panels on waterproofing. m³ 18 Slabs. m³ 1 **TEST BLOCKS** Test blocks: Making and testing set of three 150 x 150 x 150mm concrete strength test cubes (Provisional). Sets 10 FINISHING TOP SURFACE OF CONCRETE Paving to falls. 99 m² **ROUGH FORMWORK (DEGREE OF ACCURACY III) Rough Formwork to Sides:** Edges and reveals not exceeding 300mm high or wide. 99 m Soffits m² 4 **MOVEMENT JOINTS ETC** Two layers of .5mm galvanised mild steel slip joints between horizontal concrete and brick surfaces including cement mortar bed: Not exceeding 300mm wide. 70 m Carried to Collection R Section No. 6 Bill No. 2

1

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11

Concrete, Formwork And Reinforcement

Unit

Quantity

Rate

Amount

I		Unit	Quantity	Rate	Amount
	Expansion joints with bitumen impregnated softboard between vertical concrete and brick				
10	<u>surraces:</u>		75		
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	35		
	REINFORCEMENT(PROVISIONAL)				
	Fabric reinforcement:				
14	Type 395 fabric reinforcement in concrete surface beds, slabs, etc.	m²	184		
	Mild steel reinforcement to structural concrete work:				
15	10mm Diameter bars.	Tonnes	1.00		
	High tensile steel reinforcement to structural concrete work:				
16	20mm Diameter bars.	Tonnes	1.00		
17	16mm Diameter bars.	Tonnes	3.00		
18	12mm Diameter bars.	Tonnes	1.00		
	Carried to Collection			R	
	Section No. 6				
	Bill NO. 2				
	Concrete, Formwork And Reinforcement				
	182				

Amount <u>BILL NO. 2</u> CONCRETE, FORMWORK AND REINFORCEMENT **COLLECTION** Page No Brought Forward from Page 181 182 Carried To Section Summary R Section No. 6 Bill No. 2 Concrete, Formwork And Reinforcement 183 223

1		Unit	Quantity	Rate	Amount
	SECTION NO. 0				
	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	28		
2	One brick walls	m²	118		
	BRICKWORK IN SUPERSTRUCTURE				
	Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:				
3	Half brick walls	m²	86		
4	One brick walls	m²	269		
	BRICKWORK SUNDRIES				
	Brickwork reinforcement:				
5	75mm Wide reinforcement built in horizontally.	m	376		
	Carried to Collection			R	
	Section No. 6				
	Bill No. 3				
	Masonry				
	184				

I		Unit	Quantity	Rate	Amount	
6	150mm Wide reinforcement built in horizontally.	m	1 179			
	Prestressed fabricated lintels:					
7	110 x 75mm Lintels in lengths not exceeding 3m.	m	5			
	Turning pieces:					
8	220mm Wide turning piece to lintels etc.	m	72			
	Galvanised wire ties etc:					
9	4mm Diameter roof tie 2m girth bent double with one end fixed to timber and other end built into brickwork.(Provisional)	No	79			
	Galvanised hoon iron cramps, ties, etc:					
10	30 x 1,6mm Cramp 500mm long with one end fixed to wood and other end built into brickwork.(Provisional)	No	79			
	FACE BRICKWORK					
	Face bricks (Prime cost R5 500/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints:					
11	Extra over brickwork for face brickwork.	m²	242			
12	Extra over brickwork for face brickwork in foundations (Provisional).	m²	56			
13	Half brick in facings in beamfilling	m²	24			
	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:					
14	Extra over brickwork for brick-on-edge header course lintel pointed on face and 110mm soffit.	m	72			
15	230mm Wide sill set sloping and slightly projecting.	m	30			
16	Coping on top of one brick wall pointed on exposed faces	m	18			
	NUTEC-CEMENT/FIBRE-CEMENT WINDOW SILLS					
	Natural grey sills in single lengths bedded in class I mortar including metal fixing lugs etc:					
17	12 x 152mm Wide sills set flat and slightly projecting.	m	30			
	Carried to Collection			R		
	Section No. 6					
	Bill No. 3					
	Masonry					
	185					

Amount <u>BILL NO. 3</u> MASONRY **COLLECTION** Page No Brought Forward from Page 184 185 Carried To Section Summary R Section No. 6 Bill No. 3 Masonry 186

		Unit	Quantity	Rate	Amount
	SECTION NO. 6				
	Nutritional Centre				
	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	27		
	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	184		
	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	44		
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	
	Bill No. 4				
	Waterproofing				
	187				

		Unit	Quantity	Rate	Amount	0
	SECTION NO. 6 Nutritional Centre					
	<u>BILL NO. 5</u> 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 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	212			
	0.58mm galvanised sheet iron, with "chromadek" one side in:					
2	Standard type FK3 ridge or hip flashing	m	28			
	Carried To Section Summary			R		_
	Section No. 6 Bill No. 5 Roof Coverings					
	188					

	Unit	Quantity	Rate	
SECTION NO. 6				
Nutritional Centre				
BILL NO. 6 CARDENTRY AND JOINERY				
CARPENTRT AND JOINERT				
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. 6				
Bill No. 6				
Carpentry And Joinery				
198				

1		Unit	Quantity	Rate	Amount
	Sawn softwood:				
1	Roof construction to double pitched roof with two hipped ends approximately 184m2 (Nutritional centre) on plan including trusses, hipped ends, jack rafters, purlins, permanent bracing, etc (measured flat).	No	1		
	ROOF CONSTRUCTION				
	Sawn softwood :				
2	114 x 38mm Wall plates.	m	120		
3	50 x 228mm support beam	m	18		
	ROOF SUNDRIES				
	Sundries:				
4	Two coats creosote on sawn timbers.	m²	42		
	EAVES, VERGES, ETC				
	Everite FC77 pressed fibre-cement:				
5	10 x 250mm Fascias and barge boards including galvanised steel H-profile jointing strips.	m	79		
	DOORS ETC				
	Wrought meranti doors hung to steel frames:				
6	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	3		
7	44mm Framed batten double door size 3 380 x 4 128mm 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	1		
	SEMI SOLID CORE FLUSH DOORS				
	44 semi-solid flush doors with 3,2mm standard hardboard covering on both sides hung to steel frames:				
8	40mm Door 813 x 2032mm high.	No	3		
	Carried to Collection			D	
	Section No. 6				
	Bill No. 6				
	Carpentry And Joinery				
	190				

		I	Amount	I
BILL NO. 6 CARPENTRY AND JOINI COLLECTION	<u>ERY</u>	Page No		
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Section No. 6 Bill No. 6				
Carpentry And Joinery				
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		Unit	Quantity	Rate	Amount	
	SECTION NO. 6					
	Nutritional Centre					
	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	184			
	Wrought softwood					
2	19 x 76mm cornices nailed	m	153			
	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.	۲°	184			
4	Extra over ceiling for hinged trap door size 610 x 610mm	No	2			
						_
	Carried To Section Summary			R		_
	Bill No. 7					
	Ceilings Partitions And Access Flooring					
	192					

		Unit	Quantity	Rate	Amount	
	SECTION NO. 6					
	Nutritional Centre					
	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					
	<u>"Solid":</u>					
1	150mm 8052-150 Brass flush bolt with keep fixed to metal.	No	3			
2	150mm 8052-150 Brass flush bolt with keep let into concretet.	No	3			
3	CZ 80941WC indicator bolt with keep fixed to metal.	No	2			
	CATCHES, CABIN HOOKS, ETC					
	<u>Solid:</u>					
4	100mm cabin hook and eye including 70 x 70 x 20mm chamfered hardwood block twice oiled and plugged.	No	6			
	LOCKS					
	<u>Solid:</u>					
5	"Code 630" padlock.	No	3			
	<u>'Solid"</u>					
6	CZ6822461 "Gower" Four lever lockset.	No	9			
	DOOR CLOSERS					
	<u>"Yale"</u>					
7	Y202RC Door closer with cover fixed to metal	No	3			
				_		
	Carried to Collection			R		
	Bill No. 8					
	Ironmongery					
	193					

		Unit	Quantity	Rate	Amount
	BATHROOM FITTINGS				
	Kimberley-Clark:				
8	19mm Diameter chromium plated towel rail 900mm long including flanged end brackets.	No	2		
9	Lockable toilet roll holder plugged.	No	2		
	SUNDRIES				
	<u>Solid:</u>				
10	38mm Diameter rubber door stop plugged.	No	9		
	<u>PINNING BOARDS, WRITING BOARDS,</u> <u>PROJECTION SCREENS, ETC</u>				
	<u>Vitrex:</u>				
11	Pinning board 2400 x 1200mm high plugged.	No	1		
	Carried to Collection			R	
	Bill No. 8				
	Ironmongery				
	194				

Amount <u>BILL NO. 8</u> **IRONMONGERY COLLECTION** Page No Brought Forward from Page 193 194 Carried To Section Summary R Section No. 6 Bill No. 8 Ironmongery 195

I		Unit	Quantity	Rate	Amount	
	SECTION NO. 6					
	SECTION NO. 6 Nutritional Centre					
	BILL NO. 9					
	METALWORK					
	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	4			
	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	4			
	PRESSED STEEL DOOR FRAMES					
	1,2mm Rebated frames suitable for half brick walls:					
3	Frame for door 813 x 2032mm high.	No	5			
	1,2mm Rebated frames suitable for one brick walls:					
4	Frame for door 813 x 2032mm high.	No	1			
5	Frame for door 3 380 x 4 128mm high.	No	1			
Ĭ						
	Carried to Collection			R		
	Bill No. 9					
	Metalwork					
	196					

1		Unit	Quantity	Rate	Amount	
	STEEL WINDOWS, DOORS. ETC.					
	Standard residential windows with 12 x 12(B33)					
	solid burglar bars to all sashes:					
6	Window type NE1, size 1 066 x 1 302mm high.	No	4			
7	Window type W1, SS41/SS41, size 2 604 x 1 956mm high.	No	6			
8	Window type W2, SS42, size 2 604 x 1 956mm high.	No	4			
	WELDED SCREENS, GATES, ETC.					
	Mild steel frame out of 50 x 25 x 1.6mm rectangular tubing mitre 45 degrees at corner before welded and secured in opening with brackets welded to gate and bolted to wall.					
9	Frame including double steel gate size 1 710 x 4 370mm high (D6).	No	1			
10	Frame size 4 000 x 4 370mm high with and including double steel gates 2No. x 2 000 x 4 320mm high (D7)	No	1			
	STEEL ROLLER SHUTTERS ETC					
	Galvanised steel roller shutters with 76mm slats, fixed to brickwork or concrete					
11	Manual push-up slatted roller shutter for 2 185 x 2 400mm high opening	No	1			
12	Manual push-up slatted roller shutter for 4 800 x 4 370mm high opening	No	6			
	STEEL LOUVRES,ETC					
	Purpose made louvres:					
13	Ditto but approximately 3700 x 1000mm high overall	No	2			
						_
	Carried to Collection			R		
	Section No. 6					-
	Bill No. 9					
	Metalwork					
	197					

Amount <u>BILL NO. 9</u> **METALWORK COLLECTION** Page No Brought Forward from Page 196 197 Carried To Section Summary R Section No. 6 Bill No. 9 Metalwork 198

I	1	Unit	Quantity	Rate	Amount
	SECTION NO. 6				
	Nutritional Centre				
	BILL NO. 10				
	PLASTERING				
	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	152		
	GRANOLITHIC				
	Untinted wood floated granolithic on concrete				
2	30mm Thick on floors and landings.	m²	32		
	INTERNAL PLASTER				
	Cement plaster on brickwork:				
3	On walls.	m²	468		
4	On narrow widths.	m²	6		
	CORNER PROTECTORS, DIVIDING STRIPS, ETC				
5	30 x 3mm Flat section brass dividing strips between				
	different floor finisnes.	m	34		
	Carried To Section Summary			R	
	Section No. 6				
	Bill No. 10				
	Plastering				
	199				II I

		Unit	Quantity	Rate	
	SECTION NO. 6 Nutritional Centre BILL NO. 11 TILING				
1 2	PREAMBLES For preambles see "Specification of materials and methods to be used - PW371 WALL TILING 200 x 200 x 5mm White glazed ceramic tiles fixed with adhesive to plaster (plaster elsewhere): On walls in isolated panels, splashbacks, etc. On narrow widths. FLOOR TILING	m² m²	40 1		
	300 x 300 x 11.5mm glazed 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	152		
4	Skirting formed of ceramic tile cut to 300 x 75mm high	m	153		
	Control To Contine Output			-	
	Section No. 6 Bill No. 11 Tiling			R	
	200				

	Unit	Quantity	Rate	Amount	
SECTION NO. 6 Nutritional Centre 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. 6					
Bill No. 12					
Plumbing And Drainage					
201				1	

	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.				
			_	
Section No. 6			R	
Bill No. 12				
Plumbing And Drainage				
202				

Unit Quantity Amount Rate 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: 100 x 100mm Eaves gutters 79 1 m 2 Extra over eaves gutter for angle/corner. No 6 3 Extra over eaves gutter for stopped end No 6 4 Extra over eaves gutter for outlet for 75mm pipe. No 6 5 75mm Diameter rainwater pipes. m 24 6 Extra over rainwater pipe for bend. No 6 7 Extra over rainwater pipe for shoe. 6 No SANITARY FITTINGS 'Citimetal' stainless steel: Series single end bowl overlay sink, size 1200 x 535mm 8 fitted to top of cabinet. No 1 "Vaal" 510 x 405mm "Hibiscus" (code 7050) white vitreous 9 china rounded lavatory basin with two tapholes supported on and including two bolts(code 84467Z0) No 3 White vitreous china "Daisy" semi-close coupled 10 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 2 No Precast concrete Double precast concrete wash trough size 1000 x 600 x 11 320mm, (bowl size 430 x 320 x 320mm deep) complete with pair of PCC stand size 508mm high x 390mm wide including fittings fixed to walls. No 1 Carried to Collection R Section No. 6 Bill No. 12 Plumbing And Drainage

		Unit	Quantity	Rate	Amount
	WASTE UNIONS ETC				
	'Cobra Watertech"				
12	38mm "Cobra 316" unslotted waste and plug with chain	No	1		
	TRAPS ETC				
	<u>"Marley'</u>				
13	40mm Flexi butyl rubber trap with reseal "P" trap	No	1		
	<u>"Cobra Watertech"</u>				
14	"Cobra Ref. 365/40" CP Bottle trap.	No	2		
	TAPS, VALVES, ETC				
	'Cobra Watertech':				
15	"Cobra Rf. 107EC-15" Bib tap	No	5		
16	15mm Gate valves	No	6		
17	"Cobra Ref. 232/350' Angle regulating valve	No	2		
18	"Cobra Ref. 166/041 wall type "Star" sink mixer with overarm swivel outlet	No	1		
	SANITARY PLUMBING				
	uPVC pipes:				
19	50mm Pipes	m	60		
20	110m Pipes.	m	55		
21	50mm Pipes laid in and including trenches not exceeding 1m deep.	m	25		
22	110mm Pipes laid in and including trenches not exceeding 1m deep under surface beds.	m	25		
	Extra over uPVC pipes for fittings:				
23	50mm Bend.	No	10		
24	100mm Bend.	No	8		
25	110mm Junction.	No	6		
26	50mm Junction.	No	12		
27	110mm Reducing junction.	No	6		
28	110mm Double junction.	No	5		
29	110mm Pan connector	No	2		
30	110mm "G1 Two-way " vent valve	No	2		
	Carried to Collection			R	
	Section No. 6 Bill No. 12				
	Plumbing And Drainage				
	204				

		Unit	Quantity	Rate	Amount
	Sundries				
31	Testing waste pipe system.	ltem			
	WATER SUPPLIES				
	Class 9 uPVC pressure pipes:				
32	63mm Pipes laid in and including trenches not exceeding 1000mmm deep	m	60		
	Extra over uPVC pressure pipes for solvent welded pressure fittings:				
33	63mm Elbow	No	6		
34	63mm Tee	No	4		
35	63mm Reducer.	No	4		
	Class o copper pipes:				
36	15mm Pipes	m	30		
37	22mm Pipes.	m	40		
	Extra over class o copper pipes for capillary fittings:				
38	15mm Fittings.	No	20		
39	22mm Fittings.	No	15		
	Copper overflow and service pipes:				
40	15mm Service pipe 300mm girth.	No	1		
	Sundries:				
41	450 x 450m cast iron stopcock box including brick chamber below not exceeding 750mm deep internally.	No	1		
42	'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				
	<u>"Kwikot"</u>				
43	150 litre Horizontally floor mounted electric water heater	No	1		
	Testing:				
44	Testing water pipe system.	Item			
	Carried to Collection			R	
	Bill No. 12				
	Plumbing And Drainage				
	205				

		Unit	Quantity	Rate	Amount
	FIRE APPLIANCES ETC.				
	<u>'Chubb':</u>				
45	'Everyway' hose reel complete with 30m plastic hose, chromium plated stopcock, shut-off nozzle and wall bracket.	No	1		
46	9kg Dry chemical fire extinguisher.	No	2		
	Rainwater Harvesting				
47	5000 litre 'JOJO' tank complete with lid and including.				
	fittings, tap, concrete plinth as per Architect details.	No	2		
	Corrisod to Collection			-	
	Section No. 6			ĸ	
	Bill No. 12				
	Plumbing And Drainage				
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Amount

			Amount	
<u>BILL NO. 12</u>				
PLUMBING AND DRAIN	AGE			
COLLECTION				
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		Unit	Quantity	Rate	Amount	
	SECTION NO. 6					
	Nutritional Centre					
	BILL NO. 13					
	GLAZING					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	GLAZING TO STEEL WITH PUTTY					
	5 mm Clear float glass:					
1	Panes exceeding 0,1m2 and not exceeding 0,5m2.	m²	51			
	5 mm Rough cast glass:					
2	Panes exceeding 0,1m2 and not exceeding 0,5m2.	m²	6			
	TOPS, SHELVES, DOORS, MIRRORS, ETC.					
	6 mm Silvered float glass copper backed mirrors with polished edges fixed with double sided adhesive tape:					
3	Mirror 450 x 600 mm high.	No	2			
-	Ğ					
	Carried To Section Summary			R		
	Section No. 6					
	Bill No. 13					
	Glazing					
	208					

		Unit	Quantity	Rate	Amount	
	SECTION NO. 6					
	Nutritional Centre					
	BILL NO. 14					
	PAINTWORK					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	SUPPLEMENTARY PREAMBLES					
	All work are to be executed in strict accordance with the paint specifications of Dulux Coating Systems. The coating systems have a 5-star (6 years) durability rating, unless otherwise specified. Full specifications are available on request from Ansie Mangelsdorf Tel.: (011) 861-1000 Cell.: 082 801 9336).					
	Primer (first) coats may be thinned in accordance with the specifications of Dulux Coating Systems to aid the absorption of the paint.					
	All surfaces must be sound, clean and have a moisture content of less than 12%.					
	Where surfaces of plaster, etc. are sandy the first coat must be replaced with 'Dulux Durabond Bonding Liquid'.					
	ON FLOATED PLASTER					
	Prepare , etc as specified and apply two coats of super acrylic paint:					
1	On interior walls.	m²	468			
	ON FIBRE-CEMENT, ETC.					
	Prepare , etc as specified and apply two coats of super acrylic Pva paint:					
2	On ceilings and cornices.	m²	173			
3	On fascias and barge boards.	m	79			
	ON METAL					
	Prepare, etc as specified and apply two coats of gloss enamel paint on :					
4	Door frames	m²	11			
5	On windows with burglar bars (both sides measured).	M²	113			
6	On gates, grilles, burglar screens, balustrades, etc (both sides measured over the full flat area).	M²	52			
7	On steel poles	m	12			
	Carried to Collection			R		
	Section No. 6					
	Bill No. 14					
	Paintwork					
	209					

		Unit	Quantity	Rate	Amount
	Inside eaves gutters				
8	Inside eaves gutters	m²	28		
	Prepare,etc as specified and apply two coats of super acrylic Pva paint on:				
9	General surfaces of doors (interior).	m²	17		
	ON WOOD, WOOD BOARD				
	Prepare, etc as specified and apply two coats of polyurethane suede varnish:				
10	On open slatted seating.	m²	9		
11	On doors	m²	31		
12	On laminated beam.	m²	16		
	Carried to Collection			R	
	Bill No. 14				
	Paintwork				
	210				

Amount <u>BILL NO. 14</u> PAINTWORK **COLLECTION** Page No Brought Forward from Page 209 210 Carried To Section Summary R Section No. 6 Bill No. 14 Paintwork 211

Amount

			Amount	
	SECTION NO. 6			
	Nutritional Centre			
	SECTION SUMMARY			
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2	CONCRETE, FORMWORK AND REINFORCEMENT	183		
3	MASONRY	186		
4	WATERPROOFING	187		
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6	CARPENTRY AND JOINERY	191		
7	CEILINGS PARTITIONS AND ACCESS FLOORING	192		
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13	GLAZING	208		
14	PAINTWORK	211		
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	212			
SECTION NO. 7

Guard House

1		Unit	Quantity	Rate	Amount
	SECTION NO. 7				
	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	11		
	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	18		
	Extra over trench and hole excavations in earth for excavation:				
4	Soft rock.	m³	2		
5	Hard rock.	m³	1		
	Risk of collapse of excavations:				
6	Sides of trench and hole excavations not exceeding 1,5m deep.	m²	25		
	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	9		
9	Under floors, steps, pavings, etc.	m³	3		
	Carried to Collection			R	
	Section No. 7				
	Bill No. 1				
	Foundations				
	214		1		II I

I		Unit	Quantity	Rate	Amount	
	Earth filling supplied by the Contractor and compacted to 95% Mod AASHTO density):					
10	Under floors, steps, pavings, etc.	m³	3			
	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	4			
	Coarse river sand filling supplied by the Contractor:					
12	Under floors etc.	m³	1			
	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	9			
	Prescribed density tests on filling:					
14	Modified AASHTO Density test.	No	2			
	SOIL POISONING					
	Soil insecticide:					
15	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming.	m²	9			
16	To bottoms and sides of trenches etc.	m²	70			
				_		
	Carried to Collection Section No. 7 Bill No. 1			R		
	Foundations					
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Amount <u>BILL NO. 1</u> **FOUNDATIONS COLLECTION** Page No Brought Forward from Page 214 215 Carried To Section Summary R Section No. 7 Bill No. 1 Foundations 216

Unit Quantity Amount Rate SECTION NO. 7 **Guard House 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 Aprons cast in panels. 1 1 m³ 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 11 m 4 Footings. m³ 4 **REINFORCED CONCRETE** 25MPa/19mm Concrete: Surface beds cast in panels on waterproofing. 5 m³ 1 **TEST BLOCKS** Test blocks: Making and testing set of three 150 x 150 x 150mm 6 concrete strength test cubes (Provisional). Sets 2 7 Paving to falls. m² 11 FINISHING TOP SURFACE OF CONCRETE **ROUGH FORMWORK (DEGREE OF ACCURACY III) Rough Formwork to Sides:** Edges and reveals not exceeding 300mm high or wide. 8 m 11 **MOVEMENT JOINTS ETC** Two layers of .5mm galvanised mild steel slip joints between horizontal concrete and brick surfaces including cement mortar bed: 9 Not exceeding 300mm wide. 5 m Carried to Collection R Section No. 7 Bill No. 2 Concrete, Formwork And Reinforcement 217

I		Unit	Quantity	Rate	Amount	
	Expansion joints with bitumen impregnated softboard between vertical concrete and brick					
4.0	<u>surraces:</u>					
10	12mm Joints not exceeding 300mm high.	m	4			
	Dividing Strips ,etc					
11	6 x 38mm Angle iron step guard cast into concrete with 3x 6mm anchors	m	1			
	REINFORCEMENT(PROVISIONAL)					
	Fabric reinforcement:					
12	Type 193 fabric reinforcement in concrete surface beds, slabs, etc.	m²	9			
	Carried to Collection			R		
	Section No. 7 Bill No. 2					
	Concrete. Formwork And Reinforcement					
	218					
1			•		· ·	

Amount <u>BILL NO. 2</u> CONCRETE, FORMWORK AND REINFORCEMENT **COLLECTION** Page No Brought Forward from Page 217 218 Carried To Section Summary R Section No. 7 Bill No. 2 Concrete, Formwork And Reinforcement 219

SECTION NO. 7 Guard House BiLL NO. 3 MASONRX PREMBLES Frequentities see "Specification of materials and methods to be used - PW371" BRICKWORK Sizes in descriptions are given in brick units, "one brick shall be ordered timeously to obtain uniformity in size and colour. Percentities Bricks shall be ordered timeously to obtain uniformity in size and colour. Pointime Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, holdow recessed,	I		Unit	Quantity	Rate	Amount
SECTION NO. 7 Suard House BLL NO. 3 MASONRY PREABLES For preambles see "Specification of materials and methods to be used . PW371" BRICKWORKIN States in descriptions are given in brick units, 'one brick shall represent the length and 'half brick' the width of a brick. Pace bricks Brick State of the ordered timeously to obtain uniformity in size and colour. Descriptions of recessed pointing to fair face brickwork and face brickwork shall be ordered to include square recessed, weathered pointing, otc. Descriptions of recessed, weathered pointing, otc. 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 a units from every 30 000 units delivered to site. BRICKWORK IN FOUNDENS (FROVISIONAL) Bricks strength) in Class I mortar: 1 Half brick walls m ² 2 One brick walls m ² 3 Piers m ³ 4 Half brick walls m ² 5 One brick walls m ³ 6 Descriptions methods to a load bearing shall consist of a mortar: 7 Piers m ⁴ 8 Carri						
Guard House BiLL NO.3 MASONRY PREAMBLES For preambles see "Specification of materials and methods to be used - PW371" BRICKWORK 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 masony building units, except those for walls described as 'load bearing', shall consist of 30 units from very 30 000 units delivered to site. BRICKWORK IN FOUNDATIONS (PROVISIONAL) Brickwork of NFX bricks (14 MPa nominal compressive strangth) in Class I mortar: 1 Half brick walls 2 One brick walls 3 Piers 4 Half brick walls 5 One brick walls 5 One brick walls 6 Carried to Collection R		SECTION NO. 7				
BiLL NO.3 MASONRY PEAMBLES For preambles see "Specification of materials and methods to be used - PW371" For preambles see "Specification of materials and methods to be used - PW371" BRICKWORK Sizes in descriptions Where sizes in descriptions Brick units, 'one brick' shall represent the length and 'half brick' the width of a brick. Bricks shall be ordered timeously to obtain uniformity in size and colour. Bricks shall be ordered timeously to obtain uniformity in size and colour. Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc. Samples of all masony 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: m ² 1 Half brick walls m ² 2 One brick walls m ³ 3 Piers m ³ 4 Half brick walls m ³ 5 One brick walls m ³ 6 Descriptions of non- section No. 7 Bill No. 3 Masony Z20		Guard House				
MASONRY PREAMBLES For preambles see "Specification of materials and methods to be used - PW371" Image: Comparison of the		BILL NO. 3				
PREAMBLES For preambles see "Specification of materials and methods to be used - PW371" BRICEKWORK Sizes in descriptions are given in brick units, 'one brick' shall be descriptions are given in brick units, 'one brick' shall be ordered timeously to obtain uniformity in size and colour. Pentiting: Descriptions of recessed pointing to fair face brickwork and face brick walls be ordered timeously to obtain uniformity in size and colour. 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 a minimum of 6 units. Samples of building units to be used in walls described as 'load bearing' shall consist of 30 units forwerds to site. BRICKWORK IN FOUNDATIONS (PROVISIONAL) minimum of 6 units. Samples of building units to be used in walls described as 'load bearing' shall consist of 30 units forwerds to site. BRICKWORK IN FOUNDATIONS (PROVISIONAL) BRICKWORK IN SUPERSTRUCTURE Brick walls m ² 3 Piers 4 Half brick walls 5 One brick walls 6 One brick walls 7 Piers 8 m ² 9 One brick walls 1 Half brick walls 1 Half brick walls 2 One brick walls		MASONRY				
Image: Progression of materials and methods to be used - PW371" ERICKWORK 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: Brickwork differences 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 30 units divered 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 3 Piers 3 Piers 4 Half brick walls m ² 5 One brick walls m ² 6 One brick walls m ² 7 Piers m ² 8 m ² 9 6 One brick walls m ² 9 One brick walls m ²		PREAMBLES				
BRICKWORK Sizes in descriptions: Where sizes in descriptions are given in brick units, 'one brick' shall represent the length and 'hall brick' the width of a brick. Image: Comparison of the comparison of t		For preambles see "Specification of materials and methods to be used - PW371"				
Sizes in descriptions are given in brick units, 'one brick' shall represent the length and 'half brick' the width of a brick. Image: Constraint of the constraint of a brick' 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. m² 3 Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar: m² 3 1 Half brick walls m² 1 3 Piers m³ 1 4 Half brick walls m² 3 5 One brick walls m² 34 4 Half brick walls m² 34 5 One brick walls m² 34 6 Carried to Collection R Image: Carried to Collection 8 Section No. 7 Bill No. 3 Masonry 220 Image: Carried to Collection <td></td> <td>BRICKWORK</td> <td></td> <td></td> <td></td> <td></td>		BRICKWORK				
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 unuts form every 30 000 units delivered to site. BRICKWORK IN FOUNDATIONS (PROVISIONAL) Brickwork of MFX bricks (14 MPa nominal compressive strength) in Class I mortar: Piers m² Piers m² Piers Malf brick walls m² Piers Malf brick walls m² Piers Malf brick walls m² One brick walls m² Piers Malf brick walls m² Piers Malf brick walls m² One brick walls m² One brick walls Malf brick walls Malf Half brick walls Malf Masonry Z20 Weither and the manified brick walls Masonry Masonry Masonry Masonry Masonry Masonry Masonry Masonry Masonry<		Sizes in descriptions:				
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. 2 One brick walls Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar: 3 Piers 4 Half brick walls 5 One brick walls m ² 34 Kection No. 7 Bill No. 3 Masonry 220		Where sizes in descriptions are given in brick units, 'one brick' shall represent the length and 'half brick' the width of a brick.				
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 IN FOUNDATIONS (PROVISIONAL) BRICKWORK IN SUPERSTRUCTURE m² 3 2 One brick walls m² 11 BRICKWORK IN SUPERSTRUCTURE m² 11 BRICKWORK IN SUPERSTRUCTURE m² 3 9 Piers m³ 1 4 Half brick walls m² 3 5 One brick walls m² 34 Carried to Collection Section No. 7 Bill No. 3 masonry Bill No. 3 Masonry 220 Units of the second s		Face bricks:				
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. m ² 2 One brick walls m ² 3 Piers m ³ 4 Half brick walls m ² 5 One brick walls m ² 6 Carried to Collection R 7 Section No. 7 Bill No. 3 8 Carried to Collection R		Bricks shall be ordered timeously to obtain uniformity in size and colour.				
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 IN FOUNDATIONS (PROVISIONAL) Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar: m ² 1 Half brick walls. m ² 11 BRICKWORK IN SUPERSTRUCTURE Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar: m ³ 1 3 Piers m ³ 1 4 Half brick walls m ² 34 5 One brick walls m ² 34 6 Carried to Collection R R 8 Carried to Collection R Image: Carried to Collection R 9 Section No. 7 Bill No. 3 Masonry 220 Image: Carried to Collection Image: Carried to Collection		Pointing:				
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. Image: Compressive strength in Class I mortar: 1 Half brick walls. m ² 3 2 One brick walls m ² 11 BRICKWORK IN SUPERSTRUCTURE m ² 11 BRICKWORK IN SUPERSTRUCTURE m ² 3 3 Piers m ³ 1 4 Half brick walls m ² 9 5 One brick walls m ² 34 <i>Excompressive strength</i>) in Class I mortar: 34 M ³ 1 4 Half brick walls m ² 9 5 5 One brick walls m ² 34 1 4 Half brick walls m ² 34 1 5 One brick walls m ² 34 1 6 Carried to Collection R 1 1 7 Bill No. 3 Masonry 220 1 1		Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc.				
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 4 Half brick walls 5 One brick walls 6 Carried to Collection 8 Carried to Collection 9 Section No. 7 9 Bill No. 3 Masonry 220		SAMPLES				
BRICKWORK IN FOUNDATIONS (PROVISIONAL) Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar: m2 3 1 Half brick walls. m2 3 2 One brick walls m2 11 BRICKWORK IN SUPERSTRUCTURE Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar: m3 1 3 Piers m3 1 4 Half brick walls m2 9 5 One brick walls m2 34 K Carried to Collection R		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 of NFX bricks (14 MPa nominal compressive strength) in Class I mortar: m² 3 1 Half brick walls. m² 3 2 One brick walls m² 11 BRICKWORK IN SUPERSTRUCTURE Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:		BRICKWORK IN FOUNDATIONS (PROVISIONAL)				
1 Half brick walls. m ² 3 2 One brick walls m ² 11 3 BRICKWORK IN SUPERSTRUCTURE Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar: m ³ 1 3 Piers m ³ 1 4 Half brick walls m ² 9 5 One brick walls m ² 34 6 Section No. 7 Bill No. 3 Masonry Carried to Collection 220 K K		Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:				
2 One brick walls m ² 11 BRICKWORK IN SUPERSTRUCTURE Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:	1	Half brick walls.	m²	3		
BRICKWORK IN SUPERSTRUCTURE Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar: m³ 1 3 Piers m³ 1 4 Half brick walls m² 9 5 One brick walls m² 34 Exclose the price walls m² 34 Section No. 7 Bill No. 3 Masonry 220 Image: state wall st	2	One brick walls	m²	11		
Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar: m³ 1 Piers m³ 1 Half brick walls m² 9 One brick walls m² 34 Example m² 1 Section No. 7 Section No. 7 1 Bill No. 3 Masonry 220 1		BRICKWORK IN SUPERSTRUCTURE				
3 Piers m³ 1 4 Half brick walls m² 9 5 One brick walls m² 34 Masonry Carried to Collection R R Section No. 7 Bill No. 3 Masonry 220 Image: Carried to Collection		Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:				
4 Half brick walls m ² 9	3	Piers	m³	1		
5 One brick walls m ² 34	4	Half brick walls	m²	9		
Carried to Collection Section No. 7 Bill No. 3 Masonry 220	5	One brick walls	m²	34		
Carried to Collection Section No. 7 Bill No. 3 Masonry 220						
Carried to Collection Section No. 7 Bill No. 3 Masonry 220						
Section No. 7 Bill No. 3 Masonry 220						
Bill No. 3 Masonry 220		Section No. 7			ĸ	
Masonry 220		Bill No. 3				
220		Masonry				
		220				

		Unit	Quantity	Rate	Amount
	Brickwork reinforcement				
6	75mm Wide reinforcement built in horizontally.	m	36		
7	150mm Wide reinforcement built in horizontally.	m	149		
	Prestressed fabricated lintels:				
8	110 x 75mm Lintels in lengths not exceeding 3m.	m	1		
	Turning pieces:				
9	220mm Wide turning piece to lintels etc.	m	6		
	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	11		
		NU			
	Galvanised hoop iron cramps, ties, etc:				
11	wood and other end built into brickwork.(Provisional)	No	11		
	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	34		
13	Extra over brickwork for face brickwork in foundations (Provisional).	m²	5		
14	Extra over brickwork for face brickwork to piers.	m²	12		
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	7		
17	230mm Wide sill set sloping and slightly projecting.	m	5		
18	Coping on top of one brick wall pointed on exposed faces	m	1		
	Carried to Collection			R	
	Bill No 3				
	Masonry				
	221				

					Pfumbad	a PS
1		Unit	Quantity	Rate	Amount	
	<u>NUTEC-CEMENT/FIBRE-CEMENT WINDOW SILLS</u> <u>Natural grey sills in single lengths bedded in class I</u> mortar including metal fixing lugs etc:					
19	12 x 152mm Wide sills set flat and slightly projecting.	m	5			
19	12 x 152mm Wide sills set flat and slightly projecting.	m	5			
	Carried to Collection			R		
	Section No. 7			i.		
	Bill No. 3					
	Masonry					
	222					

Amount <u>BILL NO. 3</u> MASONRY **COLLECTION** Page No Brought Forward from Page 220 221 222 Carried To Section Summary R Section No. 7 Bill No. 3 Masonry 223

		Unit	Quantity	Rate	Amount
	SECTION NO. 7				
	Guard House				
	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	6		
	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	9		
	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	2		
4	12 x 20mm in vertical expansion joints in walls including raking out expansion joint filler as necessary	m	2		
	Carried To Section Summary			D	
	Section No. 7			ĸ	
	Bill No. 4				
	Waterproofing				
	224				

I		Unit	Quantity	Rate	Amount	
	SECTION NO. 7					
	Guard House					
	BILL NO. 5					
	ROOF COVERINGS					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW 371					
	General					
	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	12			
	.8mm galvanised sheet iron, with "chromadek" one					
2	<u>SIDE IN:</u> Standard, type EK3 ridge or hin flashing	m	10			
2	Standard Type FKS huge of hip hashing	m	10			
	Carried To Section Summary			R		
	Bill No. 5					
	Roof Coverings					
	225					

	Unit	Quantity	Rate	Amount	
		-			
SECTION NO. 7					
Guard House					
BILL NO. 6 CARDENTRY AND JOINERY					
CARPENTRT AND JOINERT					
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 Section No. 7 Bill No. 6 Carpentry And Joinery			R		
226					

I		Unit	Quantity	Rate	Amount	
	Source office of					
	Sawn softwood:					
1	ends approximately 9m2 (Guard House) on plan including trusses, hipped ends, jack rafters, purlins, permanent bracing, etc (measured flat).	No	1			
	BOOF CONSTRUCTION	-				
	ROUP CONSTRUCTION					
2	114 x 38mm Wall plates	m	11			
2						
	ROOF SUNDRIES					
		2				
3	I wo coats creosote on sawn timbers.	m²	2			
	EAVES, VERGES, ETC					
	Everite FC77 pressed fibre-cement:					
4	10 x 250mm Fascias and barge boards including galvanised steel H-profile jointing strips.	m	16			
	JOINERY SUNDRIES					
	Wrought Meranti					
5	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	2				
		m-	1			
	SEMI SOLID CORE FLUSH DOORS					
	<u>44 semi-solid flush doors with 3,2mm standard</u> hardboard covering on both sides hung to steel frames:					
6	40mm Door 813 x 2032mm high.	No	1			
	Carried to Collection			D		
	Section No. 7			ĸ		
	Bill No. 6					
	Carpentry And Joinery					
	227					

		1	Amount	I
BILL NO. 6				
CARPENTRY AND JOINI	ERY			
COLLECTION				
		Page No		
	Brought Forward from Page	226		
		227		
	Carried To Section Summary	R		
Section No. 7				
Bill No. 6				
Carpenity And Joinery	228			
		I	Ш	1

		Unit	Quantity	Rate	Amount	•
	SECTION NO. 7					
	Guard House					
	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	9			
	Wrought softwood					
2	19 x 76mm cornices nailed	m	16			
	NAILED UP AND SCREW UP CEILINGS					
	6mm Everite Nutec fibre-cement boards with H-type					
~	steel cover strips over joints:					
3	at 400mm centres.	m²	9			
4	Extra over ceiling for hinged trap door size 610 x 610mm	No	1			
	Carried To Section Summary			R		
	Section No. 7					_
	Bill No. 7					
	Ceilings Partitions And Access Flooring					
	229					

1		Unit	Quantity	Rate	Amount	-
	SECTION NO. 7					
	Guard House					
	BILL NO. 8					
	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					
	<u>"Solid":</u>					
1	CZ 80941WC indicator bolt with keep fixed to metal.	No	1			
	LOCKS					
	<u>'Solid"</u>					
2	CZ6822461 "Gower" Four lever lockset.	No	2			
	DOOR CLOSERS					
	<u>"Yale"</u>					
3	Y202RC Door closer with cover fixed to metal	No	1			
	BATHROOM FITTINGS					
	Kimberley-Clark:					
4	19mm Diameter chromium plated towel rail 900mm long including flanged end brackets.	No	1			
5	Lockable toilet roll bolder plugged	No	1			
5		INO.				
	Solid:					
6	38mm Diameter rubber door stop plugged	No	2			
	somm blameter rubber door stop plugged.	INO.	2			
	Carried To Section Summary			R		
	Bill No 8					
	Ironmongerv					
	230					

		Unit	Quantity	Rate	Amount
	SECTION NO. 7				
	Guard House				
	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.				
	PRESSED STEEL DOOR FRAMES				
	1,2mm Rebated frames suitable for half brick walls:				
1	Frame for door 813 x 2032mm high.	No	1		
	1,2mm Rebated frames suitable for one brick walls:				
2	Frame for door 813 x 2032mm high.	No	1		
	STEEL WINDOWS, DOORS, ETC.				
	Standard residential windows with 12 x 12(B33) solid burglar bars to all sashes:				
3	Window type NCTX7S, size 1022 x 944mm high.	No	2		
4	Window type NCTX7S, size 1022 x 949mm high.	No	2		
5	Window type NCTX7S5, size 1511 x 949mm high.	No	1		
	STEEL LOUVRES,ETC				
	Purpose made louvres:				
6	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 Section Summarv			R	
	Section No. 7				
	Bill No. 9				
	Metalwork				
	231				

		Unit	Quantity	Rate	Amount	
	SECTION NO. 7					
	BILL NO 10					
	PLASTERING					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	GRANOLITHIC					
	Untinted wood floated granolithic on concrete					
1	30mm Thick on floors and landings.	m²	9			
2	75mm thick high grano skirting	m	14			
	INTERNAL PLASTER					
	Cement plaster on brickwork:					
3	On walls.	m²	43			
4	On narrow widths.	m²	2			
5	30 x 3mm Flat section brass dividing strips between different floor finishes.	m	1			
	CORNER PROTECTORS, DIVIDING STRIPS, ETC					
	Carried To Section Summarv			R		
	Section No. 7					
	Bill No. 10					
	Plastering					
	232					

					Pfumbad	a PS
		Unit	Quantity	Rate	Amount	
1	 SECTION NO. T Guard House BILL NO. 11 TILING PREAMBLES For preambles see "Specification of materials and methods to be used - PW371 MALL TILING 200 x 200 x 5mm White glazed ceramic tiles fixed with adhesive to plaster (plaster elsewhere): On walls in isolated panels, splashbacks, etc. 	Unit	Quantity	Rate	Pfumbad Amount	a PS
	Carried To Section Summary Section No. 7 Bill No. 11 Tiling 233			R		

	Unit	Quantity	Rate	Amount	
SECTION NO. 7					
Guard House					
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. 7					
Bill No. 12					
Plumping And Drainage					
204					

1	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.					
			-		
Section No. 7			R		
Bill No. 12					
Plumbing And Drainage					
235					

Amount Unit Quantity Rate 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: 100 x 100mm Eaves gutters 16 1 m 2 Extra over eaves gutter for angle/corner. No 4 3 Extra over eaves gutter for outlet for 75mm pipe. No 2 8 4 75mm Diameter rainwater pipes. m 5 Extra over rainwater pipe for bend. No 2 6 Extra over rainwater pipe for shoe. No 2 SANITARY FITTINGS "Vaal" 510 x 405mm "Hibiscus" (code 7050) white vitreous 7 china rounded lavatory basin with two tapholes supported on and including two bolts(code 84467Z0) No 1 White vitreous china "Daisy" semi-close coupled 8 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 1 WASTE UNIONS ETC 'Cobra Watertech" 9 38mm "Cobra 316" unslotted waste and plug with chain No 1 TRAPS ETC "Marley' 40mm Flexi butyl rubber trap with reseal "P" trap No 1 10 TAPS, VALVES, ETC 'Cobra Watertech': "Cobra Rf. 107EC-15" Bib tap No 1 11 Carried to Collection R Section No. 7 Bill No. 12 Plumbing And Drainage 236

I		Unit	Quantity	Rate	Amount	I
12	15mm Gate valves	No	2			
	SANITARY PLUMBING					
	uPVC pipes:					
13	50mm Pipes	m	10			
14	110m Pipes.	m	15			
15	50mm Pipes laid in and including trenches not exceeding 1m deep.	m	7			
16	110mm Pipes laid in and including trenches not exceeding 1m deep under surface beds.	m	20			
	Extra over uPVC pipes for fittings:					
17	50mm Bend.	No	4			
18	100mm Bend.	No	4			
19	110mm Junction.	No	2			
20	50mm Junction.	No	2			
21	110mm Reducing junction.	No	2			
22	110mm Double junction.	No	2			
23	110mm Pan connector	No	1			
24	110mm "G1 Two-way " vent valve	No	1			
	Sundries:					
25	Testing waste pipe system.	Item				
	WATER SUPPLIES					
	Class 9 uPVC pressure pipes:					
26	63mm Pipes laid in and including trenches not exceeding 1000mmm deep	m	30			
	Extra over uPVC pressure pipes for solvent welded pressure fittings:					
27	63mm Elbow	No	2			
28	63mm Tee	No	2			
29	63mm Reducer.	No	1			
	Class o copper pipes:					
30	15mm Pipes	m	15			
31	22mm Pipes.	m	10			
	Carried to Collection			R		
	Section No. 7					
	Bill No. 12					
	Plumping And Drainage					
	201				1	I

