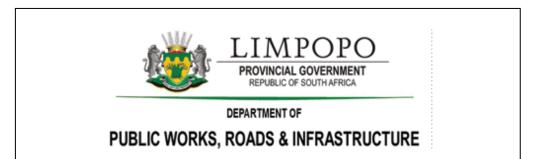
CONTRACT No. LDPWRI-B/20290



BID NUMBER: LDPWRI-B/20290

APPOINTMENT OF A CONTRACTOR FOR REFURBISHMENT OF 12 CLASSROOMS, 16 WATERBORNE TOILETS AND NUTRITIONAL BLOCK, CONSTRUCTION OF 10 CLASSROOMS, MEDIUM ADMINISTRATION BLOCK, NEW 16 SEATER ENVIROLOO TOILETS, STEEL PALISADE FENCE AND EXTERNAL WORKS AT MOKHARI SECONDARY SCHOOL IN NABOOMSPRUIT, WATERBERG DISTRICT

for

LIMPOPO DEPARTMENT OF EDUCATION (LDOE),

LIMPOPO PROVINCE

FRAMEWORK CATEGORY A CONTRACTORS ONLY (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 :....

CONTRACT No. LDPWRI-B/20290



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Joint Venture Agreement (If Applicable)

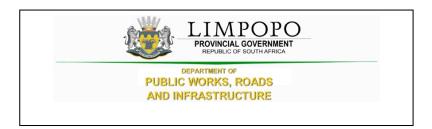
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CONTRACT No. LDPWRI-B/20290



PART T1: TENDERING PROCEDURE

T1.1 Tender Notice and Invitation to Tender

The Limpopo Department of Public Works, Roads and Infrastructure invites tenderers from contractors appointed on the framework agreement on category A for APPOINTMENT OF A CONTRACTOR FOR REFURBISHMENT OF 12 CLASSROOMS, 16 WATERBORNE TOILETS AND NUTRITIONAL BLOCK, CONSTRUCTION OF 10 CLASSROOMS, MEDIUM ADMINISTRATION BLOCK, NEW 16 SEATER ENVIROLOO TOILETS, STEEL PALISADE FENCE AND EXTERNAL WORKS AT MOKHARI SECONDARY SCHOOL IN NABOOMSPRUIT, WATERBERG DISTRICT for a period of 18 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 REFURBISHMENT OF 12 CLASSROOMS, 16 WATERBORNE TOILETS AND NUTRITIONAL BLOCK, CONSTRUCTION OF 10 CLASSROOMS, MEDIUM ADMINISTRATION BLOCK, NEW 16 SEATER ENVIROLOO TOILETS, STEEL PALISADE FENCE AND EXTERNAL WORKS AT MOKHARI SECONDARY SCHOOL IN NABOOMSPRUIT, WATERBERG DISTRICT			
Tender Number	LDPWRI- B/20290			
Tender documents availability	Limpopo Department of Public Works, Roads and Infrastructure website			
Address for submission of tenders	DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE. Physical address: Corner River and Blaauwberg Streets, Ladanna, 0699.			
Closing date of the tender	As per Tender invite			
Closing time of the tender	As per Tender invite			
Compulsory briefing	Yes 🛛 🛛 N	lo 🗆		
meeting (<i>Tenderers must</i> sign the attendance register in the name of the tendering entity. Addenda (if any) will	ering Weeting venue As per render invite			
be issued only to those	Date As per Tender invite			
tendering entities appearing on the attendance register)	Time: As per Tender invite			
Evaluation criteria	 Compliance with mandatory or compulsory requirements Risk assessment on current projects Price Preference 			
Mandatory or Compulsory Requirements (failure to submit or comply with these requirements will lead to automatic disqualification)	Only tenderers who are appointed on category A registered with the Construction Industry Development Board (CIDB) with designation of 7 GB or higher than a contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations are eligible to have their tenders evaluated Priced Bills of Quantities SBD 1. Declaration on the status of Administration compliance.			
	Completed and signed Form of Offer			

CONTRACT No. LDPWRI-B/20290



T1.2 Tender Data

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

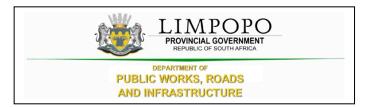
C.1.2	The Tender Part T1: Tendering procedures T1.1 Tender notice and invitation to tender T1.2 Tender data Part T2: Returnable documents T2.1 List of returnable documents T2.2 Returnable schedules The Contract Part C1: Agreements and contract data C1.1 Form of offer and acceptance C1.2 Contract data 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 issued only to those tendering entities appearing on the attendance list.				
C.2.11	Alterations to the documents				
	Bidders are required to not make any alterations or additions to the tender documents, except to comply with instructions issued by the employer, or necessary to correct errors made by the tenderer. All signatories to the tender offer shall initial all such alterations				
C.2.12	Alternative tender offer				
	No alternative tender offer is permitted in this tender.				
C.2.13.2	Replace sub-clause C.2.13.2 with the following; Return all returnable documents to the employer after completing them in their entirety by writing in non-erasable black ink (<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	5 The employer's details and address for delivery of tender offers and identification details that are to be shown on each tender offer package are:				
	Location of tender box: DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE. Physical address: Corner River and Blaauwberg Streets, Ladanna, 0699 Identification details: Sealed Tender with Tender reference number, Title of Tender and the closing date and time of the tender.				
C.2.15.1	The closing time for submission of tender offers is as stated in the Tender Notice and Invitation to Tender. Telephonic, telegraphic, telex, facsimile or e-mailed tender offers will not be accepted.				
C.2.16.1	The tender offer validity period is 12 weeks or 90 days.				
C.2.16.2	The tender accepts that a tender submission that has been submitted to the employer may only be withdrawn or substituted by giving the employer's agent written notice before the closing time for tenders that a tender is to be withdrawn or substituted. If the validity period stated in C.2.16.1 lapses before the employer evaluating tender, the contractor reserves the right to review the price based on Consumer Price Index (CPI).				
C.3.1	 The tenderer is required to indicate how they claim points for each preference point system and attached relevant supporting documents. The specific goals for claiming of preference points include the following: Persons who had no franchise in national elections prior to 1983 and 1993 Women Disabled persons Promotion of SMMEs Enterprises located in Limpopo Province Promotion of youth South African owned enterprises 				