		Unit	Quantity	Rate	Amount
	Extra over class o copper pipes for capillary fittings:				
32	15mm Fittings.	No	5		
33	22mm Fittings.	No	5		
	Copper overflow and service pipes:				
34	15mm Service pipe 300mm girth.	No	1		
	Sundries:				
35	450 x 450m cast iron stopcock box including brick chamber below not exceeding 750mm deep internally.	No	1		
	Testing:				
36	Testing water pipe system.	Item			
	FIRE APPLIANCES ETC.				
	<u>'Chubb':</u>				
37	9kg Dry chemical fire extinguisher.	No	1		
	Carried to Collection			R	
	Section No. 7				
	Bill No. 12				
	Plumbing And Drainage				
	200	l	I		II I

Amount BILL NO. 12 PLUMBING AND DRAINAGE **COLLECTION** Page No Brought Forward from Page 234 235 236 237 238 Carried To Section Summary R Section No. 7 Plumbing And Drainage 239

Bill No. 12

I	[Unit	Quantity	Rate	Amount	
	SECTION NO. 7					
	Guard House					
	BILL NO. 13					
	GLAZING					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	GLAZING TO STEEL WITH PUTTY					
	<u>5 mm Clear float glass:</u>					
1	Panes exceeding 0,1m2 and not exceeding 0,5m2.	m²	4			
	5 mm Rough cast glass:					
2	Panes exceeding 0,1m2 and not exceeding 0,5m2.	m²	1			
	TOPS, SHELVES, DOORS, MIRRORS, ETC.					
	6 mm Silvered float glass copper backed mirrors					
	adhesive tape:					
3	Mirror 450 x 600 mm high.	No	1			
				_		
	Carried To Section Summary			R		
	Bill No. 13					
	Glazing					
	240					

I		Unit	Quantity	Rate	Amount
	SECTION NO. 7				
	Guard House				
	BILL NO. 14				
	PAINTWORK				
	PREAMBLES				
	For preambles see "Specification of materials and methods to be used - PW371				
	SUPPLEMENTARY PREAMBLES				
	All work are to be executed in strict accordance with the paint specifications of Dulux Coating Systems. The coating systems have a 5-star (6 years) durability rating, unless otherwise specified. Full specifications are available on request from Ansie Mangelsdorf Tel.: (011) 861-1000 Cell.: 082 801 9336).				
	Primer (first) coats may be thinned in accordance with the specifications of Dulux Coating Systems to aid the absorption of the paint.				
	All surfaces must be sound, clean and have a moisture content of less than 12%.				
	Where surfaces of plaster, etc. are sandy the first coat must be replaced with 'Dulux Durabond Bonding Liquid'.				
	ON FLOATED PLASTER				
	Prepare , etc as specified and apply two coats of super acrylic paint:				
1	On interior walls.	m²	43		
	ON FIBRE-CEMENT, ETC.				
	Prepare , etc as specified and apply two coats of super acrylic Pva paint:				
2	On ceilings and cornices.	m²	9		
3	On fascias and barge boards.	m	16		
	ON METAL				
	Prepare, etc as specified and apply two coats of gloss enamel paint on :				
4	Door frames	m²	3		
5	On windows with burglar bars (both sides measured).	m²	10		
	Inside eaves gutter				
6	Inside eaves gutter with waterproofing based paint	m²	6		
	Section No. 7			К	
	Bill No. 14				
	Paintwork				
	241				

		Unit	Quantity	Rate	Amount	
	Prepare,etc as specified and apply two coats of super acrylic Pva paint on:					
7	General surfaces of doors (interior).	m²	3			
	ON WOOD, WOOD BOARD					
	Prepare, etc as specified and apply two coats of polyurethane suede varnish:					
8	On doors	m²	3			
	Carried to Collection			R		
	Section No. 7 Bill No. 14					
	Paintwork					
	242					

Amount <u>BILL NO. 14</u> PAINTWORK **COLLECTION** Page No Brought Forward from Page 241 242 Carried To Section Summary R Section No. 7 Bill No. 14 Paintwork 243

Amount

			Amount	
	SECTION NO. 7			
	Guard House			
	SECTION SUMMARY			
Bill No.		Page		
1	FOUNDATIONS	216		
2	CONCRETE, FORMWORK AND REINFORCEMENT	219		
3	MASONRY	223		
4	WATERPROOFING	224		
5	ROOF COVERINGS	225		
6	CARPENTRY AND JOINERY	228		
7	CEILINGS PARTITIONS AND ACCESS FLOORING	229		
8	IRONMONGERY	230		
9	METALWORK	231		
10	PLASTERING	232		
11	TILING	233		
12	PLUMBING AND DRAINAGE	239		
13	GLAZING	240		
14	PAINTWORK	243		
	Carried to Final Summary	R		
	Section No. 7			
	SECTION SUMMARY			
	244			

SECTION NO. 8

2 x 4 Enviroloo Toilets

I		Unit	Quantity	Rate	Amount
	SECTION NO. 8				
	2 x 4 Enviroloo Toilets				
	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	m ³	1		
U					
_	Risk of collapse of excavations:				
1	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. 8				
	Bill No. 1				
	Foundations				
	246				

		Unit	Quantity	Rate	Amount
	Earth filling supplied by the Contractor and compacted to 95% Mod AASHTO density):				
11	Under floors, steps, pavings, etc.	m³	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. 8 Bill No. 1				
	Foundations				
	247				

Amount <u>BILL NO. 1</u> **FOUNDATIONS COLLECTION** Page No Brought Forward from Page 246 247 Carried To Section Summary R Section No. 8 Bill No. 1 Foundations 248
		Unit	Quantity	Rate	Amount
	SECTION NO. 8				
	<u>2 x 4 Enviroloo Toilets</u>				
	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		
				_	
	Section No. 8			ĸ	
	Bill No. 2				
	Concrete, Formwork And Reinforcement				
	249				

I		Unit	Quantity	Rate	Amount	
	MOVEMENT JOINTS ETC					
	Two layers of .5mm galvanised mild steel slip joints between horizontal concrete and brick surfaces					
	including cement mortar bed:					
12	Not exceeding 300mm wide.	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		
	Bill No. 2					
	Concrete, Formwork And Reinforcement					
	250					



		Unit	Quantity	Rate	Amount
	SECTION NO. 8				
	2 x 4 Enviroloo Toilets				
	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		
	Corriad to Collection			Б	
	Section No. 8			ň	
	Bill No. 3				
	Masonry				
	252				

I		Unit	Quantity	Rate	Amount
	BRICKWORK SUNDRIES				
6	ZEmm Wide reinforcement:	~	64		
7	150mm Wide reinforcement built in horizontally.	m	194		
	Turning pieces:				
0	110mm Wide turning piece to lintels atc	m	5		
0			5		
9	220mm while 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 FTC				
	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			R	
	Section No. 8				
	Bill No. 3				
	Masonry				
	203				

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I		Unit	Quantity	Rate	Amount	
19	NUTEC-CEMENT/FIBRE-CEMENT WINDOW SILLS Natural grey sills in single lengths bedded in class I mortar including metal fixing lugs etc: 12 x 152mm Wide sills set flat and slightly projecting.	m	4			
	Carried to Collection			R		
	Bill No. 3 Masonry 254					

Amount BILL NO. 3 MASONRY **COLLECTION** Page No Brought Forward from Page 252 253 254 Carried To Section Summary R Section No. 8 Bill No. 3 Masonry 255

		Unit	Quantity	Rate	Amount
	2 x 4 Enviroloo Toilets				
	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	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				
	<u>silicone sealing compound including backing cord,</u> <u>bond breaker,primer,etc</u>				
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. 8				
	Waterproofing				
	256				

		Unit	Quantity	Rate	Amount	
	SECTION NO. 8					
	2 x 4 Enviroloo Toilets					
	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					
	.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			
	<u>.8mm galvanised sheet iron, with "chromadek" one side in:</u>					
2	Standard type FK3 ridge or hip flashing	m	8			
	Carried To Section Summary			R		
	Section No. 8					<u> </u>
	Bill No. 5					
	Roof Coverings					
	257					

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	Unit	Quantity	Rale	Amount	
SECTION NO. 8					
<u>2 x 4 Enviroloo Toilets</u>					
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 Callection			P		
Section No. 8			ĸ		
Bill No. 6					
Carpentry And Joinery					
258					

		Unit	Quantity	Rate	Amount	
	Sown coffwood					
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. 8			i v		—
	Bill No. 6					
	Carpentry And Joinery					
	259					

		1	Amount
BILL NO. 6			
CARPENTRY AND JOINE	<u>ERY</u>		
COLLECTION			
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Section No. 8	Carried To Geolon Summary	ĸ	
Bill No. 6			
Carpentry And Joinery			
	260		

SECTION NO. 8 2 x 4 Enviradeo Toilets BiLL No. 7 CELINGS PARTITIONS AND ACCESS FLOORING PREAMBLES For preambles see "Specification of materials and methods to be used - PW371 SUPPLENENTARY PREAMBLES Descriptions: Items described as nailed shall be deemed to be fixed with hardened as bleng and so phis or shot phismed to brickwork or concrete. methods to be used - PW371 Items described as plugged shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm contres, and where described as bolted the bolts have been given. m ² INSULATION Ancelle insulation: m ² 16 1 100mm Insulation closely fitted and laid on top of branching getween roof timbers etc. m ² 16 1 100mm contices nailed m 16 Mulcab UP AND SCREW UP CELLINGS m ² 16 3 Cellings including 38 x 38mm sawn softwood brandering at 400mm centres. m ² 16 4 Extra over celling for hinged trap door size 610 x 610mm No 1 Carried To Section Summary R			Unit	Quantity	Rate	Amount
SECTION NO. 8 2x 4 Enviroioo Toileis BLL NO.7 CELLINGS PARTITIONS AND ACCESS FLOORING PREAMBLES For preambles see "Specification of materials and methods to be used - PW371 SUPPL ENVERTARY 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. m ² Items described as nailed shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres, and where described as bolled the bolts have been given. m ² INSULATION Acrolite insulation closely fitted and laid on top of brandening between root timbers etc. m ² 16 Virought softwood 1 100mm Insulation closely fitted and laid on top of brandening tat00mm centres. m ² 16 Virought softwood 1 m 16 Quick softwood m 16 16 Section Mong 38 x 38mm sawn softwood brandening at 400mm centres. m ² 16 Catried To Section Summary R						
2 x 4 Enviroleo Toilets Bill.No.7 CELLINGS 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 brickwok or concrete. brickwok 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 Are been given. I 100mm Insulation closely fitted and laid on top of brandering between roof timbers etc. m² 16 Virought softwood m 16 2 19 x 76mm comices nailed m 16 NALED UP AND SCREW UP CELINGS m² 16 Seming 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. 8				
BLL NO. 7 CELINGS PARTITIONS AND ACCESS FLOORING PREAMBLES For preambles see "Specification of materials and methods to be used - PW371 SUPL EMENTARY 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 bolied the boils have been given. INSULATION Aerolite insulation closely fitted and laid on top of brandering between torol timbers etc. m² 16 Wrought softwood 19 x 76mm cornices nailed m 16 Cellings Including 38 x 38mm sawn softwood brandering at 400mm centres. m² 16 Cellings for hinged trap door size 610 x 610mm No 1 Carried To Section Summary Carried To Section Summary Carried To Section No. 8 m² 16 Bill No. 7 Cellings Partitions And Access Flooring 261 10		2 x 4 Enviroloo Toilets				
CELLINGS PARTITIONS AND ACCESS FLOORING PREAMBLES For preambles see "Specification of materials and methods to be used - PW371 SUPPLEMENTARY PREAMBLES Descriptions Items described as anialed 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 600m centres, and where described as bolted the boits have been given. INSULATION Aerolite insulation closely fitted and laid on top of brandering between roof timbers etc. m² 16 Wrought softwood 1 m 16 2 19 x 76mm cornices nailed m 16 NALED UP AND SCREW UP CELLINGS m² 16 Carried To Section Summary m² 16 Carried To Section Summary R		BILL NO. 7				
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 hardned 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. m² 16 INSULATION m² 16 Virought softwood m² 16 1 100mm insulation closely fitted and laid on top of brandering between root timbers etc. m² 16 Virought softwood m 16 16 2 19 x 76mm cornices nailed m 16 NALED UP AND SCREW UP CELLINGS m² 16 Gelings 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		CEILINGS PARTITIONS AND ACCESS FLOORING				
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 hardneed 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 root timbers etc. m² 16 MicleD UP AND SCREW UP CEILINGS Gomm contres. m² 13 Ceilings including 38 x 38mm sawn softwood brandering at 400mm centres. 14 Carried To Section Summary R		PREAMBLES				
SUPPLEMENTARY PREAMBLES Descriptions: Items described as nailed shall be deemed to be fixed with hardrened 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 m 2 19 x 76mm cornices nailed m MAILED UP AND SCREW UP CEILINGS m² 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 Extra over ceiling for hinged trap door size 610 x 610mm No 1 Carried To Section Summary R		For preambles see "Specification of materials and methods to be used - PW371				
Descriptions: Items described as nailed shall be deemed to be fixed with hardneed 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. m ² INSULATION Aerolite insulation: m ² 16 100mm Insulation closely fitted and laid on top of brandering between roof timbers etc. m ² 16 Virought softwood m 16 NALED UP AND SCREW UP CELLINGS m 16 Section Kords at Home door size 610 x 610mm No 1 2 19 x 76mm cornices nailed m ² 16 Variages including 38 x 38mm sawn softwood brandering at 400mm centres. m ² 16 4 Extra over ceiling for hinged trap door size 610 x 610mm No 1 Section No. 8 Bill No. 7 Ceilings Partitions And Access Flooring R 201 261 16 16 16		SUPPLEMENTARY PREAMBLES				
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Items described as plugged shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600m centres, and where described as bolted the bolts have been given. INSULATION Aerolite insulation: 1 1 100mm Insulation closely fitted and laid on top of brandering between roof timbers etc. m² 16 Vrought softwood 2 19 x 76mm cornices nailed m 16 NALED UP AND SCREW UP CEILINGS m 16 Semi Everite Nutec or equal approved fibre-cement boards with H-type steel cover strips over joints: 3 3 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 Section No. 8 Bill No. 7 Ceilings Partitions And Access Flooring 261		Items described as nailed shall be deemed to be fixed with hardened steel nails or pins or shot pinned to brickwork or concrete.				
INSULATION Image: section sectin section section sectin section section sectin section section s		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.				
Aerolite insulation: m² 1 1 00mm Insulation closely fitted and laid on top of brandering between roof timbers etc. m² 16 Wrought softwood m 16 19 x 76mm cornices nailed m 16 NALED UP AND SCREW UP CEILINGS m 16 Semm Everite Nutec or equal approved fibre-cement boards with H-type steel cover strips over joints: a 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 Carried To Section Summary R Ceilings Partitions And Access Flooring 261		INSULATION				
1 100mm Insulation closely fitted and laid on top of brandering between roof timbers etc. m ² 16 Wrought softwood m 16 2 19 x 76mm cornices nailed m 16 NAILED UP AND SCREW UP CEILINGS m 16 Gemings including 38 x 38mm sawn softwood brandering at 400mm centres. m ² 16 2 Extra over ceiling for hinged trap door size 610 x 610mm No 1 Marked To Section Summary M 1 16 Carried To Section Summary R		Aerolite insulation:				
Wrought softwood m 16 19 x 76mm cornices nailed m 16 NAILED UP AND SCREW UP CEILINGS m 16 Semm Everite Nutec or equal approved fibre-cement boards with H-type steel cover strips over joints: m ² 16 2 Ceilings including 38 x 38mm sawn softwood brandering at 400mm centres. m ² 16 4 Extra over ceiling for hinged trap door size 610 x 610mm No 1 Carried To Section Summary Section No. 8 Bill No. 7 Ceilings Partitions And Access Flooring R	1	100mm Insulation closely fitted and laid on top of brandering between roof timbers etc.	m²	16		
2 19 x 76mm cornices nailed m 16 NAILED UP AND SCREW UP CEILINGS m 16 Semm Everite Nutec or equal approved fibre-cement boards with H-type steel cover strips over joints: m² 16 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 Section No. 8 Extra over ceilings Partitions And Access Flooring R 2 261 1 1		Wrought softwood				
NAILED UP AND SCREW UP CEILINGS mm Everite Nutec or equal approved fibre-cement boards with H-type steel cover strips over joints: m² 16 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	2	19 x 76mm cornices nailed	m	16		
6mm Everite Nutec or equal approved fibre-cement boards with H-type steel cover strips over joints: m² 16 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 Section No. 8 Bill No. 7 Ceilings Partitions And Access Flooring R		NAILED UP AND SCREW UP CEILINGS				
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 4 Extra over ceiling for hinged trap door size 610 x 610mm No 1 Carried To Section Summary R		6mm Everite Nutec or equal approved fibre-cement boards with H-type steel cover strips over joints:				
4 Extra over ceiling for hinged trap door size 610 x 610mm No 1 Carried To Section Summary R	3	Ceilings including 38 x 38mm sawn softwood brandering at 400mm centres.	m²	16		
Carried To Section Summary Section No. 8 Bill No. 7 Ceilings Partitions And Access Flooring 261	4	Extra over ceiling for hinged trap door size 610 x 610mm	No	1		
Carried To Section Summary Section No. 8 Bill No. 7 Ceilings Partitions And Access Flooring 261						
Carried To Section Summary Section No. 8 Bill No. 7 Ceilings Partitions And Access Flooring 261						
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Carried To Section Summary R Section No. 8 Image: Carried To Section Summary Bill No. 7 Image: Carried To Section Summary Ceilings Partitions And Access Flooring Image: Carried To Section Summary 261 Image: Carried To Section Summary						
Section No. 8 Bill No. 7 Ceilings Partitions And Access Flooring 261		Carried To Section Summary			R	
Ceilings Partitions And Access Flooring 261		Section No. 8				
261		DIII NO. / Ceilings Partitions And Access Flooring				
		261				

I		Unit	Quantity	Rate	Amount	
SECI						
2 x 4	Enviroloo Toilets					
BILL	NO. 8					
IRON	MONGERY					
PREA	AMBLES					
For p	reambles see "Specification of materials and ods to be used - PW371					
SUPF	PLEMENTARY PREAMBLES					
<u>Finis</u>	hes to ironmongery:					
Wher by su bronz chron enam AG A brass	re applicable finishes to ironmongery are indicated ffixes in accordance with the following list: BS Satin te lacquered : CH Chromium plated : SC Satin nium plated : SE Silver enamelled : GE Grey nelled : AS Anodised silver : AB Anodised bronze : nodised gold : ABL Anodised black : PB Polished s : PL Polished and lacquered : PT Epoxy coated.					
CATO	CHES, CABIN HOOKS, ETC					
<u>Solid</u>	or equal approved:					
1 100m cham	nm cabin hook and eye including 70 x 70 x 20mm fered hardwood block twice oiled and plugged.	No	2			
LOCI	<u>KS</u>					
<u>Solid</u>	or equal approved:					
2 "Code	e 630" padlock.	No	2			
<u>'Solic</u>	d" or equal approved					
3 CZ68	2-24-95SC"Gower" two lever lockset.	No	4			
4 CZ68	2-24-95SC"Gower" three lever lockset.	No	2			
SUN	DRIES					
<u>Solid</u>	or equal approved:					
5 38mn	n Diameter rubber door stop plugged.	No	6			
Lock	able toilet roll holder					
6 Vand	al proof lockable toilet roll holder plugged	No	4			
				_		<u> </u>
Section	Carried To Section Summary			R		
Bill N						
Ironm	nongery					
	262					

		Unit	Quantity	Rate	Amount	
	SECTION NO. 8					
	<u>2 x 4 Enviroloo Toilets</u>					
	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 $25 \times 25x$ 2mm hollow section frame and $25 \times 25x$ 2mm hollow section horizontal middle rail filled in with $12 \times 12mm$ 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 $25 \times 25 \times 2mm$ 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)					
4	Window type NE1 533 x 654mm high	No	4			
-		NO				
	Carried to Collection			R		
	Section No. 8			IX		<u> </u>
	Bill No. 9					
	Metalwork					
	263					

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		Unit	Quantity	Rate	Amount	1
5	STEEL LOUVRES,ETC Purpose made louvres: 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. 8 Bill No. 9 Metalwork 264			R		

Amount <u>BILL NO. 9</u> **METALWORK COLLECTION** Page No Brought Forward from Page 263 264 Carried To Section Summary R Section No. 8 Bill No. 9 Metalwork 265

I		Unit	Quantity	Rate	Amount
	2 x 4 Enviroloo Toilets				
	BILL NO. 10				
	PLASTERING				
	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 to receive ceramic tiling.	m²	16		
	Carried To Section Summary			R	
	Bill No. 10				
	Plastering				
	266				

		Unit	Quantity	Rate	Amount
	SECTION NO. 8				
	2 x 4 Enviroloo Toilets				
	BILL NO. 11				
	TILING				
	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		
	Corried To Contine Output			-	
	Section No. 8			ĸ	
	Bill No. 11				
	Tiling				
	267				

	Unit	Quantity	Rate	Amount	
2 x 4 Enviroloo Toilets					
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. 8					
Bill No. 12					
Plumbing And Drainage					
268					

1	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. 8				
Bill No. 12				
Plumbing And Drainage				
209				

		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 <u>"chromadek" finish ,in:</u>					
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				
	Enviro-loo set:					
12	Enviro-loo set supplied and installed complete.	Sets	4			
13	Allow for training	Item			5 000	00
	FIRE APPLIANCES ETC.					
	'Chubb' or equal approved:					
14	9kg Dry chemical fire extinguisher plugged	No	2			
	Carried to Collection			R		
	Section No. 8 Bill No. 12					
	Plumbing And Drainage					
	270					

310

			Amount	
<u>BILL NO. 12</u> PLUMBING AND DRAINA	<u>GE</u>			
<u>COLLECTION</u>		Page No		
	Brought Forward from Page	268		
		269 270		
	Carried To Section Summary	R		
Section No. 8 Bill No. 12				
Plumbing And Drainage	271			

		Unit	Quantity	Rate	Amount	
	<u>SECTION NO. 0</u> 2 x 4 Enviroloo Toilets					
	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			
	Carried To Section Summersu			Р		
	Section No. 8			ĸ		
	Bill No. 13					
	Glazing					
	272					

		Unit	Quantity	Rate	Amount
	SECTION NO. 8				
	2 x 4 Enviroloo Toilets				
	BILL NO. 14				
	PAINTWORK				
	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).	۲°	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		
	0				
	Carried To Section Summarv			R	
	Section No. 8				
	Bill No. 14				
	Paintwork 273				
1			r l		i l

		1	Amount
	SECTION NO. 8		
	<u>2 x 4 Enviroloo Toilets</u>		
	SECTION SUMMARY		
Bill No.		Page	
1	FOUNDATIONS	248	
2	CONCRETE, FORMWORK AND REINFORCEMENT	251	
3	MASONRY	255	
4	WATERPROOFING	256	
5	ROOF COVERINGS	257	
6	CARPENTRY AND JOINERY	260	
7	CEILINGS PARTITIONS AND ACCESS FLOORING	261	
8	IRONMONGERY	262	
9	METALWORK	265	
10	PLASTERING	266	
11	TILING	267	
12	PLUMBING AND DRAINAGE	271	
13	GLAZING	272	
14	PAINTWORK	273	
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	Carried to Final Summary	R	
	Section No. 8 SECTION SUMMARY		
	274		

SECTION NO. 9

Provisional Sum

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I			Amount	
	SECTION NO. 9			
	Provisional Sum			
	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			
I	plaque by a specialist	Item	30 000 00)
2	Profit on above item.	Item		
3	Attendance on ditto.	Item		
	Signage			
4	Provide the sum of R15 000.00 (Fifty Thousand Rands) for signage	Item	15 000 00)
5	Profit	Item		
6	Attendance	Item		
	School furniture			
7	Provide the sum of R500 000.00 (Five Hundred Thousand Rands) for supply of school furniture	Item	500 000 00)
8	Profit	Item		
9	Attendance	Item		
	Community liason officer			
10	Provide the budgetary 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.	Item	120 000 00)
11	Attendance	Item		
12	Profit	Item		
	Project Steering Committee (PSC)			
13	Provide the budgetary allowance of R12 000.00 (Twelve Thousand Rands)			
	deducted in whole or part if not required.	Item	12 000 00)
14	Profit	Item		
15	Attendance	Item		
	Carried To Section Summary	, p		
	Section No. 9			
	Bill No. 1			
	Provisional Sums			
	276			

I		11	Amount	
	Joinery fittings			
16	Provide the sum of R250 000 (Two Hundred and Fifty Thousand Rands) for joinery fittings	Item	250 000	00
17	Profit	Item		
18	Attendance	Item		
	Grade R Play Area			
19	Provide the sum of R200 000.00 (Two Hundred Thousand Rands) for provision of Grade R play area	Item	200 000	00
20	Profit	Item		
21	Attendance	Item		
	Loose Chairs			
22	Provide the sum of R40 000.00 (Forty Thousand Rands) for supply of loose chairs	Item	40 000	00
23	Profit	Item		
24	Attendance	Item		
	Relocation of mobile classrooms			
25	Allow a sum R500 000.00 (Five Hundred Thousand Rands) for relocation of 10 mobile classrooms within a radius of 50km	Item	500 000	00
26	Profit	Item		
27	Attendance	Item		
	Occupational Health and Safety Provisions			
28	Provide the sum of R500 000.00 (Five Hundred Thousand Rands) for occupational health and safety Provisions to be instituted by appointed OHS	Item	500 000	00
29	Profit	Item		
30	Attendance	Item		
	WORK EXECUTED BY SEPARATE DIRECT CONTRACTORS (OHS)			
	The following work will be executed by contractors under direct agreement with the employer. The contractor is to accommodate these direct contractors and allow them to execute their work unhindered and allow them the use of water and toilet facilities. Damage caused by these contractors to work completed by the principal contractor is to be recorded in detail to enable the employer to counter-charge the direct contractors the cost of making good such damages.			
31	Occupational Health and Safety Consultant	Item	350 000	00
32	Profit	Item		
	Carried To Section Summary	R		
	Section No. 9			
	Bill No. 1 Provisional Sums			
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			Amount	
33	Attendance	Item		
	WORK EXECUTED BY SEPARATE DIRECT CONTRACTORS (SF)			
	The following work will be executed by contractors under direct agreement with the employer. The contractor is to accommodate these direct contractors and allow them to execute their work unhindered and allow them the use of water and toilet facilities. Damage caused by these contractors to work completed by the principal contractor is to be recorded in detail to enable the employer to counter-charge the direct contractors the cost of making good such damages.			
34	Social Facilitator	Item	250 000	00
35	Profit	Item		
36	Attendance	ltem		
50	Allendance	nem		
	Carried To Section Summary	D		
	Section No. 9	ĸ		
	Bill No. 1			
	Provisional Sums			
	278			

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			Amount	
SECTION NO 9				
Brovisional Sum				
SECTION SUMMARY		Dawa		
		Page		
	Brought forward from page	276		
	Brought forward from page	277		
	Brought forward from page	278		
		_		
Section No. 9	Carried to Final Summary	R		
SECTION SUMMARY				
	279			

Section No.	FINAL SUMMARY	Page		
1	Preliminaries and Generals	40		
2	Demo(4CR,12Pit,C-RM) and Renovation(4CR,4Enviro)	69		
3	1 x 4 Classroom Block	102		
4	1 x Grade R Facility	143		
5	1 x Multipurpose Classroom	176		
6	Nutritional Centre	212		
7	Guard House	244		
8	2 x 4 Enviroloo Toilets	274		
9	Provisional Sum	279		
	ADD: CONTINGENCIES Allow the Amount of R700 000 (Seven Hundred Thousand Rands) for contingencies, to be used by the Architect in terms of Clause 17 of the Principal Building Agreement. ADD: CPAP ALLOWANCE Allow the amount of R700 000 (Seven 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.		700 000	00
	Carried to Next FINAL SUMMARY 280	R		



REPUBLIC OF SOUTH AFRICA

LIMPOPO DEPARTMENT OF PUBLIC WORKS INFRASTRUCTURE

PFUMBADA PRIMARY SCHOOL

LDPWRI-B/20291

PART B ELECTRICAL INSTALLATIONS BILLS OF QUANTITIES

Summary- Pfumbada School						
BILL	DESCRIPTION	AMOUNT				
1A and 1B	Preliminary and General and Transport					
2	Internal Installation					
3	Site Reticulation					
4	PVC Sleeves for Electric Installation					
5	HVAC					
6	Prov Sum for Eskom Bulk Power Supply	R 750 000,00				
7	Prov Sum for CCTV	R 100 000,00				
SUB TOTAL	Α					
SUB TOTAL	SUB TOTAL					
New Rate Ite	ms:					
Mark-up percentage on New Rate Items%. Labour cost shall be based on the bill of rates.						
SIGNATURE:						
DATE:	DATE:					

Internal Installations Bill- Pfumbada School						
ITEM	DESCRIPTION	UNIT	Scheduled Qty	Rate	TOTAL	
	BILL 2					
	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	1600		0,00	
2,2	Installation	m	1600		0,00	
	50 mm dia PVC					
2,3	Material	m	800		0,00	
2,4	Installation	m	800		0,00	
3	STEEL BOXES AND COVER PLATES					
	20mm PVC Round conduit boxes					
3,1	Material	No	68		0,00	
3,2	Installation	No	68		0,00	
	Galvanized Steel wall boxes with cover plates					
	100 x 50 x 50 mm					
3,3	Material	No	22		0,00	
3,4	Installation	No	22		0,00	
	TOTAL CARRIED FORWARD				0,00	
			Scheduled			
------	---------------------------------	------	-----------	-------		
ITEM	DESCRIPTION	UNIT	Qty	TOTAL		
	TOTAL BROUGHT FORWARD			0,00		
4	CONDUCTORS					
	PVC Insulated copper conductors					
	1,5sq mm					
4,1	Material	m	0			
4,2	Installation	m	0			
	2,5sq mm					
4,3	Material	m	3200	0,00		
4,4	Installation	m	3200	0,00		
	4sq mm					
4,5	Material	m	1600	0,00		
4,6	Installation	m	1600	0,00		
	6sq mm					
4,7	Material	m	0	0,00		
4,8	Installation	m	0	0,00		
	TOTAL CARRIED FORWARD			0,00		

			Scheduled	
ITEM	DESCRIPTION	UNIT	Qty	TOTAL
	TOTAL BROUGHT FORWARD			0,00
	Stranded Bare Copper Earth Wire			
	2,5sq mm			
4,11	Material			
4,12	Installation	m	1600	0,00
		m	1600	0,00
	4,0sq mm			
4,13	Material	m	800	0,00
4,14	Installation	m	800	0,00
	Galvanized Draw wire			
	1 5sg mm			
4 4 5			1000	0.00
4,15	Material Installation	m	1000	0,00
4,10			1000	0,00
	SWITCHES, SOCKET OUTLETS AND ISOLATORS			
5	FOR FLUSH INSTALLATION INCLUDING			
-				
	Switches			
	16 A Single Lever 1 way			
5,1	Material	No	22	0,00
5,2	Installation	No	22	0,00
	16A 1 Lever 2 way			
5,3	Material			
5,4	Installation			

	Socket Outlets with switch			
	16A 3 pin Double 100 x 100			
5,5	Material	No	27	0,00
5,6	Installation	No	27	0,00
	Isolators			
	20A 2 pole, 100 x 100			
5,6	Material	No	13	0,00
5,7	Installation	No	13	0,00
	40A 2 pole, 100 x 100			
5,8	Material	No	13	0,00
5,9	Installation	No	13	0,00
	TOTAL CARRIED FORWARD			0,00

ITEM	DESCRIPTION	UNIT	Scheduled Qtv	TOTAL
	TOTAL BROUGHT FORWARD			0,00
6	SQUARE TUBING			
	POWER SKIRTING Supply and installation of power skirting complete with covers and end caps. Tenderers shall make provision for			
6,1	Material			
6,2	Installation			
7	PHOTOCELL / DAYLIGHT SWITCH Royce Thompson type Oasis 2000, Min lamp Load of 10A or equal			
7,1	Material	No	3	0,00
7,2	Installation	No	3	0,00
8	BONDING OF DISTRIBUTION BOARDS TO WATER AND ROOF			
	Installation	lot	3	0,00
9	EARTHING AND LIGHTING PROTECTION			
	Supply, install and test a complete class 2 lightning protection installation, including alu and cu conductors, test joints, steel conduits, earth electrodes etc.			
9,1	Material	lot	3	0,00
9,2	Installation	lot	3	0,00
10	TESTS OF THE COMPLETE ELECTRICAL INSTALLATION AND ISSUING OF COC'S			
10,1	Installation	lot	3	0,00
	Total for Bill 2 carried to summary sheet			0,00

ITEM	DESCRIPTION	UNIT	Scheduled Qtv	TOTAL
			<u></u> ,	
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			
11,1	TYPE 1 - (Surface mounted LED Open Channel, IP20, fitted with 2 x 18W LED tubes, minimum 2320lm output per tube, colour temp 4000k)			
	Material	No	76	0,00
	Installation	No	76	0,00
11,2	TYPE 2 - IP65, vapour proof, open channel with 2 x 24W T8 LED tubes with lumen output of 1720lm per tube.			
	Material	No	0	0,00
	Installation	No	0	0,00
11,3	TYPE B1 - IP65 Wall and ceiling mounted mounted bulkhead complete with 1 x 30W LED bulb .			
	Material	No	53	0,00
	Installation	No	53	0,00
11,4	Type 3 - Open Channel complete with 2 x 24W T8 LED tubes .Each tube to have a lumen output of 2315lm.			
	Material	No	0	0,00
	Installation	No	0	0,00
	Total for Bill 3 carried to summary sheet			0,00

ІТЕМ	DESCRIPTION		Scheduled Qtv	TOTAL
				_
	BILL 4			
12	DISTRIBUTION BOARDS AND KIOSKS			
	Site Kiosk. Refer to the Kiosk Schematics			
12,1	Material	No	1	0,00
12,2	Installation, including Kiosk plinth	No	1	0,00
	Block DBs. Refer to Schematics			
12,3	Material	No	3	0,00
12,4	Installation	No	3	0,00
	Telephone and Computer Distribution Board			
	500 x 500 x 250 mm surface type distribution board installed flush			
12.5	Material	No	1	0.00
12,6	Installation	No	1	0,00
	Telephone point	No		
12,7	Material	No	0	0,00
12,8	Installation	No	0	0,00
	Computer point			
12,9	Material	No	0	0,00
12,10	Installation	No	0	0,00
	I otal for Bill 4 carried to summary sheet			0,00

			Scheduled	
ITEM	DESCRIPTION	UNIT	Qty	TOTAL

SUMMARY OF QUANTITIES

BILL	DESCRIPTION	Scheduled Value
2	Conduit Work	0,00
3	Light Fittings	0,00
4	Distribution Board	0,00
	SUB TOTAL	0,00

Site R	Site Reticulation Bill- Pfumbada School						
ITEM	DESCRIPTION	UNIT	Scheduled Qty	Rate	TOTAL		
	BILL 5						
13	LOW VOLTAGE CABLES						
	Low Voltage cables 600 to 1000 PVC insulated steel wire armoured, copper cables underground cable						
	Cable in trenches, sleeves and building duct also in ceiling void if necessary						
	70 mm sq x 4 core						
	25mm sq x 2 core						
13,1	Material	m	100		0,00		
13,2	Installation	m	100		0,00		
	16mm sq x 2 core						
13,3	Material	m	200		0,00		
13,4	Installation	m	200		0,00		
	TERMINATIONS						
	25mm sq x 2 core						
13,5	Material	No	2		0,00		
13,6	Installation	No	2		0,00		
	16mm sq x 2 core						
13,7	Material	No	12		0,00		
13,8	Installation	No	12		0,00		
	TOTAL CARRIED FORWARD				0,00		

ITEM	DESCRIPTION		Scheduled	τοται
	DESCRIPTION		QLY	TOTAL
	TOTAL BROUGHT FORWARD			0,00
14	COPPER EARTH WIRE			
	25mm sq			
14.1	Material	m	100	0.00
14,2	Installation	m	100	0,00
	16mm sq			
14,3	Material	m	200	0,00
14,40	Installation	m	200	0,00
45				
15	Yellow Cable Marker / Danger Tape			
15,1	Material	m	25	0,00
15,2	Installation	m	25	0,00
				0,00

SUMMARY OF QUANTITIES

BILL	DESCRIPTION	Scheduled Value
5	LOW VOLTAGE CABLES	0,00
	SUB TOTAL	0,00

Site Ret	iculation Bill- Pfumbada School				
			Scheduled		
ITEM	DESCRIPTION	UNIT	Qty	Rate	TOTAL
	BILL 6				
16	PVC SLEEVES FOR ELECTRIC AND				
10					
	PVC SLEEVES				
	complete with bends				
	100mm dim				
16,1	Material	m	0		0,00
16,2	Installation	m	0		0,00
	50mm dim				
16,3	Material	m	100		0,00
16,4	Installation	m	100		0,00
	Excavation				
16,5	Soft Rock and Earth	m3	100		0,00
16,6	Hard Rock	m3	80		0,00
16,7	Very Hard Rock	m3	0		0,00
	Sifted Soil Bedding and Cover				
16.8	Material	m3	50		0.00
16,9	Labour	m3	50		0,00
17	Bronoro Ao Ruilt Drowings for all Lovouto				
17	Frepare AS Built Drawings for all Layouts				
	As Built Drawings	lot	1		0,00
	Manholes 600 x 600mm with Heavy duty Steel				
18	cover				
18.1	Material	No	3		0.00
18,2	Labour	No	3		0,00
19	Concrete Cable Markers				
19,1	Material	Lot	1		0,00
19,2	Labour	Lot	1		0,00
	TOTAL CARRIED TO SUMMARY				0,00

ITEM	DESCRIPTION	UNIT	Qty	TOTAL
20	BILL 7 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			
20,1	High-wall split units, 2.4 kW cooling capacity/ 9000 BTU (heat pump) unit. Material Installation	No. No.	6 6	0,00 0,00
00.0	Refrigerant piping pair (liquid and gas)	m		
20,2	Material Installation	m m	100 100	0,00 0,00
20.2	Drain piping			
20,3	Material Installation	m m	100 100	0,00 0,00
	Hand Dryers			
21,1	Hand drier (XLERATOR or equivalent) at toilets (1400W high speed air jet, motor speed of at least 20000 RPM)			
~,~	Material	No	2	0,00
23	Installation	No	2	0,00
	TOTAL CARRIED FORWARD TO SUMMARY			 0,00

SUMMARY OF QUANTITIES

BILL	DESCRIPTION	Scheduled Value
6	PVC SLEEVES FOR ELECTRIC AND COMMUNICATION	0,00
7	HVAC	0,00
	SUB TOTAL	0,00

REPUBLIC OF SOUTH AFRICA

LIMPOPO DEPARTMENT OF PUBLIC WORKS INFRASTRUCTURE

PFUMBADA PRIMARY SCHOOL

LDPWRI-B/20291

PART C CIVIL WORKS BILLS OF QUANTITIES

Item	Payment Reference	Description	Unit	Qty	Rate	Amount
	SABS 1200 D	SCHEDULE 1: EARTHWORKS				
		SITE CLEARANCE				
Alternative	8.3.1	<u>Clear and grub area for</u>				
1200C		Buildings	m²	1483.5		
Alternative		PREPARATION AND STRIPPING OF SITE				
1200DB 1200DM	8.3.1	Remove topsoil to a depth of 150mm and				
		Stockpile on site within freehaul distance and maintain	m³	222.53		
		Spoil at designated spoil site	m³	89.01		
		EXCAVATION				
	8.3.2	Excavate in all materials and use as fill, compacted to 90% mod				
		Platforms	m³	267.03		
	8.3.2	Extra over item 8.3.2 (a) for				
		Intermediate excavation	m³	80.11		
		Hard rock excavation	m³	53.41		
		Boulder excavation class A	m³	5.34		
		Boulder excavation class B	m³	5.34		
		COMMERCIAL MATERIAL				
	8.3.4	Extra over item 8.3.2 (a) for importation of materials from:				
		Commercial sources selected by the Contractor	m³	178.02		
l						
l						
			TOT			

Item	Payment Reference	Description	Unit	Qty	Rate	Amount
ITEM NO.	PAYMENT REFER.	DESCRIPTION	UNIT	QUANTITY	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	890.10		
	8.3.4	Opening up and closing down of designated borrow pit	sum	1.00		
		OVERHAUL				
	8.3.6	<u>Overhaul (Provisional)</u>				
		Limited overhaul	m³	267.03		
		Long overhaul	m³.km	178.02		
		COMPACTION OF BACKFILLING				
	8.3.9	Selected material compacted to 93% mod AASHTO density	m³	1,068.12		
		Mod AASHTO Tests	No.	22.00		
Carried forwa	rd to Summ	ary of Schedules				

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	3			
			m³	189.60		
1.2.2	8.3.3(b)	In-place treatment of road-bed in intermediate or hard material				
		Ripping	m³	37.92		
1.3		EARTHWORKS				
1.3.1	8.3.4	Cut to fill				
		Compact to 90 % mod. AASHTO maximum density	m ³	94.80		
		Selected layer compacted to 93 % mod. AASHTO maximum density	m³	94.80		
1.3.2	8.3.6	Extra-over items 1.3.1 inclusive for excavating and breaking down material in:				
		Intermediate excavation	m³	18.96		
		Hard excavation	m³	9.48		
1.3.3	8.3.7	Cut to spoil from				
		Soft excavation	m³	189.60		
		Intermediate excavation	m³	37.92		
		Hard excavation	m³	5.69		
1.3.4	8.3.8	Removal of oversize material	m³	2.84		
		TOTAL	CARRIED	FORWARD		

SCHEDULE 2: EARTHWORKS (ROADS AND SUBGRADE)

NO.	PAYMENT REFER.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
			ΤΟΤΑ	L BROUGHT	FORWARD	
1.4	SABS 1200 DM	SUNDRIES				
	8.3.10	Materials bladed to windrow	m³	0.00		
	8.3.11	Extra-over items 8.3.7 and 8.3.8 for temporary stockpiling of material	m ³	30.00		
		Construction of storm water berm allong the designated areas by engineer	m ³	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	m³	189.60		
	8.3.4	Extra over items .1 to .2 inclusive for class of excavation				
		Intermediate excavation	m³	37.92		
		Hard rock excavation	m³	28.44		
1.6	SANS 1200 MFL	BASE				
	8.3.1	Construct base with material from borrow pit				
		Stabilized base using material from borrow 150mm to 95% mod AASHTO	m ³	189.60		
1.7	8.3.4	Stabilizing Agent				
		(b) Portland Cement	m³	5.69		
1.8	SANS 1200 MJ	SEGMENTED BLOCK PAVING TO THE ACCESS ROAD				
	8.2.2	80mm Type S-A 35mPa for roadway (Grey Colourina)	m²	0.00		
	8.2.2	60mm Type S-A 35mPa for roadway (Grey Colouring)	m²	1,264.00		
	8.2.1	The construction of edge restraints	m	56.18		
		<u>.</u>	тот	AL CARRIED	FORWARD	

ITEM NO.	PAYMENT REFER.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
			ΤΟΤΑ	L BROUGHT	FORWARD	
1.8	SANS 1200 MK	KERBING AND CHANNELLING				
	8.2.2	Supply, bed, lay, & joint concrete sections:				
1.8.1		400X200 Concrete edge strip (Class 20/19 Concrete Strenath).				
		a) 1m Length on straight	m	140.00		
		b) 330mm Length on curves	m	20.00		
1.8.2		300X150 Barrier Kerb (SABS 927 Fig 3).	m	90.00		
1.8.3		Mountable Kerb (SABS 927 Fig 3).	m	18.00		
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	SANS	CONCRETE				
9.5.1	8.4.3	Supply, place and shape 25MPa c oncrete in hyson cells on the A10 Bidim Geosynthetic proetction laver . 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		
			тот	AL CARRIED	FORWARD	

SCHEDULE 2: EARTHWORKS (ROADS AND SUBGRADE)

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		
			TOTAL (CARRIED TO	SUMMARY	

SCHEDULE3: FENCING

ltem No.	Payment Refers	Short Description	Unit	Quantity	Rate	Amount
2	SABS 1200A	SCHEDULE 3 - STEEL PALISADE FENCING				
2.1	PCC-4.1	School Yard - Steel palisade fencingn 2,4m high according to specification including excavations, foundation concreting, posts, pales and ground beams. All as per drawing.	m	835.00		
2.2	PCC-4.1	Grdae R - Steel palisade fencingn 2,4m high according to specification including excavations, foundation concreting, posts, pales and ground beams. All as per drawing.	m	136.00		
2.3	PCC-4.1	Supply and install according to specification a 6m wide vehicular gate	No	1.00		
2.4	PCC-4.1	Supply and install according to specification 1.5m wide pedestrian gate as per drawing	No	1.00		
2.5	PCC-4.1	Grdae R - Supply and install according to specification 1.5m wide pedestrian gate as per drawing	No	1.00		
2.6	PCC-4.1	Repainting of the existing fence	m²	0.00		
SUB - T	OTAL CA	RRIED TO SUMMARY				

TTEM	PAYMENT			Estimated			
NO.	REFRES	DESCRIPTION	UNIT	QIY	RATE	A	MOUNT
		SCHEDULE 4 : WATER SUPPLY PIPELINES AND WATER SOURCE					
	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	1,500.00			
3.1.2	8.3.1(b)	Remove trees over 1 m and up to 2 m girth	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	1,300.00			
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	304.00 228.00			
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	1,600.00			
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	532.00			
3.2.2.2	8.3.3.2	Opening up and closing down of designated borrow pit	P.Sum	1.00	22,000.00	R	22,000.00
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	228.00 532.00			
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	273.60 638.40			
TOTAL		VARD					

ITEM NO.	PAYMENT REFRES	DESCRIPTION	UNIT	Estimated QTY	RATE	AMOUNT
TOTAL E	BROUGHT FOR	WARD	-			
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	80.00 300.00 120.00		
3.2.5.3		GMS pipes (medium duty)				
		a) 15 mm Ø b) 20 mm Ø c) 25 mm Ø	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		
TOTAL		WARD	1			

ITEM NO	PAYMENT	DESCRIPTION	UNIT	Estimated	RATE	AMOUNT
TOTAL E	BROUGHT FOR	WARD				
3.2.10		FITTINGS FOR HDPE PIPES				
3.2.11		SUNDRIES				
3.2.11.3		Thrust blocks as participal details as association Drawing				
		Thrust blocks as per typical details on specification brawing				
		a) Concrete Class 15/19 b) Rough formwork	m³ m²	3.00 3.00		
3.2.14		BOREHOLE DEVELOPMENT				
		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	2.00		
		Drilling				
		Drilling of 165mm diameter borehole in non-collapsible material.	m	240.00		
		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 casind.	No	240.00		
		Steel casing (plain), 165 mm (state wall thickness here as 3 mm)	m	70.00		
		Steel casing (slotted), 165 mm (state wall thickness here as 4 mm)	m	170.00		
		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	2.00		
		Sampling for water quality testing	No	2.00		
		Site finishing				
		Borehole finishing, rate to include borehole disinfection, concrete collar in Grade 20Mpa concrete, normal saintary seal, borehole making. Reporting	No	2.00		
		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		
TOTAL		VARD				

ITEM NO.	PAYMENT REFRES	DESCRIPTION	UNIT	Estimated QTY	RATE	AMOUNT
TOTAL E	BROUGHT FOR	2WARD				
		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. All units 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.	Na	2.00		
		Pump installation, Head & Flow fas per borenole test report	INO	2.00		
		Electric Motor installation, as per pump size requirements determined in item above.	No	2.00		
		Pump Protection				
		Mechanical pressure switch, PN16, Complete with cabling to panel : Limits between 160m and 80m, WIKA PSM-550 or Equivalent	No	2.00		
		Mechanical flow switch, PN16, Complete with cabling to panel	No	2.00		
		Float Switch for Switching off Pump on Low Level, c/w wiring to panel's liquid level control relay.	No	2.00		
		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 and0-24 hour timer.	No	2.00		
		Pipework Supply and install borehole discharge pipework complete with flow meter, non return and pressure valves on the following pipework.				
		Submersed pipe: Ø 63mm HDPE, Class 12, 7,1mm Wall thickness, SANS 4427, Borehole to Surface	m	220.00		
		Metal Base plate - Double choke	No.	2.00		
		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		
TOTAL		l WARD				

ITEM NO.	PAYMENT REFRES	DESCRIPTION	UNIT	Estimated QTY	RATE		AMOUNT
TOTAL E	BROUGHT FOR	WARD					
		65 NB Flanged Non Return Valve,tilted disc type, PN 10	No.	2.00			
		65 NB Flanged Mechanical flow meter, PN 10	No.	2.00			
		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.	2.00			
		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	No	2.00			
3.2.18		TESTING AND COMMISSIONING					
		Testing and commission borehole installation includibg pumps, motrs, control system and verify discharge and head characteristics	No	2.00			
		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 package water treatment plant	Prov. Sum	1	350,000.00	R	350,000.00
		Overheads, charges and profit.	%	########			

ITEM NO.	PAYMENT REFRES	DESCRIPTION	UNIT	Estimated QTY	RATE	AMOUNT
TOTAL E	BROUGHT FOR	WARD				
		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 galvanized steel wire (bloudraad), 2 Strands/Anchor.	No	1		
		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 galvanized steel wire (bloudraad), 2 Strands/Anchor.	No	3		
		Elevated 4.5m Steel Stand Tankstand Refurbishment including, modification to concrete foundations, pipe work, brackets, surface preparation and re-painting	Sum	4		
		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	4		
		b) 50mm Ø HDPE PIPE CLASS 10	m	1	Included	
		c) 50mm Ø PLASSON ELBOW	No	4	Included	
		d) 50mm Ø MALE ADAPTER (Plasson)	No	4	Included	
		e) 50GMS bend F/F	No	4	Included	
		f) 50mm Ø x 3000 GMS STAND PIPE	No	4	Included	
		g) 50mm Ø BRASS BALL VALVE (COBRA)	No	4	Included	
		h) 50mm Ø GMS NIPPLE	No	4	Included	
		i) 50mm Ø GMS UNION	No	4	Included	
		k) 50mm Ø GMS PIPE 6000 LONG	No	4	Included	
		I) 50mm Ø GMS ELBOW F/F m) 50mm Ø GMS STAND PIPE 300 LONG (400 long in sandy conditions)	No	4	Included	
		n) 50mm Ø GMS STAND PIPE 700 I ONG	No	4	Included	
		o) 50mm Ø GMS SOCKET	No	4	Included	
		p) 50mm Ø GMS STAND PIPE 150mm	No	4	Included	
TOTAL C		NARD				R -

ITEM NO.	PAYMENT REFRES	DESCRIPTION	UNIT	Estimated QTY	RATE	AMOUNT
TOTAL E	BROUGHT FOR	WARD				R -
		Inlet Pipe Schedule (From Pump)	Sum	4		
		a) 1½ "TO 40mm MALE ELBOW (Plasson)	No	4	Included	
		b) 40mm Ø HDPE PIPE CLASS 10	m	4	Included	
		c) 40mm Ø PLASSON ELBOW	No	4	Included	
		d) 40mm Ø MALE ADAPTER (Plasson)	No	4	Included	
		k) 40mm Ø GMS PIPE 6000 LONG	No	4	Included	
		I) 40mm Ø GMS ELBOW F/F	No	4	Included	
		m) 40mm Ø GMS STAND PIPE 300 LONG (400 long in	No	4	Included	
		sandy conditions)				
		n) 40mm Ø GMS STAND PIPE 700 LONG	No	4	Included	
		o) 40mm Ø Galvanised socket	No	4	Included	
		p) 40mm Ø Galvanised standpipe 150 mm long	No	4	Included	
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.	3.00		
		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		
TOTAL O	CARRIED TO S	UMMARY				

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	m³	190.00		
	b) Exceeding 1,0m but not exceeding 2.0m	m³	38.00		
4.2	Extra-over all excavations in pickable material irrespective of depth. for excavating in:-				
4.2.1	Intermediate excavation	m³	30.00		
4.2.2	Hard rock excavation	m³	25.00		
4.3	Excavation Ancilliaries				
4.3.1	Excavate and dispose of unsuitable material from trench bottom (provisional)	m³	6.75		
4.3.2	Make deficiency in backfill material (Provisional)				
	a) from other necessary excavation on Site	m³	6.75		
	b) by importation designated borrow pits	m³	6.75		
	c) Compaction in platform reserves	m³	6.75		
4.4	Existing services				
	a) Services that adjoin a trench	m	12.00		
	b) Services that intersect a trench	No	5.00		
Amount	Carried Forward				

SCHEDULE 5 : EXTERNAL SEWER RETICULATION

Item	Description	Unit	Qty	Rate	Amount
Amount	Brought Forward				
4.5	BEDDING (PIPES)				
4.5.1	Provision of Bedding from Trench Excavation				
	a) Selected granular material	m³	20.25		
	b) Selected fill material	m³	56.70		
4.5.2	Supply only of Bedding by Importation From Commercial Sources (provisional)				
	a) Selected granular material	m³	20.25		
	b) Selected fill material	m³	56.70		
4.6	SEWERS PIPELINES				
4.6.1	Supply, Lay, Joint and Bed PVC Heavy Duty Class 34 solid wall pipe (conforming to SABS 891), complete with fittings				
	a) 110mm dia	m	220.00		
	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) 160mm Access bends	No	-		
	e) 160mm Access Junctions	No	-		
Amount	Carried Forward				

SCHEDULE 5 : EXTERNAL SEWER RETICULATION

Item	Description	Unit	Qty	Rate	Amount
Amount I	Brought 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	2.00		
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	2.00		
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				
4.10.1.1	200mm Diameter pipe to existing manhole	No	1.00		
4.10.2	Raising or lowering of existing manholes	No	1.00		
4.10.2.1	Remove cover and frame then lower the manhole to required level, complete with all necessary accessories.	No	1.00		
Amount (Carried to Forward				

SCHEDULE 5 : EXTERNAL SEWER RETICULATION

Amount Brought Forward 4.11 SEPTIC TANK 4.11.1 Septic tank: Excavate in soft material exceeding 2m deep. m ^a Extra over septic tank excavations for catring away surplus material from excavations or stock piles to a dumping site to be located by the Contractor. m ^a 10.95 Risk of collapse to sides septic tank excavations or stock piles compacted to 93% in septic tank. m ^a 10.95 Modified AASHTO density tests No 2 Extra over excavation in soft material compacted to 93% in septic tank. m ^a 5.48 Z5 MPa Reinforced concrete top slab. m ^a 5.48 Z5 MPa Reinforced concrete top slab. m ^a 40.09 Risk of or septic tank. m ^a 7.30 Type 395 fabric reinforcement in concrete surface beds, floor slabs, etc. m ^a 40.09 Rough formwork to softli of slab. m ^a 40.09 Platest to vertical surfaces. m ^a 40.09 One brick wall in commons including wire tes for septic tank walls. m ^a 40.09 Lintels as permanent shatters m 7.30.17 55 G00 x 600mm Cast iron marchiels covers No 2 2 Pipew	Item	Description	Unit	Qty	Rate	Amount
4.11 SEPTIC TANK 4.11.1 Septic tank: Excavate in soft material exceeding 2m deep. m* Fatta over septic tank excavations or stock piles to a dumping site to be located by the Contractor. m* 0.095 Risk of collapse to sides septic tank excavations not exceeding 1,5m deep. m* 1.5m deep. m* 10.95 Risk of collapse to sides septic tank. m* 10.95 Modified AASHTO density tests No 2 Extra over excavation in soft material for pipe trenches, chambers, etc. for excavation in thermediate material. Item 1.5 25 MPa Reinforced concrete top slab. m* 5.48 Backfilling to sides of septic tank. m* 7.30 Type 305 fabric reinforcement in concrete surface bods, floor slabs, etc. m* 40.0 Rough formwork to soff tof slab. m* 6.588 Two brick wall in commons including wire tes for septic tank wals. m* 49.09 One brick wall in commons including wire tes for septic tank wals. m* 49.09 Lintels as permanent shatters m 73.017 600 x 600mm Cast iron manhole coverts No 2 Pipework Extra over excava	Amount	Brought Forward				
4.11.1 Septic tank: m* 73.017 Extra over septic tank excavations or stock piles to a dumping site to be located by the Contractor. m* 10.96 Risk of callapse to side septic tank excavations not exceeding 1.5m deep. m* 10.96 Risk of callapse to side septic tank. m* 10.95 Risk of callapse to side septic tank. m* 10.95 Modified AASHTO density tests m* 10.95 Konding Abstract on excavation in soft material for pipe trenches, chambers, etc. for excavation in informediate material. Item 1.5 25 MPa Reinforced concrete to palab. m* 5.48 5.48 25 MPa Reinforced concrete to base. m* 7.30 7.90 Pupe 395 flabric reinforcement in concrete surface beds, floor slabs, etc. m* 6.688 6.688 One brick wall in commons including wire ties for septic tank walls. m* 73.017 600 x 600m Cast iron mathele covers No 2 Pipework Extra over excavation in soft material for pipe trenches, chambers, etc. for excavation in soft material for pipe trenches, chambers, etc. for excavation in intermediate material. m* 40.08 Rough formwork to softi of slab. m* 73.017 600 x 600m Cast iron mathele covers	4.11	SEPTIC TANK				
Excavate in soft material exceeding 2m deep.m³73.017Extra over septic tank excavations or stock piles to a dumping site to be located by the Contractor.m³10.95Risk of collapse to sides septic tank excavations or stock piles compacted to 93% in septic tank.m³10.95Modified AASHTO density testsNo2Extra over acavation in soft material for pipe trenches, chambers, etc. for excavation in intermediate material.Item1.525 MPa Reinforced concrete top slab.m³5.4825 MPa Reinforced concrete base.m³36.51Pipe 305 fabric reinforcement in concrete surface beds, floor slabs, etc.m²49.09Values.m²49.09One brick wall in commons including wire ties for septic tank walls.m²5.48Two brick wall in commons including wire ties for septic tank walls.m²6.588Two brick wall in commons including wire ties for septic tank walls.m²6.588Two brick wall in commons including wire ties for septic tank walls.m²35.017600 x 600nm Cast iron manhole coversNo2Pipework Extra over excavation in soft material for pipe trenches, chambers, etc. for excavation in intermediate material.m²35.Connecting 110mm uPVC pipe including 110mm channel junction and making good concrete benching.No2Diow for testing the complet drainage installation by visual and Air Pressure less to the satisfaction of the Employer. (All deferity work to be replaced at the Contractor's expense).No2Connecting 100mm uPVC sloted	4.11.1	Septic tank:				
Extra over septic tank excavations or stock piles to a dumping site to be located by the Contractor. m³ 10.95 Risk of collapse to sides septic tank excavations or stock piles compared to 93% in septic tank. m² 49.09 Earthilling obtained from the excavations or stock piles compared to 93% in septic tank. m² 10.95 Modified AASHTO density tests No 2 Extra over excavation in soft material for pipe trenches, chambers, etc. for excavation in intermediate material. Item 1.5 25 MPa Reinforced concrete top slab. m² 5.48 Backfilling to sides of septic tank. m² 7.30 Type 395 fabric reinforcement in concrete surface beds, floor slabs, etc. m² 49.09 One brick wall in commons including wire ties for septic tank wals. m² 49.09 Unitels as permanent shatters m² 49.09 Unitels as permanent shatters m² 49.09 Unitels as permanent shatters m² 5.588 Connecting 110mm upVC pipe including vire ties for septic tank wals. m² 49.09 Unitels as permanent shatters m³ 35 5 Connecting 110mm muPVC pipe including inserting 160mm channel junction and making good concrete benching. No 2		Excavate in soft material exceeding 2m deep.	m³	73.017		
Risk of collapse to sides septic tank excavations not exceeding 1,5m deep.m²49,09Earthilling obtained from the excavations or stock piles compared to 93% in septic tank.m³10.95Modified AASHTO density testsNo2Extra over excavation in soft material for pipe trenches, chambers, etc. for excavation in intermediate material.Item1.525 MPa Reinforced concrete top slab.m²5.4826 MPa Reinforced concrete base.m³7.30Type 305 fabric reinforcement in concrete surface beds, floor slabs, etc.m²40Rough formwork to soffit of slab.m²49.09One brick wall in commons including wire ties for septic tank wals.m²6.588Two brick wall in commons including wire ties for septic tank wals.m²6.588Two brick wall in commons including wire ties for septic tank wals.m²35Connecting 110mm Cast iron manhole coversNo2Pipework chambers, etc. for excavation in intermediate material.m²35Connecting 110mm uPVC pipe including inserting 160mm channel junction and making good concrete benching. Allow for testing the complete drainage installation by visual and AF ressure test to the satisfaction of the Employer. (All defective work to be replaced at the Contractor's seprese).No2Allow for testing the complete drainage installation by visual and AF ressure test to the satisfaction of the Employer. (All defective work to be replaced at the Contractor's seprese).No2Allow for testing the complete drainage pipe laid in and including trench not exceeding 1,00m d		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	10.95		
Earthfilling obtained from the excavations or stock piles compacted to 33% in septic tank.m³10.95Modified AASHTO density testsNo2Extra over excavation in soft material for pipe trenches, chambers, etc. for excavation in intermediate material.Item1.525 MPa Reinforced concrete top slab.m²5.4825 MPa Reinforced concrete base.m²5.48Backfilling to sides of septic tank.m²7.30Type 396 fabric reinforcement in concrete surface beds, floor sides, etc.m²40Rough formwork to soffit of slab.m²40.909One brick wall in commons including wire ties for septic tank walls.m²6.588Two brick wall in commons including wire ties for septic tank walls.m²35.51Extra over excavation in soft material for pipe trenches, chambers, etc. for excavation in intermediate material.m²35.51Connecting 110mm uPVC pipe including 110mm channel junction and making good concrete benching.No2Allow for testing the complete drainage installation by visual and Air Pressure test to the satisfaction of the Employer, (All defer work to be replaced at the Contractor's expense).No2Allow for testing the complete drainage installation by visual and Air Pressure test to the satisfaction of the Employer, (All defer trew work to be replaced at the Contractor's expense).Item1160mm uPVC plot skited drainage ippe laid in and including trench not exceeding 1,00m deep with 500 x 500mm washed 250mm store casing wrapped in 24 no.vveen, spun-honded, punched continuous polyester fabric, including fill, ram, carting		Risk of collapse to sides septic tank excavations not exceeding 1,5m deep.	m²	49.09		
Modified AASHTO density testsNo2Extra over excavation in soft material for pipe trenches, chambers, etc. for excavation in intermediate material.Item1.525 MPa Reinforced concrete top slab.m²5.4825 MPa Reinforced concrete base.m²5.48Backfilling to sides of septic tank.m²7.30Type 395 fabric reinforcement in concrete surface beds, floor slabs, etc.m²40Rough formwork to soffit of slab.m²36.51Plaster to vertical surfaces.m²6.588Two brick wall in commons including wire ties for septic tank walls.m²6.588Linels as permanent shattersm73.017600 x 6000m Cast iron manhole coversNo2PipeworkExtra over excavation in soft material for pipe trenches, chambers, etc. for excavation in intermediate material.m²35Connecting 100m uPVC pipe including 110mm channel junction and making good concrete benching.No2Allow for testing the complete drainage installation by visual and Air Pressure test to the satisfaction of the Employer.No2Allow for testing the complete drainage pipe laid in and including trench not exceeding 1,00m deep with 500 x 500mm washed 25mm store casing wanged in u24 nor-wear, spurs-bonded, punched continuous polyester fabric, including fill, ram, carting away, etc.m35		Earthfilling obtained from the excavations or stock piles compacted to 93% in septic tank.	m³	10.95		
Extra over excavation in soft material for pipe trenches, chambers, etc. for excavation in intermediate material.Item1.525 MPa Reinforced concrete top slab.m²5.4826 MPa Reinforced concrete base.m²5.48Backfilling to sides of septic tank.m³7.30Type 395 fabric reinforcement in concrete surface beds, floor slabs, etc.m²40Rough formwork to soffit of slab.m²40Plaster to vertical surfaces.m²49.09One brick wall in commons including wire ties for septic tank walls.m²6.588Two brick wall in commons including wire ties for septic tank walls.m²49.09Lintels as permanent shattersm73.017600 x 600mm Cast iron manhole coversNo2Pipework Extra over excavation in intermediate material. chambers, etc. for excavation in intermediate material.m²35Connecting 10mm uPVC pipe including 110mm channel junction and making good concrete benching.No2Allow 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).Item1160mm uPVC slotted drainage pipe laid in and including trench not exceeding 1.00m deep with 500 x 600m action and making good concrete benching.No2160mm uPVC slotted drainage pipe laid in and including trench not exceeding 1.00m deep with 500 x 600m tone coded pipe including fill, ram, carting away, etc.m35		Modified AASHTO density tests	No	2		
25 MPa Reinforced concrete top slab.m²5.4825 MPa Reinforced concrete base.m²5.48Backfilling to sides of septic tank.m²7.30Type 395 fabric reinforcement in concrete surface beds, floor slabs, etc.m²40Rough formwork to soffit of slab.m²36.51Plaster to vertical surfaces.m²49.09One brick wall in commons including wire ties for septic tank walls.m²6.588Two brick wall in commons including wire ties for septic tank walls.m²49.09Lintels as permanent shattersm73.017600 x 600mm Cast iron manhole coversNo2Pipework Extra over excavation in soft material for pipe trenches, chambers, etc. for excavation in intermediate material.m³35Connecting 110mm uPVC pipe including inserting 160mm channel junction and making good concrete benching.No2Allow 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).Item1160mm uPVC slotted drainage pipe laid in and including trench not exceeding 1,00m dep with 800 x 500mm washed 25mm stone casing wapped in u24 non-wore, spun-bonded, punched continuous polyester fabric, including fill, ram, carting away, etc.m35		Extra over excavation in soft material for pipe trenches, chambers, etc. for excavation in intermediate material.	Item	1.5		
25 MPa Reinforced concrete base.m³5.48Backfilling to sides of septic tank.m³7.30Type 395 fabric reinforcement in concrete surface beds, floor slabs, etc.m²40Rough formwork to soffit of slab.m²36.51Plaster to vertical surfaces.m²49.09One brick wall in commons including wire ties for septic tank walls.m²6.588Two brick wall in commons including wire ties for septic tank walls.m²49.09Lintels as permanent shattersm73.017600 x 600mm Cast iron manhole coversNo2Pipework Extra over excavation in soft material for pipe trenches, chambers, etc. for excavation in intermediate material.m³35Connecting 110mm uPVC pipe including inserting 160mm channel junction and making good concrete benching.No2Allow 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 express).No2160mm uPVC slotted drainage ipse laid in and including trench not exceeding 1,00m dep with 800 x 500mm washed 25mm stone casing wapped in u24 non-woven, spun-bonded, punched continuous polyester fabric, including fill, ram, carting away, etc.m35		25 MPa Reinforced concrete top slab.	m³	5.48		
Backfilling to sides of septic tank.m³7.30Type 395 fabric reinforcement in concrete surface beds, floor slabs, etc.m²40Rough formwork to soffit of slab.m²36.51Plaster to vertical surfaces.m²49.09One brick wall in commons including wire ties for septic tank walls.m²6.588Two brick wall in commons including wire ties for septic tank walls.m²49.09Lintels as permanent shattersm73.017600 x 600mm Cast iron manhole coversNo2Pipework Extra over excavation in soft material for pipe trenches, chambers, etc. for excavation 11 intermediate material.m³35Connecting 110mm uPVC pipe including 110mm channel junction and making good concrete benching.No2Allow 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).Item1160mm uPVC slotted drainage pipe laid in and including trench not exceeding 1.00m meaked 25mm stone casing wrapped in u24 non-woven, spun-bonded, punched continuous polyester fabric, including fill, ram, carting away, etc.m35		25 MPa Reinforced concrete base.	m³	5.48		
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Rough formwork to soffit of slab.m²36.51Plaster to vertical surfaces.m²49.09One brick wall in commons including wire ties for septic tank walls.m²6.588Two brick wall in commons including wire ties for septic tank walls.m²49.09Lintels as permanent shattersm73.017600 x 600mm Cast iron manhole coversNo2Pipework Extra over excavation in soft material for pipe trenches, chambers, etc. for excavation in intermediate material.m³35Connecting 110mm uPVC pipe including 110mm channel junction and making good concrete benching.No2Allow for testing the complete drainage installation by visual and Air Pressure test to the replaced at the Contractor's expense).Item1160mm uPVC slotted drainage pipe laid in and including trench not exceeding 1.00m dep 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.m35		Type 395 fabric reinforcement in concrete surface beds, floor slabs, etc.	m²	40		
Plaster to vertical surfaces.m²49.09One brick wall in commons including wire ties for septic tank walls.m²6.588Two brick wall in commons including wire ties for septic tank walls.m²49.09Lintels as permanent shattersm73.017600 x 600mm Cast iron manhole coversNo2Pipework Extra over excavation in soft material for pipe trenches, chambers, etc. for excavation in intermediate material.m³35Connecting 110mm uPVC pipe including 110mm channel junction and making good concrete benching.No2Allow for testing the complete drainage installation by visual and Alir Pressure test to the satisfaction of the Employer. (All defective work to be replaced at the Contractor's expense).No2160mm 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.m35		Rough formwork to soffit of slab.	m²	36.51		
One brick wall in commons including wire ties for septic tank walls.m²6.588Two brick wall in commons including wire ties for septic tank walls.m²49.09Lintels as permanent shattersm73.017600 x 600mm Cast iron manhole coversNo2Pipework Extra over excavation in soft material for pipe trenches, chambers, etc. for excavation in intermediate material.m³35Connecting 110mm uPVC pipe including 110mm channel junction and making good concrete benching.No2Connecting 160mm pipe including inserting 160mm channel junction and making good concrete benching.No2Allow 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).Item1160mm 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, ran, carting away, etc.m35		Plaster to vertical surfaces.	m²	49.09		
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Lintels as permanent shattersm73.017600 x 600mm Cast iron manhole coversNo2PipeworkNo2Extra over excavation in soft material for pipe trenches, chambers, etc. for excavation in intermediate material.m³35Connecting 110mm uPVC pipe including 110mm channel junction and making good concrete benching.No2Connecting 160mm pipe including inserting 160mm channel junction and making good concrete benching.No2Allow 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).Item1160mm 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.m35		Two brick wall in commons including wire ties for septic tank walls.	m²	49.09		
600 x 600mm Cast iron manhole coversNo2Pipework		Lintels as permanent shatters	m	73.017		
Pipeworkm³35Extra over excavation in soft material for pipe trenches, chambers, etc. for excavation in intermediate material.m³35Connecting 110mm uPVC pipe including 110mm channel junction and making good concrete benching.No2Connecting 160mm pipe including inserting 160mm channel junction and making good concrete benching.No2Allow 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).Item1160mm 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.m35		600 x 600mm Cast iron manhole covers	No	2		
Connecting 110mm uPVC pipe including 110mm channel junction and making good concrete benching.No2Connecting 160mm pipe including inserting 160mm channel junction and making good concrete benching.No2Allow 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).Item1160mm 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.m35		Pipework Extra over excavation in soft material for pipe trenches, chambers, etc. for excavation in intermediate material.	m³	35		
Connecting 160mm pipe including inserting 160mm channel junction and making good concrete benching.No2Allow 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).Item1160mm 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.m35		Connecting 110mm uPVC pipe including 110mm channel junction and making good concrete benching.	No	2		
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 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		Connecting 160mm pipe including inserting 160mm channel junction and making good concrete benching.	No	2		
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		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).	ltem	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.		25		
Amount Corrigid to Forward	Amount	Corried to Forward	m	35		

Item	Description	Unit	Qty	Rate	Amount
Amount	Brought 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.	m	35		
	Extra over soakaway excavations for carting away surplus material from excavations to a dumping site to be located by the Contractor.	m³	35		
	Risk of collapse to sides of soakaway excavations exceeding 1,5m and not exc. 2m deep.	m²	28		
	One layer of 250 micron waterproof sheeting and sealed at overlaps with pressure sensitive tape laid over soak away	m²	35		
	0,6mm IBR sheeting laid across walls.	m²	35		
	Lintels laid above soakaway	m	35		
Amount	Carried to Final Summary				

ITEM NO.	PAYMENT REF	DESCRIPTION	UNIT	Estimated QTY	RATE	AMOUNT
	SABS 1200 GB	SCHEDULE 6 : CARPORTS				
5.1		FORMWORK				
5.1.1	8.2.1(b)	Normal formwork to				
		c) Column Foundations	m³	92.16		
5.2		REINFORCEMENT				
5.2.1	8.2.4	Mild steel bars of nominal diameter				
5.2.1.1		12mm	t	3.69		
5.2.2		High-tensile steel bars of nominal diameter				
5.2.2.1		16mm	t	5.53		
5.2.3		High-tensile welded mesh of nominal mass				
5.2.3.1		a) 3.95 kɑ/m²	m²	0.00		
5.3		CONCRETE				
5.3.1	8.2.5	Strength concrete, Grade 25MPa/19 mm in Column Footings	m³	9.22		
5.3.2		Blinding layer, Grade 10/19,0 mm	m³	1.15		
5.3.4	8.2.6	Unformed surface finishes				
5.3.4.1		Wood-float to all floors except	m²	23.04		
	SABS 1200	SECTION · STRUCTURAL STEELWORK				
	AH					
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. oussets. backs. bolts & nuts etc. as follows :				
		a) Using steel to SABS 1431 Grade 350WA for walkways				
5.5.2.1		Simple Square Tubing - columns (welded)	t	1.06		
5.5.2.2		Square Tubing Beams - beams (welded)	t	0.37		
5.5.2.3		Square Tubing purlins	t	1.08		
5.5.2.4		Unequal Angle rafter bracing	t	1.25		
5.5.2.5		200 x 200 x 6mm Base Plates	No.	60.00		
		Fasteners for angles hexhead bolts with washers - Grade 8.8	No.	180.00		
		Sika Non-shrink grout or Similar	m ³	0.48		
		M12 Holding Down Bolta - Grade 8.8 hexhead bolts	No.	240.00		
		b) Using steel to SABS 1431 Grade 350WA for assembly				
		Simple Square Tubing - columns (welded)	t	1.43		
		Square Tubing Beams - beams (welded)	t	1.14		
		Square Tubing purlins	t	1.43		

	Unequal Angle rafter bracing	t	1.46		
	200 x 200 x 6mm Base Plates	No.	70.00		
	Fasteners for angles hexhead bolts with washers - Grade 8.8	No.	210.00		
	Sika Non-shrink grout or Similar	m³	0.56		
	M12 Holding Down Bolta - Grade 8.8 hexhead bolts	No.	280.00		
	c) Using steel to SABS 1431 Grade 350WA for carports				
	Simple Square Tubing - columns (welded)	t	0.51		
	Square Tubing Beams - beams (welded)	t	0.32		
	Square Tubing 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.	14.00		
	Fasteners for angles hexhead bolts with washers - Grade 8.8	No.	42.00		
	Sika Non-shrink grout or Similar	m³	0.11		
	M12 Holding Down Bolta - Grade 8.8 hexhead bolts	No.	56.00		
TAL CARRIED	FORWARD			-	

ITEM NO.	PAYMENT REFRES	DESCRIPTION	UNIT	Estimated QTY	RATE	AMOUNT
TOTAL	BROUGHT F	ORWARD				
555	835	SITE WELDING				
5 5 5 1	0.0.0	Site weld items inclusive	m	43 20		
0.0.0.1				40.20		
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	678.00		
562	000	Approved troughed profile-sheeting to roofs, 0,6mm				
5.0.2	0.2.3	Ridge flashing 450-600mm girth x 1mm - 3 bends, baked enamel external finish	m	42.00		
	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	162.00		
		Extra for stopped end	no	6.00		
		Extra for 150mm diamater outlet	no	18 50		
		1mm Thick 150mm diameter reinwater pipe including	110	10.00		
		straps. fixed to steel columns	m	48.10		
		Extra for 45° bend	no	18.50		
	SABS 1200 HC	CORROSION PROTECTION OF STRUCTURAL STEELWORK				
		Steelwork included under Items 1 to 7inclusive, of Section 1200H (Supply. Fabrication and Erection)	t	9.22		
5.7	8.2.1	SURFACE DRESSING AND REPAIRS AT PLACE OF FABRICATION				
		Remove slag and weld spatter, grind welds to smooth profile. radius sharp edges as specified.	t	9.22		
5.7.1	8.2.3	SURFACE PREPARATION AND COATING APPLICATION				
5.7.1.1		Shopwork. Prepare surface and apply coat(s) as specified.	t	9.22		
5.7.2		Sitework. Clean down surfaces, touch up damaged shop coats and applv finish coats as specified	t	9.22		
5.7.2.1		Cold-formed sections				
		Tonnage shall be gross quantities inclusive of unpainted steel (e.g. embedded portions and underside of becauld to at				
		uaseplate,etc.	t	9.22		
TOTAL	CARRIED TO	D SUMMARY				

DEPARTMENT OF EDUCATION : LIMPOPO	
STORM DAMAGED SCHOOL: PFUMBADA PRIMARY SCHOOL	
PRELIMINARY COSTS ESTIMATE FOR CIVIL ENGINEERINGS SERVICES	
SUMMARY OF BILL OF QUANTITIES	
SCHEDULE 1: EARTHWORKS	
SCHEDULE 2: EARTHWORKS (ROADS AND SUBGRADE)	
SCHEDULE 3: STEEL PALISADE FENCE	
SCHEDULE 4: WATER SUPPLY PIPELINES AND WATER SOURCE	
SCHEDULE 5: EXTERNAL SEWER RETICULATION	
SCHEDULE 6: COVERED PARKING	
TENDER (CONTRACT) SUM (CIVIL AND STRUCTURAL WORKS)	

PART C3 SCOPE OF WORKS


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

SCOPE OF WORKS

BID NUMBER: LDPWRI-B/20291

APPOINTMENT OF A CONTRACTOR FOR DEMOLITION OF 4 CLASSROOMS, COOKING ROOM AND 12 PIT TOILETS, REFURBISHMENT OF 4 CLASSROOMS AND 4 SEATER ENVIROLOO TOILETS, CONSTRUCTION OF 4 CLASSROOMS, NUTRITION CENTRE, NEW 8 SEATER ENVIROLOO TOILETS, GUARD HOUSE, STEEL PALISADE FENCE AND EXTERNAL WORKS AT PFUMBADA PRIMARY SCHOOL IN MAMOHOHI VILLAGE, VHEMBE DISTRICT.



C4.1 DRAWINGS





LOCALITY



No.									
	BUILDING U	SAGE	m²	Quantity					
01	BLOCK A - 4 C		01						
02	BLOCK B - 4 (01						
03 04	BLOCK D - 12 BLOCK D - 00		01						
05	BLOCK E - 4 E		01						
T	ABLE 2B:	DEMOLITIO	N WORKS	·					
No.	BUILDING U	SAGE			m²	Quantity			
01	BLOCK A - 4 (CLASSROOM			185	01			
02						12			
03	BLOCK D - CC				90	01			
05									
06									
07									
TA	ABLE 2C:	RENOVATIO	ON/REFURBF	RISHMEN	IT WOI	RKS			
No.	BUILDING U	SAGE			m²	Quantity			
01	BLOCK B - 4 (CLASSROOM			185	01			
02	BLOCK E - EN	VIRO-LOO TOILET				04			
03 04									
05									
06									
07									
T	ABLE 2D:	NEW WORK	<s< td=""><td>I</td><td></td><td></td></s<>	I					
No.	BUILDING U	SAGE			m ²	Quantity			
01 02					142	01			
03	BLOCK D - 1 (CLASSROOM MULTI	-PURPOSE CLASSRO	ОМ	104	01			
04	BLOCK F - NU	TRITION CENTRE			200	01			
05	BLOCK G - EN	IVIRO-LOOS TOILET	S 8 SEATS		39	01			
06	BLOCK H - GL	JARD HOUSE AND F	ENCING		11	01			
07	BLOCK I A DARKING PAYS & COVERED 200								
09	BLOCK J - 10 PARKING BAYS, 5 COVERED 322								
10									
ТΑ	BLE 2E: F	UTURE WC	RKS						
No.	BUILDING U	SAGE			m²	Quantity			
01	BLOCK K - ML	JLTIPURPOSE HALL			715	01			
02	BLOCK L - 5 CLASSROOMS 471								
	BLOCK M - P/SCIENCE LABS 519								
03			BLOCK N - COMPUTER-LIBRARY COMBO 624						
03 04 05	BLOCK N - CO	MPUTER-LIBRARY	СОМВО		624	01			
03 04 05 T ^	BLOCK N - CC SPORT GROU			,	624	01			
03 04 05 T A	BLOCK N - CC SPORT GROU ABLE 2F: (NDS	COMBO		-	01			
03 04 05 TA	BLOCK N - CC SPORT GROU	NDS	^{сомво} И SUMMARY	,	<u>624</u>	01			
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03 04 05 TA	BLOCK N - CC SPORT GROU	NDS	COMBO	,	624 -	01 01			
03 04 05 TA	BLOCK N - CO SPORT GROU		COMBO	,	-	01			
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LEGEN	D
	NEW BLOCKS - NOTE 2 Jojo tanks on each block
	FUTURE BLOCKS - NOTE 2 Jojo tanks on each block, Phase 2
	EXISTING BUILDING TO REMAIN UNCHANGED
	EXISTING BUILDING TO BE RENOVATED - NOTE 2 Jojo tank on each block
[]	EXISTING BUILDING TO BE DEMOLISHED
	NEW WALKWAYS
	EXISTING WALKWAYS
	FUTURE WALKWAYS
	EXISTING MOBILE CLASSROOMS
→—	WATER SUPPLY PIPES - HDPE CLASS 6
₽	SEWER PIPES - PVC CLASS 6
	ELEVATED WATER TANKS
F 1	ISOLATION VALVE
	STANDPIPE
\odot	BOREHOLE

ELECTRICAL NOTES

1.	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
	hands of 00 downson

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

MBOL	DESCRIPTION	QUANTITY
D	16kVA Dedicated transformer with an associated Meter Box	1
	25mm ² PVC Cu Cable	75m
—	16mm ² PVC Cu Cable	200m
	10mm ² PVC Cu Cable	0m
	Kiosk	1

GENERAL DRAWING NOTES

1) RKMANSHIP TO COMPLY WITH STANDARD SPECIFICATION OF MATERIALS AND METHODS TO BE USED - sabs 0400

2) IIGHT SWITCH IN DISABLED TOILET TO BE AT 1200MM ABOVE FFL 3) IF STEP OVER 900MM BUILD IN BALUSTRADE

4) GULLEY POSITIONS TO BE DETRMINED AS PER SITE PRESCRIBED OVERALL DRAINAGE DESIGN 5) 2 X COATS SEALANT O ALL EXPOSED TRUSSES (SAND OFF ALL sabs & OTHER MARKINGS)

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 CEILINGS

7) WEST FACING FACADES TO HAVE STANDARDISED ALUMINIUM LOUVRES FROM BELOW EAVES TO DROP OF 1200MM

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

ISSUED FOR TENDER

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				DATE.		
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ENVIROMEN	TAL OFFICER					
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Foundations

A1. Concrete foundations - concrete mix type and with steel reinforceme strip footings to be 340mm minimum below N.G.L. Provide test cubes (1 of trenches to be treated with ant poison of the Prothor 200 SC or other of solution per m² by a firm of specialists in accordance with SANS Specialists Concrete to be casted within 24 hours of application. Contractor to provi A2. Backfilling and filling under floors - in general, approved filling comp of maximum 150mm - refer to engineer's drawings for detail in case of p provided above natural or compacted ground level under floors. All filling minimum G5 or G7 material as per engineer's drawings). Compaction tes area under floors per each layer of 150mm compacted filling. Filling under 200 SC or other approved type applied at a rate of not less than 5 litres with SANS Specification 1165 and SANS Code of Practice 0124. Concre Contractor to provide five year guarantee Surface beds and floors

B1. Surface bed - concrete mix as described on structural engineer's dra 952 Type C approved USB Green 250 micron waterproofing membrane bed cast in alternative sections of maximum 20m² with saw cut joints with joints to be done within 24 hours after casting of concrete. Provide 10m walls and concrete and seal joint with polysulfide sealer. Provide mesh Provide test cubes (1 per 15m³ or 1 per batch)

B2. Surface bed on walkways - concrete mix as described on structural Specification 952 Type C approved USB Green 250 micron waterproofin tape. Surface bed cast in alternative sections of maximum 20m² with exp sealer. Provide 10mm thick bitumen impregnated soft board between all sealer. Provide mesh ref. no. 193 as per structural engineer's drawings. B3. Screed and floor finish on walkways - Average 30mm thick wood floa all external door openings external surface beds must be level with gran smooth with edging tool

B4. Apron - 1200mm wide 15MPa mass concrete apron with wood floate lengths of maximum 3m and to have a 1:100 fall away from building. Apro deep (net) edge excavated in natural or finished ground level Skirtings

C1. 19 x 76mm Meranti skirting plugged to walls at 400mm c/c with 19m smooth finish, stop with Polycell Woodfiller, stain with Plascon Woodcare Plascon Woodcare Ultra Varnish (X44), thinned with 1:3 mineral turpenti Woodcare Ultra (X44) suede varnish to skirtings Walls and structure

D1. External walls - Corobrik face bricks in stretcher bond with 10mm with D2. Brickforce - Brickforce to 115 and 230mm foundation walls - every 2 Over openings formed in brickwork as per table below

D3. 75 x 75 x 3mm Thick tubular section steel columns with 250mm girth 200mm long, twice holed and welded to top, 200 x 200 x 10mm thick flat bottom. Columns to be fixed to top of brickwork below copings with four "Plascon Aqualsolv Degreaser (GR1)", remove rust with "Plascon Rust (UC501) and apply two coats Plascon Enamel Door & Trims high gloss 50 x 228mm Laminated SA Pine beam twice bolted to steel columns. Sa Woodfiller, provide one coat raw linseed oil thinned with 1:3 mineral turpe Sunproof (Amber - PNW22) suede varnish thinned with 1:3 mineral turpe Woodcare Sunproof (Amber - PNW22) suede varnish

D4. Lintol - Corobrik brick-on-edge face brick lintol over all window, door

D5. DPC - SANS Specification 952 Type B approved 375 micron black of D6. Internal walls - approved stockbrick walls in stretcher bond above to off with one coat Plascon Plaster Primer (UC56) and two coats Plascon broken white (EPL314) or French Chartreuse (Y5-D2-3) as per Principal D7. Internal walls - face brick plinth up to 850mm with approved stockbri smooth 1:5 cement plaster finished off with one coat Plascon Plaster Pri Ceilings (EPL) PVA paint. Colour as per finishes schedule.

D8. All exposed expansion joints in walls and floors to be filled in with Ur been primed with Urochem 614 primer D9. Expansion joints in walls and ceilings to be covered with 2 x 50mm

Window sills E1. Internal window sills - 15 x 150mm nutec-cement window sills, bedd coat Plascon Multi-surface Primer (WUP1) and apply two coats Plascon

per finishes schedule E2. External window sills - Middelwit Fynbos Geel face brick-on-edge sl recessed joints

Ceilings and cornices

F1. Internal cornice - 19 x 76mm Meranti cornice nailed to walls at 400m stop with Polycell Woodfiller, stain with Plascon Woodcare Stain (W-rand Ultra Varnish (X44), thinned with 1:3 mineral turpentine (AZH1) and app suede varnish to cornices

F2. Ceilings - 6mm Everite Nutec fibre-cement boards nailed to 38 x 38n galvanised clout nails. Provide H-profile galvanised jointing strips. Jointin Plascon Multi-Surface Primer (WUP1) and finish off with two coats Plasc 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 fram ceiling board and fitted flush in opening. Provide 18 x 50mm meranti sur ceiling. Trap door opening between trusses to be formed with 38 x 114m Roof and fascias

G1. Roof sheeting - 0.58mm Brownbuilt Klip-lok roof sheeting with Globa purlins at maximum 1200mm centres on patent and approved pre-fabric specialist installer providing a five year guarantee

G2. Ridge and hip flashings - 0.8mm galvanised sheet iron standard fact Globalcoat finish (colour Traffic Green)

G3. Fascia boards - 10 x 300mm Everite Nutec-cement fascia boards so countersunk brass screws. Barge boards - 200 x 80mm Everite socketles countersunk brass screws. Prime fascias and barge boards with one coat with two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour G4. Truss system - MiTek or other approved patent timber pre-fabricated degrees pitch. 50 x 76mm SAP purlins at maximum 1200mm centres. 38 before fixing. Truss manufacturer to provide certificate and guarantee for shop drawings. Shop drawings to be provided to the Principal Agent for with wet trades to be carbolineum treated before fixing in position. Truss galvanised steel wire ties, built into walls minimum 6 courses. Purlins nai diameter galvanised steel wire, twice wrapped around and tied around ra etc. to be sanded smooth, seal knots with Plascon Knot Seal (PK2), prin apply two coats Plascon Enamel Doors & Trims paint. Colour as per finis G5. Gutters - 100 x 100mm High gutters formed of 0.58mm galvanised Sand). All brackets, etc. to be pre-coated with Globalcoat to match colou G6. Downpipes - 100mm Diameter downpipes formed of 0.58mm galva Sand). All holderbats, brackets, etc. to be pre-coated to match colour of G7. Barge flashing over barge boards at louvres - 0.8mm galvanised she

gable flashing with Globalcoat finish (colour Traffic Green) G8. Flashings at bottom of louvres - 0.8mm galvanised sheet iron standa FK7 counter flashing with Globalcoat finish (Colour Traffic Green)

Fittings H1. Vitrex Model 2400 (code 2404) enameled green folding type writing high, two wall mounted side boards each 1000 x 1200mm high & two sw

aluminium chalk rail H2. Vitrex System 2000 (code 2317) light grey wall mounted pinning boa H3. Greenfield G25 double door steel cupboard with standard baked enal

shelves (2 per classroom) H4. Five rows of 19mm Thick laminated SA Pine shelving, 350mm wide, Shelco epoxy powder coated steel brackets. Brackets to be fixed to 25m coated Shelco type FT6 wall bands, plugged to walls at maximum 600m Woodfiller, apply one coat Plascon Woodcare Ultra Varnish (X44) thinne finishing coats Plascon Woodcare Clear Ultra (X44) suede varnish to sh Miscellaneous

I19 Kg DCP fire extinguisher fitted to 400 x 200 x 22mm thick meranti ba smooth finish, stop with Polycell Woodfiller, apply one coat Plascon Woo mineral turpentine (AZH1) & then apply two finishing coats Plascon Woo 150 x 150mm Union AL5066-E06/2AS aluminium fire extinguisher sign and Union AL5066-E08/2AS aluminium red down arrow sign above fire extinguisher

I2 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.