	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 wi	ill not be opened immediately after the closing time for tenders.		
C.3.11	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 durin 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, th contractor should provide CVs and qualifications of the new staff to LDPWR&I. The new staff shou have similar skills, qualifications and experience as the staff submitted during tender. Similarly, th contractors will be expected to provide an update on any changes in their administrative compliance – 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 CID grading and the contractor who meets all the legislative requirement – this shall be verified by SCI 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 returnable are detailed in Section T.2.1 of this tender document. Failure to submic complete or comply with these requirements will lead to automatic disqualification.			
	b)	Stage 2: Risk assessment on current projects		
		The total value of current projects for a contractor under consideration cannot exceed twice the maximum value of their relevant CIDB grade.		

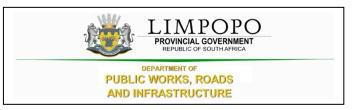
Stage 3 and 4: The procedure for final evaluation of responsive tenders is Method 2 (Financial offer and preference). The total number of tender evaluation points (T_{EV}) shall be determined in accordance with the following formula. $T_{EV} = N_{FO} + N_P$ a) N_{FO} is the number of tender evaluation points awarded for the financial offer made. The score for financial offer is calculated using the following formula: $P = A * \left(1 - \frac{(P_o - P_m)}{P_m}\right)$ Where: A is 80 since the estimated financial value of works inclusive of VAT is equals or is less than R 50,000,000.00. P is the points awarded to the bid under consideration P_m is the lowest Comparative bid price P_{a} 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

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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 or not)

2.4 Proposed amendments and qualifications (Amendments and qualifications must be captured in full, Whether applicable or not)

2.5 Declaration on the status of Administration compliance.

2.6 CIDB grading certificate (Valid CIDB Certificate)

2.7 Declaration of current projects

B – NON- MANDATORY REQUIREMENTS

2.8 SBD 1 (Fully Completed and Signed)

2.9 SBD 4 (Fully Completed and Signed)

2.10 SBD 6.1 (Failure on the part of a tenderer to claim 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	Attach letter from a Health Professional 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		

2.10 Full CSD Report

2.11 Bidders Tax matters should comply during the award

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Failure by the service provider to submit or complete item 2.1, 2.2, 2.3, 2.4, 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 Not withstanding 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 received after the closing date and time will not be accepted for consideration.

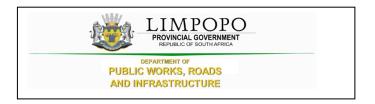
1.13 This request for bid document contains confidential information about LDPWR&I, which has been provided to supply potential bidders with the data necessary to provide a holistic response.

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

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T 2.2: RETURNABLE SCHEDULE CHECKLIST

	Document Name	Returnabl	e 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.	SBD4 Declaration Of Interest	□Yes	🗆 No
8.	SBD 6.1: Reference Points claim form in terms of the Preferential	□Yes	🗆 No
9.	Declaration on the status of Administration compliance.	□Yes	□ No
10.	Proof of CIDB class grading: 7GB or higher.	□Yes	□ No
11.	Full CSD Report	□Yes	🗆 No
12.	Original tax clearance certificate or tax pin	□Yes	□ No
13.	Declaration of current projects	□Yes	□ No

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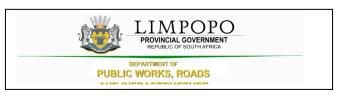


Declaration on the status of administrative compliance

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.

Date
Position

CONTRACT No. LDPWRI-B/20290



Record of Addenda to tender documents

We confirm that the following communications received from the Employer before the submission of this tender offer, amending the tender documents, have been taken into account in this tender offer:

	Date	Title or Details
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

Attach additional pages if more space is required.