A)

	1) Workmanship to comply with Standard Specification of methods to be used - SABS 0400 2) Light Switch in Disabled toilet to be at 1200 mm above F
ent according to structural engineer's drawings. Top of I per 15m ³ or 1 per batch). Finished sides and bottoms approved type applied at a rate of not less than 5 litres cification 1165 and SANS Code of Practice 0124. ide five year guarantee. acted to at least 93% Mod. AASHTO density in layers boor soil conditions. Minimum of 170mm filling to be g to be approved by engineer (imported filling to be ests to be provided at a rate of one test per 125m ² filling ler floors to be treated with ant poison of the Prothor of solution per m ² by a firm of specialists in accordance ete to be casted within 24 hours of application.	 3) If Step over 900 mm Build in Balustrade 4) Gulley positions to be determined as per site prescribed design 5) 2 x coats sealant on all exposed trusses (sand off all markings) 6) 50 mm mineral wool insulation to be installed where the Bubble plastic insulation with foil backing to be installed w all areas that do not have ceilings 7) West Facing Facades to have standardised aluminium eaves to drop of 1200 mm 8) Trusses to be designed in accordance with SABS 0400 Project Engineers
awings but minimum 85mm thick on SANS Specification with laps sealed with pressure sensitive tape. Surface th 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.	
engineer's drawings but minimum 85mm thick on SANS ng membrane with laps sealed with pressure sensitive pansion joints with joints filled up with polysulfide I walls and concrete and seal joint with polysulfide Provide test cubes (1 per 15m ³ or 1 per batch) ated 1:4 granolithic screed sloping towards edges. At nolithic threshold finish. Finish off edges of screed	
ed finish. Apron to be cast in alternative sections in ron edge to be thickened by 240mm wide x 115mm	
nm meranti quadrand bead plated on. Sand down to a re Stain (W-range)(colour meranti), apply one coat ine (AZH1) and apply two finishing coats Plascon	
ide x 6mm deep square recessed joints 2nd course. Superstructure walls - every 6th course.	
h x 4.5mm thick flat section U-shaped fixing bracket, it section baseplate, four times holed and welded to M10 x 75mm masonry anchor bolts. Degrease with Remover (RR1)", prime with Plascon Metal Primer enamel paint - colour as per finishes schedule. and down to a smooth finish, stop with Polycell bentine (AZH1), apply one coat Plascon Woodcare entine (AZH1) and apply two finishing coats Plascon	ISSUED FOR TENDEF
r and clear openings with 10 x 6mm square recessed	SIGNATURE TABLE
dpc in walls at floor level and under all window sills receive one coat smooth 1:5 cement plaster finished Polvin Walls & Ceilings (EPL) PVA paint. Colour I Agent	DISCIPLINE SIGNATURE CLIENT PLAN EXAMINER
ick walls in stretcher bond above to receive one coat imer (UC56) and two coats Plascon Polvin Walls &	FIRE CONTROL ENVIRONMENTAL OFFICER
rochem 205 polysulfide joint sealant after surfaces have	ROADS / STORMWATER WATER AND SANITATION
Migua KF250/30 aluminium cover strips	ENVIRONMENTAL OFFICER
led and set flat in 1:4 cement mortar. Prime with one Polvin Walls & Ceilings (EPL) PVA paint. Colour as	
oping sill to match walls with 10 x 6mm square	
nm centres maximum. Sand down to a smooth finish, ige)(colour meranti), apply one coat Plascon Woodcare ily two finishing coats Plascon Woodcare Ultra (X44)	REV No DATE : DESCRIPTION REVISIONS
mm SAP brandering at 400mm centres maximum with ng strips to be pre-painted. Prime ceilings with one coat con Polvin Walls & Ceilings (EPL) PVA paint. Colour as	
ne with 38 x 38mm SA pine cross brander covered with rround. Trap door and surround to be painted as for nm SA pine bearers, nailed to trusses	ETTAL CONTRACTOR OF SOUTH
alcoat finish (colour Traffic Green) on 50 x 76mm SAP ated truss system. Roof sheeting to be done by	Public Works
tory manufactured FK3 ridge or hip flashing with	
crew fixed to truss ends and counter batten with ess barge boards screw fixed to trusses or purlins with at Plascon Multi-Surface Primer (WUP1) and finish off as per finishes schedule.	INSTITUTION PFUMBADA PRIMARY SCHOOL
d truss system at maximum 1100mm centres with 20 8 x 114mm SAP wall plate to be carbolineum treated or design and erection of trusses as well as detailed approval before manufacturing. All sections in contact	INSTITUTION EMIS NUMB 921230573 SERVICE
ailed to trusses must also be secured with 2.5mm diameter afters and purlins. All exposed parts of trusses, purlins, ne with one coat Plascon Wood Primer (UC2) and	NEW BUILDINGS & ALTERATIO
shes schedule. sheet iron with Globalcoat finish (colour Gemsbok	
ur of gutters nised sheet iron with Globalcoat finish (colour Gemsbok downpipes	
eet iron standard factory manufactured FK13 barge or	1 GRADE R CLASSROOM BLC
ard factory manufactured FK8 headwall flashing and	DRAWING DESCRIPTION
board with wall mounted centre board 2000 x 1200mm ving leaves each 1000 x 1200mm high with permanent	FILE No.
ard, size 2000 x 1200mm high (2 per classroom) ameled finish, 760 x 610 x 1700mm high with four	SCALE 1: 100 RESPONSIBLE PROFESSIONAL
, evenly spaced & fixed from underside to 305mm wide	DATE NAME SIGNATURE
ann wide x ∠134mm long double slotted epoxy powder am c/c. Sand down to a smooth finish, stop with Polycell ed with 1:3 mineral turpentine (AZH1) then apply two	
nelves	CONSULTANT :
ackplate with chamfered edges. Sand down to a odcare Ultra (X44) suede varnish thinned with 1:3 odcare Ultra (X44) suede varnish to back plate. Provide	Pruben reddy archi

ard Specification of materials and at 1200 mm above FFL as per site prescribed overall drainage sses (sand off all SABS & other installed where there are ceilings . ng to be installed with wire supports in ardised aluminium louvres from below with SABS 0400 & approved by

NOTES :

OR TENDER

		SI	GNATURE TABLE	
DISCIPLINE			SIGNATURE	DATE
CLIENT				
PLAN EXAMINER				
FIRE CONTR	ROL			
ENVIRONME	NTAL OFFICE	R		
ROADS / STO	ORMWATER			
WATER AND	SANITATION			
ENVIRONME	NTAL OFFICE	R		
REV No	DATE :		DESCRIPTION	1:
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4.	Contraction of the second		REPUBLIC OF SOUTH	AFRICA

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UMBADA PRIMARY SCHOOL
INSTITUTION EMIS NUMBER
921230573
SERVICE
EW BUILDINGS & ALTERATIONS
CONTRACT - SECTION
OCUMENTATION & PROCUREMENT
DISCIPLINE PROJECT STAGE
ARCHITECTURAL 4

SSROOM BLOCK DESCRIPTION ROOF PLAN ITEM No. DRAWN CHECKED E PROFESSIONAL SIGNATURE PR NUMBER 1160 PA7812 D-ORDINATED ruben reddy architects Suite 4 No 6 Ismini Office Building, 6 Ismini Street, Polokwane, D699 South Africa Tel: +27 15 065 0645, Fax: +27 11 475 8364, Email: info@rubenreddyarch.co.za Web: www.rubenreddyarch.co.za CONTRACTOR AUTO CAD HILE NAME REV2

А

DRAWING NUMBER 2020_68- 1GR- 100

A 1



FRONT ELEVATION



BACK ELEVATION







SIDE ELEVATION

1 BRICKCOURSE

= 60

= 55

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35 ---

30

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= 10

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1 BRICKCOURSE

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55

50

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30 88

= 85mn

= 85mn





CONSTRUCTION NOTES:

Foundations

A1. Concrete foundations - concrete mix type and with steel reinforcement a strip footings to be 340mm minimum below N.G.L. Provide test cubes (1 pe of trenches to be treated with ant poison of the Prothor 200 SC or other app of solution per m² by a firm of specialists in accordance with SANS Specific Concrete to be casted within 24 hours of application. Contractor to provide the A2. Backfilling and filling under floors - in general, approved filling compacted of maximum 150mm - refer to engineer's drawings for detail in case of poor provided above natural or compacted ground level under floors. All filling to minimum G5 or G7 material as per engineer's drawings). Compaction tests area under floors per each layer of 150mm compacted filling. Filling under 200 SC or other approved type applied at a rate of not less than 5 litres of s with SANS Specification 1165 and SANS Code of Practice 0124. Concrete Contractor to provide five year guarantee

Surface beds and floors B1. Surface bed - concrete mix as described on structural engineer's drawir 952 Type C approved USB Green 250 micron waterproofing membrane with bed cast in alternative sections of maximum 20m² with saw cut joints with jo joints to be done within 24 hours after casting of concrete. Provide 10mm the walls and concrete and seal joint with polysulfide sealer. Provide mesh ref. Provide test cubes (1 per 15m³ or 1 per batch)

B2. Surface bed on walkways - concrete mix as described on structural eng Specification 952 Type C approved USB Green 250 micron waterproofing r tape. Surface bed cast in alternative sections of maximum 20m² with expan sealer. Provide 10mm thick bitumen impregnated soft board between all wa sealer. Provide mesh ref. no. 193 as per structural engineer's drawings. Pro B3. Screed and floor finish on walkways - Average 30mm thick wood floated all external door openings external surface beds must be level with granolith smooth with edging tool

B4. Apron - 1200mm wide 15MPa mass concrete apron with wood floated f lengths of maximum 3m and to have a 1:100 fall away from building. Apron deep (net) edge excavated in natural or finished ground level Skirtings

 $\overline{C1.19 \text{ x}}$ 76mm Meranti skirting plugged to walls at 400mm c/c with 19mm smooth finish, stop with Polycell Woodfiller, stain with Plascon Woodcare S Plascon Woodcare Ultra Varnish (X44), thinned with 1:3 mineral turpentine Woodcare Ultra (X44) suede varnish to skirtings Walls and structure

D1. External walls - Corobrik face bricks in stretcher bond with 10mm wide D2. Brickforce - Brickforce to 115 and 230mm foundation walls - every 2nd Over openings formed in brickwork as per table below

D3. 75 x 75 x 3mm Thick tubular section steel columns with 250mm girth x 200mm long, twice holed and welded to top, 200 x 200 x 10mm thick flat se bottom. Columns to be fixed to top of brickwork below copings with four M1 "Plascon Aqualsolv Degreaser (GR1)", remove rust with "Plascon Rust Ren (UC501) and apply two coats Plascon Enamel Door & Trims high gloss ena 50 x 228mm Laminated SA Pine beam twice bolted to steel columns. Sand Woodfiller, provide one coat raw linseed oil thinned with 1:3 mineral turpent Sunproof (Amber - PNW22) suede varnish thinned with 1:3 mineral turpenti Woodcare Sunproof (Amber - PNW22) suede varnish

D4. Lintol - Corobrik brick-on-edge face brick lintol over all window, door an ioints D5. DPC - SANS Specification 952 Type B approved 375 micron black dpc

D6. Internal walls - approved stockbrick walls in stretcher bond above to rec off with one coat Plascon Plaster Primer (UC56) and two coats Plascon Pol broken white (EPL314) or French Chartreuse (Y5-D2-3) as per Principal Ag D7. Internal walls - face brick plinth up to 850mm with approved stockbrick smooth 1:5 cement plaster finished off with one coat Plascon Plaster Prime Ceilings (EPL) PVA paint. Colour as per finishes schedule.

D8. All exposed expansion joints in walls and floors to be filled in with Uroch been primed with Urochem 614 primer D9. Expansion joints in walls and ceilings to be covered with 2 x 50mm Mig

Window sills E1. Internal window sills - 15 x 150mm nutec-cement window sills, bedded a coat Plascon Multi-surface Primer (WUP1) and apply two coats Plascon Po

per finishes schedule E2. External window sills - Middelwit Fynbos Geel face brick-on-edge slopin

recessed joints

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

F2. Ceilings - 6mm Everite Nutec fibre-cement boards nailed to 38 x 38mm galvanised clout nails. Provide H-profile galvanised jointing strips. Jointing s Plascon Multi-Surface Primer (WUP1) and finish off with two coats Plascon 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 w ceiling board and fitted flush in opening. Provide 18 x 50mm meranti surrour ceiling. Trap door opening between trusses to be formed with 38 x 114mm Roof and fascias

G1. Roof sheeting - 0.58mm Brownbuilt Klip-lok roof sheeting with Globalco purlins at maximum 1200mm centres on patent and approved pre-fabricate specialist installer providing a five year guarantee

G2. Ridge and hip flashings - 0.8mm galvanised sheet iron standard factory Globalcoat finish (colour Traffic Green)

G3. Fascia boards - 10 x 300mm Everite Nutec-cement fascia boards screw countersunk brass screws. Barge boards - 200 x 80mm Everite socketless countersunk brass screws. Prime fascias and barge boards with one coat P with two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour as G4. Truss system - MiTek or other approved patent timber pre-fabricated tru degrees pitch. 50 x 76mm SAP purlins at maximum 1200mm centres. 38 x before fixing. Truss manufacturer to provide certificate and guarantee for de shop drawings. Shop drawings to be provided to the Principal Agent for app with wet trades to be carbolineum treated before fixing in position. Trusses galvanised steel wire ties, built into walls minimum 6 courses. Purlins nailed diameter galvanised steel wire, twice wrapped around and tied around rafte etc. to be sanded smooth, seal knots with Plascon Knot Seal (PK2), prime apply two coats Plascon Enamel Doors & Trims paint. Colour as per finishe G5. Gutters - 100 x 100mm High gutters formed of 0.58mm galvanised she Sand). All brackets, etc. to be pre-coated with Globalcoat to match colour of G6. Downpipes - 100mm Diameter downpipes formed of 0.58mm galvanise Sand). All holderbats, brackets, etc. to be pre-coated to match colour of dov G7. Barge flashing over barge boards at louvres - 0.8mm galvanised sheet

gable flashing with Globalcoat finish (colour Traffic Green) G8. Flashings at bottom of louvres - 0.8mm galvanised sheet iron standard FK7 counter flashing with Globalcoat finish (Colour Traffic Green)

Fittinas H1. Vitrex Model 2400 (code 2404) enameled green folding type writing boa high, two wall mounted side boards each 1000 x 1200mm high & two swing

aluminium chalk rail H2. Vitrex System 2000 (code 2317) light grey wall mounted pinning board, H3. Greenfield G25 double door steel cupboard with standard baked ename

shelves (2 per classroom) H4. Five rows of 19mm Thick laminated SA Pine shelving, 350mm wide, ev Shelco epoxy powder coated steel brackets. Brackets to be fixed to 25mm v coated Shelco type FT6 wall bands, plugged to walls at maximum 600mm of Woodfiller, apply one coat Plascon Woodcare Ultra Varnish (X44) thinned v finishing coats Plascon Woodcare Clear Ultra (X44) suede varnish to shelve Miscellaneous

I1 9 Kg DCP fire extinguisher fitted to 400 x 200 x 22mm thick meranti back smooth finish, stop with Polycell Woodfiller, apply one coat Plascon Woodca mineral turpentine (AZH1) & then apply two finishing coats Plascon Woodca 150 x 150mm Union AL5066-E06/2AS aluminium fire extinguisher sign and sign above fire extinguisher

I2 Safex fire hose reel with 30m hose. Supply 152 x 152 x 3mm thick Union hose reel sign & Union Al5066-06ASE08 aluminium engraved red down arr buildings to fire hose reel to be 25mm galvanised mild steel. Degrease expo 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.

	1) Workmanship to comply with Standard Specification of materials and methods to be used - SABS 0400 2)Light Switch in Disabled toilet to be at 1200 mm above FFL
according to structural engineer's drawings. Top of er 15m ³ or 1 per batch). Finished sides and bottoms proved type applied at a rate of not less than 5 litres cation 1165 and SANS Code of Practice 0124. five year guarantee. ted to at least 93% Mod. AASHTO density in layers r soil conditions. Minimum of 170mm filling to be be approved by engineer (imported filling to be to be provided at a rate of one test per 125m ² filling floors to be treated with ant poison of the Prothor	 3) If Step over 900 mm Build in Balustrade 4) Gulley positions to be determined as per site prescribed overall drainage 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
solution per m² by a firm of specialists in accordance to be casted within 24 hours of application.	
ngs but minimum 85mm thick on SANS Specification th laps sealed with pressure sensitive tape. Surface oints filled up with polysulfide sealer. All saw cut hick bitumen impregnated soft board between all no. 193 as per structural engineer's drawings.	
gineer's drawings but minimum 85mm thick on SANS membrane with laps sealed with pressure sensitive nsion joints with joints filled up with polysulfide alls and concrete and seal joint with polysulfide ovide test cubes (1 per 15m ³ or 1 per batch) ed 1:4 granolithic screed sloping towards edges. At thic threshold finish. Finish off edges of screed	
finish. Apron to be cast in alternative sections in n edge to be thickened by 240mm wide x 115mm	
meranti quadrand bead plated on. Sand down to a Stain (W-range)(colour meranti), apply one coat (AZH1) and apply two finishing coats Plascon	
x 6mm deep square recessed joints course. Superstructure walls - every 6th course.	
4.5mm thick flat section U-shaped fixing bracket, ection baseplate, four times holed and welded to 10 x 75mm masonry anchor bolts. Degrease with mover (RR1)", prime with Plascon Metal Primer amel paint - colour as per finishes schedule. I down to a smooth finish, stop with Polycell time (AZH1), apply one coat Plascon Woodcare tine (AZH1) and apply two finishing coats Plascon	ISSUED FOR TENDER
nd clear openings with 10 x 6mm square recessed	SIGNATURE TABLE
; in walls at floor level and under all window sills ceive one coat smooth 1:5 cement plaster finished Ivin Walls & Ceilings (EPL) PVA paint. Colour	DISCIPLINE SIGNATURE DATE CLIENT PLAN EXAMINER
gent walls in stretcher bond above to receive one coat er (LIC56) and two coats Plascon Polvin Walls &	FIRE CONTROL
them 205 polysulfide joint sealant after surfaces have	ROADS / STORMWATER
gua KF250/30 aluminium cover strips	ENVIRONMENTAL OFFICER
and set flat in 1:4 cement mortar. Prime with one	
ng sill to match walls with 10 x 6mm square	
centres maximum. Sand down to a smooth finish,)(colour meranti), apply one coat Plascon Woodcare	REV No DATE : DESCRIPTION : REVISIONS
two finishing coats Plascon Woodcare Ultra (X44) In SAP brandering at 400mm centres maximum with	
Polvin Walls & Ceilings (EPL) PVA paint. Colour	
with 38 x 38mm SA pine cross brander covered with und. Trap door and surround to be painted as for SA pine bearers, nailed to trusses	PROVINCIAL GOVERNMENT REPUBLIC OF SOUTH AFRICA
oat finish (colour Traffic Green) on 50 x 76mm SAP ed truss system. Roof sheeting to be done by	Public Works
y manufactured FK3 ridge or hip flashing with	
w fixed to truss ends and counter batten with barge boards screw fixed to trusses or purlins with Plascon Multi-Surface Primer (WUP1) and finish off	INSTITUTION PELIMBADA PRIMARY SCHOOL
russ system at maximum 1100mm centres with 20 114mm SAP wall plate to be carbolineum treated	
esign and erection of trusses as well as detailed proval before manufacturing. All sections in contact	921230573
d to trusses must also be secured with 2.5mm diameter ers and purlins. All exposed parts of trusses, purlins,	NEW BUILDINGS & ALTERATIONS
with one coat Plascon Wood Primer (UC2) and es schedule.	DOCUMENTATION & PROCUREMENT
eet iron with Globalcoat finish (colour Gemsbok of gutters ed sheet iron with Globalcoat finish (colour Gemsbok	DISCIPLINE PROJECT STAG
t iron standard factory manufactured FK13 barge or	WORK DESCRIPTION - SUB DIVISION
factory manufactured FK8 headwall flashing and	1 GRADE R CLASSROOM BLOCK DRAWING DESCRIPTION
ard with wall mounted centre board 2000 x 1200mm	SECTION AND ELEVATIONS
g leaves each 1000 x 1200mm high with permanent	DESIGN DRAW
eled finish, 760 x 610 x 1700mm high with four	Image: Strategy of the strate
venly spaced & fixed from underside to 305mm wide wide x 2134mm long double slotted epoxy powder c/c. Sand down to a smooth finish, stop with Polycell with 1:3 mineral turpentine (AZH1) then apply two ves	Z00Z00.0060.200 YUSUF VAHED PA7812 DRAWING_CO-ORDINATED
kplate with chamfered edges. Sand down to a care Ultra (X44) suede varnish thinned with 1:3 care Ultra (X44) suede varnish to back plate. Provide d Union AL5066-E08/2AS aluminium red down arrow	CONSULTANT : Oruben reddy architects Suite 4. No 6. Ismini Office Building,
n AL5066-06ASE05 aluminium engraved red fire row sign above fire hose reel. Water supply in posed parts of pipes with Plascon Aquasolv	CONTRACTOR :

PROJECT STAGE

ITEM No.

DRAWN

CHECKED

REV2

А

AUTO CAD

A 1

DRAWING NUMBER

2020_68- 1GR- 101

			D	OOR SCHEDULE					
TYPICAL T.O.C.		TYPICAL T.O.C.	502 503 813	TYPICAL T.O.C.	5064 1882	TYPICAL T.O.C.		TYPICAL T.O.C.	
TYPE D01		TYPE D02		TYPE D03		TYPE G01		TYPE G02	
POSITION:	ALL EXTERIOR DOORS	POSITION:	ALL INTERNAL DOORS:	POSITION:	TOILET CUBICLES	POSITION:	ABLUTIONS GATE	POSITION:	SECURITY GATE
DOOR TYPE :	813mm x 2032mm Framed, ledged, braced and battened timber door	DOOR TYPE :	813mm x 2032mm solid timber door	DOOR TYPE :	813mm x 2032mm solid timber door 150mm UNDERCUT	DOOR TYPE :	1580mm x 2000mm	DOOR TYPE :	980mm x 2000mm
DOOR FINISH:	3 x coats clear varnish	DOOR FINISH:	3 x coats clear varnish	DOOR FINISH:	AS PER MANUFACTURERS SPEC.	DOOR FINISH:	3 x coats clear varnish	DOOR FINISH:	3 x coats clear varnish
FRAME:	1.2mm double rebated frames suitable for 230mm wall, to accommodate 813 x 2032 door leaf	FRAME:	1.2mm double rebated frames suitable for 110mm wall, to accommodate 813 x 2032 door leaf	FRAME:	VITREX	FRAME:	1.2mm double rebated frames suitable for 230mm wall,	FRAME:	1.2mm double rebated fran
FRAME FINISH:	1 X coat Zinc Chromate primer 2 x coat approved enamel paint	FRAME FINISH:	1 X coat Zinc Chromate primer 2 x coat approved enamel paint	FRAME FINISH:	AS PER MANUFACTURERS SPEC.	FRAME FINISH:	1 X coat Zinc Chromate primer 2 x coat approved enamel paint	FRAME FINISH:	1 X coat Zinc Chromate pr 2 x coat approved enamel
DOOR:	Standard approved 'meranti' ledged and braced door	DOOR:	2032x813x40mm solid flush panel door with hardboard both side and 2 concealed edges	DOOR:	VITREX	DOOR:	painted mild steel gate consisting of 10x10mm mild steel bars placed at 100mm centres at a 45° angle, colour to architect's specification	DOOR:	painted mild steel gate con placed at 100mm centres specification
FANLIGHT:	NONE	FANLIGHT:	NONE	FANLIGHT:	NONE	FANLIGHT:	NONE	FANLIGHT:	NONE
IRONMONGERY:	4 Lever security lockset and satin - chromed handles all approved	IRONMONGERY:	4 Lever security lockset and satin - chromed handles all approved	IRONMONGERY:	INDICATOR LOCK	IRONMONGERY:	4 Lever security lockset and satin - chromed handles all approved	IRONMONGERY:	4 Lever security lockset a approved
COUNT:	2	COUNT:	3	COUNT:	4	COUNT:	1	COUNT:	2



	NOTES :
	1) Workmanship to comply with Standard Specification of materials and methods to be used - SABS 0400 2)Light Switch in Disabled toilet 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 drainage 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
	8) Trusses to be designed in accordance with SABS 0400 & approved by Project Engineers
nes suitable for 230mm wall, 32 door leaf	
imer paint	
nsisting of 10x10mm mild steel bars	ISSUED FOR TENDER
at a 45° angle, colour to architect's	SIGNATURE TABLE
	DISCIPLINE SIGNATURE DATE
nd satin - chromed handles all	PLAN EXAMINER
	ENVIRONMENTAL OFFICER
	ROADS / STORMWATER WATER AND SANITATION
	ENVIRONMENTAL OFFICER
	REV No DATE : DESCRIPTION :
	SIZE ON ORIGINAL DRAWING 100 mm
	LIMPOPO
	REPUBLIC OF SOUTH AFRICA
	Department of Public Works
	Fublic Works
	PFUMBADA PRIMARY SCHOOL
	921230573
	NEW BUILDINGS & ALTERATIONS
	CONTRACT - SECTION DOCUMENTATION & PROCUREMENT
	WORK DESCRIPTION - SUB DIVISION
	SECTION AND ELEVATIONS
	FILE No. ITEM No.
	SCALE 1: 100 CHECKED
	RESPONSIBLE PROFESSIONAL DATE NAME SIGNATURE PR NUMBER 700000,000,000 VILCUE VALUED DATE DATE
	CONSULTANT :
	ruben reddy architects
	Suite 4 No 6 Ismini Office Building, 6 Ismini Street, Polokwane, D699 South Africa Tel: +27 15 065 0645, Fax: +27 11 475 8364, Email: info@rubenreddyarch.co.za
	Web: www.rubenreddyarch.co.za CONTRACTOR :
	CADD AUTO CAD FILE NAME SIZE DRAWING NUMBER REV/2
	A 1 2020_68- 1GR- 103 A



Foundations

A1. Concrete foundations - concrete mix type and with steel reinforcement accord strip footings to be 340mm minimum below N.G.L. Provide test cubes (1 per 15m³ of trenches to be treated with ant poison of the Prothor 200 SC or other approved of solution per m² by a firm of specialists in accordance with SANS Specification 1 Concrete to be casted within 24 hours of application. Contractor to provide five year A2. Backfilling and filling under floors - in general, approved filling compacted to a of maximum 150mm - refer to engineer's drawings for detail in case of poor soil co provided above natural or compacted ground level under floors. All filling to be app minimum G5 or G7 material as per engineer's drawings). Compaction tests to be area under floors per each layer of 150mm compacted filling. Filling under floors to 200 SC or other approved type applied at a rate of not less than 5 litres of solution with SANS Specification 1165 and SANS Code of Practice 0124. Concrete to be of Contractor to provide five year guarantee Surface beds and floors

B1. Surface bed - concrete mix as described on structural engineer's drawings but 952 Type C approved USB Green 250 micron waterproofing membrane with laps bed cast in alternative sections of maximum 20m² with saw cut joints with joints fill joints to be done within 24 hours after casting of concrete. Provide 10mm thick bit walls and concrete and seal joint with polysulfide sealer. Provide mesh ref. no. 193 Provide test cubes (1 per 15m³ or 1 per batch)

B2. Surface bed on walkways - concrete mix as described on structural engineer's Specification 952 Type C approved USB Green 250 micron waterproofing membra tape. Surface bed cast in alternative sections of maximum 20m² with expansion jo sealer. Provide 10mm thick bitumen impregnated soft board between all walls and sealer. Provide mesh ref. no. 193 as per structural engineer's drawings. Provide te B3. Screed and floor finish on walkways - Average 30mm thick wood floated 1:4 gr all external door openings external surface beds must be level with granolithic three smooth with edging tool

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

C1. 19 x 76mm Meranti skirting plugged to walls at 400mm c/c with 19mm merant smooth finish, stop with Polycell Woodfiller, stain with Plascon Woodcare Stain (W Plascon Woodcare Ultra Varnish (X44), thinned with 1:3 mineral turpentine (AZH1 Woodcare Ultra (X44) suede varnish to skirtings Walls and structure

D1. External walls - Corobrik face bricks in stretcher bond with 10mm wide x 6mm D2. Brickforce - Brickforce to 115 and 230mm foundation walls - every 2nd 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 200mm long, twice holed and welded to top, 200 x 200 x 10mm thick flat section b bottom. Columns to be fixed to top of brickwork below copings with four M10 x 75n "Plascon Aqualsolv Degreaser (GR1)", remove rust with "Plascon Rust Remover ((UC501) and apply two coats Plascon Enamel Door & Trims high gloss enamel pa 50 x 228mm Laminated SA Pine beam twice bolted to steel columns. Sand down to Woodfiller, provide one coat raw linseed oil thinned with 1:3 mineral turpentine (Az Sunproof (Amber - PNW22) suede varnish thinned with 1:3 mineral turpentine (AZ Woodcare Sunproof (Amber - PNW22) suede varnish D4. Lintol - Corobrik brick-on-edge face brick lintol over all window, door and clear

D5. DPC - SANS Specification 952 Type B approved 375 micron black dpc in wall D6. Internal walls - approved stockbrick walls in stretcher bond above to receive o off with one coat Plascon Plaster Primer (UC56) and two coats Plascon Polvin Wa 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 smooth 1:5 cement plaster finished off with one coat Plascon Plaster Primer (UC5) Ceilings (EPL) PVA paint. Colour as per finishes schedule. D8. All exposed expansion joints in walls and floors to be filled in with Urochem 20

been primed with Urochem 614 primer D9. Expansion joints in walls and ceilings to be covered with 2 x 50mm Migua KF2 Window sills

E1. Internal window sills - 15 x 150mm nutec-cement window sills, bedded and se coat Plascon Multi-surface Primer (WUP1) and apply two coats Plascon Polvin Wa

per finishes schedule E2. External window sills - Middelwit Fynbos Geel face brick-on-edge sloping sill to recessed joints

Ceilings and cornices

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

F2. Ceilings - 6mm Everite Nutec fibre-cement boards nailed to 38 x 38mm SAP b galvanised clout nails. Provide H-profile galvanised jointing strips. Jointing strips to Plascon Multi-Surface Primer (WUP1) and finish off with two coats Plascon Polvin 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 ceiling board and fitted flush in opening. Provide 18 x 50mm meranti surround. Tra ceiling. Trap door opening between trusses to be formed with 38 x 114mm SA pin Roof and fascias

G1. Roof sheeting - 0.58mm Brownbuilt Klip-lok roof sheeting with Globalcoat finis purlins at maximum 1200mm centres on patent and approved pre-fabricated truss specialist installer providing a five year guarantee G2. Ridge and hip flashings - 0.8mm galvanised sheet iron standard factory manu

Globalcoat finish (colour Traffic Green) G3. Fascia boards - 10 x 300mm Everite Nutec-cement fascia boards screw fixed

countersunk brass screws. Barge boards - 200 x 80mm Everite socketless barge I countersunk brass screws. Prime fascias and barge boards with one coat Plascon with two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour as per fin G4. Truss system - MiTek or other approved patent timber pre-fabricated truss system degrees pitch. 50 x 76mm SAP purlins at maximum 1200mm centres. 38 x 114mn before fixing. Truss manufacturer to provide certificate and guarantee for design a shop drawings. Shop drawings to be provided to the Principal Agent for approval with wet trades to be carbolineum treated before fixing in position. Trusses to be s galvanised steel wire ties, built into walls minimum 6 courses. Purlins nailed to true diameter galvanised steel wire, twice wrapped around and tied around rafters and etc. to be sanded smooth, seal knots with Plascon Knot Seal (PK2), prime with on apply two coats Plascon Enamel Doors & Trims paint. Colour as per finishes schee G5. Gutters - 100 x 100mm High gutters formed of 0.58mm galvanised sheet iron v Sand). All brackets, etc. to be pre-coated with Globalcoat to match colour of gutter G6. Downpipes - 100mm Diameter downpipes formed of 0.58mm galvanised shee Sand). All holderbats, brackets, etc. to be pre-coated to match colour of downpipe G7. Barge flashing over barge boards at louvres - 0.8mm galvanised sheet iron sta

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

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

H2. Vitrex System 2000 (code 2317) light grey wall mounted pinning board, size 20 H3. Greenfield G25 double door steel cupboard with standard baked enameled fin shelves (2 per classroom)

H4. Five rows of 19mm Thick laminated SA Pine shelving, 350mm wide, evenly sp Shelco epoxy powder coated steel brackets. Brackets to be fixed to 25mm wide x 2 coated Shelco type FT6 wall bands, plugged to walls at maximum 600mm c/c. Sar Woodfiller, apply one coat Plascon Woodcare Ultra Varnish (X44) thinned with 1:3 finishing coats Plascon Woodcare Clear Ultra (X44) suede varnish to shelves

Miscellaneous I1 9 Kg DCP fire extinguisher fitted to 400 x 200 x 22mm thick meranti backplate w smooth finish, stop with Polycell Woodfiller, apply one coat Plascon Woodcare Ultr mineral turpentine (AZH1) & then apply two finishing coats Plascon Woodcare Ultr 150 x 150mm Union AL5066-E06/2AS aluminium fire extinguisher sign and Union

sign above fire extinguisher I2 Safex fire hose reel with 30m hose. Supply 152 x 152 x 3mm thick Union AL506 hose reel sign & Union Al5066-06ASE08 aluminium engraved red down arrow sign buildings to fire hose reel to be 25mm galvanised mild steel. Degrease exposed pa Degreaser (GR1), remove any rust with Plascon Rust Remover (RR1), prime with

coats Plascon Enamel Doors & trims (G-Range) paint - colour Signal Red (G7). Pr aluminium fhr sign & Union AL5066-E08/2AS aluminium red down arrow sign abor

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Apron to be cast in alternative sections in o be thickened by 240mm wide x 115mm	
i quadrand bead plated on. Sand down to a /-range)(colour meranti), apply one coat) and apply two finishing coats Plascon	
deep square recessed joints e. Superstructure walls - every 6th course.	
thick flat section U-shaped fixing bracket, baseplate, four times holed and welded to mm masonry anchor bolts. Degrease with (RR1)", prime with Plascon Metal Primer aint - colour as per finishes schedule. to a smooth finish, stop with Polycell ZH1), apply one coat Plascon Woodcare (H1) and apply two finishing coats Plascon	ISSUED FOR TENDER
openings with 10 x 6mm square recessed	
s at floor level and under all window sills ne coat smooth 1:5 cement plaster finished ills & Ceilings (EPL) PVA paint. Colour	SIGNATURE TABLE DISCIPLINE SIGNATURE DATE CLIENT
n stretcher bond above to receive one coat 6) and two coats Plascon Polvin Walls &	PLAN EXAMINER FIRE CONTROL FINITED FILE
5 polysulfide joint sealant after surfaces have	ROADS / STORMWATER
50/30 aluminium cover strips	ENVIRONMENTAL OFFICER
t flat in 1:4 cement mortar. Prime with one alls & Ceilings (EPL) PVA paint. Colour as	
o match walls with 10 x 6mm square	
maximum. Sand down to a smooth finish, meranti), apply one coat Plascon Woodcare hing coats Plascon Woodcare Ultra (X44)	REV No DATE : DESCRIPTION :
randering at 400mm centres maximum with b be pre-painted. Prime ceilings with one coat Walls & Ceilings (EPL) PVA paint. Colour	
x 38mm SA pine cross brander covered with ap door and surround to be painted as for e bearers, nailed to trusses	PROVINCIAL GOVERNMENT REPUBLIC OF SOUTH AFRICA
h (colour Traffic Green) on 50 x 76mm SAP system. Roof sheeting to be done by	
factured FK3 ridge or hip flashing with	EDUCATION
to truss ends and counter batten with boards screw fixed to trusses or purlins with Multi-Surface Primer (WUP1) and finish off ishes schedule	
stem at maximum 1100mm centres with 20 n SAP wall plate to be carbolineum treated	
before manufacturing. All sections in contact ecured to walls with 2.5mm diameter	
sses must also be secured with 2.5mm purlins. All exposed parts of trusses, purlins, e coat Plascon Wood Primer (UC2) and	CONTRACT - SECTION
dule. with Globalcoat finish (colour Gemsbok	DOCUMENTATION & PROCUREMENT
s t iron with Globalcoat finish (colour Gemsbok	ARCHITECTURAL 4
andard factory manufactured FK13 barge or	WORK DESCRIPTION - SUB DIVISION 4 CLASSROOM WITH STORE BLOCK
manufactured FK8 headwall flashing and	DRAWING DESCRIPTION FLOOR. CEILING AND ROOF PI AN
wall mounted centre board 2000 x 1200mm each 1000 x 1200mm high with permanent	
000 x 1200mm high (2 per classroom) ish, 760 x 610 x 1700mm high with four	SCALE 1: 100 CHECKED
paced & fixed from underside to 305mm wide 2134mm long double slotted epoxy powder ad down to a smooth finish, stop with Polycell mineral turpentine (AZH1) then apply two	DATE NAME SIGNATURE PR NUMBER 200220.006.200 YUSUF VAHED PA7812 DRAWING CO-ORDINATED
vith chamfered edges. Sand down to a ra (X44) suede varnish thinned with 1:3 ra (X44) suede varnish to back plate. Provide AL5066-E08/2AS aluminium red down arrow	CONSULTANT : CONSULTANT : CONSULTANT : CONSULTANT :
66-06ASE05 aluminium engraved red fire n above fire hose reel. Water supply in arts of pipes with Plascon Aquasolv Plascon Metal Primer (UC501) and apply two revide 150 x 150 mm Union AL 5000 505 (210	Suite 4 No 6 Ismini Office Building, 6 Ismini Street, Polokwane, D699 South Africa Tel: +27 15 065 0645, Fax: +27 11 475 8364, Email: info@rubenreddyarch.co.za Web: www.rubenreddyarch.co.za CONTRACTOR
ve fire hose reel.	CADD AUTO CAD FILE SYSTEM AUTO CAD NUMBER

2020 68-4CLS-100

A 1













FOUNDATION PLAN & DETAILS - WHERE APPLICABLE REFER TO ENGINEERS DRAWINGS & DETAIL FOR REINFORCED CONCRETE FOUNDATIONS.

VALL PLATE_3 145 G3

LINTEL_2 635

DADO_1 020

T.O.C_0 170





CONSTRUCTION NOTES:

Foundations

A1. Concrete foundations - concrete mix type and with steel reinforcement accord strip footings to be 340mm minimum below N.G.L. Provide test cubes (1 per 15m³ of trenches to be treated with ant poison of the Prothor 200 SC or other approved of solution per m² by a firm of specialists in accordance with SANS Specification 1 Concrete to be casted within 24 hours of application. Contractor to provide five yea A2. Backfilling and filling under floors - in general, approved filling compacted to at of maximum 150mm - refer to engineer's drawings for detail in case of poor soil corprovided above natural or compacted ground level under floors. All filling to be appeared under floors per each layer of 150mm compacted filling. Filling under floors to 200 SC or other approved type applied at a rate of not less than 5 litres of solution with SANS Specification 1165 and SANS Code of Practice 0124. Concrete to be contractor to provide five year guarantee Surface beds and floors

B1. Surface bed - concrete mix as described on structural engineer's drawings but 952 Type C approved USB Green 250 micron waterproofing membrane with laps bed cast in alternative sections of maximum 20m² with saw cut joints with joints fill joints to be done within 24 hours after casting of concrete. Provide 10mm thick bitt walls and concrete and seal joint with polysulfide sealer. Provide mesh ref. no. 193 Provide test cubes (1 per 15m³ or 1 per batch)

<u>B2.</u> Surface bed on walkways - concrete mix as described on structural engineer's Specification 952 Type C approved USB Green 250 micron waterproofing membra tape. Surface bed cast in alternative sections of maximum $20m^2$ with expansion joi sealer. Provide 10mm thick bitumen impregnated soft board between all walls and sealer. Provide mesh ref. no. 193 as per structural engineer's drawings. Provide te <u>B3.</u> Screed and floor finish on walkways - Average 30mm thick wood floated 1:4 gr all external door openings external surface beds must be level with granolithic three smooth with edging tool

<u>B4.</u> Apron - 1200mm wide 15MPa mass concrete apron with wood floated finish. *A* lengths of maximum 3m and to have a 1:100 fall away from building. Apron edge t deep (net) edge excavated in natural or finished ground level Skirtings

<u>C1.</u> 19 x 76mm Meranti skirting plugged to walls at 400mm c/c with 19mm merant smooth finish, stop with Polycell Woodfiller, stain with Plascon Woodcare Stain (W Plascon Woodcare Ultra Varnish (X44), thinned with 1:3 mineral turpentine (AZH1 Woodcare Ultra (X44) suede varnish to skirtings Walls and structure

D1. External walls - Corobrik face bricks in stretcher bond with 10mm wide x 6mm D2. Brickforce - Brickforce to 115 and 230mm foundation walls - every 2nd 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 200mm long, twice holed and welded to top, 200 x 200 x 10mm thick flat section b bottom. Columns to be fixed to top of brickwork below copings with four M10 x 75m "Plascon Aqualsolv Degreaser (GR1)", remove rust with "Plascon Rust Remover (I (UC501) and apply two coats Plascon Enamel Door & Trims high gloss enamel pa 50 x 228mm Laminated SA Pine beam twice bolted to steel columns. Sand down t Woodfiller, provide one coat raw linseed oil thinned with 1:3 mineral turpentine (AZ Sunproof (Amber - PNW22) suede varnish thinned with 1:3 mineral turpentine (AZ Woodcare Sunproof (Amber - PNW22) suede varnish D4. Lintol - Corobrik brick-on-edge face brick lintol over all window, door and clear

joints D5. DPC - SANS Specification 952 Type B approved 375 micron black dpc in wall D6. Internal walls - approved stockbrick walls in stretcher bond above to receive o

off with one coat Plascon Plaster Primer (UC56) and two coats Plascon Polvin Wa broken white (EPL314) or French Chartreuse (Y5-D2-3) as per Principal Agent <u>D7</u>. Internal walls - face brick plinth up to 850mm with approved stockbrick walls in smooth 1:5 cement plaster finished off with one coat Plascon Plaster Primer (UC56 Ceilings (EPL) PVA paint. Colour as per finishes schedule. D8. All exposed expansion joints in walls and floors to be filled in with Urochem 20

been primed with Urochem 614 primer D9. Expansion joints in walls and ceilings to be covered with 2 x 50mm Migua KF2

<u>Window sills</u> <u>E1.</u> Internal window sills - 15 x 150mm nutec-cement window sills, bedded and se coat Plascon Multi-surface Primer (WUP1) and apply two coats Plascon Polvin Wa

per finishes schedule <u>E2.</u> External window sills - Middelwit Fynbos Geel face brick-on-edge sloping sill to recessed joints

Ceilings and cornices

<u>F1.</u> Internal cornice - 19 x 76mm Meranti cornice nailed to walls at 400mm centres stop with Polycell Woodfiller, stain with Plascon Woodcare Stain (W-range)(colour Ultra Varnish (X44), thinned with 1:3 mineral turpentine (AZH1) and apply two finis suede varnish to cornices

<u>F2.</u> Ceilings - 6mm Everite Nutec fibre-cement boards nailed to 38 x 38mm SAP be galvanised clout nails. Provide H-profile galvanised jointing strips. Jointing strips to Plascon Multi-Surface Primer (WUP1) and finish off with two coats Plascon Polvin White (EPL30). Provide 100mm thick Aerolite insulation on top of ceilings F3. Plastered ceiling as per finishes schedule

 $F4.610 \times 610$ mm Trap door formed of 50 x 65mm SA pine rebated frame with 38 x ceiling board and fitted flush in opening. Provide 18 x 50mm meranti surround. Tra ceiling. Trap door opening between trusses to be formed with 38 x 114mm SA pine Roof and fascias

<u>G1.</u> Roof sheeting - 0.58mm Brownbuilt Klip-lok roof sheeting with Globalcoat finis purlins at maximum 1200mm centres on patent and approved pre-fabricated truss specialist installer providing a five year guarantee <u>G2.</u> Ridge and hip flashings - 0.8mm galvanised sheet iron standard factory manu

Globalcoat finish (colour Traffic Green) G3. Fascia boards - 10 x 300mm Everite Nutec-cement fascia boards screw fixed

countersunk brass screws. Barge boards - 200 x 80mm Everite socketless barge I countersunk brass screws. Prime fascias and barge boards with one coat Plascon with two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour as per fin G4. Truss system - MiTek or other approved patent timber pre-fabricated truss system degrees pitch. 50 x 76mm SAP purlins at maximum 1200mm centres. 38 x 114mn before fixing. Truss manufacturer to provide certificate and guarantee for design a shop drawings. Shop drawings to be provided to the Principal Agent for approval with wet trades to be carbolineum treated before fixing in position. Trusses to be s galvanised steel wire ties, built into walls minimum 6 courses. Purlins nailed to trus diameter galvanised steel wire, twice wrapped around and tied around rafters and etc. to be sanded smooth, seal knots with Plascon Knot Seal (PK2), prime with on apply two coats Plascon Enamel Doors & Trims paint. Colour as per finishes schee G5. Gutters - 100 x 100mm High gutters formed of 0.58mm galvanised sheet iron Sand). All brackets, etc. to be pre-coated with Globalcoat to match colour of gutter G6. Downpipes - 100mm Diameter downpipes formed of 0.58mm galvanised shee Sand). All holderbats, brackets, etc. to be pre-coated to match colour of downpipe G7. Barge flashing over barge boards at louvres - 0.8mm galvanised sheet iron sta gable flashing with Globalcoat finish (colour Traffic Green)

<u>G8.</u> Flashings at bottom of louvres - 0.8mm galvanised sheet iron standard factory FK7 counter flashing with Globalcoat finish (Colour Traffic Green) Fittings

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

<u>H2.</u> Vitrex System 2000 (code 2317) light grey wall mounted pinning board, size 20 H3. Greenfield G25 double door steel cupboard with standard baked enameled find shelves (2 per classroom)

<u>H4.</u> Five rows of 19mm Thick laminated SA Pine shelving, 350mm wide, evenly sp Shelco epoxy powder coated steel brackets. Brackets to be fixed to 25mm wide x 2 coated Shelco type FT6 wall bands, plugged to walls at maximum 600mm c/c. Sar Woodfiller, apply one coat Plascon Woodcare Ultra Varnish (X44) thinned with 1:3 finishing coats Plascon Woodcare Clear Ultra (X44) suede varnish to shelves <u>Miscellaneous</u>

I1 9 Kg DCP fire extinguisher fitted to 400 x 200 x 22mm thick meranti backplate w smooth finish, stop with Polycell Woodfiller, apply one coat Plascon Woodcare Ultr mineral turpentine (AZH1) & then apply two finishing coats Plascon Woodcare Ultr 150 x 150mm Union AL5066-E06/2AS aluminium fire extinguisher sign and Union sign above fire extinguisher

I2 Safex fire hose reel with 30m hose. Supply 152 x 152 x 3mm thick Union AL506 hose reel sign & Union Al5066-06ASE08 aluminium engraved red down arrow sign buildings to fire hose reel to be 25mm galvanised mild steel. Degrease exposed pa Degreaser (GR1), remove any rust with Plascon Rust Remover (RR1), prime with coats Plascon Enamel Doors & trims (G-Range) paint - colour Signal Red (G7). Pr aluminium fhr sign & Union AL5066-E08/2AS aluminium red down arrow sign above

	1) Workmanship to comply with Standard Specification of materials and methods to be used - SABS 0400
ling to structural engineer's drawings. Top of ^a or 1 per batch). Finished sides and bottoms type applied at a rate of not less than 5 litres 165 and SANS Code of Practice 0124.	 2)Light Switch in Disabled toilet 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 drainage 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.
ar guarantee. It least 93% Mod. AASHTO density in layers conditions. Minimum of 170mm filling to be proved by engineer (imported filling to be provided at a rate of one test per 125m ² filling to be treated with ant poison of the Prothor on per m ² by a firm of specialists in accordance casted within 24 hours of application.	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
t minimum 85mm thick on SANS Specification sealed with pressure sensitive tape. Surface led up with polysulfide sealer. All saw cut umen impregnated soft board between all 3 as per structural engineer's drawings.	
s drawings but minimum 85mm thick on SANS ane with laps sealed with pressure sensitive bints with joints filled up with polysulfide d concrete and seal joint with polysulfide est cubes (1 per 15m ³ or 1 per batch) granolithic screed sloping towards edges. At eshold finish. Finish off edges of screed	
Apron to be cast in alternative sections in to be thickened by 240mm wide x 115mm	
i quadrand bead plated on. Sand down to a V-range)(colour meranti), apply one coat) and apply two finishing coats Plascon	
a deep square recessed joints e. Superstructure walls - every 6th course.	
n thick flat section U-shaped fixing bracket, baseplate, four times holed and welded to mm masonry anchor bolts. Degrease with (RR1)", prime with Plascon Metal Primer aint - colour as per finishes schedule. to a smooth finish, stop with Polycell ZH1), apply one coat Plascon Woodcare ZH1) and apply two finishing coats Plascon	ISSUED FOR TENDER
r openings with 10 x 6mm square recessed	
ls at floor level and under all window sills one coat smooth 1:5 cement plaster finished alls & Ceilings (EPL) PVA paint. Colour	SIGNATURE TABLE DISCIPLINE SIGNATURE CLIENT Image: Client for the second secon
n stretcher bond above to receive one coat i6) and two coats Plascon Polvin Walls &	PLAN EXAMINER FIRE CONTROL
05 polysulfide joint sealant after surfaces have	ENVIRONMENTAL OFFICER ROADS / STORMWATER INATED AND CANIFATION
250/30 aluminium cover strips	ENVIRONMENTAL OFFICER
t flat in 1:4 cement mortar. Prime with one alls & Ceilings (EPL) PVA paint. Colour as o match walls with 10 x 6mm square	
s maximum. Sand down to a smooth finish, r meranti), apply one coat Plascon Woodcare shing coats Plascon Woodcare Ultra (X44)	REV No DATE : DESCRIPTION : REVISIONS
orandering at 400mm centres maximum with o be pre-painted. Prime ceilings with one coat Walls & Ceilings (EPL) PVA paint. Colour	
x 38mm SA pine cross brander covered with ap door and surround to be painted as for e bearers, nailed to trusses	ELIMPOPO PROVINCIAL GOVERNMENT REPUBLIC OF SOUTH AFRICA
sh (colour Traffic Green) on 50 x 76mm SAP s system. Roof sheeting to be done by	EDI CATION
Ifactured FK3 ridge or hip flashing with	LDOCATION
to truss ends and counter batten with boards screw fixed to trusses or purlins with Multi-Surface Primer (WUP1) and finish off	
stem at maximum 1100mm centres with 20 n SAP wall plate to be carbolineum treated and erection of trusses as well as detailed	INSTITUTION EMIS NUMBER 921230573
before manufacturing. All sections in contact secured to walls with 2.5mm diameter	
sees must also be secured with 2.5mm I purlins. All exposed parts of trusses, purlins, le coat Plascon Wood Primer (UC2) and	
edule. with Globalcoat finish (colour Gemsbok rs	DOCUMENTATION & PROCUREMENT DISCIPLINE PROJECT STAGE
et iron with Globalcoat finish (colour Gemsbok	ARCHITECTURAL 4
andard factory manufactured FK13 barge or y manufactured FK8 headwall flashing and	4 CLASSROOM WITH STORE BLOCK
h wall mounted centre board 2000 x 1200mm	FOUNDATION PLAN, SECTION&DETAIL
s each 1000 x 1200mm high with permanent 2000 x 1200mm high (2 per classroom)	DESIGN ITEM No. SCALE 1: 100
hish, 760 x 610 x 1700mm high with four	RESPONSIBLE PROFESSIONAL DATE NAME SIGNATURE PR NUMBER
2134mm long double slotted epoxy powder nd down to a smooth finish, stop with Polycell mineral turpentine (AZH1) then apply two	Z00Z00_0060.200 YUSUF VAHED PA7812 DRAWING CO-ORDINATED
with chamfered edges. Sand down to a tra (X44) suede varnish thinned with 1:3 ra (X44) suede varnish to back plate. Provide AL5066-E08/2AS aluminium red down arrow	CONSULTANT : CONSULTANT : Suite 4 No 6 Ismini Office Building,
66-06ASE05 aluminium engraved red fire n above fire hose reel. Water supply in arts of pipes with Plascon Aquasolv Plascon Metal Primer (UC501) and apply two rovide 150 x 150mm Union AL5066-E05/2AS	6 Ismini Street, Polokwane, D699 South ² Africa Tel: +27 15 065 0645, Fax: +27 11 475 8364, Email: info@rubenreddyarch.co.za Web: www.rubenreddyarch.co.za CONTRACTOR :
ve fire hose reel.	CADD AUTO CAD FILE NAME

2020 68-4CLS-102



Foundations

<u>A1</u>. Concrete foundations - concrete mix type and with steel reinforcement accordin strip footings to be 340mm minimum below N.G.L. Provide test cubes (1 per 15m³ of of trenches to be treated with ant poison of the Prothor 200 SC or other approved to of solution per m² by a firm of specialists in accordance with SANS Specification 11 Concrete to be casted within 24 hours of application. Contractor to provide five yea <u>A2</u>. Backfilling and filling under floors - in general, approved filling compacted to at of maximum 150mm - refer to engineer's drawings for detail in case of poor soil cor provided above natural or compacted ground level under floors. All filling to be app minimum G5 or G7 material as per engineer's drawings). Compaction tests to be pr area under floors per each layer of 150mm compacted filling. Filling under floors to 200 SC or other approved type applied at a rate of not less than 5 litres of solution with SANS Specification 1165 and SANS Code of Practice 0124. Concrete to be ca Contractor to provide five year guarantee Surface beds and floors

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B2. Surface bed on walkways - concrete mix as described on structural engineer's of Specification 952 Type C approved USB Green 250 micron waterproofing membran tape. Surface bed cast in alternative sections of maximum 20m² with expansion join sealer. Provide 10mm thick bitumen impregnated soft board between all walls and of sealer. Provide mesh ref. no. 193 as per structural engineer's drawings. Provide tes B3. Screed and floor finish on walkways - Average 30mm thick wood floated 1:4 gra all external door openings external surface beds must be level with granolithic thres smooth with edging tool

<u>B4.</u> Apron - 1200mm wide 15MPa mass concrete apron with wood floated finish. A lengths of maximum 3m and to have a 1:100 fall away from building. Apron edge to deep (net) edge excavated in natural or finished ground level Skirtings

C1. 19 x 76mm Meranti skirting plugged to walls at 400mm c/c with 19mm meranti smooth finish, stop with Polycell Woodfiller, stain with Plascon Woodcare Stain (W Plascon Woodcare Ultra Varnish (X44), thinned with 1:3 mineral turpentine (AZH1) Woodcare Ultra (X44) suede varnish to skirtings Walls and structure

<u>D1.</u> External walls - Corobrik face bricks in stretcher bond with 10mm wide x 6mm $\frac{D2}{D2}$. Brickforce - Brickforce to 115 and 230mm foundation walls - every 2nd 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 200mm long, twice holed and welded to top, 200 x 200 x 10mm thick flat section bab bottom. Columns to be fixed to top of brickwork below copings with four M10 x 75m "Plascon Aqualsolv Degreaser (GR1)", remove rust with "Plascon Rust Remover (F (UC501) and apply two coats Plascon Enamel Door & Trims high gloss enamel pai 50 x 228mm Laminated SA Pine beam twice bolted to steel columns. Sand down to Woodfiller, provide one coat raw linseed oil thinned with 1:3 mineral turpentine (AZ Sunproof (Amber - PNW22) suede varnish thinned with 1:3 mineral turpentine (AZ Woodcare Sunproof (Amber - PNW22) suede varnish D4. Lintol - Corobrik brick-on-edge face brick lintol over all window, door and clear

joints <u>D5.</u> DPC - SANS Specification 952 Type B approved 375 micron black dpc in walls <u>D6.</u> Internal walls - approved stockbrick walls in stretcher bond above to receive one off with one coat Plascon Plaster Primer (UC56) and two coats Plascon Polvin Wall broken white (EPL314) or French Chartreuse (Y5-D2-3) as per Principal Agent <u>D7.</u> Internal walls - face brick plinth up to 850mm with approved stockbrick walls in a mental to 15 compare finished off with approved stockbrick walls in 5

smooth 1:5 cement plaster finished off with one coat Plascon Plaster Primer (UC56 Ceilings (EPL) PVA paint. Colour as per finishes schedule. <u>D8.</u> All exposed expansion joints in walls and floors to be filled in with Urochem 205 been primed with Urochem 614 primer

D9. Expansion joints in walls and ceilings to be covered with 2 x 50mm Migua KF25 Window sills

 $\overline{E1}$. Internal window sills - 15 x 150mm nutec-cement window sills, bedded and set coat Plascon Multi-surface Primer (WUP1) and apply two coats Plascon Polvin Wa per finishes schedule

<u>E2.</u> External window sills - Middelwit Fynbos Geel face brick-on-edge sloping sill to recessed joints

Ceilings and cornices

<u>F1.</u> Internal cornice - 19 x 76mm Meranti cornice nailed to walls at 400mm centres stop with Polycell Woodfiller, stain with Plascon Woodcare Stain (W-range)(colour Ultra Varnish (X44), thinned with 1:3 mineral turpentine (AZH1) and apply two finis suede varnish to cornices

<u>F2.</u> Ceilings - 6mm Everite Nutec fibre-cement boards nailed to 38 x 38mm SAP bragalvanised clout nails. Provide H-profile galvanised jointing strips. Jointing strips to Plascon Multi-Surface Primer (WUP1) and finish off with two coats Plascon Polvin W 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 ceiling board and fitted flush in opening. Provide 18 x 50mm meranti surround. Trap ceiling. Trap door opening between trusses to be formed with 38 x 114mm SA pine Roof and fascias

 $\overline{G1.}$ Roof sheeting - 0.58mm Brownbuilt Klip-lok roof sheeting with Globalcoat finish purlins at maximum 1200mm centres on patent and approved pre-fabricated truss specialist installer providing a five year guarantee G2. Ridge and hip flashings - 0.8mm galvanised sheet iron standard factory manufactory manufactor

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gable flashing with Globalcoat finish (colour Traffic Green) <u>G8.</u> Flashings at bottom of louvres - 0.8mm galvanised sheet iron standard factory i FK7 counter flashing with Globalcoat finish (Colour Traffic Green)

<u>Fittings</u> <u>H1.</u> Vitrex Model 2400 (code 2404) enameled green folding type writing board with high, two wall mounted side boards each 1000 x 1200mm high & two swing leaves aluminium chalk rail

H2. Vitrex System 2000 (code 2317) light grey wall mounted pinning board, size 200 H3. Greenfield G25 double door steel cupboard with standard baked enameled finis shelves (2 per classroom)

H4. Five rows of 19mm Thick laminated SA Pine shelving, 350mm wide, evenly spa Shelco epoxy powder coated steel brackets. Brackets to be fixed to 25mm wide x 2 coated Shelco type FT6 wall bands, plugged to walls at maximum 600mm c/c. Sand Woodfiller, apply one coat Plascon Woodcare Ultra Varnish (X44) thinned with 1:3 m finishing coats Plascon Woodcare Clear Ultra (X44) suede varnish to shelves Miscellaneous

I1 9 Kg DCP fire extinguisher fitted to 400 x 200 x 22mm thick meranti backplate wi smooth finish, stop with Polycell Woodfiller, apply one coat Plascon Woodcare Ultra mineral turpentine (AZH1) & then apply two finishing coats Plascon Woodcare Ultra 150 x 150mm Union AL5066-E06/2AS aluminium fire extinguisher sign and Union A sign above fire extinguisher

I2 Safex fire hose reel with 30m hose. Supply 152 x 152 x 3mm thick Union AL506 hose reel sign & Union Al5066-06ASE08 aluminium engraved red down arrow sigr buildings to fire hose reel to be 25mm galvanised mild steel. Degrease exposed pa Degreaser (GR1), remove any rust with Plascon Rust Remover (RR1), prime with coats Plascon Enamel Doors & trims (G-Range) paint - colour Signal Red (G7). Pr aluminium fhr sign & Union AL5066-E08/2AS aluminium red down arrow sign above

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openings with 10 x 6mm square recessed	SIGNATURE TABLE
s at floor level and under all window sills ne coat smooth 1:5 cement plaster finished ills & Ceilings (EPL) PVA paint. Colour	DISCIPLINE SIGNATURE DATE CLIENT
n stretcher bond above to receive one coat 6) and two coats Plascon Polvin Walls &	PLAN EXAMINER FIRE CONTROL ENVIRONMENTAL OFFICER
5 polysulfide joint sealant after surfaces have	ROADS / STORMWATER WATER AND SANITATION
250/30 aluminium cover strips	ENVIRONMENTAL OFFICER
alls & Ceilings (EPL) PVA paint. Colour as	
o match walls with 10 x 6mm square	
s maximum. Sand down to a smooth finish, meranti), apply one coat Plascon Woodcare shing coats Plascon Woodcare Ultra (X44)	REV No DATE : DESCRIPTION :
randering at 400mm centres maximum with b be pre-painted. Prime ceilings with one coat Walls & Ceilings (EPL) PVA paint. Colour	
x 38mm SA pine cross brander covered with ap door and surround to be painted as for e bearers, nailed to trusses	EIMPOPO PROVINCIAL GOVERNMENT REPUBLIC OF SOUTH AFRICA
h (colour Traffic Green) on 50 x 76mm SAP system. Roof sheeting to be done by	
factured FK3 ridge or hip flashing with	EDUCATION
to truss ends and counter batten with poards screw fixed to trusses or purlins with	
Multi-Surface Primer (WUP1) and finish off ishes schedule.	PFUMBADA PRIMARY SCHOOL
n SAP wall plate to be carbolineum treated nd erection of trusses as well as detailed	INSTITUTION EMIS NUMBER 921230573
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purlins. All exposed parts of trusses, purlins, e coat Plascon Wood Primer (UC2) and	CONTRACT - SECTION
dule. with Globalcoat finish (colour Gemsbok	DOCUMENTATION & PROCUREMENT
s et iron with Globalcoat finish (colour Gemsbok s	ARCHITECTURAL 4
andard factory manufactured FK13 barge or	4 CLASSROOM WITH STORE BLOCK
manutactured FK8 headwall flashing and	DRAWING DESCRIPTION ELEVATIONS
n wall mounted centre board 2000 x 1200mm s each 1000 x 1200mm high with permanent	FILE No.
000 x 1200mm high (2 per classroom) isb. 760 x 610 x 1700mm bigb with four	DESIGN DRAWN SCALE 1: 100 CHECKED
baced & fixed from underside to 305mm wide	RESPONSIBLE PROFESSIONAL DATE NAME SIGNATURE PR NUMBER 200200_006.200 YUSUF VAHED PA7812
2 134mm long double slotted epoxy powder nd down to a smooth finish, stop with Polycell mineral turpentine (AZH1) then apply two	DRAWING CO-ORDINATED
vith chamfered edges. Sand down to a	CONSULTANT :
ra (X44) suede varnish thinned with 1:3 ra (X44) suede varnish to back plate. Provide AL5066-E08/2AS aluminium red down arrow	Oruben reddy architects
6-06ASE05 aluminium engraved red fire	Suite 4 No 6 Ismini Office Building, 6 Ismini Street, Polokwane, D699 South Africa Tel: +27 15 065 0645, Fax: +27 11 475 8364, Email: info@rubenreddyarch.co.za
n above fire hose reel. Water supply in arts of pipes with Plascon Aquasolv Plascon Metal Primer (UC501) and apply two rovide 150 x 150mm Union AL5066 E05/245	Web: www.rubenreddyarch.co.za CONTRACTOR :
ve fire hose reel.	CADD AUTO CAD FILE NAME
	DRAWING NUMBER

2020_68-4CLS-103

A 1

	DOOR SCHEDULE						
TYPICAL T.O.C.		TYPICAL T.O.C.		TYPICAL T.O.C.		TYPICAL T.O.C.	
TYPE D01		TYPE D02		TYPE D03		TYPE G01	
POSITION:	ALL EXTERIOR DOORS	POSITION:	ALL INTERNAL DOORS:	POSITION:	TOILET CUBICLES	POSITION:	ABLUTIONS GATE
DOOR TYPE :	813mm x 2032mm Framed, ledged, braced and battened timber door	DOOR TYPE :	813mm x 2032mm solid timber door	DOOR TYPE :	813mm x 2032mm solid timber door 150mm UNDERCUT	DOOR TYPE :	1580mm x 2000mm
DOOR FINISH:	3 x coats clear varnish	DOOR FINISH:	3 x coats clear varnish	DOOR FINISH:	3 x coats clear varnish	DOOR FINISH:	3 x coats clear varnish
FRAME:	1.2mm double rebated frames suitable for 230mm wall, to accommodate 813 x 2032 door leaf	FRAME:	1.2mm double rebated frames suitable for 110mm wall, to accommodate 813 x 2032 door leaf	FRAME:	1.2mm double rebated frames suitable for 110mm wall, to accommodate 813 x 2032 door leaf	FRAME:	1.2mm double rebated frames suitable for 230mm wall, to accommodate 936 x 2032 door leaf
FRAME FINISH:	1 X coat Zinc Chromate primer 2 x coat approved enamel paint	FRAME FINISH:	1 X coat Zinc Chromate primer 2 x coat approved enamel paint	FRAME FINISH:	1 X coat Zinc Chromate primer 2 x coat approved enamel paint	FRAME FINISH:	1 X coat Zinc Chromate primer 2 x coat approved enamel paint
DOOR:	Standard approved 'meranti' ledged and braced door	DOOR:	2032x813x40mm solid flush panel door with hardboard both side and 2 concealed edges	DOOR:	2032x813x40mm solid flush panel door with hardboard both side and 2 concealed edges	DOOR:	painted mild steel gate consisting of 10x10mm mild steel bars placed at 100mm centres at a 45° angle, colour to architect's specification
FANLIGHT:	NONE	FANLIGHT:	NONE	FANLIGHT:	NONE	FANLIGHT:	NONE
IRONMONGERY:	4 Lever security lockset and satin - chromed handles all approved	IRONMONGERY:	4 Lever security lockset and satin - chromed handles all approved	IRONMONGERY:	4 Lever security lockset and satin - chromed handles all approved	IRONMONGERY:	4 Lever security lockset and satin - chromed handles all approved



NOTE	ES :
1) Workman methods to	iship to comply with Standard Specification of materials and o be used - SABS 0400
2) Light Swi 3) If Step (4) Gulley p design	itch in Disabled tollet to be at 1200 mm above FFL over 900 mm Build in Balustrade oositions to be determined as per site prescribed overall drainage
5) 2 x coats markings)	s sealant on all exposed trusses (sand off all SABS & other
Bubble plat all areas th	stic insulation with foil backing to be installed where there are centrings . stic insulation with foil backing to be installed with wire supports in the not have ceilings
7) West Fa eaves to d 8) Trusses	rcing Facades to have standardised aluminium louvres from below rop of 1200 mm to be designed in accordance with SABS 0400 & approved by
Project Eng	gineers
	ISSUED FOR TENDER
DISCIPLINE	SIGNATURE TABLE
FIRE CONT	ROL
ENVIRONM	ENTAL OFFICER
WATER AND	D SANITATION
ENVIRONM	
REV No	DATE : DESCRIPTION :
	REVISIONS
8	
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92	1230573
D	OCUMENTATION & PROCUREMENT
	AKCHITECTUKAL 4
	4 CLASSROOM WITH STORE BLOCK
DESIGN	ITEM No. DRAWN
SCALE	1: 100 CHECKED
DATE	
zauk 61 (06) 20	
<u></u>	URAWING CO-ORDINATED
\	CONSULTANT :
	On the reader or the sta
	TUDON ROADV Architocte
	Suite 4 No 6 Ismini Office Building.
	Suite 4 No 6 Ismini Office Building, 6 Ismini Street, Polokwane, D699 South Africa Tel: +27 15 065 0645, Fax: +27 11 475 8364, Email: info@rubenreddyarch.co.za
	Suite 4 No 6 Ismini Office Building, 6 Ismini Street, Polokwane, D699 South Africa Tel: +27 15 065 0645, Fax: +27 11 475 8364, Email: info@rubenreddyarch.co.za Web: www.rubenreddyarch.co.za
	Suite 4 No 6 Ismini Office Building, 6 Ismini Street, Polokwane, D699 South Africa Tel: +27 15 065 0645, Fax: +27 11 475 8364, Email: info@rubenreddyarch.co.za Web: www.rubenreddyarch.co.za
CADD	Suite 4 No 6 Ismini Office Building, 6 Ismini Street, Polokwone, D699 South Africa Tel: +27 15 065 0645, Fox: +27 11 475 8364, Email: info@rubenreddyarch.co.za Web: www.rubenreddyarch.co.za CONTRACTOR AUTO CAD
CADD SYSTEM SIZE	Suite 4 No 6 Ismini Office Building, 6 Ismini Street, Polokwone, D699 South Africa Tel: +27 15 065 0645, Fax: +27 11 475 8364, Email: info@rubenreddyarch.co.za Web: www.rubenreddyarch.co.za CONTRACTOR AUTO CAD DRAWING NUMBER REV2
SIZE	Suite 4 No 6 Ismini Office Building, 6 Ismini Street, Polokwone, D699 South Africa Tel: +27 15 065 0645, Fax: +27 11 475 8364, Email: info@rubenreddyarch.co.za Web: www.rubenreddyarch.co.za CONTRACTOR CONTRACTOR RUTO CAD DRAWING NUMBER REV2 2020_68- 4CLS- 104



Foundations

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 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 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 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 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 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 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 Skirtings

C1. 19 x 76mm Meranti skirting plugged to walls at 400mm c/c with 19mm meranti guadrand 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 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 Plascon 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 Window sills

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 ioints

Ceilings and cornices

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)

Fittings 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 Miscellaneous

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

I2 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

1) Workmanship to comply with Standard Specification of materials and methods to be used - SABS 0400 2)Light Switch in Disabled toilet 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 drainage design 5) 2 x coats sealant on all exposed trusses (sand off all SABS & other 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 all areas that do not have ceilings Y) West Facing Facades to have standardised aluminium louvres from below eaves to drop of 1200 mm 3) Trusses to be designed in accordance with SABS 0400 & approved by Project Engineers

		REVISIONS
REV No	DATE	DESCRIPTION

ISSUED FOR TENDER

	SIGNATURE TABLE					
DISCIPLINE			SIGNATURE		DATE	
CLIENT						
PLAN EXAM	NER					
FIRE CONTR	ROL					
ENVIRONME	NTAL OFFICE	R				
ROADS / STO	ORMWATER					
WATER AND	SANITATION					
ENVIRONMENTAL OFFICER						
REV No DATE :		DE	SCRIPTION	:		
REVISIONS						
		SIZE	ON ORIGINAL DRAWIN	NG 100 mm		





DEPARTMENT OF **EDUCATION**

INSTITUTION PFUMBADA PRIMARY SCHOOL INSTITUTION EMIS NUMBER

921230573 SERVICE

NEW BUILDINGS & ALTERATIONS CONTRACT - SECTION

CONSTRUCTION PROJECT STAGE DISCIPLINE ARCHITECTURAL

WORK DESCRIPTION - SUB DIVISION **4 CUBICLE ENVIROLOO ABLUTION BLOCK** DRAWING DESCRIPTION

4

FLOOR PLAN

FILE No. ITEM No. DESIGN DRAWN SCALE CHECKED 1: 100 RESPONSIBLE PROFESSIONAL SIGNATURE DATE PR NUMBER 2023.06.20 alle. 7812 Y.VAHED 2023.06.20 DRAWING CO-ORDINATED

> CONSULTANT Pruben reddy architects Suite 4 No 6 Ismini Office Building, 6 Ismini Street, Polokwane, D699 South Africa Tel: +27 15 065 0645, Fax: +27 11 475 8364, Email: info@rubenreddyarch.co.za Web: www.rubenreddyarch.co.za CONTRACTOR

AUTO CAD DRAWING NUMBER 2020 68-4ENV-100



Foundations

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 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 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 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 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 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 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 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 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 Plascon 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

Window sills

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 ioints

Ceilings and cornices

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)

Fittings 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 Miscellaneous

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

I2 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 :

1) Workmanship to comply with Standard Specification of materials and methods to be used - SABS 0400 2)Light Switch in Disabled toilet 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 drainage 5) 2 x coats sealant on all exposed trusses (sand off all SABS & other 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 all areas that do not have ceilings ') West Facing Facades to have standardised aluminium louvres from below eaves to drop of 1200 mm 3) Trusses to be designed in accordance with SABS 0400 & approved by Project Engineers

		REVISIONS
REV No	DATE	DESCRIPTION

ISSUED FOR TENDER

	SIGNATURE TABLE					
DISCIPLINE			SIGNATURE		DATE	
CLIENT						
PLAN EXAMI	NER					
FIRE CONTR	OL					
ENVIRONME	NTAL OFFICE	R				
ROADS / STORMWATER						
WATER AND	SANITATION					
ENVIRONMENTAL OFFICE						
REV No DATE :			DESCRIPTION :			
			REVISIONS			
	SIZE ON ORIGINAL DRAWING 100 mm					





DEPARTMENT OF **EDUCATION**

INSTITUTION
PFUMBADA PRIMARY SCHOOL
INSTITUTION EMIS NUMBER
921230573
SERVICE
NEW BUILDINGS & ALTERATIONS
CONTRACT - SECTION

CONSTRUCTION DISCIPLINE PROJECT STAGE ARCHITECTURAL 4 WORK DESCRIPTION - SUB DIVISION **4 CUBICLE ENVIROLOO ABLUTION BLOCK** DRAWING DESCRIPTION SECTION AND ELEVATION FILE No. ITEM No.

DESIGN DRAWN SCALE CHECKED 1: 100 RESPONSIBLE PROFESSIONAL SIGNATURE DATE PR NUMBER 2023.06.20 7812 Y.VAHED DRAWING CO-ORDINATED

CONSULTANT Pruben reddy architects Suite 4 No 6 Ismini Office Building, 6 Ismini Street, Polokwane, D699 South Africa Tel: +27 15 065 0645, Fax: +27 11 475 8364, Email: info@rubenreddyarch.co.za Web: www.rubenreddyarch.co.za CONTRACTOR

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ZE	DRAWING	NUMBER	REV2
ADD STEM	AUTO CAD		FILE NAME









ELECTRICAL LAYOUT SCALE 1 : 100







CONSTRUCTION NOTES:

Foundations

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 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 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 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 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 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 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 Skirtinas

C1. 19 x 76mm Meranti skirting plugged to walls at 400mm c/c with 19mm meranti guadrand 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 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 Plascon 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

Window sills 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 ioints

Ceilings and cornices

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

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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

Miscellaneous

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

I2 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.

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		REVISIONS
REV No	DATE	DESCRIPTION

ISSUED FOR TENDER

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DISCIPLINE			SIGNATURE	DATE
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LIMPOPO PROVINCIAL GOVERNMENT REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF **EDUCATION**

INSTITUTION
PFUMBADA PRIMARY SCHOOL
INSTITUTION EMIS NUMBER
921230573
SERVICE
NEW BUILDINGS & ALTERATIONS
CONTRACT - SECTION

CONSTRUCTION DISCIPLINE PROJECT STAGE ARCHITECTURAL - 4 WORK DESCRIPTION - SUB DIVISION **4 CUBICLE ENVIROLOO ABLUTION BLOCK** DRAWING DESCRIPTION FIRE, SEWER, WATER, ELECTRICAL FILE No. ITEM No. DESIGN

SCALE 1: 100 CHECKED				DRAN	IN
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CONSULTANT Suite 4 No 6 Ismini Office Building, 6 Ismini Street, Polokwane, D699 South Africa Tel: +27 15 065 0645, Fax: +27 11 475 8364, Email: info@rubenreddyarch.co.za Web: www.rubenreddyarch.co.za CONTRACTOR

CADD YSTEM	AUTO CAD		FILE NAME
IZE	DRAWING	NUMBER	REV2
۱ ۱	2020_68-48	ENV- 102	A

DOOR S	CHEDULE Scale 1:50	1
DOOR NUMBER:	 ח1	רח
POSITION:	TOILET ENTRANCE DOOR	ENTRANCE TO TOILET
QUANTITY:	2 (1= H) (1 = RH)	4 (2 = LH) (2 = RH)
DOOR-FRAME DESCRIPTION:	1,2mm THICK STANDARD STEEL DOUBLE REBATED DOORFRAME FOR 115MM WALL TO RECEIVE PLASTER ON ONE-SIDE	1,2mm THICK STANDARD STEEL I DOORFRAME FOR 115MM WALL TO PLASTER ON ONE-SIDE
FINISHES:	1/RED OXIDE PRIMER + 1/COAT UNIVERSAL UNDERCOAT + 2/COATS PLASCON GLOSS ENAMEL PAINT. – COLOUT TO ARCHITECT.	1/RED OXIDE PRIMER + 1/COAT UNDERCOAT + 2/COATS PLASCO ENAMEL PAINT COLOUT TO AF
DOOR DESCRIPTION:	2032 x 914 x 44mm THICK SOLID HARDWOOD DOOR WITH MASONITE BACKING. type of hardwood door according to owners choice.	2032 x 914 x 40mm SOLID HARDWOOD DOOR WITH MASONITE TO RECEIVE 1/COAT UNDERCOAT PLASCON VELVAGLO PAINT.
IRON MONGERY: FITTINGS:	HINGES – 2x100mm M/S STEEL BUTT HINGES PER DOOR LEAF LOCKSET – "SOLID BLESBOK" 460/313 FOUR LEVER LOCKSET.	HINGES – 2x100mm M/S STEEL E LEAF LOCKSET – "SOLID BLESBOK" 460, LOCKSET.
FINISHES:	PREPARE NEW DOOR & FRAME TO RECEIVE ONE UNDERCO PLUS 3/COATS POLYURETHANE VARNISH.	AT1/UNDERCOAT + 2/COATS PLASC VELVAGLO PAINT FINISH.
GLASS:	NOT APPLICABLE	NOT APPLICABLE
WINDOV		
WINDOW NUMBER:	W1	
POSITION:	TOILET	
QTY:	4	-
WINDOW-FRAME DESCRIPTION:	STANDARD SS INDUSTRIAL TYPE STEEL WINDOW-FRAME CATALOGUE NUMBER (TBC) COMPLETE WITH FITTINGS AS SUPPLY BY MANUFACTURER	
WINDOW FURNITURE:	IRON-MONGERY & FITTINGS AS SUPPLY BY WINDOW MANUFACTURER. AND ACCORDING TO ARCHITECTS APPROVAL.	
BURGLAR–BARS: FINISHES:	OUT OF 10mm WIDE FLAT-BARS 1/COAT RED OXIDE PRIMER + 1/COAT UNIVERSAL UNDERCOAT + 2/COATS PLASCON GLOSS ENAMEL PAINT - COLOUR ACCORDING TO ARCHITECT.	
GLASS:	4mm THICK CLEAR FLOATED SHEET GLAZING SECURED IN FRAME WITH SABS APPROVED GLAZING PUTTY	

UNIVERSAL N GLOSS RCHITECT.

FACINGS + 2/COATS

BUTT PER DOOR

/313 FOUR LEVER

CON

CONSTRUCTION NOTES:

Foundations

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 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 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 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 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 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

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C1. 19 x 76mm Meranti skirting plugged to walls at 400mm c/c with 19mm meranti guadrand 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 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 Plascon 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

Window sills 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 ioints

Ceilings and cornices

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)

Fittings 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 Miscellaneous

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

I2 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 :

1) Workmanship to comply with Standard Specification of materials and methods to be used - SABS 0400 2)Light Switch in Disabled toilet 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 drainage 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 3) Trusses to be designed in accordance with SABS 0400 & approved by Project Engineers

		REVISIONS
REV No	DATE	DESCRIPTION

ISSUED FOR TENDER

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ROADS / STO	ORMWATER			
WATER AND	SANITATION			
ENVIRONME	NTAL OFFICE	R		
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LIMPOPO PROVINCIAL GOVERNMENT REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF **EDUCATION**

INSTITUTION	
PFUMBADA PRIMARY SCHOOL	
INSTITUTION EMIS NUMBER	
921230573	
SERVICE	
NEW BUILDINGS & ALTERATIONS	
CONTRACT - SECTION	
CONSTRUCTION	
DISCIPLINE PR	OJECT STAGE
ARCHITECTURAL	4

WORK DESCRIPTION - SUB DIVISION **4 CUBICLE ENVIROLOO ABLUTION BLOCK** DRAWING DESCRIPTION **DOOR & WINDOW SCHEDULE** FILE No. ITEM No. DESIGN DRAWN

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CONSULTANT Oruben reddy architects Suite 4 No 6 Ismini Office Building, 6 Ismini Street, Polokwane, D699 South Africa Tel: +27 15 065 0645, Fax: +27 11 475 8364, Email: info@rubenreddyarch.co.za Web: www.rubenreddyarch.co.za CONTRACTOR

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Skirtings C1. 19 x 76mm Meranti skirting plugged to walls at 400mm c/c with 19mm meranti quadrand bead plated on. Sand Plascon Woodcare Stain (W-range)(colour meranti), apply one coat Plascon Woodcare Ultra Varnish (X44), thinne Plascon Woodcare Ultra (X44) suede varnish to skirtings Walls and structure

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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 Poly mineral turpentine (AZH1), apply one coat Plascon Woodcare Sunproof (Amber - PNW22) suede varnish thinned v Plascon Woodcare Sunproof (Amber - PNW22) suede varnish D4 biotector of the store of

D4. Lintol - Corobrik brick-on-edge face brick lintol over all window, door and clear openings with 10 x 6mm squar D5. DPC - SANS Specification 952 Type B approved 375 micron black dpc in walls at floor level and under all win D6. Internal walls - approved stockbrick walls in stretcher bond above to receive one coat smooth 1:5 cement pla D0. Internal wais a approved stockbrick wais in stretcher bond above to receive one coat smooth 1.5 centent plass two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour broken white (EPL314) or French Chartreuse (D7. Internal walls - face brick plinth up to 850mm with approved stockbrick walls in stretcher bond above to receive Plascon Plaster Primer (UC56) and two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour as per finis D8. All exposed expansion joints in walls and floors to be filled in with Urochem 205 polysulfide joint sealant after s D9. Expansion joints in walls and ceilings to be covered with 2 x 50mm Migua KF250/30 aluminium cover strips

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50mm meranti surround. Trap door and surround to be painted as for ceiling. Trap door opening between trusses Roof and fascias

G1. Roof sheeting - 0.58mm Brownbuilt Klip-lok roof sheeting with Globalcoat finish (colour Traffic Green) on 50 > approved pre-fabricated truss system. Roof sheeting to be done by specialist installer providing a five year guarar G2. Ridge and hip flashings - 0.8mm galvanised sheet iron standard factory manufactured FK3 ridge or hip flashing G3. Fascia boards - 10 x 300mm Everite Nutec-cement fascia boards screw fixed to truss ends and counter batter Everite socketless barge boards screw fixed to trusses or purlins with countersunk brass screws. Prime fascias and (WUP1) and finish off with two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour as per finishes sch G4. Truss system - MiTek or other approved patent timber pre-fabricated truss system at maximum 1100mm cent 1200mm centres. 38 x 114mm SAP wall plate to be carbolineum treated before fixing. Truss manufacturer to prowell as detailed shop drawings. Shop drawings to be provided to the Principal Agent for approval before manufa treated before fixing in position. Trusses to be secured to walls with 2.5mm diameter galvanised steel wire ties, to

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CONSTRUCTION NOTES

A1. Concrete foundations - concrete mix type and with steel reinforcement according to structural engineer's drav Provide test cubes (1 per 15m³ or 1 per batch). Finished sides and bottoms of trenches to be treated with ant point of not less than 5 litres of solution per m² by a firm of specialists in accordance with SANS Specification 1165 an

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 dens detail in case of poor soil conditions. Minimum of 170mm filling to be provided above natural or compacted ground filling to be minimum G5 or G7 material as per engineer's drawings). Compaction tests to be provided at a rate of compacted filling. Filling under floors to be treated with ant poison of the Prothor 200 SC or other approved type at a factorial in case of poor other approved type at a factorial in case of poor soil conditions. Solve the solve the pool of the Prothor 200 SC or other approved type at a factorial in case of poor other approved type at the pool of the prothor 200 SC or other approved type at the pool of the prothor 200 SC or other approved type at the pool of the prother approved type at the pool of th

Foundations

of specialists in accordance with SANS Specification 1165 and SANS Code of Practice 0124. Concrete to be cast Surface beds and floors B1. Surface bed - concrete mix as described on structural engineer's drawings but minimum 85mm thick on SANS waterproofing membrane with laps sealed with pressure sensitive tape. Surface bed cast in alternative sections of polysulfide sealer. All saw cut joints to be done within 24 hours after casting of concrete. Provide 10mm thick bitt

seal joint with polysulfide sealer. Provide mesh ref. no. 193 as per structural engineer's drawings. Provide test cul

Seal joint with polysuifide sealer. Provide mesh ref. no. 193 as per structural engineer's drawings. Provide test cub
 B2. Surface bed on walkways - concrete mix as described on structural engineer's drawings but minimum 85mm the micron waterproofing membrane with laps sealed with pressure sensitive tape. Surface bed cast in alternative sect with polysulfide sealer. Provide 10mm thick bitumen impregnated soft board between all walls and concrete and se 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

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 s from building. Apron edge to be thickened by 240mm wide x 115mm deep (net) edge excavated in natural or finis

	NOT	ES :				
awings. Top of strip footings to be 340mm minimum below N.G.L.	1) Workma methods 2)Light Sv 3) If Step 4) Gulley design	nship to cor to be used - witch in Disabl over 900 mm positions to b	nply with Standar SABS 0400 led toilet to be a Build in Balustrac be determined as	rd Specification of ma at 1200 mm above FFL de s per site prescribed o	terials an vera ll drai	d nage
nsity in layers of maximum 150mm - refer to engineer's drawings for nd level under floors. All filling to be approved by engineer (imported of one test per 125m ² filling area under floors per each layer of 150mm applied at a rate of not less than 5 litres of solution per m ² by a firm	5) 2 x coa markings 6) 50 mm Bubble pl all areas 7) West F	ts sealant on) mineral wool astic insulation that do not ha facing Facade: 4000 facade:	i all exposed trus insulation to be with foil backin ave ceilings s to have standa	sses (sand off all SAB installed where there g to be installed with ardised aluminium lour	3S & other are ceilings wire support vres from	r s . orts in below
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Scale 1:50



PROVIDE 100mm THICK AEROLITE CEILING INSULATION ON TOP OF CEILING BOARDS

Scale 1:50





ISSUED FOR TENDER

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A1. Concrete foundations - concrete mix type and with steel reinforcement according to structural engineer's drawings. T Provide test cubes (1 per 15m³ or 1 per batch). Finished sides and bottoms of trenches to be treated with ant poison of the of not less than 5 litres of solution per m² by a firm of specialists in accordance with SANS Specification 1165 and SANS (

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 lay detail in case of poor soil conditions. Minimum of 170mm filling to be provided above natural or compacted ground level ur filling to be minimum G5 or G7 material as per engineer's drawings). Compaction tests to be provided at a rate of one test compacted filling. Filling under floors to be treated with ant poison of the Prothor 200 SC or other approved type applied a of specialists in accordance with SANS Specification 1165 and SANS Code of Practice 0124. Concrete to be casted within

B1. Surface bed - concrete mix as described on structural engineer's drawings but minimum 85mm thick on SANS Specific waterproofing membrane with laps sealed with pressure sensitive tape. Surface bed cast in alternative sections of maximu polysulfide sealer. All saw cut joints to be done within 24 hours after casting of concrete. Provide 10mm thick bitumen impr seal joint with polysulfide sealer. Provide mesh ref. no. 193 as per structural engineer's drawings but minimum 85mm thick on S B2. Surface bed on walkways - concrete mix as described on structural engineer's drawings but minimum 85mm thick on S B2. Surface bed on walkways - concrete mix as described on structural engineer's drawings but minimum 85mm thick on S

micron waterproofing membrane with laps sealed with pressure sensitive tape. Surface bed cast in alternative sections of with polysulfide sealer. Provide 10mm thick bitumen impregnated soft board between all walls and concrete and seal joint 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. 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 i from building. Apron edge to be thickened by 240mm wide x 115mm deep (net) edge excavated in natural or finished groups. Skirtings C1. 19 x 76mm Meranti skirting plugged to walls at 400mm c/c with 19mm meranti quadrand bead plated on. Sand down to Plascon Woodcare Stain (W-range)(colour meranti), apply one coat Plascon Woodcare Ultra Varnish (X44), thinned with 1

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 brack 10mm thick flat section baseplate, four times holed and welded to bottom. Columns to be fixed to top of brickwork below of the section baseplate.