Signed	 Date	
Name	 Position	
Tenderer	 	

CONTRACT No. LDPWRI-B/20290



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

Signed	 Date	
Name	 Position	
Tenderer	 	

CONTRACT No. LDPWRI-B/20290



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								
BID NUMBER:	LDPWRI-B/20290		CLOSING D	DATE	As per Tender Advert	CLOSI	NG TIME:	As per Tender Advert
DESCRIPTION	REFURBISHME WATERBERG D		ONS AT M	IOKHARI S	ECONDARY	SCHOO	L IN NABOO	MSPRUIT,
	DOCUMENTS MAY E		THE BID BOX	SITUATED A	AT (STREET ADD	RESS)		
	T OF PUBLIC WO							
	ess: Corner River a	¥		idanna, 069	19.			
	EDURE ENQUIRIES N		то					
CONTACT PERS		Mr. NJ Motsopye					<u> </u>	
TELEPHONE NU		0152847126	E-MAIL AI	DDRESS		motsop	yen@dpw.limpo	po.gov.za
TELEPHONE NU		Mr. K Modjadji 083 673 5436	E-MAIL AI			Modiad	jiM@dpw.limpop	0.001/ 70
SUPPLIER INFO		003 073 3430		DDILLOO		Inioujau	յուլանիտ։ուրեր	0.90v.2a
NAME OF BIDDE	R							
POSTAL ADDRE	SS							
STREET ADDRE	SS							
TELEPHONE NU	MBER	CODE	NUMBER					
CELLPHONE NU	MBER							
E-MAIL ADDRES	S							
VAT REGISTRAT			[T				
SUPPLIER COM	PLIANCE STATUS	TAX COMPLIANCE SYSTEM PIN:		OR	CENTRAL SUPPLIER DATABASE No	: MA	٩A	
		-		1			1	
REPRESENTA		∏Yes	No	ARE YOU A FOREIGN BASED SUPPLIER FOR THE		□Yes	□No	
		[IF YES ENCLOSE			ORKS	[IF YES, ANSWER THE QUESTIONNAIRE BELOW]		
	E TO BIDDING FORE	IGN SUPPLIERS						
IS THE ENTITY A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)?				YES 🗌 NO				
DOES THE ENTITY HAVE A BRANCH IN THE RSA?				. ,				YES 🗌 NO
DOES THE ENTITY HAVE A PERMANENT ESTABLISHME			ENT IN THE I	RSA?				YES 🗌 NO
DOES THE ENTITY HAVE ANY SOURCE OF INCOME		CE OF INCOME IN	I THE RSA?					YES 🗌 NO
IS THE ENTITY L	FOR ANY FORM OF	TAXATION?				ר <u>ר</u>	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.								

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PART B: TERMS AND CONDITIONS FOR BIDDING

1. BID SUBMISSION:

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

CONTRACT No. LDPWRI-B/20290

SBD 4

DECLARATION OF INTEREST

- 1. Any legal person, including persons employed by the state¹, or persons having a kinship with persons employed by the state, including a blood relationship, may make an offer or offers in terms of this invitation to bid (includes a price quotation, advertised competitive bid, limited bid or proposal). In view of possible allegations of favouritism, should the resulting bid, or part thereof, be awarded to persons employed by the state, or to persons connected with or related to them, it is required that the bidder or his/her authorised representative declare his/her position in relation to the evaluating/adjudicating authority where-
 - the bidder is employed by the state; and/or
 - the legal person on whose behalf the bidding document is signed, has a relationship with persons/a person who are/is involved in the evaluation and or adjudication of the bid(s), or where it is known that such a relationship exists between the person or persons for or on whose behalf the declarant acts and persons who are involved with the evaluation and or adjudication of the bid.
- 2. In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.
- 2.6.1 The names of all directors / trustees / shareholders / members, their individual identity numbers, tax reference numbers and, if applicable, employee / persal numbers must be indicated in paragraph 3 below.

1"State" means -

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

.....

- (b) any municipality or municipal entity;
- (c) provincial legislature;
- (d) national Assembly or the national Council of provinces; or
- (e) Parliament.

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

2.7	Are you or any person connected with the bidder presently employed by the state?	YES / NO
2.7.1	If so, furnish the following particulars:	
	Name of person / director / trustee / shareholder/ member: Name of state institution at which you or the person connected to the bidder is employed :	

Position occupied in the state institution:

CONTRACT No. LDPWRI-B/20290

		Any other particulars:	
	2.7.2	If you are presently employed by the state, did you obtain the appropriate authority to undertake remunerative work outside employment in the public sector?	YES / NO
	2.7.2.1	If yes, did you attached proof of such authority to the bid document?	YES / NO
		(Note: Failure to submit proof of such authority, where applicable, may result in the disqualification of the bid.	
	2.7.2.2	If no, furnish reasons for non-submission of such proof:	
	2.8 Die	d you or your spouse, or any of the company's directors / trustees / shareholders / members or their spouses conduct business with the state in the previous twelve months?	YES / NO
	2.8.1	If so, furnish particulars:	
		o you, or any person connected with the bidder, have any relationship (family, friend, other) with a person employed by the state and who may be involved with the evaluation and or adjudication of this bid?	YES / NO
	2.9.111 \$	so, furnish particulars.	
10	awa any who	u, or any person connected with the bidder, re of any relationship (family, friend, other) between other bidder and any person employed by the state may be involved with the evaluation and or adjudication is bid?	YES/NO
.10.1	l lf so, fu	rnish particulars.	
-			
.11	of the c	or any of the directors / trustees / shareholders / members ompany have any interest in any other related companies r or not they are bidding for this contract?	YES/NO

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CONTRACT No. LDPWRI-B/20290

1.11.1 If so, furnish particulars:

.....

Full details of directors / trustees / members / shareholders.

Full Name	Identity Number	Personal Tax Reference Number	State Employee Number / Persal Number

4 DECLARATION

I, THE UNDERSIGNED (NAME).....

CERTIFY THAT THE INFORMATION FURNISHED IN PARAGRAPHS 2 and 3 ABOVE IS CORRECT. I ACCEPT THAT THE STATE MAY REJECT THE BID OR ACT AGAINST ME IN TERMS OF PARAGRAPH 23 OF THE GENERAL CONDITIONS OF CONTRACT SHOULD THIS DECLARATION PROVE TO BE FALSE.

.....

Signature

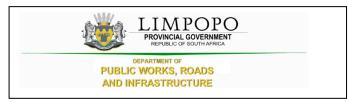
Date

.....

Position

Name of bidder

CONTRACT No. LDPWRI-B/20290



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:

80/20 90/10 or

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

vvnere

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

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

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

CONTRACT No. LDPWRI-B/20290

(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	

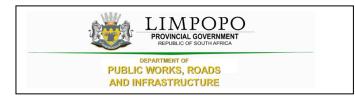
DECLARATION WITH REGARD TO COMPANY/FIRM

- 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]

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

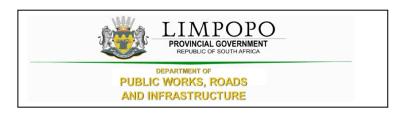
ease note that it is compulsory to answer the question above and if the answer is yes, complete the table below. Failure by the service ovider/tenderer to answer the question above or complete the table below will render their proposal not responsive and will not be cons

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

27

		1	

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 MOKHARI SECONDARY SCHOOL IN NABOOMSPRUIT, WATERBERG 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.

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

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

By signing this part of this Form of Offer and Acceptance, the *Employer* identified below accepts the tenderer's Offer. In consideration thereof, the *Employer* shall pay the Consultant the amount due in accordance with the *conditions of contract* identified in the Contract Data. Acceptance of the tenderer's Offer shall form an agreement between the *Employer* and the tenderer upon the terms and conditions contained in this agreement and in the contract that is the subject of this agreement.

The terms of the contract, are contained in:

- Part C1 Agreements and Contract Data, (which includes this Form of Offer and Acceptance)
- Part C2 Pricing Data
- Part C3 Scope of Work

and drawings and documents (or parts thereof), which may be incorporated by reference into the above listed Parts.

Deviations from and amendments to the documents listed in the Tender Data and any addenda thereto listed in the Returnable Schedules as well as any changes to the terms of the Offer agreed by the tenderer and the *Employer* during this process of offer and acceptance, are contained in the Schedule of Deviations attached to and forming part of this Form of Offer and Acceptance. No amendments to or deviations from said documents are valid unless contained in this Schedule.

The tenderer shall within two weeks of receiving a completed copy of this agreement, including the Schedule of Deviations (if any), contact the *Employer's* agent (whose details are given in the Contract Data) to arrange the delivery of any securities, bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the *conditions of contract* identified in the Contract Data. Failure to fulfil any of these obligations in accordance with those terms shall constitute a repudiation of this agreement.

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

For the Employer

Signature	
Name	
Capacity	

Name and address of organization

Signature and Name of Witness

Signature	
Name	
Capacity	

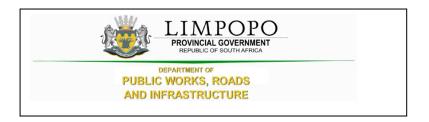
Schedule of Deviations

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.

.....



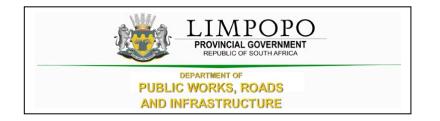
C2.1 CONTRACT DATA

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

R

Carried to Collection

		I
DEFIN	ITIONS	
A1	DEFINITIONS AND INTERPRETATIONS	
Clause 1.0	0 Clause	
1.1 Defin	ition of "Commencement Date" is added:	
agreeme	ENCEMENT DATE" means the date that the ent, made in terms of the Form of Offer and ce, comes into effect.	
	1 Definition of "Construction Period" is amended by it with the following:	
	RUCTION PERIOD " means the period commencing means the period commencing means the date of practical n.	
Clause 1.3 with the f	1 Definition of "Interest" is amended by replacing it following:	
whether s	ST means the interest rates applicable on this contract, specifically indicated in the relevant clauses or not, will ns of the legislation of the Republic of South Africa, articular.	
(a)	In respect of interest owed by the employer, the interest rate as determined by the Minister of Justice and Constitutional Development, from time to time, in terms of section 1(2) of the Prescribed Rate of Interest Act, 1975 (Act No. 55 of 1975), will apply; and	
(b)	in respect of interest owed to the 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.	
Clause 1.0	6.4 is amended by replacing it with the following:	
	Carried to Collection	R
Section	No. 1	

Sec PRELIMINARIES Bill No. 1

1

Fixed: Value related: Time related: item 2 A2 OFFER, ACCEPTANCE AND PERFORMANCE Clause 2.0 Fixed: Value related: Time related: Clause 3.0 Clause 3.0 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: Value related: Time related: Time related: Value related: Value related: Time related: Value relate	
Time related: item OBJECTIVE AND PREPARATION Item 2 A2 OFFER, ACCEPTANCE AND PERFORMANCE Clause 2.0 Fixed:	
2 A2 OFFER, ACCEPTANCE AND PERFORMANCE Clause 2.0 Fixed:Value related: Fixed:Value 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: item	
Clause 2.0 Fixed:Value related: item 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: item	
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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	
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	
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	
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	
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:	
Time related: item	
4 A4 DESIGN RESPONSIBILITY	
Clause 4.0	
Fixed:Value related: item 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	