Degrease with "Plascon Aqualsolv Degreaser (GR1)", remove rust with "Plascon Rust Remover (RR1)", prime with Plasco 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 Wo

mineral turpentine (AZH1), apply one coat Plascon Woodcare Sunproof (Amber - PNW22) suede varnish thinned with 1:3 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 recess 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 finis

two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour broken white (EPL314) or French Chartreuse (Y5-D2-D7. Internal walls - face brick plinth up to 850mm with approved stockbrick walls in stretcher bond above to receive one co Plascon Plaster Primer (UC56) and two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour as per finishes sch D8. All exposed expansion joints in walls and floors to be filled in with Urochem 205 polysulfide joint sealant after surfaces 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 or 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 rec

Ceilings and cornices F1. Internal cornice - 19 x 76mm Meranti cornice nailed to walls at 400mm centres maximum. Sand down to a smooth fini Woodcare Stain (W-range)(colour meranti), apply one coat Plascon Woodcare Ultra Varnish (X44), thinned with 1:3 mine 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 v jointing strips. Jointing strips to be pre-painted. Prime ceilings with one coat Plascon Multi-Surface Primer (WUP1) and fini PVA paint. Colour White (EPL30). Provide 100mm thick Aerolite insulation on top of ceilings **F3.** Plastered ceiling as per finishes schedule

4. 610 x 610mm Trap door formed of 50 x 65mm SA pine rebated frame with 38 x 38mm SA pine cross brander covered 50mm meranti surround. Trap door and surround to be painted as for ceiling. Trap door opening between trusses to be fo

G1. Roof sheeting - 0.58mm Brownbuilt Klip-lok roof sheeting with Globalcoat finish (colour Traffic Green) on 50 x 76mm S 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 G 3. Fascia boards - 10 x 300mm Everite Nutec-cement fascia boards screw fixed to truss ends and counter batten with c Everite socketless barge boards screw fixed to trusses or purlins with countersunk brass screws. Prime fascias and barge

WUP1) and finish off with two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour as per finishes schedule. 34. Truss system - MiTek or other approved patent timber pre-fabricated truss system at maximum 1100mm centres with 200mm centres. 38 x 114mm SAP wall plate to be carbolineum treated before fixing. Truss manufacturer to provide certi well as detailed shop drawings. Shop drawings to be provided to the Principal Agent for approval before manufacturing. A treated before fixing in position. Trusses to be secured to walls with 2.5mm diameter galvanised steel wire ties, built into w be secured with 2.5mm diameter galvanised steel wire, twice wrapped around and tied around rafters and purlins. All exp seal knots with Plascon Knot Seal (PK2), prime with one coat Plascon Wood Primer (UC2) and apply two coats Plascon E

G5. Gutters - 100 x 100mm High gutters formed of 0.58mm galvanised sheet iron with Globalcoat finish (colour Gemsbok to match colour of gutters **G6.** Downpipes - 100mm Diameter downpipes formed of 0.58mm galvanised sheet iron with Globalcoat finish (colour Ger

37. Barge flashing over barge boards at louvres - 0.8mm galvanised sheet iron standard factory manufactured FK13 barc

G8. Flashings at bottom of louvres - 0.8mm galvanised sheet iron standard factory manufactured FK8 headwall flashing a Traffic Green)

Fittings H1. Vitrex Model 2400 (code 2404) enameled green folding type writing board with wall mounted centre board 2000 x 1200 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
 H4. Five rows of 19mm Thick laminated SA Pine shelving, 350mm wide, evenly spaced & fixed from underside to 305mm to be fixed to 25mm wide x 2134mm long double slotted epoxy powder coated Shelco type FT6 wall bands, plugged to wa stop with Polycell Woodfiller, apply one coat Plascon Woodcare Ultra Varnish (X44) thinned with 1:3 mineral turpentine (/ Clear Ultra (X44) suede varnish to shelves

Miscellaneous 11 9 Kg DCP fire extinguisher fitted to 400 x 200 x 22mm thick meranti backplate with chamfered edges. Sand down to a sm Plascon Woodcare Ultra (X44) suede varnish thinned with 1:3 mineral turpentine (AZH1) & then apply two finishing coats P Provide 150 x 150mm Union AL5066-E06/2AS aluminium fire extinguisher sign and Union AL5066-E08/2AS aluminium red 12 Safex fire hose reel with 30m hose. Supply 152 x 152 x 3mm thick Union AL5066-06ASE05 aluminium engraved red fire the supply in buildings to fire hose reel to be 25mm galvanised mild engraved red down arrow sign above fire hose reel. Water supply in buildings to fire hose reel to be 25mm galvanised mil Aquasolv Degreaser (GR1), remove any rust with Plascon Rust Remover (RR1), prime with Plascon Metal Primer (UC50 (G-Range) paint - colour Signal Red (G7). Provide 150 x 150mm Union AL5066-E05/2AS aluminium fhr sign & Union AL5



ROOF PLAN: Gate-House Scale 1:50

op of strip footings to be 340mm minimum below N.G.L. le Prothor 200 SC or other approved type applied at a rate Code of Practice 0124. Concrete to be casted within 24 ayers of maximum 150mm - refer to engineer's drawings for inder floors. All filling to be approved by engineer (imported it per 125m ² filling area under floors per each layer of 150mm at a rate of not less than 5 litres of solution per m ² by a firm in 24 hours of application. Contractor to provide five year fication 952 Type C approved USB Green 250 micron ium 20m ² with saw cut joints with joints filled up with oregnated soft board between all walls and concrete and er 15m ³ or 1 per batch) SANS Specification 952 Type C approved USB Green 250 f maximum 20m ² with expansion joints with joints filled up t with polysulfide sealer. Provide mesh ref. no. 193 as per s. At all external door openings external surface beds must in lengths of maximum 3m and to have a 1:100 fall away und level to a smooth finish, stop with Polycell Woodfiller, stain with 1:3 mineral turpentine (AZH1) and apply two finishing coats se. Over openings formed in brickwork as per table below ket, 200mm long, twice holed and welded to top, 200 x 200 x copings with four M10 x 75mm masonry anchor bolts. on Metal Primer (UC501) and apply two coats Plascon goodfiller, provide one coat raw linseed oil thinned with 1:3 B mineral turpentine (AZH1) and apply two finishing coats sed joints s shed off with one coat Plascon Plaster Primer (UC56) and -3) as per Principal Agent -31 as per Principal Agent	 1) Workmanship to comply with Standard Specification of materials and methods to be used - SABS 0400 2) Light Switch in Disabled toilet 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 drainage 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
hedule. s have been primed with Urochem 614 primer one coat Plascon Multi-surface Primer (WUP1) and apply cessed joints ish, stop with Polycell Woodfiller, stain with Plascon ral turpentine (AZH1) and apply two finishing coats Plascon with galvanised clout nails. Provide H-profile galvanised nish off with two coats Plascon Polvin Walls & Ceilings (EPL) d with ceiling board and fitted flush in opening. Provide 18 x pred with 38 x 114mm SA pine bearers, nailed to trusses SAP purlins at maximum 1200mm centres on patent and Globalcoat finish (colour Traffic Green) bountersunk brass screws. Barge boards - 200 x 80mm a boards with one coat Plascon Multi-Surface Primer 1 20 degrees pitch. 50 x 76mm SAP purlins at maximum fifcate and guarantee for design and erection of trusses as All sections in contact with wet trades to be carbolineum walls minimum 6 courses. Purlins nailed to trusses must also losed parts of trusses, purlins, etc. to be sanded smooth, Enamel Doors & Trims paint. Colour as per finishes 4 x and). All brackets, etc. to be pre-coated with Globalcoat msbok Sand). All holderbats, brackets, etc. to be pre-coated ge or gable flashing with Globalcoat finish (colour D0mm high, two wall mounted side boards each 1000 x r shelves (2 per classroom) n wide Shelco epoxy powder coated steel brackets. Brackets alls at maximum 600mm c/c. Sand down to a smooth finish, AZH1) then apply two finishing coats Plascon Woodcare smooth finish, stop with Polycell Woodfiller, apply one coat Plascon Woodcare Ultra (X44) suede varnish to back plate. ed down arrow sign above fire extinguisher re hose reel sign & Union Al5066-06ASE08 aluminium di steel. Degrease exposed parts of pipes with Plascon 1) and apply two coats Plascon Enamel Doors & trims 5066-E08/2AS aluminium red down arrow sign above fire	ISSUED FOR TENDER DISCIPLINE SIGNATURE DATE DISCIPLINE SIGNATURE DATE CLIENT Image: Control image: Con
	INSTITUTION PFUMBADA PRIMARY SCHOOL INSTITUTION EMIS NUMBER 921230573 SERVICE NEW BUILDINGS CONTRACT - SECTION DOCUMENTATION & PROCUREMENT DISCIPLINE PROJECT STAGE ARCHITECTURAL 4 WORK DESCRIPTION - SUB DIVISION GUARD HOUSE DRAWING DESCRIPTION FOUNDATION, SEWER, FIRE AND ROOF FILE NO. DRAWING DESCRIPTION FOUNDATION, SEWER, FIRE AND ROOF FILE NO. DRAWING CO-ORDINATED CONSULTANT CONSULTANT CONSULTANT CONSULTANT CONSULTANT CONTRACTOR FUE AUTO CAD NUMBER REV

NOTES

DOOR SCHEDULE: Scale 1:50.		32 978 32 914 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
DOOR NUMBER:	D1	D2	
POSITION:	BULK STOREROOM, DAY STORE	ENTRANCE TO TOILET	
QUANTITY:			-
	1,2mm THICK STANDARD STEEL DOUBLE REBATED	1,2mm THICK STANDARD STEEL DOUBLE REBATED	-
DESCRIPTION:	DOORFRAME FOR 115MM WALL TO RECEIVE PLASTER ON ONE-SIDE	DOORFRAME FOR 115MM WALL TO RECEIVE PLASTER ON ONE-SIDE	
FINISHES	1/RED OXIDE PRIMER + 1/COAT UNIVERSAL UNDERCOAT + 2/COATS PLASCON GLOSS ENAMEL PAINT - COLOUT TO ARCHITECT	1/RED OXIDE PRIMER + 1/COAT UNIVERSAL UNDERCOAT + 2/COATS PLASCON GLOSS ENAMEL PAINT - COLOLIT TO ARCHITECT	
DOOR	2032 x 914 x 44mm THICK SOLID HARDWOOD	2032 x 914 x 40mm SOLID	-
DESCRIPTION:	DOOR WITH MASONITE BACKING. tYPE OF HARDWOOD DOOR ACCORDING TO OWNERS CHOICE.	HARDWOOD DOOR WITH MASONITE FACINGS TO RECEIVE 1/COAT UNDERCOAT + 2/COATS PLASCON VELVAGLO PAINT.	
IRON MONGERY:	HINGES - 2x100mm M/S STEEL BUTT HINGES PER DOOR	HINGES - 2x100mm M/S STEEL BUTT PER DOOR	-
FITTINGS:	LEAF LOCKSET - "SOLID BLESBOK" 460/313 FOUR LEVER LOCKSET.	LEAF LOCKSET - "SOLID BLESBOK" 460/313 FOUR LEVER LOCKSET.	
FINISHES:	PREPARE NEW DOOR & FRAME TO RECEIVE ONE UNDERCOAT PLUS 3/COATS POLYURETHANE VARNISH.	1/UNDERCOAT + 2/COATS PLASCON VELVAGLO PAINT FINISH.	
GLASS:	NOT APPLICABLE	NOT APPLICABLE	_
WINDOW SCHEDULE: Scale 1:50.			2185
WINDOW NUMBER:	VV I GUARD ROOM	UV∠ GUARD ROOM	
POSITION:			
QTY:			2
WINDOW-FRAME DESCRIPTION:	STANDARD SS INDUSTRIAL TYPE STEEL WINDOW-FRAME CATALOGUE NUMBER (TBC) COMPLETE WITH FITTINGS AS SUPPLY BY MANUFACTURER	CATALOGUE NUMBER (TBC) COMPLETE WITH FITTINGS AS SUPPLY BY MANUFACTURER	CATALO AS SUPI
WINDOW FURNITURE:	IRON-MONGERY & FITTINGS AS SUPPLY BY WINDOW MANUFACTURER. AND ACCORDING TO ARCHITECTS APPROVAL.	IRON-MONGERY & FITTINGS AS SUPPLY BY WINDOW MANUFACTURER. AND ACCORDING TO ARCHITECTS APPROVAL.	IRON-M WINDO TO ARC
BURGLAR-BARS: FINISHES:	OUT OF 10mm WIDE FLAT-BARS 1/COAT RED OXIDE PRIMER + 1/COAT UNIVERSAL UNDERCOAT + 2/COATS PLASCON GLOSS ENAMEL PAINT - COLOUR ACCORDING TO ARCHITECT. 4mm THICK CLEAR FLOATED SHEET	OUT OF 10mm WIDE FLAT-BARS 1/COAT RED OXIDE PRIMER + 1/COAT UNIVERSAL UNDERCOAT + 2/COATS PLASCON GLOSS ENAMEL PAINT - COLOUR ACCORDING TO ARCHITECT. 4mm THICK CLEAR FLOATED SHEET	OUT OF 1/COAT UNDER PAINT - 5mm TH
GLASS:	GLAZING SECURED IN FRAME WITH SABS APPROVED GLAZING PUTTY	GLAZING SECURED IN FRAME WITH SABS APPROVED GLAZING PUTTY	GLAZIN APPRO

A1. Concrete foundations - concrete mix type and with steel reinforcement according to structural engineer's of Provide test cubes (1 per 15m³ or 1 per batch). Finished sides and bottoms of trenches to be treated with ant p of not less than 5 litres of solution per m² by a firm of specialists in accordance with SANS Specification 1165

 A2. Backfilling and filling under floors - in general, approved filling compacted to at least 93% Mod. AASHTO d detail in case of poor soil conditions. Minimum of 170mm filling to be provided above natural or compacted grouf filling to be minimum G5 or G7 material as per engineer's drawings). Compaction tests to be provided at a rate compacted filling. Filling under floors to be treated with ant poison of the Prothor 200 SC or other approved typ of specialists in accordance with SANS Specification 1165 and SANS Code of Practice 0124. Concrete to be compacted to be compacted to at least 93% Mod. guarantee Surface beds and floors

B1. Surface bed - concrete mix as described on structural engineer's drawings but minimum 85mm thick on S waterproofing membrane with laps sealed with pressure sensitive tape. Surface bed cast in alternative sectior polysulfide sealer. All saw cut joints to be done within 24 hours after casting of concrete. Provide 10mm thick I seal joint with polysulfide sealer. Provide mesh ref. no. 193 as per structural engineer's drawings. Provide test **B2**. Surface bed on walkways - concrete mix as described on structural engineer's drawings but minimum 85n

B2. Surface bed on warkways - concrete mix as described on structural engineer's drawings but minimum onimition waterproofing membrane with laps sealed with pressure sensitive tape. Surface bed cast in alternative s with polysulfide sealer. Provide 10mm thick bitumen impregnated soft board between all walls and concrete an 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 toward 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 apron.

from building. Apron edge to be thickened by 240mm wide x 115mm deep (net) edge excavated in natural or the second se Skirtings C1. 19 x 76mm Meranti skirting plugged to walls at 400mm c/c with 19mm meranti quadrand bead plated on. S Plascon Woodcare Stain (W-range)(colour meranti), apply one coat Plascon Woodcare Ultra Varnish (X44), th 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 D3. 75 x 75 x 3mm Thick tubular section steel columns with 250mm girth x 4.5mm thick flat section U-shaped fit 10mm thick flat section baseplate, four times holed and welded to bottom. Columns to be fixed to top of brickwo Degrease with "Plascon Aqualsolv Degreaser (GR1)", remove rust with "Plascon Rust Remover (RR1)", prime v 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

mineral turpentine (AZH1), apply one coat Plascon Woodcare Sunproof (Amber - PNW22) suede varnish thinr Plascon Woodcare Sunproof (Amber - PNW22) suede varnish

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 squares
D5. DPC - SANS Specification 952 Type B approved 375 micron black dpc in walls at floor level and under all w
D6. Internal walls - approved stockbrick walls in stretcher bond above to receive one coat smooth 1:5 cement pl.
two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour broken white (EPL314) or French Chartreus
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 pl.
two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour broken white (EPL314) or French Chartreus
D7. Internal walls - face brick plinth up to 850mm with approved stockbrick walls in stretcher bond above to receive Plascon Plaster Primer (UC56) and two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour as per fi
D8. All exposed expansion joints in walls and floors to be filled in with Urochem 205 polysulfide joint sealant after
D9. Expansion joints in walls and ceilings to be covered with 2 x 50mm Migua KF250/30 aluminium cover strips

Window sills E1. Internal window sills - 15 x 150mm nutec-cement window sills, bedded and set flat in 1:4 cement mortar. 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 6mn

Ceilings and cornices F1. Internal cornice - 19 x 76mm Meranti cornice nailed to walls at 400mm centres maximum. Sand down to a s Woodcare Stain (W-range)(colour meranti), apply one coat Plascon Woodcare Ultra Varnish (X44), thinned with Woodcare Stain (W-range) (colour meranti), apply one coat Plascon Woodcare Ultra Varnish (X44), thinned with

F2. Ceilings - 6mm Everite Nutec fibre-cement boards nailed to 38 x 38mm SAP brandering at 400mm centres jointing strips. Jointing strips to be pre-painted. Prime ceilings with one coat Plascon Multi-Surface Primer (WU 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 brand 50mm meranti surround. Trap door and surround to be painted as for ceiling. Trap door opening between trus

 Roof and fascias
 G1. Roof sheeting - 0.58mm Brownbuilt Klip-lok roof sheeting with Globalcoat finish (colour Traffic Green) on 50 approved pre-fabricated truss system. Roof sheeting to be done by specialist installer providing a five year guar
 G2. Ridge and hip flashings - 0.8mm galvanised sheet iron standard factory manufactured FK3 ridge or hip flas
 G3. Fascia boards - 10 x 300mm Everite Nutec-cement fascia boards screw fixed to truss ends and counter backs or purling with countersunk brass screws. Prime fascias Everite socketless barge boards screw fixed to trusses or purlins with countersunk brass screws. Prime fascia

Everite socketiess barge boards screw fixed to trusses or purins with countersunk brass screws. Prime fascias (WUP1) and finish off with two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour as per finishes sc **G4.** Truss system - MiTek or other approved patent timber pre-fabricated truss system at maximum 1100mm ce 1200mm centres. 38 x 114mm SAP wall plate to be carbolineum treated before fixing. Truss manufacturer to pro-well as detailed shop drawings. Shop drawings to be provided to the Principal Agent for approval before manufacturer to be secured to walls with 2.5mm diameter galvanised steel wire ties, be secured with 2.5mm diameter galvanised steel wire, twice wrapped around and tied around rafters and purlir seal knots with Plascon Knot Seal (PK2), prime with one coat Plascon Wood Primer (UC2) and apply two coats schedule schedule. G5. Gutters - 100 x 100mm High gutters formed of 0.58mm galvanised sheet iron with Globalcoat finish (color

to match colour of gutters G6. Downpipes - 100mm Diameter downpipes formed of 0.58mm galvanised sheet iron with Globalcoat finish to match colour of downpipes

G7. Barge flashing over barge boards at louvres - 0.8mm galvanised sheet iron standard factory manufacture **G8.** Flashings at bottom of louvres - 0.8mm galvanised sheet iron standard factory manufactured FK8 headwa Traffic Green)

Fittings H1. Vitrex Model 2400 (code 2404) enameled green folding type writing board with wall mounted centre board 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 H3. Greenfield G25 double door steel cupboard with standard baked enameled finish, 760 x 610 x 1700mm h H4. Five rows of 19mm Thick laminated SA Pine shelving, 350mm wide, evenly spaced & fixed from underside to be fixed to 25mm wide x 2134mm long double slotted epoxy powder coated Shelco type FT6 wall bands, pl stop with Polycell Woodfiller, apply one coat Plascon Woodcare Ultra Varnish (X44) thinned with 1:3 mineral t Clear Ultra (X44) suede varnish to shelves Miscellaneous

19 Kg DCP fire extinguisher fitted to 400 x 200 x 22mm thick meranti backplate with chamfered edges. Sand Plascon Woodcare Ultra (X44) suede varnish thinned with 1:3 mineral turpentine (AZH1) & then apply two finit Provide 150 x 150mm Union AL5066-E06/2AS aluminium fire extinguisher sign and Union AL5066-E08/2AS a I2 Safex fire hose reel with 30m hose. Supply 152 x 152 x 3mm thick Union AL5066-06ASE05 aluminium engli engraved red down arrow sign above fire hose reel. Water supply in buildings to fire hose reel to be 25mm ga

Aquasolv Degreaser (GR1), remove any rust with Plascon Rust Remover (RR1), prime with Plascon Metal Pri (G-Range) paint - colour Signal Red (G7). Provide 150 x 150mm Union AL5066-E05/2AS aluminium fhr sign 8

+ 1022 + ARD E-TYPE TOP-HUNG STEEL WINDOW-FRAME OGUE NUMBER (TBC) COMPLETE WITH FITTINGS PPLY BY MANUFACTURER IONGERY & FITTINGS AS SUPPLY BY W MANUFACTURER. AND ACCORDING CHITECTS APPROVAL.

F 10mm WIDE FLAT-BARS RED OXIDE PRIMER + 1/COAT UNIVERSAL RCOAT + 2/COATS PLASCON GLOSS ENAMEL COLOUR ACCORDING TO ARCHITECT. HICK PACIFIC OBSCURED NG SECURED IN FRAME WITH SABS OVED GLAZING PUTTY

			.0
		1) Workmans methods to	hip beι
		2)Light Swit 3) If Step of	ch i ver (
drawings. Top of strip footings to be 340mm minimum below N.G.L. poison of the Prothor 200 SC or other approved type applied at a rate and SANS Code of Practice 0124. Concrete to be casted within 24		design 5) 2 x coats markings) 6) 50 mm m Bubble plas	sea ineral
density in layers of maximum 150mm - refer to engineer's drawings for ound level under floors. All filling to be approved by engineer (imported te of one test per 125m ² filling area under floors per each layer of 150mm ope applied at a rate of not less than 5 litres of solution per m ² by a firm casted within 24 hours of application. Contractor to provide five year		all areas tha 7) West Fac eaves to dr 8) Trusses Project Eng	at do cing op o to be ineers
SANS Specification 952 Type C approved USB Green 250 micron ns of maximum 20m ² with saw cut joints with joints filled up with bitumen impregnated soft board between all walls and concrete and it cubes (1 per 15m ³ or 1 per batch) mm thick on SANS Specification 952 Type C approved USB Green 250 e sections of maximum 20m ² with expansion joints with joints filled up and seal joint with polysulfide sealer. Provide mesh ref. no. 193 as per			
wards edges. At all external door openings external surface beds must			
ve sections in lengths of maximum 3m and to have a 1:100 fall away finished ground level			
Sand down to a smooth finish, stop with Polycell Woodfiller, stain with hinned with 1:3 mineral turpentine (AZH1) and apply two finishing coats			
ts ery 6th course. Over openings formed in brickwork as per table below I fixing bracket, 200mm long, twice holed and welded to top, 200 x 200 x work below copings with four M10 x 75mm masonry anchor bolts. e with Plascon Metal Primer (UC501) and apply two coats Plascon			
n Polycell Woodfiller, provide one coat raw linseed oil thinned with 1:3 ned with 1:3 mineral turpentine (AZH1) and apply two finishing coats			
quare recessed joints I window sills plaster finished off with one coat Plascon Plaster Primer (UC56) and euse (Y5-D2-3) as per Principal Agent cecive one coat smooth 1:5 cement plaster finished off with one coat finishes schedule. after surfaces have been primed with Urochem 614 primer ps			
Prime with one coat Plascon Multi-surface Primer (WUP1) and apply			
m square recessed joints			
a smooth finish, stop with Polycell Woodfiller, stain with Plascon vith 1:3 mineral turpentine (AZH1) and apply two finishing coats Plascon			
es maximum with galvanised clout nails. Provide H-profile galvanised UP1) and finish off with two coats Plascon Polvin Walls & Ceilings (EPL)			
nder covered with ceiling board and fitted flush in opening. Provide 18 x sses to be formed with 38 x 114mm SA pine bearers, nailed to trusses		DISCIPLINE	
50 x 76mm SAP purlins at maximum 1200mm centres on patent and parantee		CLIENT	
ashing with Globalcoat finish (colour Traffic Green) batten with countersunk brass screws. Barge boards - 200 x 80mm as and barge boards with one coat Plascon Multi-Surface Primer		PLAN EXAMI FIRE CONTR	
centres with 20 degrees pitch. 50 x 76mm SAP purlins at maximum provide certificate and guarantee for design and erection of trusses as ufacturing. All sections in contact with wet trades to be carbolineum is, built into walls minimum 6 courses. Purlins nailed to trusses must also rlins. All exposed parts of trusses, purlins, etc. to be sanded smooth, ats Plascon Enamel Doors & Trims paint. Colour as per finishes	-	ROADS / STO WATER AND ENVIRONME	DRMV SAN
ur Gemsbok Sand). All brackets, etc. to be pre-coated with Globalcoat			
n (colour Gemsbok Sand). All holderbats, brackets, etc. to be pre-coated			
ed FK13 barge or gable flashing with Globalcoat finish (colour Traffic			
all flashing and FK7 counter flashing with Globalcoat finish (Colour		REV No	D/
d 2000 x 1200mm high, two wall mounted side boards each 1000 x			
classroom) ligh with four shelves (2 per classroom) le to 305mm wide Shelco epoxy powder coated steel brackets. Brackets lugged to walls at maximum 600mm c/c. Sand down to a smooth finish, turpentine (AZH1) then apply two finishing coats Plascon Woodcare			
d down to a smooth finish, stop with Polycell Woodfiller, apply one coat ishing coats Plascon Woodcare Ultra (X44) suede varnish to back plate. aluminium red down arrow sign above fire extinguisher graved red fire hose reel sign & Union Al5066-06ASE08 aluminium alvanised mild steel. Degrease exposed parts of pipes with Plascon rimer (UC501) and apply two coats Plascon Enamel Doors & trims & Union AL5066-E08/2AS aluminium red down arrow sign above fire			
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NOTES ·

to comply with Standard Specification of materials and used - SABS 0400 in Disabled toilet to be at 1200 mm above FFL 900 mm Build in Balustrade tions to be determined as per site prescribed overall drainage alant on all exposed trusses (sand off all SABS & other wool insulation to be installed where there are ceilings. nsulation with foil backing to be installed with wire supports in not have ceilings Facades to have standardised aluminium louvres from below of 1200 mm e designed in accordance with SABS 0400 & approved by

ISSUED FOR TENDER

SIGNATURE TABLE							
DISCIPLINE			SIGNATURE	DATE			
CLIENT							
PLAN EXAM	NER						
FIRE CONTR	OL						
ENVIRONME	NTAL OFFICE	R					
ROADS / STO	ORMWATER						
WATER AND	SANITATION						
ENVIRONMENTAL OFFICER							
REV No	DATE :		DESCRIPTION	l:			
	REVISIONS						
SIZE ON ORIGINAL DRAWING 100 mm							



DEPARTMENT OF EDUCATION

INSTITUTION

PFUMBADA PRIMARY SCHOOL

INSTITUTION EMIS NUMBER 921230573

SERVICE NEW BUILDINGS

CONTRACT - SECTION **DOCUMENTATION & PROCUREMENT** PROJECT STAGE DISCIPLINE

ARCHITECTURAL 4 WORK DESCRIPTION - SUB DIVISION GUARD HOUSE DRAWING DESCRIPTION

WINDOW AND DOOR SCHEDULES							
ILE No.					ITEM No		
DESIGN					DRAWN		
SCALE		1: 100			CHECKE		
/	RESPONSIBLE PROFESSIONAL						
DATE		NAME	SIGNATURE	PR NU	JMBER		
2023.06.20 YUSUF VAHED PA7812							
DRAWING CO-ORDINATED							

ľ	CONSULTANT :	
	Oruben 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: info@rubenreddyarch.co.za Web: www.rubenreddyarch.co.za CONTRACTOR

FILE NAME REV

A

	AUTO CAD	
	DRAWING	NUMBER
1	2020_68-GH	1-004

CAI SYS



1) Workmanship to comply with Standard Specification of materials and methods to be used - SABS 0400 2)Light Switch in Disabled toilet to be at 1200 mm above FFL If Step over 900 mm Build in Balustrade 4) Gulley positions to be determined as per site prescribed overall drainage désign 5) 2 x coats sealant on all exposed trusses (sand off all SABS & other CONSTRUCTION NOTES Foundations markings) 6) 50 mm mineral wool insulation to be installed where there are ceilings installed with wire support 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 Bubble plastic insulation with foil backing to be installed with wire supports all areas that do not have ceilings 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 7) West Facing Facades to have standardised aluminium louvres from below 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 eaves to drop of 1200 mm) Trusses to be designed in accordance with SABS 0400 & approved by Project Engineers 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 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 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 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 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 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 **D4.** Lintol - Corobrik brick-on-edge face brick lintol over all window, door and clear openings with 10 x 6mm square recessed joints 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 07. 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. 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 Window sills 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 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 ISSUED FOR TENDER 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 SIGNATURE TABLE **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 DISCIPLINE SIGNATURE DATE 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** CLIENT 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) PLAN EXAMINER FIRE CONTROL 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. ENVIRONMENTAL OFFICER ROADS / STORMWATER 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 WATER AND SANITATION 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 ENVIRONMENTAL OFFICER 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 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 REV No DATE DESCRIPTION REVISION 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 Fittings Fittings Fit. 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 SIZE ON ORIGINAL DRAWING 100 mm LIMPOPO PROVINCIAL GOVERNMENT REPUBLIC OF SOUTH AFRICA Clear Ultra (X44) suede varnish to shelves Miscellaneous Miscellaneous 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 I2 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 fir sign & Union AL5066-E08/2AS aluminium red down arrow sign above fire hose reel DEPARTMENT OF EDUCATION INSTITUTION PFUMBADA PRIMARY SCHOOL INSTITUTION EMIS NUMBER 921230573 SERVICE **NEW BUILDINGS** CONTRACT - SECTION **DOCUMENTATION & PROCUREMENT** PROJECT STAGE DISCIPLINE **ARCHITECTURAL** WORK DESCRIPTION - SUB DIVISION 1MULTI-PURPOSE CLASSROOM DRAWING DESCRIPTION WINDOW AND DOOR SCHEDULES FILE No. ITEM No. DESIGN DRAWN SCALE CHECKED 1: 100 RESPONSIBLE PROFESSIONAL NAME SIGNATURE PR NUMBER YUSUF VAHED 2023.06.20 PA7812 DRAWING CO-ORDINATED CONSULTANT Suite 4 No 6 Ismini Office Building, 6 Ismini Street, Polokwane, D699 South Africa Tel: +27 15 065 0645, Fax: +27 11 475 8364, Email: info@rubenreddyarch.co.za Web: www.rubenreddyarch CONTRACTOR AUTO CAD DRAWING NUMBER

NOTES :

2020_68-1MP-001

FIRE EQUIPMENT LAYOUT 1:100



ROOF PLAN 1:100





CEILING PLAN 1:100



	ELECTRICAL LEGEND					
•	CEILING LIGHT FITTING	*	15 AMP DOUBLE PLUG BUILT IN 340mm ABOVE FFL			
Þ	DECORATIVE WALL LIGHT FITTING		15 AMP DOUBLE PLUG POINT BUILT IN 1000mm ABOVE FFL			
₽ ^{WP}	P DECORATIVE WATERPROOF EXTERNAL WALL MOUNTED LIGHT FITTING		TELEPHONE POINT			
-	DOUBLE TUBE FLUSH FITTING	12 A/C	12 Amp ISOLATOR FOR A/C UNIT MOUNTED 150mm BELOW CEILING			
	WITH DIFFUSER	40 A/C	40 Amp ISOLATOR FOR A/C UNIT MOUNTED 500mm BELOW ROOFS EAVE			
D/B	DISTRIBUTION BOARD & PRE PAID METERBOX	þ	LIGHT SWITCH			

ELECTRICAL LAYOUT 1:100

CONSTRUCTION NOTES
A1. Concrete foundations - concrete mix type and with steel reinforcement according to structural engineer's drawings. Top or Provide test cubes (1 per 15m ³ or 1 per batch). Finished sides and bottoms of trenches to be treated with ant poison of the P of not less than 5 litres of solution per m ² by a firm of specialists in accordance with SANS Specification 1165 and SANS Coc 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 detail in case of poor soil conditions. Minimum of 170mm filling to be provided above natural or compacted ground level under 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 compacted filling. Filling under floors to be treated with ant poison of the Prothor 200 SC or other approved type applied at a of specialists in accordance with SANS Specification 1165 and SANS Code of Practice 0124. Concrete to be casted within 2-guarantee
Surface beds and floors
B1. Surface bed - concrete mix as described on structural engineer's drawings but minimum 85mm thick on SANS Specificat waterproofing membrane with laps sealed with pressure sensitive tape. Surface bed cast in alternative sections of maximum polysulfide sealer. All saw cut joints to be done within 24 hours after casting of concrete. Provide 10mm thick bitumen impreg seal joint with polysulfide sealer. Provide mesh ref. no. 193 as per structural engineer's drawings. Provide test cubes (1 per 1 B2. Surface bed on walkways - concrete mix as described on structural engineer's drawings but minimum 85mm thick on SA micron waterproofing membrane with laps sealed with pressure sensitive tape. Surface bed cast in alternative sections of maximum 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.
structural engineer's drawings. Provide test cubes (1 per 15m° or 1 per batch)
B3. Screed and floor finish on walkways - Average 30mm thick wood floated 1:4 granolithic screed sloping towards edges. A
B4 Apron - 1200mm wide 15MPa mass concrete apron with wood floated finish. Apron to be cast in alternative sections in le
from building. Apron edge to be thickened by 240mm wide x 115mm deep (net) edge excavated in natural or finished ground
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
Plascon Woodcare Stain (W-range)(colour meranti), apply one coat Plascon Woodcare Ultra Varnish (X44), thinned with 1:3
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,
Degrease with "Plascon Aqualsolv Degreaser (GR1)", remove rust with "Plascon Rust Remover (RR1)", prime with Plascon I
Enamel Door & Trims high gloss enamel paint - colour as per finishes schedule.
mineral turpentine (AZH1), apply one coat Plascon Woodcare Sunproof (Amber - PNW22) suede varnish thinned with 1:3 mineral turpentine (AZH1), apply one coat Plascon Woodcare Sunproof (Amber - PNW22) suede varnish 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
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 two coats Plascon Polyin Walls & Ceilings (EPL) PVA paint. Colour broken white (EPL 314) or Erench Chartreuse (Y5-D2-3) (
D7. Internal walls - face brick plinth up to 850mm with approved stockbrick walls in stretcher bond above to receive one coat
Plascon Plaster Primer (UC56) and two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour as per finishes sched
D8. All exposed expansion joints in walls and floors to be filled in with Urochem 205 polysulfide joint sealant after surfaces ha
D9. Expansion joints in wails and ceilings to be covered with 2 x 50mm wilgua 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
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 recess
Cellings and cornices F1 Internal cornice - 19 x 76mm Maranti cornice nailed to walls at 400mm centres maximum. Sand down to a smooth finish
Woodcare Ultra (X44), such aversist to cornices that the table to wais at 400mm centres maximum. Said down to a smooth mish, Woodcare Ultra (X44), thinned with 1:3 mineral to Woodcare Ultra Varnish (X44), thinned with 1:3 mineral to
F2. Ceilings - 6mm Everite Nutec fibre-cement boards nailed to 38 x 38mm SAP brandering at 400mm centres maximum with
jointing strips. Jointing strips to be pre-painted. Prime ceilings with one coat Plascon Multi-Šurface Primer (WUP1) and finish 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
summ meranti surround. I rap door and surround to be painted as for ceiling. I rap door opening between trusses to be forme
G1. Roof sheeting - 0.58mm Brownbuilt Klip-lok roof sheeting with Globalcoat finish (colour Traffic Green) on 50 x 76mm SAI
approved pre-raphicated truss system. Root sheeting to be done by specialist installer providing a live year quarantee

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. 28 x 114mm SAP well plots to be carbeling of trusses for fixing. Truss empufactures to provide certificate and guerantee for design and creation of trusses or

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 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 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

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

Fittings
Fittings
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 Clear Ultra (X44) suede varnish to shelves Miscellaneous

Miscellaneous 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 I2 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 fir sign & Union AL5066-E08/2AS aluminium red down arrow sign above fire hose reel

1) Workmanship to comply with Standard Specification of materials and methods to be used - SABS 0400 2)Light Switch in Disabled toilet to be at 1200 mm above FFL If Step over 900 mm Build in Balustrade 4) Gulley positions to be determined as per site prescribed overall drainage 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 of strip footings to be 340mm minimum below N.G.L. Prothor 200 SC or other approved type applied at a rate 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 de of Practice 0124. Concrete to be casted within 24 rs of maximum 150mm - refer to engineer's drawings for eaves to drop of 1200 mm der floors. All filling to be approved by engineer (imported ber 125m² filling area under floors per each layer of 150mm) Trusses to be designed in accordance with SABS 0400 & approved by Project Engineers a rate of not less than 5 litres of solution per m² by a firm 24 hours of application. Contractor to provide five year tion 952 Type C approved USB Green 250 micron 20m² with saw cut joints with joints filled up with gnated soft board between all walls and concrete and 5m³ or 1 per batch) ANS Specification 952 Type C approved USB Green 250 naximum 20m² with expansion joints with joints filled up with polysulfide sealer. Provide mesh ref. no. 193 as per At all external door openings external surface beds must engths of maximum 3m and to have a 1:100 fall away a smooth finish, stop with Polycell Woodfiller, stain with 3 mineral turpentine (AZH1) and apply two finishing coats Over openings formed in brickwork as per table below , 200mm long, twice holed and welded to top, 200 x 200 x pings with four M10 x 75mm masonry anchor bolts. Metal Primer (UC501) and apply two coats Plascon dfiller, provide one coat raw linseed oil thinned with 1:3 ineral turpentine (AZH1) and apply two finishing coats d joints d off with one coat Plascon Plaster Primer (UC56) and as per Principal Agent t smooth 1:5 cement plaster finished off with one coat ave been primed with Urochem 614 primer coat Plascon Multi-surface Primer (WUP1) and apply ssed joints , stop with Polycell Woodfiller, stain with Plascon turpentine (AZH1) and apply two finishing coats Plascon **ISSUED FOR TENDER** ith galvanised clout nails. Provide H-profile galvanised h off with two coats Plascon Polvin Walls & Ceilings (EPL) SIGNATURE TABLE vith ceiling board and fitted flush in opening. Provide 18 x ned with 38 x 114mm SA pine bearers, nailed to trusses DISCIPLINE SIGNATURE DATE CLIENT P purlins at maximum 1200mm centres on patent and PLAN EXAMINER FIRE CONTROL ENVIRONMENTAL OFFICER ROADS / STORMWATER WATER AND SANITATION ENVIRONMENTAL OFFICER REV No DATE : DESCRIPTION : REVISION SIZE ON ORIGINAL DRAWING 100 mm LIMPOPO PROVINCIAL GOVERNMENT REPUBLIC OF SOUTH AFRICA DEPARTMENT OF EDUCATION INSTITUTION PFUMBADA PRIMARY SCHOOL INSTITUTION EMIS NUMBER 921230573 SERVICE NEW BUILDINGS CONTRACT - SECTION **DOCUMENTATION & PROCUREMENT** PROJECT STAGE DISCIPLINE ARCHITECTURAL 4 WORK DESCRIPTION - SUB DIVISION 1MULTI-PURPOSE CLASSROOM DRAWING DESCRIPTION WINDOW AND DOOR SCHEDULES FILE No. ITEM No. DESIGN DRAWN SCALE 1: 100 CHECKED RESPONSIBLE PROFESSIONAL NAME SIGNATURE DATE PR NUMBER 2023.06.20 YUSUF VAHED PA7812 DRAWING CO-ORDINATED CONSULTANT Pruben reddy architects Suite 4 No 6 Ismini Office Building, 6 Ismini Street, Polokwane, D699 South Africa Tel: +27 15 065 0645, Fax: +27 11 475 8364, Email: info@rubenreddyarch.co.za Web: www.rubenreddyarch.co CONTRACTOR AUTO CAD NAME DRAWING NUMBER

2020_68-1MP-002

Α



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 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.

Foundations

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 ² by a firm of a period of the provided at a rate of a protect with SANS Solution per ² by a firm of the prothor 200 SC or other approved type applied at a rate of not less than 5 litres of solution per ² by a firm of a period of the provided at a rate of a protect with solution per ² by a firm of the protect of the provided at a rate of a period of the provided at a rate of a protect of the provided at a rate of a period of the provided at a rate of a period of the provided at a rate of a protect of the provided at a rate of a protect of the provided at a rate of a protect of the provided at a rate of the protect of the provided at a rate of the protect of the provided at a rate of the protect of the provided at a rate of the protect of the provided at a rate of the protect of the provided at a rate of the protect of the provided at a rate of the protect of the provided at a rate of the protect of the provided at a rate of the protect of the provided at a rate of the protect of the provided at a rate of the protect of the protect of the provided at a rate of the protect of the protect of the protect of the provided at a rate of the protect of the protect of the provided at a rate of the protect of the pro 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 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 by the section 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. 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 20m² with expansion joints with joints filled up

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

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 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 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 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 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 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 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 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 100mm c/c 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

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

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.

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 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

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

Fittings 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 Miscellaneous

Miscellaneous 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 I2 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 fir sign & Union AL5066-E08/2AS aluminium red down arrow sign above fire hose reel

1) Workmanship to comply with Standard Specification of materials and methods to be used - SABS 0400 2)Light Switch in Disabled toilet to be at 1200 mm above FFL If Step over 900 mm Build in Balustrade 4) Gulley positions to be determined as per site prescribed overall drainage 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 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. 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) Trusses to be designed in accordance with SABS 0400 & approved by Project Engineers 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) **ISSUED FOR TENDER** SIGNATURE TABLE DISCIPLINE SIGNATURE DATE CLIENT 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) PLAN EXAMINER FIRE CONTROL ENVIRONMENTAL OFFICER ROADS / STORMWATER 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 WATER AND SANITATION ENVIRONMENTAL OFFICER REV No DATE DESCRIPTION : 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 REVISION SIZE ON ORIGINAL DRAWING 100 mm LIMPOPO PROVINCIAL GOVERNMENT REPUBLIC OF SOUTH AFRICA DEPARTMENT OF EDUCATION INSTITUTION PFUMBADA PRIMARY SCHOOL INSTITUTION EMIS NUMBER 921230573 SERVICE **NEW BUILDINGS** CONTRACT - SECTION **DOCUMENTATION & PROCUREMENT** PROJECT STAGE DISCIPLINE **ARCHITECTURAL** 4 WORK DESCRIPTION - SUB DIVISION 1MULTI-PURPOSE CLASSROOM DRAWING DESCRIPTION WINDOW AND DOOR SCHEDULES FILE No. ITEM No. DESIGN DRAWN SCALE CHECKED 1: 100 RESPONSIBLE PROFESSIONAL JAME SIGNATURE DATE PR NUMBER 2023.06.20 YUSUF VAHED PA7812 DRAWING CO-ORDINATED CONSULTANT ruben reddy architects Suite 4 No 6 Ismini Office Building, 6 Ismini Street, Polokwane, D699 South Africa Tel: +27 15 065 0645, Fax: +27 11 475 8364, Email: info@rubenreddyarch.co.za Web: www.rubenreddyarch.co.za CONTRACTOR AUTO CAD NAME DRAWING NUMBER 2020_68-1MP-003

Α



NOTES :

 Workmanship to comply with Standard Specification of materials and methods to be used - SABS 0400
 Light Switch in Disabled toilet to be at 1200 mm above FFL
 If Step over 900 mm Build in Balustrade
 Gulley positions to be determined as per site prescribed overall drainage design
 2 x coats sealant on all exposed trusses (sand off all SABS & other markings)
 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
 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

ISSUED FOR TENDER

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2 x 228 x 50mm SA Pine beams secured on top of steel-columns to Engineers Specification			
100 x 100mm M/S Square tubing column cast into concrete footing to Engineers Specification GF			
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DETAIL (STEEL SHELVES) Section Scale 1:20

DETAIL 3 (STORE ROOM SHELVES) Section Scale 1:20

NOTE: FOUNDATION PLAN & DETAILS - WHERE APPLICABLE REFER TO ENGINEERS DRAWINGS & DETAIL FOR REINFORCED CONCRETE FOUNDATIONS.