Clause 7.0 Note: The provisions herein include inter alia, compliance with all the requirements set out in the Construction Regulations, 2003 issued under the Occupational Health and Safety Act, 1993 (Act No 85 of 1993), and in particular with Regulation 5(1) requiring the compliance with all safety plan, as well as Regulation 6(1) requiring the appointment of a construction supervisor Image: Clause 200 Section C - Specific Preliminaries Fixed: Value related:	
Time related: item 7 A7 COMPLIANCE WITH REGULATION Clause 7.0 Note: The provisions herein include inter alia, compliance with all the requirements set out in the Construction Regulations, 2003 issued under the Occupational Health and Safety Act, 1993 (Act No 85 of 1993), and in particular with Regulation 5(1) requiring the compliation of a health and safety plan, as well as Regulation 6(1) requiring the appointment of a construction supervisor See also clause C10 of Section C - Specific Preliminaries item Fixed:	
Clause 7.0 Note: The provisions herein include inter alia, compliance with all the requirements set out in the Construction Regulations, 2003 issued under the Occupational Health and Safety Act, 1993 (Act No 85 of 1993), and in particular with Regulation 5(1) requiring the compilation of a health and safety plan, as well as Regulation 6(1) requiring the appointment of a construction supervisor See also clause C10 of Section C - Specific Preliminaries item Fixed:	
Note: The provisions herein include inter alia, compliance with all the requirements set out in the Construction Regulations, 2003 issued under the Occupational Health and Safety Act, 1993 (Act No 85 of 1993), and in particular with Regulation 5(1) requiring the compilation of a health and safety plan, as well as Regulation 6(1) requiring the appointment of a construction supervisor See also clause C10 of Section C - Specific Preliminaries Fixed: Value related: Time related: item 8 A8 WORKS RISK Clause 8.0 Fixed: Value related: Fixed: Value related: item 9 A9 INDEMNITIES Clause 9.0 Fixed: Value related: Fixed: Value related: item 10 A10 WORKS INSURANCES Fixed: Value related: item 10 A10 WORKS INSURANCES Fixed: Value related: item 10 Clause 10.0 item	
all the requirements set out in the Construction Regulations, 2003 issued under the Occupational Health and Safety Act, 1993 (Act No 85 of 1993), and in particular with Regulation 5(1) requiring the compilation of a health and safety plan, as well as Regulation 6(1) requiring the appointment of a construction supervisor See also clause C10 of Section C - Specific Preliminaries Fixed:	
Time related: item 8 A8 VORKS RISK Clause 8.0 Fixed: Value related: Time related: Time related: Item 9 A9 INDEMNITIES Clause 9.0 Fixed: Value related: Fixed: Value related: Time related: Item	
Clause 8.0 Fixed:Value related: 7 M9 INDEMNITIES Clause 9.0 Fixed:Value related: Time related: 10 A10 WORKS INSURANCES Fixed:Value related: Clause 10.0 Clause 10.0 is amended by the addition of the following item	
Fixed: Value related: 9 A9 A9 INDEMNITIES Clause 9.0 Fixed: Value related: Time related: item 10 A10 WORKS INSURANCES Fixed: Value related: Time related: item Clause 10.0 Clause 10.0 is amended by the addition of the following item	
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Clause 9.0 Fixed:Value related: Time related: 10 A10 WORKS INSURANCES Fixed:Value related: Time related: Clause 10.0 Clause 10.0 is amended by the addition of the following	
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Time related: Clause 10.0 Clause 10.0 is amended by the addition of the following	
Clause 10.0 is amended by the addition of the following item	
Carried to Collection R	

PRELIMINARIES Bill No. 1

10.5 Damage to the Works

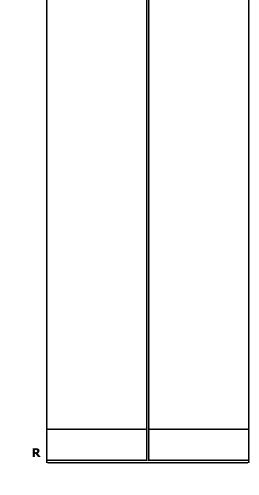
- (a) Without in any way limiting the contractors obligations in terms of the contract, the contractor shall bear the full risk of damage to and/or destruction of the works by whatever cause during construction of the works and hereby indemnifies and holds harmless the employer against any such damage. 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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Section No. 1 PRELIMINARIES Bill No. 1 R

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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Section No. 1 PRELIMINARIES Bill No. 1 R

Section No. 1		×	
C:	nried to Collection	R	
14.1. In respect of contracts with a co million, the security to be submitted b employer will be as a payment reduct of the value certified in the payment .	y the contractor to the tion of five per cent (5%)		
Clause 14.1 - 14.8 are amended by rep following:	-		
Clause 14.0			
14 A14 SECURITY			
13 A13.0 <i>No clause</i>			
Fixed:Value related: Time related:		item	
Clause 12.0			
12 A12 EFFECTING INSURANC	ES		
Fixed:Value related: Time related:		item	
Clause 11.0			
11 A11 LIABILITY INSURANCE	S		
Fixed:Value related: Time related:		item	
but before commencement of the wor proof of such insurance policy, if requinance losses and/or damages of whatever na consequent upon the contractors defined set out in 10.7.1; 10.7.2 and 10.7.3. So may be recovered from the contractor from any amount still due under this contract presently or hereafter existing and the contractor and for this purpor be considered one indivisible whole	ested to do so d to recover any and all ture suffered or incurred ault of his obligations as uch losses or damages r or by deducting the same ontract or under any other between the employer		
10.7.3 It is the responsibility of the co he has adequate insurance to cover hi mentioned in 10.7.1 and 10.7.2. With obligations in terms of the contract, the twenty-one (21) calendar days of the	s risk and liability as out limiting the contractors e contractor shall, within		

PRELIMINARIES Bill No. 1

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 **security** within twenty-one (21) **calendar days** from **commencement date**, the **security** in terms of 14.7 shall be deemed to have selected.