NOTES: FURNITURE:

FORMICA TOPS WITH WHITE MELAMINE CUPBOARD ACC TO DETAIL LAYOUT PROVIDED BY CUPBOARD CONNECTIONS. SHELVING: CODE SST2100/300 & SST2100/450 WITH MILD STEEL SHELVING SHELVING COMPLETE WITH WALLBANDS & BRACKETS AS SUPPLY BY CUPBOARD CONNECTIONS.













CEILING PLAN: NUTRITION CENTRE: Scale 1:100.

NOTES : Workmanship to comply with Standard Specification of materials and methods to be used - SABS 0400 Light Switch in Disabled toilet to be at 1200 mm above FFL If Step over 900 mm Build in Balustrade Gulley positions to be determined as per site prescribed overall drainage design 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 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 **ISSUED FOR TENDER** SIGNATURE TABLE SIGNATURE DISCIPLINE DATE CLIENT PLAN EXAMINER FIRE CONTROL ENVIRONMENTAL OFFICER ROADS / STORMWATER WATER AND SANITATION ENVIRONMENTAL OFFICER REV No DATE : DESCRIPTION : REVISIONS SIZE ON ORIGINAL DRAWING 100 mm _____ LIMPOPO Como PROVINCIAL GOVERNMENT 1 Cane REPUBLIC OF SOUTH AFRICA DEPARTMENT OF EDUCATION INSTITUTION PFUMBADA PRIMARY SCHOOL INSTITUTION EMIS NUMBER 921230573 SERVICE NEW BUILDINGS CONTRACT - SECTION **DOCUMENTATION & PROCUREMENT** DISCIPLINE PROJECT STAGE ARCHITECTURAL 4 WORK DESCRIPTION - SUB DIVISION NUTRITION BLOCK DRAWING DESCRIPTION **ROOF PLAN AND CEILING LAYOUT** FILE No. ITEM No. DESIGN DRAWN SCALE CHECKED 1: 100 RESPONSIBLE PROFESSIONAL NAME SIGNATURE PR NUMBER DATE 2023.06.20 YUSUF VAHED alle PA7812 DRAWING CO-ORDINATED CONSULTANT Oruben reddy architects Suite 4 No 6 Ismini Office Building, 6 Ismini Street, Polokwane, D699 South Africa Tel: +27 15 065 0645, Fax: +27 11 475 8364, Email: info@rubenreddyarch.co.za Web: www.rubenreddyarch.co.za CONTRACTOR FILE NAME REV2 CADD SYSTEM AUTO CAD DRAWING NUMBER

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NOTE: FOUNDATION PLAN & DETAILS - WHERE APPLICABLE REFER TO ENGINEERS DRAWINGS & DETAIL FOR REINFORCED CONCRETE FOUNDATIONS.

NOTES: FURNITURE:

FORMICA TOPS WITH WHITE MELAMINE CUPBOARD ACC TO DETAIL LAYOUT PROVIDED BY

CUPBOARD CONNECTIONS.

SHELVING: CODE SST2100/300 & SST2100/450 WITH MILD STEEL SHELVING

SHELVING COMPLETE WITH WALLBANDS & BRACKETS AS SUPPLY BY CUPBOARD CONNECTIONS. CONSTRUCTION NOTES

Foundations A1. Concrete foundations - concrete mix type and with steel reinforcement according to structural engineer's drawin Provide test cubes (1 per 15m³ or 1 per batch). Finished sides and bottoms of trenches to be treated with ant poiso of not less than 5 litres of solution per m² by a firm of specialists in accordance with SANS Specification 1165 and S

A2. Backfilling and filling under floors - in general, approved filling compacted to at least 93% Mod. AASHTO der detail in case of poor soil conditions. Minimum of 170mm filling to be provided above natural or compacted grour filling to be minimum G5 or G7 material as per engineer's drawings). Compaction tests to be provided at a rate or compacted filling. Filling under floors to be treated with ant poison of the Prothor 200 SC or other approved type of specialists in accordance with SANS Specification 1165 and SANS Code of Practice 0124. Concrete to be case guarantee

Surface beds and floors
 B1. Surface bed - concrete mix as described on structural engineer's drawings but minimum 85mm thick on SAN waterproofing membrane with laps sealed with pressure sensitive tape. Surface bed cast in alternative sections of polysulfide sealer. All saw cut joints to be done within 24 hours after casting of concrete. Provide 10mm thick bitu seal joint with polysulfide sealer. Provide mesh ref. no. 193 as per structural engineer's drawings but minimum 85mm thick on sealer at a section of the polysulfide sealer. Provide test cut minimum 85mm thick bitu seal joint with polysulfide sealer. Provide mesh ref. no. 193 as per structural engineer's drawings. Provide test cut minimum 85mm micron waterproofing membrane with laps sealed with pressure sensitive tape. Surface bed cast in alternative sections of the polysulfide sealer. Provide 10mm thick bitumen impregnated soft board between all walls and concrete and set the polysulfide sealer. Provide 10mm thick bitumen impregnated soft board between all walls and concrete and set the polysulfide sealer.

B2. Surface bed on Wakways - concrete mix as described on structural engineer's drawings but minimum 85mm micron waterproofing membrane with laps sealed with pressure sensitive tape. Surface bed cast in alternative sec with polysulfide sealer. Provide 10mm thick bitumen impregnated soft board between all walls and concrete and s 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 toward 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 sector building. Apron edge to be thickened by 240mm wide x 115mm deep (net) edge excavated in natural or finish.

Skirtings C1. 19 x 76mm Meranti skirting plugged to walls at 400mm c/c with 19mm meranti quadrand bead plated on. Sand Plascon Woodcare Stain (W-range)(colour meranti), apply one coat Plascon Woodcare Ultra Varnish (X44), thinne Plascon Woodcare Ultra (X44) suede varnish to skirtings Walls and structure

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 6
D3. 75 x 75 x 3mm Thick tubular section steel columns with 250mm girth x 4.5mm thick flat section U-shaped fixin 10mm thick flat section baseplate, four times holed and welded to bottom. Columns to be fixed to top of brickwork Degrease with "Plascon Aqualsolv Degreaser (GR1)", remove rust with "Plascon Rust Remover (RR1)", prime with 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 Pomicreal turnenting (AZH1), apply one coat Plascon Woodcare Supproof (Amber - PNW22) suede variable triangle.

mineral turpentine (AZH1), apply one coat Plascon Woodcare Sunproof (Amber - PNW22) suede varnish thinned 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 squal D5. DPC - SANS Specification 952 Type B approved 375 micron black dpc in walls at floor level and under all wir D6. Internal walls - approved stockbrick walls in stretcher bond above to receive one coat smooth 1:5 cement pla two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour broken white (EPL314) or French Chartreuse D7. Internal walls - face brick plinth up to 850mm with approved stockbrick walls in stretcher bond above to receive Plascon Plaster Primer (UC56) and two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour as per fin D8. All exposed expansion joints in walls and floors to be filled in with Urochem 205 polysulfide joint sealant after D9. Expansion joints in walls and ceilings to be covered with 2 x 50mm Migua KE250(30 aluminum cover strins).

D9. Expansion joints in walls and ceilings to be covered with 2 x 50mm Migua KF250/30 aluminium cover strips Window sills
 E1. Internal window sills - 15 x 150mm nutec-cement window sills, bedded and set flat in 1:4 cement mortar. Primtwo 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 sc

Ceilings and cornices F1. Internal cornice - 19 x 76mm Meranti cornice nailed to walls at 400mm centres maximum. Sand down to a sm Woodcare Stain (W-range)(colour meranti), apply one coat Plascon Woodcare Ultra Varnish (X44), thinned with 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 ma jointing strips. Jointing strips to be pre-painted. Prime ceilings with one coat Plascon Multi-Surface Primer (WUP1 PVA paint. Colour White (EPL30). Provide 100mm thick Aerolite insulation on top of ceilings F3. Plastered ceiling as per finishes schedule

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 50mm meranti surround. Trap door and surround to be painted as for ceiling. Trap door opening between trusses Roof and fascias

G1. Roof sheeting - 0.58mm Brownbuilt Klip-lok roof sheeting with Globalcoat finish (colour Traffic Green) on 50 × approved pre-fabricated truss system. Roof sheeting to be done by specialist installer providing a five year guarar
 G2. Ridge and hip flashings - 0.8mm galvanised sheet iron standard factory manufactured FK3 ridge or hip flashing
 G3. Fascia boards - 10 x 300mm Everite Nutec-cement fascia boards screw fixed to truss ends and counter batter
 Everite socketless barge boards screw fixed to trusses or purlins with countersunk brass screws. Prime fascias ar
 (WUP1) and finish off with two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour as per finishes sch
 G4. Truss system - MiTek or other approved patent timber pre-fabricated truss system at maximum 1100mm cent
 1200mm centres. 38 x 114mm SAP wall plate to be carbolineum treated before fixing. Truss manufacturer to prov
 well as detailed shop drawings. Shop drawings to be provided to the Principal Agent for approval before manufact
 treated before fixing in position. Trusses to be secured to walls with 2.5mm diameter galvanised steel wire ties, but be secured with 2.5mm diameter galvanised steel wire, twice wrapped around and tied around rafters and purlins

seal knots with Plascon Knot Seal (PK2), prime with one coat Plascon Wood Primer (UC2) and apply two coats Plaschedule. **G5.** Gutters - 100 x 100mm High gutters formed of 0.58mm galvanised sheet iron with Globalcoat finish (colour Ge to match colour of gutters

To match colour of gutters
 G6. Downpipes - 100mm Diameter downpipes formed of 0.58mm galvanised sheet iron with Globalcoat finish (control to match colour of downpipes
 G7. Barge flashing over barge boards at louvres - 0.8mm galvanised sheet iron standard factory manufactured F

Green) GReen) GRe. Flashings at bottom of louvres - 0.8mm galvanised sheet iron standard factory manufactured FK8 headwall fl Traffic Green)

Fittings H1. Vitrex Model 2400 (code 2404) enameled green folding type writing board with wall mounted centre board 200 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 class H3. Greenfield G25 double door steel cupboard with standard baked enameled finish, 760 x 610 x 1700mm high v H4. Five rows of 19mm Thick laminated SA Pine shelving, 350mm wide, evenly spaced & fixed from underside to to be fixed to 25mm wide x 2134mm long double slotted epoxy powder coated Shelco type FT6 wall bands, plugg stop with Polycell Woodfiller, apply one coat Plascon Woodcare Ultra Varnish (X44) thinned with 1:3 mineral turpe Clear Ultra (X44) suede varnish to shelves

Miscellaneous I1 9 Kg DCP fire extinguisher fitted to 400 x 200 x 22mm thick meranti backplate with chamfered edges. Sand dow Plascon Woodcare Ultra (X44) suede varnish thinned with 1:3 mineral turpentine (AZH1) & then apply two finishing Provide 150 x 150mm Union AL5066-E06/2AS aluminium fire extinguisher sign and Union AL5066-E08/2AS alumi I2 Safex fire hose reel with 30m hose. Supply 152 x 152 x 3mm thick Union AL5066-06ASE05 aluminium engrave engraved red down arrow sign above fire hose reel. Water supply in buildings to fire hose reel to be 25mm galvani Aquasolv Degreaser (GR1), remove any rust with Plascon Rust Remover (RR1), prime with Plascon Metal Primer (G-Range) paint - colour Signal Red (G7). Provide 150 x 150mm Union AL5066-E05/2AS aluminium fhr sign & Un hose reel.

rawings. Top of strip footings to be 340mm minimum below N.G.L. oison of the Prothor 200 SC or other approved type applied at a rate and SANS Code of Practice 0124. Concrete to be casted within 24 ensity in layers of maximum 150mm - refer to engineer's drawings for und level under floors. All filling to be approved by engineer (imported of one test per 125m ² filling area under floors per each layer of 150mr e applied at a rate of not less than 5 litres of solution per m ² by a firm asted within 24 hours of application. Contractor to provide five year	n	 Workmanship to comply with Standard Specification of materials and methods to be used - SABS 0400 Light Switch in Disabled toilet to be at 1200 mm above FFL If Step over 900 mm Build in Balustrade Gulley positions to be determined as per site prescribed overall drainage design 2 x coats sealant on all exposed trusses (sand off all SABS & other markings) 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
s of maximum 20m ² with saw cut joints with joints filled up with itumen impregnated soft board between all walls and concrete and cubes (1 per 15m ³ or 1 per batch) m thick on SANS Specification 952 Type C approved USB Green 250 sections of maximum 20m ² with expansion joints with joints filled up d seal joint with polysulfide sealer. Provide mesh ref. no. 193 as per ards edges. At all external door openings external surface beds must		
and down to a smooth finish, stop with Polycell Woodfiller, stain with nned with 1:3 mineral turpentine (AZH1) and apply two finishing coats		
s of th course. Over openings formed in brickwork as per table below ixing bracket, 200mm long, twice holed and welded to top, 200 x 200 x ork below copings with four M10 x 75mm masonry anchor bolts. with Plascon Metal Primer (UC501) and apply two coats Plascon Polycell Woodfiller, provide one coat raw linseed oil thinned with 1:3 ed with 1:3 mineral turpentine (AZH1) and apply two finishing coats uare recessed joints window sills	<	
Source finished off with one coat Plascon Plaster Primer (UC56) and se (Y5-D2-3) as per Principal Agent eive one coat smooth 1:5 cement plaster finished off with one coat finishes schedule. ter surfaces have been primed with Urochem 614 primer s		
square recessed joints smooth finish, stop with Polycell Woodfiller, stain with Plascon h 1:3 mineral turpentine (AZH1) and apply two finishing coats Plascon		
maximum with galvanised clout nails. Provide H-profile galvanised P1) and finish off with two coats Plascon Polvin Walls & Ceilings (EPL	.)	ISSUED FOR TENDER
the covered with certaing board and fitted flush in opening. Provide 18 x ses to be formed with 38 x 114mm SA pine bearers, nailed to trusses 0×76 mm SAP purlins at maximum 1200mm centres on patent and grantee		DISCIPLINE SIGNATURE DATE CLIENT PLAN EXAMINER Image: Client for the state of
shing with Globalcoat finish (colour Traffic Green) atten with countersunk brass screws. Barge boards - 200 x 80mm and barge boards with one coat Plascon Multi-Surface Primer schedule. entres with 20 degrees pitch, 50 x 76mm SAP purlins at maximum		FIRE CONTROL ENVIRONMENTAL OFFICER ROADS / STORMWATER
rovide certificate and guarantee for design and erection of trusses as facturing. All sections in contact with wet trades to be carbolineum , built into walls minimum 6 courses. Purlins nailed to trusses must also ins. All exposed parts of trusses, purlins, etc. to be sanded smooth, s Plascon Enamel Doors & Trims paint. Colour as per finishes r Gemsbok Sand). All brackets, etc. to be pre-coated with Globalcoat	0	WATER AND SANITATION ENVIRONMENTAL OFFICER
(colour Gemsbok Sand). All holderbats, brackets, etc. to be pre-coated FK13 barge or gable flashing with Globalcoat finish (colour Traffic Il flashing and FK7 counter flashing with Globalcoat finish (Colour	1	REV No DATE : DESCRIPTION : REVISIONS
2000 x 1200mm high, two wall mounted side boards each 1000 x		SIZE ON ORIGINAL DRAWING 100 mm
assroom) gh with four shelves (2 per classroom) to 305mm wide Shelco epoxy powder coated steel brackets. Brackets ugged to walls at maximum 600mm c/c. Sand down to a smooth finish, Irpentine (AZH1) then apply two finishing coats Plascon Woodcare	6	LIMPOPO PROVINCIAL GOVERNMENT
hing coats Plascon Woodcare Ultra (X44) suede varnish to back plate. uminium red down arrow sign above fire extinguisher aved red fire hose reel sign & Union Al5066-06ASE08 aluminium vanised mild steel. Degrease exposed parts of pipes with Plascon mer (UC501) and apply two coats Plascon Enamel Doors & trims Union AL5066-E08/2AS aluminium red down arrow sign above fire		DEPARTMENT OF EDUCATION
		INSTITUTION PFUMBADA PRIMARY SCHOOL
		INSTITUTION EMIS NUMBER 921230573
		NEW BUILDINGS
		DOCUMENTATION & PROCUREMENT
		WORK DESCRIPTION - SUB DIVISION
		DRAWING DESCRIPTION FOUNDATION LAYOUT
		FILE No. ITEM No. DESIGN DRAWN SCALE 4: 100
		SCALE 1: 100 CHECKED RESPONSIBLE PROFESSIONAL DATE NAME SIGNATURE
		2023.06.20 YUSUF VAHED PA7812 DRAWING CO-ORDINATED PA7812
		CONSULTANT :
		Suite 4 No 6 Ismini Office Building, 6 Ismini Street, Polokwane, D699 South Africa Tel: +27 15 065 0645, Fax: +27 11 475 8364, Email: info@rubenreddyarch.co.za Web: www.rubenreddyarch.co.za CONTRACTOR
		CADD AUTO CAD FILE NAME
		SIZE DRAWING NUMBER REV2 A 1 2020_68-NU-007 A

DOOR SCHEDULE: Scale 1:50.	$\begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} 378 \\ 32 \\ 914 \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} $	978 52 914 10 10 10 10 10 10 10 10 10 10 10 10 10
DOOR NUMBER:	D1	D2
POSITION:	BULK STOREROOM, DAY STORE	ENTRANCE TO TOILET
QUANTITY:		2(2 - 1 H)(0 - PH)
DOOR-FRAME DESCRIPTION:	1,2mm THICK STANDARD STEEL DOUBLE REBATED DOORFRAME FOR 115MM WALL TO RECEIVE PLASTER ON ONE-SIDE 1/RED OXIDE PRIMER + 1/COAT UNIVERSAL	1,2mm THICK STANDARD STEEL DOUBLE REBATE DOORFRAME FOR 115MM WALL TO RECEIVE PLASTER ON ONE-SIDE 1/RED OXIDE PRIMER + 1/COAT UNIVERSAL
FINISHES:	UNDERCOAT + 2/COATS PLASCON GLOSS ENAMEL PAINT, - COLOUT TO ARCHITECT.	UNDERCOAT + 2/COATS PLASCON GLOSS ENAMEL PAINT COLOUT TO ARCHITECT.
DOOR DESCRIPTION:	2032 x 914 x 44mm THICK SOLID HARDWOOD DOOR WITH MASONITE BACKING. tYPE OF HARDWOOD DOOR ACCORDING TO OWNERS CHOICE.	2032 x 914 x 40mm SOLID HARDWOOD DOOR WITH MASONITE FACINGS TO RECEIVE 1/COAT UNDERCOAT + 2/COATS PLASCON VELVAGLO PAINT.
IRON MONGERY:	HINGES - 2x100mm M/S STEEL BUTT HINGES PER DOOR	HINGES - 2x100mm M/S STEEL BUTT PER DOOR
FITTINGS:	LEAF LOCKSET - "SOLID BLESBOK" 460/313 FOUR LEVER LOCKSET.	LEAF LOCKSET - "SOLID BLESBOK" 460/313 FOUR LEVER LOCKSET.
FINISHES:	PREPARE NEW DOOR & FRAME TO RECEIVE ONE UNDERCOAT PLUS 3/COATS POLYURETHANE VARNISH.	1/UNDERCOAT + 2/COATS PLASCON VELVAGLO PAINT FINISH.
GLASS:	NOT APPLICABLE	NOT APPLICABLE
INDOW SCHEDULE: cale 1:50.		
≥ ŭ		
	W1	W2
POSITION:	PREP AREA , NUTRITION FACILITY , TOILET.	BULK & DAY STORE
DESCRIPTION: WINDOW-FRAME DESCRIPTION:	6 STANDARD SS INDUSTRIAL TYPE STEEL WINDOW-FRAME CATALOGUE NUMBER SS41/SS41 COMPLETE WITH FITTINGS AS SUPPLY BY MANUFACTURER	4 STANDARD SS INDUSTRIAL TYPE STEEL WINDOW-F CATALOGUE NUMBER SS42 COMPLETE WITH FITTIN AS SUPPLY BY MANUFACTURER
WINDOW FURNITURE:	IRON-MONGERY & FITTINGS AS SUPPLY BY WINDOW MANUFACTURER. AND ACCORDING TO ARCHITECTS APPROVAL.	IRON-MONGERY & FITTINGS AS SUPPLY BY WINDOW MANUFACTURER. AND ACCORDING TO ARCHITECTS APPROVAL.
BURGLAR-BARS: FINISHES:	OUT OF 10mm WIDE FLAT-BARS 1/COAT RED OXIDE PRIMER + 1/COAT UNIVERSAL UNDERCOAT + 2/COATS PLASCON GLOSS ENAMEL PAINT - COLOUR ACCORDING TO ARCHITECT. 4mm THICK CLEAR FLOATED SHEET	OUT OF 10mm WIDE FLAT-BARS 1/COAT RED OXIDE PRIMER + 1/COAT UNIVERSAL UNDERCOAT + 2/COATS PLASCON GLOSS ENAMEL PAINT - COLOUR ACCORDING TO ARCHITECT. 4mm THICK CLEAR FLOATED SHEFT
GLASS:	GLAZING SECURED IN FRAME WITH SABS APPROVED GLAZING PUTTY	GLAZING SECURED IN FRAME WITH SABS

		2186	2400	
	D3 ENTRANCE TO NUTRITION FACILITY	D4 NUTRITION FACILITY		ВІС
		7		
ED	1 1,2mm THICK STANDARD STEEL DOUBLE REBATED	/ STANDARD WISPECO 2185 x 3	2400mm ROLLERSHUTTER	1 FRAME OUT OF 50 x 25 x 1,6mm M/S RECTANGULAR TUBING
	DOORFRAME FOR 230MM WALL TO RECEIVE PLASTER ON ONE-SIDE	DOOR WITH CHROMADEK FIN FITTINGS AS SUPPLY BY MAN	IISH COMPLETE WITH IUFACTURER.	MITRE 45 DEGREE,S AT CORNER BEFORE WELDED AND SECURED IN OPENING WITH BRACKETS WELDED TO GATE & BOLTED TO WALL
	1/RED OXIDE PRIMER + 1/COAT UNIVERSAL UNDERCOAT + 2/COATS PLASCON GLOSS ENAMEL PAINT COLOUT TO ARCHITECT.	FINISH: CROMADEK FINISH: -	COLOUR BY ARCHITECT	1/RED OXIDE PRIMER + 1/COAT UNIVERSAL UNDERCOAT + 2/COATS PLASCON GLOSS ENAMEL PAINT COLOUT TO ARCHITECT.
	2032 x 1626 x 44mm THICK SOLID HARDWOOD DOOR WITH MASONITE BACKING.	STANDARD WISPECO 2185 x 2 DOOR WITH CHROMADEK FIN	2400mm ROLLERSHUTTER IISH COMPLETE WITH	GATE OUT OF 25 x 25 x 1,6mm M/S SQUARE-TUBING SECTIONS WITH EXPANDED METAL MESH ON INSIDE OF OPENING ELDED
	tYPE OF HARDWOOD DOOR ACCORDING TO OWNERS CHOICE.	FITTINGS AS SUPPLY BY MAN	IUFACTURER.	TO FRAME WITH 10 x 10mm M/S SOLID BAR ON BOTH SIDES OF MESH 1/RED OXIDE PRIMER + 1/COAT LINIVERSAL
		FINISH: CROMADEK FINISH: -	COLOUR BY ARCHITECT	UNDERCOAT + 2/COATS PLASCON GLOSS ENAMEL PAINT COLOUT TO ARCHITECT.
ER	HINGES - 4x100mm M/S PARLEMENT HINGES PER DOOR LEAF LOCKSET - SOLID BLESBOK * 460/31 S POUR LEVER LOCKSET. CABIN HOOK - 2x 150mm CHROME PLATED CABIN HOOK, MOUNTED ON REBATE CONVERSION SET. FINSH CHROME. 1X 100mm BARREL BOLT. FINSH: CHROME. 75x75x16mm MERANTI MOUNTING BLOCK. EDGES OF MOUNTING	STANDARD WISPECO 2185 x 2 DOOR WITH CHROMADEK FIN FITTINGS AS SUPPLY BY MAN	2400mm ROLLERSHUTTER ISH COMPLETE WITH IUFACTURER.	2/PAIRS 100mm BULLET HINGES WELDED TO FRAME & GATE. LOCKSET - "SOLID BLESBOK" 460/313 FOUR LEVER LOCKSET.
	BLOCK TO RECEIVE 5mm CHAMVERS PREPARE NEW DOOR & FRAME TO RECEIVE ONE UNDERCOAT PLUS 3/COATS POLYURETHANE VARNISH.			PREPARE NEW DOOR & FRAME TO RECEIVE ONE UNDERCOAT PLUS 3/COATS POLYURETHANE VARNISH.
	NOT APPLICABLE	FINISH: CROMADEK FINISH: - NOT APPLICABLE	COLOUR BY ARCHITECT	NOT APPLICABLE
		:		
		DOOR SCHEDULE Scale 1:50.	7978 914 914 7073 7073 7073 7073 7073 7073 7073 707	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
		DOOR NUMBER:	D5	D7
		POSITION:	ENTRANCE PRE AREA	GAS-BANK
	W3	QUANTITY:	1 (1 = LH) (0 = RH)	
	TOILETS	DOOR-FRAME DESCRIPTION:	1,2mm THICK STANDARD STEEL DOUBLE REBATED DOORFRAME FOR 230MM WALL TO RECEIVE PLASTER ON ONE-SIDE 1/RED OXIDE PRIMER + 1/COAT UNIVERSAL	FRAME OUT OF 50 x 25 x 1,6mm M/S RECTANGULAR TUBING MITRE 45 DEGREE,S AT CORNER BEFORE WELDED AND SECURED IN OPENING WITH BRACKETS WELDED TO GATE & BOLTED TO WALL 1/RED OXIDE PRIMER + 1/COAT UNIVERSAL
/-FRAME INGS	STANDARD E-TYPE TOP-HUNG STEEL WINDOW-FRAME	FINISHES:	UNDERCOAT + 2/COATS PLASCON GLOSS ENAMEL PAINT COLOUT TO ARCHITECT.	UNDERCOAT + 2/COATS PLASCON GLOSS ENAMEL PAINT COLOUT TO ARCHITECT.
	AS SUPPLY BY MANUFACTURER	DOOR DESCRIPTION:	2032 x 914 x 40mm SOLID HARDWOOD DOOR WITH MASONITE FACINGS TO RECEIVE 1/COAT UNDERCOAT + 2/COATS PLASCON VELVAGLO PAINT.	GATE OUT OF 25 x 25 x 1.6mm M/S SQUARE-TUBING SECTIONS WITH EXPANDED METAL MESH ON INSIDE OF OPENING ELDED TO FRAME WITH 10 x 10mm M/S SOLID BAR ON BOTH SIDES OF MESH 1/RED OXIDE PRIMER + 1/COAT UNIVERSAL
	IRON-MONGERY & FITTINGS AS SUPPLY BY WINDOW MANUFACTURER. AND ACCORDING TO ARCHITECTS APPROVAL.	IRON MONGERY: FITTINGS:	HINGES - 2x100mm M/S STEEEL BUTT HINGES PER DOOR LEAF LOCKSET - "SOLID BLESBOK" 460/313 FOUR LEVER	ENAMEL PAINT COLOUT TO ARCHITECT. 2/PAIRS 100mm BULLET HINGES WELDED TO FRAME & GATE. LOCKSET - "SOLID BLESBOK" 460/313 FOUR LEVER LOCKSET.
	OUT OF 10mm WIDE FLAT-BARS 1/COAT RED OXIDE PRIMER + 1/COAT UNIVERSAL	FINISHES	1/UNDERCOAT + 2/COATS PLASCON	PREPARE NEW DOOR & FRAME TO RECEIVE ONE UNDERCOAT
EL	UNDERCOAT + 2/COATS PLASCON GLOSS ENAMEL PAINT - COLOUR ACCORDING TO ARCHITECT.		VELVAGLO PAINT FINISH.	PLUS 3/COATS POLYURETHANE VARNISH.
	5mm THICK PACIFIC OBSCURED GLAZING SECURED IN FRAME WITH SABS APPROVED GLAZING PUTTY	GLASS:	NOT APPLICABLE	NOT APPLICABLE

NOTES : Workmanship to comply with Standard Specification of materials and methods to be used - SABS 0400 Light Switch in Disabled toilet to be at 1200 mm above FFL If Step over 900 mm Build in Balustrade Gulley positions to be determined as per site prescribed overall drainage design désign 5) 2 x coats sealant on all exposed trusses (sand off all SABS & other and on all SABS & other and exposed trusses (sand on all SABS & other markings) b) 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 **ISSUED FOR TENDER** SIGNATURE TABLE DISCIPLINE SIGNATURE DATE CLIENT PLAN EXAMINER FIRE CONTROL ENVIRONMENTAL OFFICER ROADS / STORMWATER WATER AND SANITATION ENVIRONMENTAL OFFICER REV No DATE : DESCRIPTION : REVISIONS SIZE ON ORIGINAL DRAWING 100 mm _____ LIMPOPO Control PROVINCIAL GOVERNMENT REPUBLIC OF SOUTH AFRICA 1 Carrier DEPARTMENT OF EDUCATION INSTITUTION PFUMBADA PRIMARY SCHOOL INSTITUTION EMIS NUMBER 921230573 SERVICE NEW BUILDINGS CONTRACT - SECTION **DOCUMENTATION & PROCUREMENT** DISCIPLINE PROJECT STAGE ARCHITECTURAL 4 WORK DESCRIPTION - SUB DIVISION **NUTRITION BLOCK** DRAWING DESCRIPTION WINDOW AND DOOR SHEDULE FILE No. ITEM No. DESIGN DRAWN SCALE 1: 100 CHECKED RESPONSIBLE PROFESSIONAL NAME SIGNATURE PR NUMBER DATE 44460-2023.06.20 YUSUF VAHED PA7812 DRAWING CO-ORDINATED CONSULTANT Suite 4 No 6 Ismini Office Building, 6 Ismini Street, Polokwane, D699 South Africa Tel: +27 15 065 0645, Fax: +27 11 475 8364, Email: info@rubenreddyarch.co.za Web: www.rubenreddyarch.co.za CONTRACTOR FILE NAME REV2 AUTO CAD DRAWING NUMBER **A** 2020_68-NU-008 A 1





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_____W/PLATE_2_720

REFURBISHME

RENOVATIONS.

 <u>A1- CEILING</u> Take down and remove existing damaged ceilings complete with cornices, brandering, hangers, etc., from trusses to remain and replace with 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. Internal cornice - 19 x 76mm Meranti cornice nailed to walls at 400mm APPROVED BY PROJECT ENGINEER 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

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H1 - WRITING BOARD Vitrex System 1000 folding type vitreous enamel steel wall mounted school chalk board, overall size 1140 mm high x 3600 mm long, reference (1019), consisting of one fixed centre board size 1140 mm high x 1800 mm long, two fixed side boards each size 1140 mm high x 900 mm long and two swing leaves each size 1140 mm high x 900 mm long. One swing leaf (LH) including white 50 x 50 mm squares, reference (1021), permanently screened on to the rear face and the other swing leaf (RH) to have white lines spaced at 50 mm centres, reference (1025), permanently screened on to rear face. Board supplied complete with continuous Aluminium Chalk Rail (ACR), fixing components and secured in position to brickwork. **<u>I1 - PINING BOARDS</u>** Vitrex System 2000 Pin Boards overall size 1140 mm high x 4800 mm long to consist of Flortime Premier pinning material / Belgotex Colour-Rib carpet surface laminated to a soft board core, the unit to be beaded all around with a natural anodised Aluminium channel surround mitered at the corners. Colour of the pinning material / carpet surface (2) to be [Colour name] (3) as selected by the Architect from the relevant standard colour range. Pin Boards supplied complete with necessary fixing components and fixed in position strictly

in accordance with the manufacturer's instructions. <u>J1 - DOOR STOPPER</u> DDS-NP-018 nickel plated door stop. <u>K1 - SANITARY WARE</u> ALL Sanitaryware is to be replaced.

Toilet seats need to be installed. Plumbing to be checked and replaced or repaired where required. All external plumbing to be checked and replaced where needed. **EXTERNA** EX1 - Remove and replace roof sheets as per specification Take down and remove existing IBR roof coveringLay 0,8mm Thick Saflok/Kliplok 700 G4 Colortech aluminium interlocking roof 3) wafer head self-tapping fasteners with insulation including

covering fixed to purlins including approved stainless steel (Class rainwater goods on existing structure. EX2 - Install new fascia boards Everite medium density plain ungrooved Nutec fascia boards (Code: 41-202), size 225 x 12mm, fixed to 38 x 38mm tilter batten and 38 x 38mm support battens between rafters twice screwed with 12 x 40mm countersunk brass screws at 900mm centres to support battens with PVC Hprofile fascia joiner between boards and PVC H-profile fascia corner joiners at board ends.

EX3 - Install new barge boards Everite moulded Nutec moulded barge boards (Code: 721-740), size 275 x 80mm, fixed to 38 x 38mm trimmer batten twice screwed with 12 x 40mm countersunk brass screws with PVC H-profile barge board joiners between boards and at roof apex. • **EX4 - Install new gutters and down pipes** Pre-coated aluminum

seamless gutter, size 150 x 100 x 0,6mm thick in colour Marble White including matching rivet-fixed mitres and end caps internally sealed using Silicon Mastic, hung by nail fixed internal aluminium hangers at 600mm centres with rectangular fluted downpipes, size 100 x 75 x 0,6mm thick in colour Marble White fixed to walls with pre-painted downpipe cleats using nail-in anchor fixings. EX5 - Verandah floor finish Hack up/off and remove, repair • cracks out in granolithic finish, wet thoroughly and fill in with semidry 3:1 cement mortar well caulked. Pavelite' or other approved self-levelling screed on concrete.

EX6 - Clean face brick Clean down surfaces of face brick walls ٠ externally with a high pressure hose and a solution of 'Enterprise Cleaning Brick Cleaner' or similar approved and wash down with clean water. Existing painted bricks to be cleaned and re painted to match existing EX7 - Wheelchair Access:

Existing rams to be refurbished and made good. New wheelchair access ramp to be installed where needed. Existing stairs to be made good. **EX8 - Concrete Apron** Clean down surfaces of apron externally with a high pressure hose and a solution of 'Enterprise Cleaning Brick Cleaner' or similar approved and wash down with clean water. Fix damaged concrete portions as per engineers specifications.

NOTE :

_____T.O.C_0 170

NT SCHEDULE

This schedule is provisional because each block will have to be based on site inspection and block type. ALL SPECIFICATIONS AND QUANTITIES TO BE CONFIRMED WITH QS AND ARCHITECT PRIOR TO PROCUREMENT. PROOF OF DAMAGED PORTIONS TO BE TAKEN NOTE OF WITH PICTURES PRIOR TO

• <u>**B1 - WALLS**</u> Repair and brush to remove all loose contaminants, fill existing cracks with crack filler apply one coat Masonry Sealant', one coat Masonry Primer' and two coats Super Acrylic' or other approved paint. Replace all broken / missing bricks to match existing.

C1 - FLOOR Hack up/off and remove ,repair cracks out in granolithic finish, wet thoroughly and fill in with semi-dry 3:1 cement mortar well caulked. 'Pavelite' or other approved selflevelling screed on concrete: remove existing vinyl tile floor prepare floor to receive approved self-levelling screed finished with 300 x 300 x 2,5mm vinyl tiles or other approved semi-flexible vinyl flooring.

<u>C2 -SKIRTING</u> Take up and remove defective skirting and replace with 19 x 70mm Skirting including 19mm quadrant bead nailed.

<u>D1 - WINDOWS</u> Clean down existing steel windows and apply two coats Polyurethane Enamel' on existing enamel painted surfaces. Service and overhaul sash of steel window, including oiling and easing hinges, etc. retain existing burglar bars. Cracked glass in some places to be replaced.

Window putty to be inspected and replaced where required. Burglar bars to be treated for rust and repainted. All ironmongery is to be replaced.

<u>E1 - DOOR FRAME</u> Remove and replace existing door frame with DUROWIN or equal and approved single rebated with one shop coat red oxide pressed door frame 1,6 mm thick to 2032mm high door for 230m wall supplied with 1 pair welded steel hinges.

F1 - DOOR Remove and repair existing door by Sand down, repair with wood tiller and repaint reinstall as per door schedule, replace damaged doors with new doors.

G1 - STATIONARY CABINET Demolish existing masonry cabinet remove door and frame then, Provide School Type 4 shelf metal lockable stationery cabinet 540707IK lvory/ Karoo size 450 x 900 x 1 800mm high, bolted four times to wall with masonry expansion bolts.

ALL DIMENSIONS TO BE CONFIRMED ON SITE

ALL MECHANICAL AND ELECTRICAL SPECIFICATIONS TO ENGINEERS DETAIL AND APPROVAL

ALL SHOP DRAWINGS TO BE SENT TO ENGINEERS AND ARCHITECTS FOR APPROVAL PRIOR TO MANUFACTURING AND INSTALLATION

GENERAL DRAWING NOTES

) RKMANSHIP TO COMPLY WITH STANDARD SPECIFICATION OF MATERIALS AND METHODS TO BE USED - sabs 0400 2) IIGHT SWITCH IN DISABLED TOILET TO BE AT 1200MM ABOVE

3) IF STEP OVER 900MM BUILD IN BALUSTRADE 4) GULLEY POSITIONS TO BE DETRMINED AS PER SITE PRESCRIBED

OVERALL DRAINAGE DESIGN 5) 2 X COATS SEALANT O ALL EXPOSED TRUSSES (SAND OFF ALL abs & OTHER MARKINGS)

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 CEILINGS 7) WEST FACING FACADES TO HAVE STANDARDISED ALUMINIUM OUVRES FROM BELOW EAVES TO DROP OF 1200MM

8) TRUSSES TO BE DESIGNED IN ACCORDANCE WITH SABS 0400 &

REVISIONS

DESCRIPTION

REV No. DATE

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EX2 EX3 <u>W/PLATE_2720</u> W/PLATE_2 720 _____ EX6 ENVIRO - LOO_SIDE ELEVATION

SCALE 1:50

REFURBISHM

RENOVATIONS.

• <u>A1- CEILING</u> Take down and remove existing damaged ceilings complete with cornices, brandering, hangers, etc., from trusses to remain and replace with 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. Internal cornice - 19 x 76mm Meranti cornice nailed to walls at 400mm APPROVED BY PROJECT ENGINEER 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

Sealant', one coat Masonry Primer' and two coats Super Acrylic' or other approved paint. Replace all broken / missing bricks to match existing. <u>**C1 - FLOOR**</u> Hack up/off and remove ,repair cracks out in • granolithic finish, wet thoroughly and fill in with semi-dry 3:1 cement mortar well caulked. 'Pavelite' or other approved selflevelling screed on concrete: remove existing vinyl tile floor prepare floor to receive approved self-levelling screed finished with 300 x 300 x 2,5mm vinyl tiles or other approved semi-flexible vinyl flooring.

<u>D1 - WINDOWS</u> Clean down existing steel windows and apply • two coats Polyurethane Enamel' on existing enamel painted surfaces. Service and overhaul sash of steel window, including oiling and easing hinges, etc. retain existing burglar bars. Cracked glass in some places to be replaced. Window putty to be inspected and replaced where required. Burglar bars to be treated for rust and repainted. All ironmongery is to be replaced.

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H1 - WRITING BOARD Vitrex System 1000 folding type vitreous enamel steel wall mounted school chalk board, overall size 1140 mm high x 3600 mm long, reference (1019), consisting of one fixed centre board size 1140 mm high x 1800 mm long, two fixed side boards each size 1140 mm high x 900 mm long and two swing leaves each size 1140 mm high x 900 mm long. One swing leaf (LH) including white 50 x 50 mm squares, reference (1021), permanently screened on to the rear face and the other swing leaf (RH) to have white lines spaced at 50 mm centres, reference (1025), permanently screened on to rear face. Board supplied complete with continuous Aluminium Chalk Rail (ACR), fixing components and secured in position to brickwork.

<u>II - PINING BOARDS</u> Vitrex System 2000 Pin Boards overall size 1140 mm high x 4800 mm long to consist of Flortime Premier pinning material / Belgotex Colour-Rib carpet surface laminated to a soft board core, the unit to be beaded all around with a natural anodised Aluminium channel surround mitered at the corners. Colour of the pinning material / carpet surface (2) to be [Colour name] (3) as selected by the Architect from the relevant standard colour range. Pin Boards supplied complete with necessary fixing components and fixed in position strictly in accordance with the manufacturer's instructions.

<u>EXTERNA</u>

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EX3 - Install new barge boards Everite moulded Nutec moulded barge boards (Code: 721-740), size 275 x 80mm, fixed to 38 x 38mm trimmer batten twice screwed with 12 x 40mm countersunk brass screws with PVC H-profile barge board joiners between boards and at roof apex.

• **EX4 - Install new gutters and down pipes** Pre-coated aluminum seamless gutter, size 150 x 100 x 0,6mm thick in colour Marble White including matching rivet-fixed mitres and end caps internally sealed using Silicon Mastic, hung by nail fixed internal aluminium hangers at 600mm centres with rectangular fluted downpipes, size 100 x 75 x 0,6mm thick in colour Marble White fixed to walls with pre-painted downpipe cleats using nail-in anchor fixings. EX5 - Verandah floor finish Hack up/off and remove, repair ٠ cracks out in granolithic finish, wet thoroughly and fill in with semidry 3:1 cement mortar well caulked. Pavelite' or other approved self-levelling screed on concrete.

EX6 - Clean face brick Clean down surfaces of face brick walls ٠ externally with a high pressure hose and a solution of 'Enterprise Cleaning Brick Cleaner' or similar approved and wash down with clean water. Existing painted bricks to be cleaned and re painted to match existing EX7 - Wheelchair Access: Existing rams to be refurbished and made good. New wheelchair access ramp to be installed where needed. Existing stairs to be made good.

NOTE :

This schedule is provisional because each block will have to be based on site inspection and block type. ALL SPECIFICATIONS AND QUANTITIES TO BE CONFIRMED WITH QS AND ARCHITECT PRIOR TO PROCUREMENT. PROOF OF DAMAGED PORTIONS TO BE TAKEN NOTE OF WITH PICTURES PRIOR TO

• <u>**B1 - WALLS**</u> Repair and brush to remove all loose contaminants, fill existing cracks with crack filler apply one coat Masonry

<u>C2 - SKIRTING</u> Take up and remove defective skirting and replace with 19 x 70mm Skirting including 19mm quadrant bead nailed.

<u>E1 - DOOR FRAME</u> Remove and replace existing door frame with DUROWIN or equal and approved single rebated with one shop coat red oxide pressed door frame 1,6 mm thick to 2032mm high door for 230m wall supplied with 1 pair welded steel hinges.

F1 - DOOR Remove and repair existing door by Sand down, repair with wood liller and repaint reinstall as per door schedule, replace damaged doors with new doors.

 G1 - STATIONARY CABINET Demolish existing masonry cabinet remove door and frame then, Provide School Type 4 shelf metal lockable stationery cabinet 540707IK lvory/ Karoo size 450 x 900 x 1 800mm high, bolted four times to wall with masonry expansion bolts.

J1 - DOOR STOPPER DDS-NP-018 nickel plated door stop.

<u>K1 - SANITARY WARE</u>

ALL Sanitaryware is to be replaced.

Toilet seats need to be installed. Plumbing to be checked and replaced or repaired where required. All external plumbing to be checked and replaced where needed.

EX1 - Remove and replace roof sheets as per specification Take down and remove existing IBR roof coveringLay 0,8mm Thick Saflok/Kliplok 700 G4 Colortech aluminium interlocking roof covering fixed to purlins including approved stainless steel (Class 3) wafer head self-tapping fasteners with insulation including rainwater goods on existing structure.

EX2 - Install new fascia boards Everite medium density plain ungrooved Nutec fascia boards (Code: 41-202), size 225 x 12mm, fixed to 38 x 38mm tilter batten and 38 x 38mm support battens between rafters twice screwed with 12 x 40mm countersunk brass screws at 900mm centres to support battens with PVC Hprofile fascia joiner between boards and PVC H-profile fascia corner joiners at board ends.

EX8 - Concrete Apron Clean down surfaces of apron externally with a high pressure hose and a solution of 'Enterprise Cleaning Brick Cleaner' or similar approved and wash down with clean water. Fix damaged concrete portions as per engineers specifications.