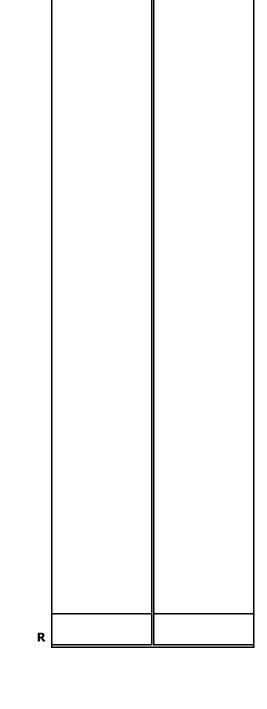
14.3. Where **security** as a cash deposit of ten per cent (10%) of the **contract sum** (excluding VAT) has been selected:

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 writen domain di 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 <i>mutatis mutandi</i> 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 33.0, the employer may issue a written notice in terms of 33.0 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 reduction or porvided that the employer comples with the provisions of 33.0 provided that the employer comples with the provisions of 33.0 provided that the employer complex with shall take precedence over his obligations to refund the payment reduction or portions thereof to the contractor <t< th=""><th>•</th><th>Section No. 1</th><th></th><th></th><th></th></t<>	•	Section No. 1			
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		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			

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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:			
	Time 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		
		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	
		-	
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22	A22 EMPLOYERS DIRECT CONTRACTORS		
	Clause 22.0		
	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: Time related:		
25	A25 WORK'S COMPLETION		
	Clause 25.0		
	Fixed:Value related: Time related:	item	
26	A26 FINAL COMPLETION		
20	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	
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Clause 23.0 Fixed:	29	A29	REVISION OF DATE FOR PRACTICAL COMPLETION		
Time related: item 30 A30 PENALTY FOR NON-COMPLETION Fixed: Value related: item Time related: item PAYMENT item 31 A31 INTERIM PAYMENT TO THE CONTRACTOR Clause 31.0 Clause 31.0 clause 31.0 Clause 31.8 is amended by replacing it with the following two alternative clauses: Alternative A 31.8(A).1 Where a security is selected in terms of 14.1, 14.5 or 14.6, the value of the works in terms of 31.4.1 and materials and goods in terms of 31.4.2 shall be certified in full. The value certified shall be subject to the following precentage adjustments: 31.8(A).2 Ninety-seven per cent (97%) of such value in interim payment certificates issued on the date of final completion 31.8(A).3 Ninety-nine per cent (99%) of such value in interim payment certificates issued on the date of final completion 31.8(A).4 One hundred per cent (100%) of such value in therms of 34.6 31.8(A).4 One hundred per cent (100%) of such value in the final payment certificate in terms of 34.6 31.8(A).4 One hundred per cent (100%) of such value in the final payment certificate in terms of 34.6 except where the amount certified is in favour of the employer. In such an event the payment reduction shall remain at the adjustment keyel		Clause 29.	0		
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Time related: item PAYMENT A31 INTERIM PAYMENT TO THE CONTRACTOR Clause 31.0 Clause 31.0 Clause 31.8 is amended by replacing it with the following two alternative clauses: Alternative clauses: Alternative A 31.8(A).1 Where a security is selected in terms of 14.1, 14.5 or 14.6, the value of the works in terms of 31.4.1 and materials and goods in terms of 31.4.2 shall be certified in full. The value certified shall be subject to the following percentage adjustments: 31.8(A).2 Ninety-seven per cent (97%) of such value in interim payment certificates issued on the date of final completion and up to but excluding the date of final completion and up to but excluding the date of final completion and up to but excluding the date of final completion and up to but excluding the final payment certificates in terms of 34.6 except where the amount certified is favour of the employer. In such an event the payment reduction shall remain at the adjustment level	30	A30	PENALTY FOR NON-COMPLETION		
31A31INTERIM PAYMENT TO THE CONTRACTORClause 31.0Clause 31.8 is amended by replacing it with the following two alternative clauses:Alternative clauses:Alternative A31.8(A).1 Where a security is selected in terms of 14.1, 14.5 or 14.6, the value of the works in terms of 31.4.1 and materials and goods in terms of 31.4.2 shall be certified in full. The value 				item	
Clause 31.0 Clause 31.8 is amended by replacing it with the following two alternative clauses: Alternative A 31.8(A).1 Where a security is selected in terms of 14.1, 14.5 or 14.6, the value of the works in terms of 31.4.1 and materials and goods in terms of 31.4.2 shall be certified in full. The value certified shall be subject to the following percentage adjustments: 31.8(A).2 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(A).3 Ninety-nine per cent (99%) of such value in interim payment certificates issued on the date of final completion 31.8(A).4 One hundred per cent (100%) of such value in the final payment certificate in terms of 34.6 except where the amount certificat in favour of the employer. In such an event the payment reduction shall remain at the adjustment level		PAYME	NI		