ALL DIMENSIONS TO BE CONFIRMED ON SITE

ALL MECHANICAL AND ELECTRICAL SPECIFICATIONS TO ENGINEERS DETAIL AND APPROVAL

ALL SHOP DRAWINGS TO BE SENT TO ENGINEERS AND ARCHITECTS FOR APPROVAL PRIOR TO MANUFACTURING AND INSTALLATION

GENERAL DRAWING NOTES

) RKMANSHIP TO COMPLY WITH STANDARD SPECIFICATION OF MATERIALS AND METHODS TO BE USED - sabs 0400 2) IIGHT SWITCH IN DISABLED TOILET TO BE AT 1200MM ABOVE

3) IF STEP OVER 900MM BUILD IN BALUSTRADE 4) GULLEY POSITIONS TO BE DETRMINED AS PER SITE PRESCRIBED

OVERALL DRAINAGE DESIGN 5) 2 X COATS SEALANT O ALL EXPOSED TRUSSES (SAND OFF ALL abs & OTHER MARKINGS)

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 CEILINGS 7) WEST FACING FACADES TO HAVE STANDARDISED ALUMINIUM OUVRES FROM BELOW EAVES TO DROP OF 1200MM

8) TRUSSES TO BE DESIGNED IN ACCORDANCE WITH SABS 0400 &

REVISIONS

DESCRIPTION

REV No. DATE

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	SYMBOL	LIGHTING LEGEND.	QUANTITY
	1	TYPE 1 - 1200mm x 350mm 35W Surface LED channel complete with electronic ballast. Fittings to be equivalent to REGENT LIGHTING NANO CR180 fittings.	28
	B1	TYPE B1 - IP65 Wall mounted 280mm diameter bulkhead complete with 2 x 18W CFL.Fittings shall be equivalent to the BEKA series 31. Fittings to me mounted at 2200mm After Finished Floor Level.	9
	Ð	Photocell.	1
	•	1 lever 1 way switch. Mounting shall be 1400mm After Finished Floor Level.	9
		16A Flush mounted double socket outlet. Mounting at 300mm AFFL.	8
	DB/BB	Flush Mounted Distribution Board	1
1			

- 4 CLASSROOM BLOCK ELECTRICAL NOTES. Install new electrical installation as per the design drawing.
 All conduit to be used for small power and lighting installation shall be Ø25mm and Ø20mm SABS approved PVC conduit respectively.
 2.5mm2 and 4mm2 GP wire (with 2.5mm2 bare copper earth wire for all circuits) shall be used for wiring the lighting and small power circuits respectively.
 Positions of socket outlets on this drawings are indicative. Actual positions of the socket outlets to be finalised on site.
 Light fittings shall bear the SABS stamp of approval.
 Light fittings, sockets, light switches and distribution board shall be installed flush and square and at positions indicated on the drawing. Change of position shall be effected after approval by the Electrical Engineer.
 After installation is complete, label equipment, test and issue Certificate of Compliance for the installation.
- 1. The earthing and lightning protection shall be installed by a specialist.
- Such specialist as appointed by the contractor shall ensure the installation is compliant to the requirements of SANS 10199 and SANS 62305 and shall issue a certificate after completion of the works.
- 3. All down conductors shall be of Solid Aluminium conductor and shall be installed inside Ø25mm pvc pipes which shall be chased inside the wall.
- 4" x 4" Test Boxes shall also be installed at 300mm AFFL. These shall be installed flash on the outside wall for all earthing connections.
- 5. All connections between conductor and earth spikes shall be exothermically welded.
- 6. The layout shown for electrode installation is a guide and should there be any need to drive the rods deeper into the ground or add more rods to lower the ground resistance the specialist shall inform the Electrical Engineer.

Symbol Description

1500mm earth spike



BE BONDED TO MAIN EARTH

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	ELECTRICAL E	ENGINEERS ELECTRICAL & CON AL AND CONSTRE B IBLOCK 7, 38 BUR CIDE 292 2104 CIDE 292 2104 CIDE 292 210 CIDE 292 210 CIDE 292 210 CIDE 292 210 CIDE 202 CID 202 CID 202 CID 202 CID 202	STRUCTION MANAGERS UCTION MANAGERS UCTION MANAGER ger Street, Polokwa rrivate Bag, X9700, (7079 765 0921 poo.com or prince@ // // 000 com or prince@ // 000 com or prince@	RS PTY LTD Ine, 0699. Polokwane,07 Inskecm.co.za (WEMBEYA TING ANI STAGE F C



(CLIENT
						1000	
						Sector.	LIMPOPO
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						PUBLIC WORKS	S, RUADS & INFRASTRU
	REV	DATE	СНК	APP	DESCRIPTION]	

ISSUED FOR TENDER

<u>NOTES.</u>

<u>Panels: 1.8 x 3m</u>

- 1. Fence bearers:
- \cdot 40 x 40 x 2mm angle iron. These are to be placed 300mm from top of paling and 300mm from bottom of paling. (350mm from ground level).
- These are to be welded flash with the back of the post.
- 2. Palings "Devil fork"
- · 21 palings per panel.
- \cdot 30 x 30 x 2mm steel angle iron paling 1.8m high.
- Palings to be inserted and firmly welded to the bearers at 133mm centre to centre.
- Top of the paling to provide a "Devil Fork" effect and the bottom will have a dove tail.

3. Posts:

- \cdot 76 x 76 x 2 mm steel square tubing with closing pyramid
- caps on top. • Post must 2.4m high and 600mm will planted into concrete footing.

<u>Palisade Gates</u>

- 1. Sliding Gate:
- \cdot 5/4 m wide x 1.8 m high. 40 x 40 x 2 mm angle iron palings welded to a 76 x 38x 2mm rectangular tubing bearer frame.
- Palings to be placed at 133 mm apart from each other centre to centre.
- Gate to be provided with 2 x 80mm roller coaster wheels fitted with ball bearing. These are to be fitted 500mm from edge of the gates.
- Gate to be provide with proper closing and guidance mechanism.
- Track is to be 12 mm steel rod welded to a 40 x 40 x 5mm angle iron fixed into a 300 wide x 400 thick x 5m length of the gate (track concrete to engineer's design).
- Gate Post: 75mm x 75mm 2mm steel square tubing post is to be provided on each side of gate opening with closing pyramid caps on top.
- Post to be founded in a concrete footing 450 x 450 x 600 deep. Concrete strength to be 20Mpa (minimum) at 28 days.

2. Pedestrian gate:

- \cdot 1.5 m wide x 1.8 m high. 40 x 40 x 2 mm angle iron palings welded to a minimum 50 x 25 x 1.6mm rectangular tubing bearer frame.
- Palings to be placed at 133 mm apart from each other centre to centre.

<u>Painting</u>

- · All joints must be smoothed off.
- All Flux, rust, grease and loose material to be removed before painting.
- Apply one coat primer for steel (red oxide), apply one coat universal undercoat for all surfaces, apply one coat Gloss
- enamel (colour as specified by the LPDE).
- No brush painting.

	SCAI	LE	ALL DIMENSION IN mm UNLESS SPECIFIED OTHERWISE	
	DO NOT SCALE IF IN DOUBT ASK.		TITLE	
			LDPWRI STORM DAMAGED SCHOOLS	
	PROJECT No.		STEEL PALISADE FENCE DETAIL	S
	LDPWRI-PROF/16003B			
	DRG SIZE	A1	DRAWING No. LDPWRI SCHOOLS/B&C/01	REV 0

OVERNMENT OUTH AFRICA	
FRASTRUCTURE	

ISSUED FOR DISCUSSION

CONCRETE NOTES

1.	ALL CIVIL ENGINEERING WORK TO BE CARRIED OUT IN
2	ACCORDANCE WITH SABS 1200
۷.	BELOW ULNESS OTHERWISE NOTED.
	MASS CONCRETE GRADE 10/19
	STRUCTURAL CONCRETE GRADE 10/19
3.	250 MICRON PVC SHEETING IN ACCORDANCE WITH SABS 952 -1985 TYPE C TO BE PROVIDED UNDER ALL GROUND
4.	SLABS. EXPOSED UNFORMED SURFACES TO BE "STEEL FLOAT EINISH" LINI ESS OTHERWISE NOTED
5.	THE MINIMUM DESIGN BEARING PRESSURE FOR
6	FOUNDATIONS IS 150MPa UNLESS OTHERWISE NOTED.
0.	THE ENFINEER PRIOR TO CASTING OF BLINDING AND TO BE KEPT DRY AT ALL TIMES.
CO	NSTRUCTION NOTES:
1.	CONSTRUCTION PROCEDURE, SEQUENCE AND
	BY THE ENGINEER PRIOR TO CASTING THE RAFT.
2.	CONSTRUCTION JOINT PREPARATION: THE SURFACE OF
	JOINT SHALL HAVE A LAITANCE REMOVED TO EXPOSE
	THE COARSE AGGREGATE AND A SOLID SURFACE. THIS MAY BE FACILITATED BY THE USE OF A SUITABLE
	EXPANDED METAL OR PROPRIETARY STOP END
3	SHUTTER. RAFT TO BE DOWER ELOATED TO JUST SHOPT OF BEIC
0.	POLISHED. METHOD TO BER APPROVED BY THE
Л	ENGINEER PRIOR TO IMPLEMENTATION.
4.	CASTING I.E KEEP WET OR COVER WITH PLASTIC
	MEMBRANE.
GE	OTECHNICAL CONSIDERATIONS
1.	COGNISANCE HAS BEEN TAKEN OF THE DOLOMITE
	CONDITIONS AND THE FOUNDATIONS HAVE BEEN ACCORDING TO THE FOLLOWING:
2.	DOLOMITE AREA DESIGNATION - D3
3.	SINKHOLE MAXIMUM SIZE - 5M DIAMETER

SCAI	LE	ALL DIMENSION IN mm UNLESS SPECIFIED OTHERWISE		
		TITLE		
 DO NOT SCALE IF IN DOUBT ASK.		GUARDHOUSE BLOCK		
PROJECT No.		FOUNDATION LAYOUT & DETAIL	S	
 LDPWRI-PROF/16003B				
 DRG SIZE	A1	DRAWING No. GUARDHOUSE/RAFT/001	REV 0	


ISSUED FOR TENDER

GENERAL NOTES

- ALL STEEL PIPES AND FITTINGS TO BE HEAVY DUTY HOT DIPPED GALVANIZED WITH A MINIMUM ZINC COATING OF 105 MICRON. ANY PIPES ORDERED WITHOUT THE APPROVAL OF THE ENGINEER WILL BE RECTIFIED AT THE CONTRACTORS OWN COST.
- 2. EACH ITEM IS TO BE CLEARLY MARKED ACCORDING TO THE NUMBERS GIVEN IN THE LIST.
- 3. ALL CONCRETE TO BE 25/19 MPa, AND CAST ON 93% MOD AASHTO COMPACTED IN-SITU SOIL.
- 4. ALL EXPOSED CONCRETE EDGES TO HAVE A 20mm CHAMFER.
- 5. ALL HDPE PIPES TO BE IN ACCORDANCE WITH SABS 4427 SPECIFICATIONS.
- 6. CORROSION PROTECTION:
- 6.1. ALL STEEL ITEMS, INCLUDING THE STEEL CAGE TO BE COATED WITH CORROSION PROTECTION PAINT 6.2. AFTER INSTALLATION ANY CHIPS AND SCRATCHES SHALL BE MADE GOOD ON SITE WITH BRUSH APPLIED GALVANIZED PAINT.

REF.	SCHEDULE OF FITTINGS	SIZE	LENGTH	QTY.
A	PUMP AND MOTOR	-	-	1
в	MALE ADAPTOR			
с	SUBMERSIBLE HDPE PIPE, CLASS 12, 4,1mm WALL THICKNESS, SANS 4427, BOREHOLE TO SURFACE	Ø25	110	1
D	METAL BASE PLATE - DOUBLE CHOKE	Ø280	-	1
E	90 DEGREE ELBOW	Ø65	-	2
F	FLANGED MECHANICAL FLOW METER	Ø65	-	1
G	SCHEDULE 40 GALVANIZED PIPE	Ø65	-	-
н	HEAVY DUTY GALVANISED TEE COMPLETE WITH PLUG FITTED TO BRANCH TO PRESSURE SWITCH ON ELECTRICAL INSTALLATIONS	Ø65	-	1
1	MECHANICAL PRESSURE GAUGE, WIKA 100mm DIAL AND FILLED WITH GLYCERINE, WITH A RANGE FROM 200 TO 1 200KPa, COMPLETE WITH BALL ISOLATING VALVE AND PIPING.	Ø65	-	1
J	HEAVY DUTY GALVANIZED REDUCING TEE FOR PRESSURE GAUGE	Ø65	-	1
к	TILT DISC NON-RETURN VALVE	Ø65	-	1
L	BRASS TYPE ISOLATING VALVE	Ø65	-	1

	SCALE		ALL DIMENSION IN mm UNLESS SPECIFIED OTHERWISE				
	DONOT		TITLE				
	DO NOT SCALE — IF IN DOUBT ASK.		LDPWRI STORM DAMAGED SCHOOLS				
			BOREHOLE SPECIFICATIONS	2			
	PROJECT No.		BOREHOLE SI LOII ICATIONS)			
	LDPWRI-PROF/16003B						
	DRG SIZE	A1	DRAWING No. LDPWRI SCHOOLS/B&C/02	REV			

			1m WIDE APRON, JOINTS EVERY 2.5m
			SAW CUT JOINT N.T.S.
		DESCRIPTION	CLIENT
REV DATE CHK	APP	DESCRIPTION	PROVINCIAL GO REFUBLIC OF SC DEPARTMENT OF PUBLIC WORKS, ROADS & INI



FLOOR JOINTS



JOINT DETAILS - SECTIONS

MUTEO CONSULTING



39 GROBLER STREET	PROJECT APPR.	DATE	BY	SIGNATURE
POLOKWANE 0699	DESIGNED	02 May 2023	S.D	
P.O. BOX 6196	CHECKED	02 May 2023	E.M	
POLOKWANE NORTH	DRAWN	02 May 2023	S.D	
TEL : (015) 291 4065	PROJECT MNG.	-		
FAX : (015) 291 4043	APPROVED			
website: www.muteo.co.za				
	CLIENT			

ISSUED FOR DISCUSSION

SCALE		LE	ALL DIMENSION IN mm UNLESS SPECIFIED OTHERWISE	
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	II IN DOC	DI Molt.	COARDINGUE BECCIX	
	PROJECT No.		FLOOR JOINTS	
	LDPWRI-PRO	DF/16003B		
	DRG SIZE	A1	DRAWING No. GUARDHOUSE/RAFT/002	REV 0



	MUTEO CONSULTING	39 GROBLER STREET	PROJECT APPR.	DATE	BY	SIGNATURE	SCALE	ALL DIMENSION IN mm UNLESS SPECIFIED OTHERWISE
		POLOKWANE 0699	DESIGNED	02 May 2023	S.D			TITLE
POPO		P.O. BOX 6196 POLOKWANE NORTH	CHECKED	02 May 2023	E.M		DO NOT SCALE IF IN DOUBT ASK.	NUTRISION BLOCK
GOVERNMENT SOUTH AFRICA	MUTEO	0750	DRAWN	02 May 2023	S.D			
F	CONSULTING	TEL : (015) 291 4065	PROJECT MNG.				PROJECT No.	FOUNDATION LAYOUT & DETAILS
NFRASTRUCTURE	Controllinito	FAX : (015) 291 4043	APPROVED				LDPWRI-PROF/16003B	
		website: www.muteo.co.za	CLIENT				DRG SIZE A1	DRAWING No.REVNUTRISION/RAFT/0030

ISSUED FOR DISCUSSION

CONCRETE NOTES

	NORLIL NOTLO.
1.	ALL CIVIL ENGINEERING WORK TO BE CARRIED OUT IN
2.	CONCRETE TO BE "STRENGTH CONCRETE" AS SPECIFIED
	BELOW ULNESS OTHERWISE NOTED. MASS CONCRETE GRADE 10/19
	BLINDING CONCRETE GRADE 10/19
3.	STRUCTURAL CONCRETE GRADE 25/19 250 MICRON PVC SHEETING IN ACCORDANCE WITH SABS
	952 -1985 TYPE C TO BE PROVIDED UNDER ALL GROUND
4.	SLABS. EXPOSED UNFORMED SURFACES TO BE "STEEL FLOAT
-	FINISH" UNLESS OTHERWISE NOTED.
5.	FOUNDATIONS IS 150MPa UNLESS OTHERWISE NOTED.
6.	ALL FOUNDATION EXCAVATIONS TO BE INSPECTED BY
	BE KEPT DRY AT ALL TIMES.
CO	NSTRUCTION NOTES
00	
1.	CONSTRUCTION PROCEDURE, SEQUENCE AND POSITIONING OF COSTRUCTION JOINTS TO BE APPROVED
•	BY THE ENGINEER PRIOR TO CASTING THE RAFT.
2.	THE FIRST CAST CONCRETE FORMING A CONSTRUCTION
	JOINT SHALL HAVE A LAITANCE REMOVED TO EXPOSE
	MAY BE FACILITATED BY THE USE OF A SUITABLE
	EXPANDED METAL OR PROPRIETARY STOP END
3.	RAFT TO BE POWER FLOATED TO JUST SHORT OF BEIG
	POLISHED. METHOD TO BER APPROVED BY THE ENGINEER PRIOR TO IMPLEMENTATION.
4.	RAFT TO BE CURED FOR 7 DAYS AFTER CONCRETE
	MEMBRANE.
GF	OTECHNICAL CONSIDERATIONS
ŬĽ	
1.	COGNISANCE HAS BEEN TAKEN OF THE DOLOMITE CONDITIONS AND THE FOUNDATIONS HAVE BEEN
0	ACCORDING TO THE FOLLOWING;
2. 3.	SINKHOLE MAXIMUM SIZE - 5M DIAMETER

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REV	DATE	СНК	APP	DESCRIPTION	PUBLIC WORKS	LIMP PROVINCIAL GO REPARTMENT OF S, ROADS & INF



SECTION D-D



ISSUED FOR TENDER

STRUCTURAL STEEL MEMBERS

- a Column legs 60x60x5 angle made from commercial steel.
- b Horizontal brace 40x40x5 angle made from commercial steel.
- c Top platform main support beam 150x75x10 angle made from EN10025-2-
- d S355JR steel.
- Cross brace 30×5 flat bar made f - from commercial steel.

f - Top platform secondary support beams – 125x75x20x3 lipped channel made from commercial steel.

NOTES:

- 1. Use two M16 grade 4.8 bolts for the each of the column to platform connections.
- 2. Use one M12 grade 4.8 bolt for all other connections.
- 3. The cold formed lipped channels are to be bolted to the main support angle with two M10 grade 4.8 bolts at both ends of the lipped channel.
- 4. All steel to be coated with SANS approved corrosion protection galvanized paint for engineer's approval.

SCALE			ALL DIMENSION IN mm UNLESS SPECIFIED OTHERWISE	
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_		-	PVC TANK STAND DETAILS	
	PROJECT N	NO.		
	LDPWRI-PROF/1	16003B		
_	DRG SIZE	A1	DRAWING No.	REV
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		SCHEDULE OF FITTINGS					
			WALL		TREAT	IMENT	Ī
REF	NB	DESCRIPTION	۳ mm	FLANGE DRILLING	GALVA NISED	EPOXY RESIN PAINT	QTY
Α	40	'PLASSON' MALE ADAPTOR COMPRESSION FITTING					3no
в	65 x40	65 x 40 DN MGI REDUCING BUSH			*		3no
D	6 5	475mm LONG MGI PIPE PIECE THREADED BOTH ENDS 4.5			*		3no
E	6 5	90 DEGREE MGI FEMALE BEND			*		9no
F	6 5	330mm LONG MGI PIPE PIECE THREADED BOTH ENDS 4.5			*		3no
G	6 5	1020mm LONG MGI PIPE PIECE THREADED BOTH ENDS 4.5			*		2no
н	6 5	MGI CONICAL SEAT UNION			*		2no
J	6 5	MGI BARREL NIPPLE			*		2no
к	65	BRASS FEMALE THREADED FULLWAY GATE VALVE					2no
L	6 5	2000mm LONG MGI PIPE PIECE THREADED BOTH ENDS 4.5			*		2no
М	65	65x65x65ND MGI FEMALE EQUAL TEE			*		3no
N	65x50	65x50ND MGI REDUCING BUSH			*		3no
ο	50	MGI BARREL NIPPLE			#		2no
Р	50	BRASS FEMALE THREADED FULLWAY GATE VALVE					2no
Q	50	50NDx50BSP MALE ADAPTOR COMPRESSION FITTING					3no
R	50	600mm LONG HIGH DENSITY POLYETHYLENE TYPE IV CLASS 6 PIPE (TO SABS 533)					3no
8	50x40	50NDx40BSP MALE ELBOW COMPRESSION FITTING					3no
т	5 0	2800mm LONG HIGH DENSITY POLYETHYLENE TYPE IV CLASS 6 PIPE (TO SABS 533)					2no
U	50	90 DEGREE ELBOW COMPRESSION FITTING					2no
v	65	3150mm LONG MGI PIPE PIECE THREADED BOTH ENDS 4.5			*		1no
W	-	10 000 LITRE POLYETHYLENE WATER TANK (3040mm HIGH x 2200mm DIAMETER). COMPLETE WITH 50x40ND NYLON REDUCING BUSHES SEALED INTO ALL INLETS AND OUTLETS. TANK TO BE SUPPLIED COMPLETE WITH SUFFICIENT 4mm DIA GALVANISED STEEL WIRE FOR ANCHORING TO THE TANK STAND PLATFORM AS DETAILED ON PLAN NO. 0310A.25.4					1set
x	40	HDPE TYPE IV CLASS 6 PIPING (PROVISIONAL)					12m
Y	65	MGI HOLLOW PLUG			*		3no
z	40	100 mm LONG GALVANISED STEEL PIPE THREADED BOTH ENDS 4.5			*		1no
AA	40	90 DEGREE MGI MALE / FEMALE ELBOW			*		1no
AB	40	MGI CONICAL SEAT UNION			*		1no
AC	40	MGI BARREL NIPPLE			*		1no
AD	40	STAINLESS STEEL 'BALEM' FLOAT VALVE, MODEL BLBS 040 COMPLETE WITH FLOW INDUCTION TUBE					1 set
		MISCELLANEOUS FITTINGS 1) PIPE CLAMPS AS DETAILED ON PLAN NO. 0310.25.3					9no

CLIENT	MUTEO CONSULTING	39 GROBLER STREET	PROJECT APPR.	DATE
		POLOKWANE 0699	DESIGNED	10/08/2021
LIMPOPO		P.O. BOX 6196 Polokwane north	CHECKED	10/08/2021
PROVINCIAL GOVERNMENT	WIUTED	0750	DRAWN	10/08/2021
DEPARTMENT OF	CONSULTING	TEL : (015) 291 4065	PROJECT MNG.	
		FAX : (015) 291 4043	APPROVED	
		website: www.muteo.co.za	CLIENT	

OVERFLOW PIPE TO

DESIGNATED AREA
 ON SITE - ENGINEER
 TO CONFIRM ON SITE

SIGNATURE

BY V.M

E.M

V.M

ISSUED FOR TENDER

SCALE	ALL DIMENSION IN mm UNLESS SPECIFIED OTHERWISE			
	TITLE			
DO NOT SCALE				
IF IN DOUBT ASK.	LUPWRI STURIVI DAIVIAGED SCHUULS			
	PVC TANK PIPE FITTINGS			
PROJECT No.				
DPWRI-PROF/16003B				
DRG SIZE A1	DRAWING No. LDPWRI SCHOOLS/B&C/03C			



GROBLER STREET	PROJECT APPR.	DATE	BY	SIGNATURE
LOKWANE 0699	DESIGNED	02 May 2023	S.D	
D. BOX 6196	CHECKED	02 May 2023	E.M	
0	DRAWN	02 May 2023	S.D	
L : (015) 291 4065	PROJECT MNG.			
X : (015) 291 4043	APPROVED			
site: www.muteo.co.za	CLIENT			
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ISSUED FOR DISCUSSION

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PROJEC	T No.	SEPTIC TANK	
LDPWRI-PRC	DF/16003B		
DRG SIZE	A1	DRAWING No. LDPWRI SCHOOLS/B/PFUMBADA/10	REV 0
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	MUTEO	POL P.O. POL 0750
	CONSULTING	FAX
INFRASTRUCTURE		webs

KEEI	PROJECT APPR.	DATE	ВҮ	SIGNATURE
699	DESIGNED	22 June 2023	N.M	
ORTH	CHECKED	22 June 2023	E.M	
	DRAWN	22 June 2023	N.M	
-065	PROJECT MNG.			
4043	APPROVED			
teo.co.za	CLIENT			

ISSUED FOR TENDER

1 GENERAI	NOTES				
1.1. All work to be don	e in accordance	ce with the	National Buildin	g Regulations a	nd
the relevant SABS	Specification	s.		0	
1.2. All drawings to be	read in conjur	nction with	Architect's draw	ings and any dis	crepancies
1.3 No structural alter	o uie ⊏riginee ations are to b	e made wit	iy setting out of	work. drawings	
1.4. All drawings must	be checked b	y the Contra	actor and any		
discrepancies sho	uld be reporte	d to the En	gineer before a	ny work commer	ices
1.5. All waterproofing a	and drainage t	o be to Arc	hitect's details a	ind instructions.	
1.6. Contractor to ensu	ire that stabilit	y of banks	and excavations	s are continuous	ly
maintained throug	nout the cons	truction per	IOQ		
2. R.C. CONS	IKUCT				
2.1. No concrete is to b	e poured befo	ours notice	neer has inspec	ted and approve	a the
2.2. Breaks in concrete	and construct	tion joints a	re to be made o	only with Enginee	er's approval.
2.3. Shuttering and pro	pping may be	struck only	after the lapse	of the following t	imes (in days):
Beam sides, walls	and unloaded	columns	2		
Beam soffits without	ut removal of t	ab props beam props	4 7		
Props unloaded sla	bs		10		
2 4 Minimum concrete	ams cover to reinfo	orcement (ir	14 n mm)		
piles	50	t k	beams		30
pile caps	50	S	slabs retaining walls (r	earth face)	20 30
columns	30	r	etaining walls (e	exposed face)	30
25 Concepts and	anoth at 00		_ \	,	
2.5. Concrete cube stre	ength at 28 da	iys in (iviPa) 15) beams	25	
Mortar(Class A)		15	slabs	25	
columns	roinforcing to	JU	walls	25	access or
2.6. Concrete cover to precast concrete to	reinforcing to	ding wires	ied by the use c cast in.	of either hylon sp	acers or
2.7. All floor levels, unl	ess otherwise	indicated ,	are structural s	ab levels.	
3. FOUNDING	5				
3.1. Foundations are su	bject to altera	tions as exe	cavations proce	ed.	
3.2. No foundations are	to be cast or	reinforceme	ent fixed in base	es until excavatio	ons have been
approved by an Ei	igineer. under founda	tions and fl	oors to be as fo	llows.	
G6 Material or b	etter			nowo.	
PI < 6 Compacted to 98	3% MOD AAS	HTO in lave	ers of 150mm		
Non-cohesive ar	d free draining	g			
		-9			
		_3			
4.1. All exposed concret made up of 2 sheet	e slabs and be	eams bearii with smoot	ng on brickwork h faces abuttinc	to have a slip jo Leach other at	oint
top of brick-concret	e interface. Jo	pint to exten	d through plast	er.	
4.2. Special attention to	be given to cu	uring of con	crete. Exact det	ails to be discus	sed
with Engineer on si	te prior to pou	ring of any	concrete.		
4.3. I wo lintels plus five	courses of bri ourse with brid	ickwork to b ckforce	e built over all o	openings	
4.4. All brickwork to hav	e a minimum (compressiv	e strength of 15	MPa.	
4.5. A construction joint	sealed with su	uitable flexik	ole sealant is to	be formed at all	
junctions between	new brickwork	and existin	ig brickwork.	until alaba/baama	have
attained their full st	e built onto su ength and hav	ve been de	aps or beams u propped	nun siaus/beams	
4.7. All deviations from	architect's dra	wing to be o	confirmed by ar	chitect prior to co	onstruction.
4.8. All work to be carrie	d out in accord	dance with	the National Bu	ilding Regulation	is, Environmental
4.9. The main contractor	eaith and Safe	ety Act, (lat hat a comp	etent person ar	ia ine Construct	ion Regulations. South African
Qualification Author	ty supervises	and approv	res all aspects c	of the requirement	nts of the
Occupational Health	and Safety A	ct, latest re	vision.		
1.10. All temporary works	to be designe	d, detailed,	supervised and	d certified by a co	ompetent person
or professional engi	neer as define	ed in the OH	IS ACT.		
1.11. The works will be in	spected from t	time to time	by the consultin	ng engineer to a	scertain that the
contractor is carrying	g out the work	in general	conformity with	the engineering	drawings and
relieve him of the re	spections are sponsibility for	r the proper	construction of	the works in ac	cordance with
the engineering drav	vings, docume	ents & good	l building practio	ce.	
5. COMPLET	ON CFF	RTIFIC	ATE		
5.1. No completion certif	icate shall be	issued if all	material amd c	ompaction test r	esults are not
submitted to the Eng	gineer			,	
SCALE	ALL DIN	MENSION II	N mm UNLESS	SPECIFIED OTH	IERWISE
	TITLE				

DO NOT SCALE IF IN DOUBT ASK PROJECT No. FOUNDATION LAYOUT & DETAILS LDPWRI-PROF/16003B DRAWING No. DRG SIZE A1

PFUMBADA PRIMARY SCHOOL

ENVIRO LOO TOILET BLOCK

LDPWRI SCHOOLS/B/PFUMBADA/14 0

REV

ender ende		600 600 600 600 600 600 600 600	I.J I.J DINTS EVERY 2 M BO DUT - PLAN			 columns 2.5. Concrete cube stress blinding Mortar(Class A) columns 2.6. Concrete cover to reprecast concrete blice 2.7. All floor levels, unlete 3.1. Foundations are sulted 3.2. No foundations are sulted 3.2. No foundations are sulted 3.3. All backfill material or generated by an Endition of the second stress of t
Image: Sector	ISOLATION JOINT DETAIL INTERNAL WALLS N.T.S.	DURING DEET AUL C. SECCTIONIC	SAW CUT JOINT N.T.S.	83 HTO. BY CHARLEN AND A CONTRACTOR OF SPECIFICATION SAW CUT JOINT N.T.S. SAW CUT JOINT N.T.S.		documents. Such ins relieve him of the res the engineering draw 5. COMPLET 5.1. No completion certific submitted to the Eng
Image: Client muteo consulting 39 GROBLER STREET POLICY PROJECT APPR DATE BY SIGNATURE		JOINT DETAILS - SECTIONS				
REV DATE CHK APP DESCRIPTION DRG SIZE A1		CLIENT CLIENT	MUTEO CONSULTING 39 GROM POLOK P.O. BO POLOK 0750 TEL : (0) FAX : (0)	BLER STREET PROJECT APPR. DATE WANE 0699 DESIGNED 22/06/2023 X 6196 CHECKED 22/06/2023 WANE NORTH DRAWN 22/06/2023 15) 291 4065 PROJECT MNG. 015) 291 4043	BY SIGNATURE N.M	SCALE DO NOT SCALE IF IN DOUBT ASK. PROJECT No. LDPWRI-PROF/16003B
	REV DATE CHK APP DESCRIPTION		website: w	www.muteo.co.za		DRG SIZE A1

S.C.J

4460







SUED FOR CONSTRUCTION

1. GENER	AL NOTES			
1.1. All work to be the relevant S	done in accordance w ABS Specifications	vith the National Buildin	g Regulations ar	nd
1.2. All drawings t	o be read in conjunction	on with Architect's draw	ings and any dis	crepancies
must be repo	ted to the Engineer pr	ior to any setting out of	work.	
1.3. No structural	alterations are to be m	ade without amended on the Contractor and only	trawings.	
discrepancies	should be reported to	the Engineer before a	ny work commen	ces
1.5. All waterproof	ing and drainage to be	e to Architect's details a	ind instructions.	
1.6. Contractor to	ensure that stability of	banks and excavation	s are continuousl	у
maintained th	roughout the construc	tion period		
2. R.C. CO	NSTRUCTIO	N		
2.1. No concrete is	to be poured before the	he Engineer has inspec	ted and approve:	d the
fixing of the re 2.2. Breaks in cond	inforcement, 48 hours	s notice is required. ioints are to be made c	only with Enginee	r's approval.
2.3. Shuttering and	l propping may be stru	ick only after the lapse	of the following t	mes (in days):
Beam sides, w	alls and unloaded colu	umns 2		
Slab soffits wit Beam soffits w	hout removal of slab p /ithout removal of beau	props 4 m props 7		
Props unloade	d slabs	10		
2 4 Minimum conc	d beams rete cover to reinforce	ement (in mm)		
piles	50	beams		30
pile caps	50	slabs	anth face)	20
columns	30	retaining walls (exposed face)	30
	o other attack of 0.0	~ (MD-)	,	
∠.5. Concrete cub	strength at 28 days i 1	n (MPa) 5 beams	25	
Mortar(Class	A) 1	5 slabs	25	
columns	3	u walls	25	
2.6. Concrete cove	er to reinforcing to be r	maintained by the use o g wires cast in	n either nylon sp	acers or
2.7. All floor levels	, unless otherwise ind	icated , are structural s	ab levels.	
3. FOUNDI	NG			
3.1. Foundations a	re subject to alteration	s as excavations proce	ed.	
3.2. No foundation	s are to be cast or rein	forcement fixed in base	es until excavatio	ns have been
approved by a	an Engineer. rerial under foundation	s and floors to be as fo	llows.	
G6 Material	or better			
PI < 6 Compacted	to 96% MOD AASHT(D in lavers of 150mm		
Non-cohesiv	e and free draining	,		
4. ADDITIC	MAL NOTES			
4.1. All exposed col	crete slabs and beam	is bearing on brickwork	to have a slip jo reach other at	int
top of brick-cor	crete interface. Joint	to extend through plast	er.	
4.2. Special attentic	n to be given to curing	g of concrete. Exact det	ails to be discus	sed
with Engineer	on site prior to pouring	of any concrete.		
4.3. Two lintels plus	rive courses of brickw erv course with brickfo	ork to be built over all o	openings	
4.4. All brickwork to	have a minimum com	pressive strength of 15	MPa.	
4.5. A construction	joint sealed with suitat	ole flexible sealant is to	be formed at all	
junctions betweet	en new brickwork and	d existing brickwork.	Intil slabs/beams	have
attained their fu	all strength and have b	been depropped		nave
4.7. All deviations f	rom architect's drawing	g to be confirmed by ar	chitect prior to co	onstruction.
4.8. All work to be c	arried out in accordan	ce with the National Bu	ilding Regulation	s, Environmental
4.9. The main contra	actor is to ensure that	a competent person, a	proved by the S	outh African
Qualification Au	thority supervises and	approves all aspects o	of the requiremen	ts of the
Occupational H	ealth and Safety Act, I	atest revision.		
.10. All temporary w	orks to be designed, d	letailed, supervised and	l certified by a co	ompetent person
or professional	engineer as defined in	the OHS ACT.		
.11. The works will b	e inspected from time	to time by the consulting	ng engineer to as	scertain that the
documents. Su	ch inspections are not	carried out for the bene	efit of the contract	arawings and itor, and do not
relieve him of th	e responsibility for the	e proper construction of	the works in acc	ordance with
the engineering	drawings, documents	& good building praction	ce.	
5. COMPLE	ETION CERT	IFICATE		
5.1. No completion	certificate shall be issu	ied if all material amd c	ompaction test re	esults are not
submitted to the	e Engineer			
CALE		ISION IN mm I NH ESS	SDECIEIED OTH	FRWISE
SCALE	ALL DIMEN	UNLESS		
DO NOT SCAL	E			
IF IN DOUBT A				SCHUUL
	MULTI-	PURPOSE [·]	1 CLASS	ROOM BLO
PROJECT No.				~

FLOOR JOINTS & DETAILS DRAWING No. LDPWRI SCHOOLS/B/PFUMBADA/04 REV 0





FOUNDATION LAYOUT - PLAN

ISSUED FOR CONSTRUCTION

1 .	GENERAL N All work to be done i	IOTES	e National Building	g Regulations an	d	
1.2	the relevant SABS S 2. All drawings to be re	specifications. ad in conjunction wit	h Architect's drawi	ngs and any dis	crepancies	
13	must be reported to the Engineer prior to any setting out of work.					
1.4	1.4. All drawings must be checked by the Contractor and any discrepancies should be reported to the Engineer before any work commences					
1.8	1.5. All waterproofing and drainage to be to Architect's details and instructions.					
1.6	1.6. Contractor to ensure that stability of banks and excavations are continuously maintained throughout the construction period					
2. 2.1	R.C. CONST No concrete is to be fixing of the reinforce	RUCTION poured before the En ement , 48 hours notic	igineer has inspec ce is required.	ted and approve	d the	
2.2 2.3	Breaks in concrete au Shuttering and propp Beam sides, walls an	nd construction joints ning may be struck on nd unloaded columns	are to be made of aly after the lapse of 2	nly with Enginee of the following ti	r's approval. mes (in days):	
	Slab soffits without re Beam soffits without	moval of slab props removal of beam pro	4 ps 7			
2.4	Props unloaded stabs	s NS Nucr to roinforcoment	10 14			
2.4	piles	50	(in mm) beams		30	
	pile caps ground beams	50 50	slabs retaining walls (e	earth face)	20 30 20	
25	columns	3U ath at 29 days in (ME	retaining walls (e	exposed face)	30	
2.0	blinding Mortar(Class A) columns	gin at 26 days in (MP 15 15 30	beams slabs walls	25 25 25		
2.6	6. Concrete cover to re	inforcing to be mainta	ained by the use o	f either nylon sp	acers or	
2.7	All floor levels, unles	s otherwise indicated	s cast in. d , are structural sl	ab levels.		
3.	FOUNDING					
3.1 3.2	. Foundations are subj . No foundations are to	ect to alterations as e be cast or reinforce	excavations proce ment fixed in base	ed. s until excavatio	ns have been	
3.3	approved by an Eng All backfill material un G6 Material or bett PI < 6	ineer. nder foundations and er	floors to be as fol	lows:		
	Compacted to 96% Non-cohesive and	MOD AASHTO in la free draining	ayers of 150mm			
4 .	ADDITIONA	L NOTES	aring on brickwork	to have a slin io	int	
	made up of 2 sheets of top of brick-concrete i	of masonite with smo interface. Joint to ext	ooth faces abutting end through plaste	each other at er.		
4.2.	Special attention to be with Engineer on site	e given to curing of co prior to pouring of ar	oncrete. Exact deta iy concrete.	ails to be discuss	sed	
4.3.	Two lintels plus five co	ourses of brickwork to urse with brickforce.	o be built over all c	penings		
4.4.	All brickwork to have a	a minimum compress	sive strength of 15	MPa.		
4.5.	junctions between ne	w brickwork and exis	ting brickwork.			
4.6.	attained their full stren	ngth and have been c	lepropped	htil slaps/beams	nave	
4.7.	All work to be carried	out in accordance wil	th the National Bui	Iding Regulation	s, Environmental	
4.9.	and Occupational Hea The main contractor is	Ith and Safety Act, (to ensure that a com	latest revision) an npetent person, ap	d the Constructi proved by the S	on Regulations. outh African	
	Qualification Authority Occupational Health a	supervises and appr nd Safety Act. latest	oves all aspects o revision.	f the requiremen	ts of the	
.10.	All temporary works to	be designed, detaile	ed, supervised and	certified by a co	mpetent person	
.11.	or professional engine The works will be insp	er as defined in the C ected from time to tin	OHS ACT. ne bv the consultir	ng engineer to as	certain that the	
	contractor is carrying o	out the work in generations are not corric	al conformity with	the engineering	drawings and	
	relieve him of the resp the engineering drawir	onsibility for the prop ngs, documents & go	per construction of od building practic	the works in acc e.	ordance with	
5.	COMPLETIC	ON CERTIFIC	CATE			
5.1.	No completion certifica submitted to the Engir	ate shall be issued if a neer	all material amd co	ompaction test re	esults are not	
					EDWICE	
	SUALE	ALL DIMENSION TITLE	N IIN MM UNLESS S	SPECIFIED OTH	EKWISE	
	DO NOT SCALE IF IN DOUBT ASK.	PFUM	BADA PR	IMARY S	SCHOOL	

MULTI-PURPOSE 1 CLASSROOM BLOCK PROJECT No. FOUNDATION LAYOUT & DETAILS LDPWRI-PROF/16003B DRAWING No. LDPWRI SCHOOLS/B/PFUMBADA/03 A1

DRG SIZE

REV

0



1. GENERAL NOTES

- 1.1. All work to be done in accordance with the National Building Regulations and the relevant SABS Specifications.
- 1.2. All drawings to be read in conjunction with Architect's drawings and any discrepancies must be reported to the Engineer prior to any setting out of work.
- 1.3. No structural alterations are to be made without amended drawings.
- 1.4. All drawings must be checked by the Contractor and any
- discrepancies should be reported to the Engineer before any work commences 1.5. All waterproofing and drainage to be to Architect's details and instructions.
- 1.6. Contractor to ensure that stability of banks and excavations are continuously maintained throughout the construction period

2. R.C. CONSTRUCTION

- 2.1. No concrete is to be poured before the Engineer has inspected and approved the fixing of the reinforcement , 48 hours notice is required.
- 2.2. Breaks in concrete and construction joints are to be made only with Engineer's approval.2.3. Shuttering and propping may be struck only after the lapse of the following times (in days):Beam sides walls and unloaded columns 2

	Dearn Sides, waiis and u			
	Slab soffits without remo	val of slab props	4	
	Beam soffits without rem	oval of beam pro	ps 7	
	Props unloaded slabs		10	
	Props unloaded beams		14	
2.4	Minimum concrete cover	to reinforcement	(in mm)	
	piles	50	beams	30
	, pile caps	50	slabs	20
	ground beams	50	retaining walls (earth face)	30
	columns	30	retaining walls (exposed face)	30
2.5	Concrete cube strength	at 28 days in (MP	'a)	

- blinding15beams25Mortar(Class A)15slabs25columns30walls25
- 2.6. Concrete cover to reinforcing to be maintained by the use of either nylon spacers or precast concrete blocks with binding wires cast in.
- 2.7. All floor levels, unless otherwise indicated , are structural slab levels.

3. FOUNDING

- 3.1. Foundations are subject to alterations as excavations proceed.
- 3.2. No foundations are to be cast or reinforcement fixed in bases until excavations have been approved by an Engineer.
- 3.3. All backfill material under foundations and floors to be as follows:
 G6 Material or better
 PI < 6
 Commented to 02% MOD AASUTO in Jacons of 450mm
 - Compacted to 98% MOD AASHTO in layers of 150mm Non-cohesive and free draining

4. ADDITIONAL NOTES

- 4.1. All exposed concrete slabs and beams bearing on brickwork to have a slip joint made up of 2 sheets of masonite with smooth faces abutting each other at top of brick-concrete interface. Joint to extend through plaster.
- 4.2. Special attention to be given to curing of concrete. Exact details to be discussed
- with Engineer on site prior to pouring of any concrete.4.3. Two lintels plus five courses of brickwork to be built over all openings
- reinforced every course with brickforce.
- 4.4. All brickwork to have a minimum compressive strength of 15MPa.4.5. A construction joint sealed with suitable flexible sealant is to be formed at all
- junctions between new brickwork and existing brickwork.
- 4.6. No brickwork is to be built onto suspended slabs or beams until slabs/beams have attained their full strength and have been depropped
- 4.7. All deviations from architect's drawing to be confirmed by architect prior to construction.
- 4.8. All work to be carried out in accordance with the National Building Regulations, Environmental and Occupational Health and Safety Act, (latest revision) and the Construction Regulations.
- 4.9. The main contractor is to ensure that a competent person, approved by the South African Qualification Authority supervises and approves all aspects of the requirements of the Occupational Health and Safety Act, latest revision.
- 4.10. All temporary works to be designed, detailed, supervised and certified by a competent person or professional engineer as defined in the OHS ACT.
- 4.11. The works will be inspected from time to time by the consulting engineer to ascertain that the contractor is carrying out the work in general conformity with the engineering drawings and documents. Such inspections are not carried out for the benefit of the contractor, and do not relieve him of the responsibility for the proper construction of the works in accordance with the engineering drawings, documents & good building practice.

5. COMPLETION CERTIFICATE

5.1. No completion certificate shall be issued if all material amd compaction test results are not submitted to the Engineer

	SCAI	LE	ALL DIMENSION IN mm UNLESS SPECIFIED OTHERWISE
			TITLE
	DO NOT	SCALE	
_	IF IN DOU	JBT ASK.	
			GRADE R CLASSROOM BLOCK
	PROJEC	T No.	
_	LDPWRI-PRO	DF/16003B	FOUNDATION LAYOUT & DETAILS
_	DRG SIZE	A1	DRAWING No. LDPWRI SCHOOLS/B/PFUMBADA/10
_			