Clause 31.8 is amended by replacing it with the following two alternative clauses: Alternative A 31.8(A).1 Where a security is selected in terms of 14.1, 14.5 or 14.6, the value of the works in terms of 31.4.1 and materials and goods in terms of 31.4.2 shall be certified in full. The value certified shall be subject to the following percentage adjustments: 31.8(A).2 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(A).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(A).4 One hundred per cent (100%) of such value in the final payment certificate in terms of 34.6 except where the amount certified is in favour of the employer. In such an event the payment reduction shall remain at the adjustment level	31	A31	INTERIM PAYMENT TO THE CONTRACTOR		
alternative clauses: Alternative A 31.8(A).1 Where a security is selected in terms of 14.1, 14.5 or 14.6, the value of the works in terms of 31.4.1 and materials and goods in terms of 31.4.2 shall be certified in full. The value certified shall be subject to the following percentage adjustments: 31.8(A).2 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(A).3 Ninety-nine per cent (99%) of such value in interim payment certificates issued on the date of final completion 31.8(A).3 Ninety-nine per cent (99%) of such value in interim payment certificates issued on the date of final completion 31.8(A).4 One hundred per cent (100%) of such value in the final payment certificate in terms of 34.6 31.8(A).4 One hundred per cent (100%) of such value in the final payment certificate in terms of 34.6 except where the amount certified is in favour of the employer. In such an event the payment reduction shall remain at the adjustment level		Clause 31.	0		
 31.8(A).1 Where a security is selected in terms of 14.1, 14.5 or 14.6, the value of the works in terms of 31.4.1 and materials and goods in terms of 31.4.2 shall be certified in full. The value certified shall be subject to the following percentage adjustments: 31.8(A).2 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(A).3 Ninety-nine per cent (99%) of such value in interim payment certificates issued on the date of final completion 31.8(A).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(A).4 One hundred per cent (100%) of such value in the final payment certificate in terms of 34.6 except where the amount certified is in favour of the employer. In such an event the payment reduction shall remain at the adjustment level 					
 14.6, the value of the works in terms of 31.4.1 and materials and goods in terms of 31.4.2 shall be certified in full. The value certified shall be subject to the following percentage adjustments: 31.8(A).2 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(A).3 Ninety-nine per cent (99%) of such value in interim payment certificates issued on the date of final completion 31.8(A).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(A).4 One hundred per cent (100%) of such value in the final payment certificate in terms of 34.6 except where the amount certified is in favour of the employer. In such an event the payment reduction shall remain at the adjustment level 		Alternati	ve A		
 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(A).4 One hundred per cent (100%) of such value in the final payment certificate in terms of 34.6 except where the amount certified is in favour of the employer. In such an event the payment reduction shall remain at the adjustment level 		14.6, the v and good certified s 31.8(A).2 payment	value of the works in terms of 31.4.1 and materials Is in terms of 31.4.2 shall be certified in full. The value hall be subject to the following percentage adjustments: Ninety-seven per cent (97%) of such value in interim t certificates issued on the date of practical		
final payment certificate in terms of 34.6 except where the amount certified is in favour of the employer . In such an event the payment reduction shall remain at the adjustment level		payment and up to	certificates issued on the date of final completion		
		final payr amount co the paymo	nent certificate in terms of 34.6 except where the ertified is in favour of the employer . In such an event ent reduction shall remain at the adjustment level		
Carried to Collection R			Carried to Collection	R	

Carried to Collection	R	
Fixed:Value related: Time related:	item	
"due to no fault of the contractor "		
Clauses 32.5.1, 32.5.7 are amended by the addition of the following at the end of the sentence:		
Clause 32.0		
A32 ADJUSTMENT TO THE CONTRACT VALUE		
	iteill	
Fixed:Value related: Time related:	item	
a tax invoice for the amount due		
Payment shall be subject to the employer giving the contractor		
Clause 31.12 is amended by deleting the following:		
payment reduction shall remain at the adjustment level applicable to the final payment certificate		
certified is in favour of the employer . In such an event the		
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		
of 34.6		
payment certificates issued on the date of final completion and up to but excluding the final payment certificate in terms		
31.8(B).3 Ninety-nine per cent (99%) of such value in interim		
completion and up to but excluding the date of final completion		
payment certificates issued on the date of practical		
31.8(B).1 Ninety-seven per cent (97%) of such value in interim		
completion		
31.8(b).1 Ninety per cent (90%) of such value in interim payment certificates issued up to the date of practical		
goods in terms of 31.4.2 shall be certified in full. The value certified shall be subject to the following percentage adjustments:		
the value of the works in terms of 31.4.1 and materials and		
31.8(B) Where security is a payment reduction in terms of 14.7		1

33	A33 RECOVERY OF EXPENSE AND LOSS		
	Clause 33.0 Clause 33.2 is amended by adding the following clauses:		
	33.2.9 the contractors failure or neglect to commence with the works on the dates prescribed in the contract		
	33.2.10 the contractors failure or neglect to proceed with the works in terms of the contract		
	33.2.11 the contractors failure or neglect for any reason to complete the works in accordance with the contract		
	33.2.12 the contractors refusal or neglect to comply strictly with any of the conditions of contract or any contract instructions and/or orders in writing given in terms of the contract		
	33.2.13 the contractors estate being sequestrated, liquidated or surrendered in terms of the insolvency laws in force within the Republic of South Africa		
	Fixed:Value related: Time related:	item	
34	A34 FINAL ACCOUNT AND FINAL PAYMENT		
	Clause 34.0		
	Clause 34.13 is amended by replacing seven (7) calendar days with twenty-one (21) calendar days and deleting the words subject to the employer giving the contractor a tax invoice for the amount due		
	Fixed :Value related : Time related :	item	
35	A35 PAYMENT TO OTHER PARTIES		
	Clause 35.0		
	Fixed:Value related: Time related:	item	
	Carried to Collection	R	
	Section No. 1		

A36 DEFAU	CANCELLATION BY EMPLOYER - CONTRACTORS			
Clause 3	36.0			
	36.3 is amended by removing the reference to No clause placing the words principal agent with employer			
Clause (36.0 is amended by the addition of the following clause:			
of this a or for a instruct withdra entitled	othwistanding any clause to the contrary, on cancellation agreement either by the employer or the contractor; ny reason whatsoever, the contractor shall on written tion, discontinue with the works on a date stated and whiself from the site. The contractor shall not be to refuse to withdraw from the works on the grounds of a or right of retention or on the grounds of any other right ever			
Fixed:	Value related:			
Time re	lated :	item		
A37 DAMA				
Clause 3	37.0			
Clause 3	37.0 is amended by the addition of the following clause:			
this agi for any instruct withdra entitled	otwithstanding any clause to the contrary, on cancellation of reement either by the employer or the contractor; or reason whatsoever, the contractor shall on written tion, discontinue with the works on a date stated and whimself from the site. The contractor shall not be to refuse to withdraw from the works on the grounds of a or right of retention or on the grounds of any other right ever			
	Value related:	item		
A38 DEFAU	CANCELLATION BY CONTRACTOR - EMPLOYERS	item		
Clause				
			I	

Clause 38.0 is amended by the addition of the following clause:		
38.7 Notwithstanding any clause to the contrary, on cancellation of this agreement either by the employer or the contractor ; or		
for any reason whatsoever, the contractor shall on written		
instruction, discontinue with the works on a date stated and withdraw himself from the site . The contractor shall not be		
entitled to refuse to withdraw from the works on the grounds of		
any lien or right of retention or on the grounds of any other right whatsoever		
Fixed:Value related:		
Time related:	item	
A39 CESSATION- CANCELLATION OF THE WORKS		
Clause 39.0		
Fixed:Value related:		
Time related:	item	
A40 DISPUTE SETTLEMENT		
Clause 40.0		
Clause 40.2.2 is amended by replacing one (1) year with three (3)		
years		
Clause 40.6 is amended by removing the reference to:		
No clause		
Clause 40.7.1 is amended by replacing (10) with (15) and by the additions of the following		
Whether or not mediation resolves the dispute, the parties shall		
bear their own cost concerning the mediation and equally share the costs of the mediator and related costs		
Fixed:Value related:		
Time related:	item	
Carried to Collection	R	

	SUBSTITUTE PROVISIONS		
40	A41 STATE CLAUSES		
	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	

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

Existing premised occupied			
Fixed:Value related Time related:		itom	
		item	
Previous work dimensional a	ccuracy		
Fixed:Value related			
Time related:		item	
Previous work defects			
Fixed:Value related			
Time related:		item	
Services known			
Fixed:Value related Time related:		item	
Services unknown			
Fixed:Value related			
Time related:		item	
Protection of trees			
Fixed:Value related			
Time related:		item	
Articles of value			
Fixed:Value related			
Time related:		item	
Inspection of adjoining prope	rties		
Fixed:Value related Time related:		item	
·			
	Carried to Collection	R	

	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	
	Comind to Collection	~	
	Carried to Collection	R	 L

69	Deposits and fees		
	Fixed:Value related: Time related:	item	
70	Enclosure of the works		
	Fixed:Value related: Time related:	item	
71	Advertising		
	Fixed:Value related: Time related:	item	
72	Plant, equipment, sheds and offices		
	Fixed:Value related: Time related:	item	
73	Main notice board		
	Fixed:Value related: Time related:	item	
74	Subcontractors notice board		
	Fixed:Value related: Time related:	item	
	TEMPORARY SERVICES		
75	Location		
	Fixed:Value related: Time related:	item	
76	Water		
	Fixed:Value related: Time related:	item	
77	Electricity		
	Fixed:Value related: Time related:	item	
	Carried to Collection	R	

78	Telecommunication facilities		
	Fixed:Value related: Time related:	item	
79	Ablution facilities		
	Fixed:Value related: Time related:	item	
	PRIME COSTS AMOUNTS		
80	Responsibility for prime cost amounts		
	Fixed:Value related: Time related:	item	
	ATTENDANCE ON N/S SUBCONTRACTORS		
81	General attendance		
	The schedule rates providing for attendance on 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	

92	Disturbance		
	Fixed:Value related:		
	Time related:	item	
93	Environmental disturbance		
	Fixed :Value related :		
	Time related:	item	
94	Works cleaning and clearing		
	Fixed:Value related:		
	Time related:	item	
95	Vermin		
	Fixed:Value related:		
	Time related:	item	
96	Overhand work		
	Fixed:Value related:		
	Time related:	item	
97	Instruction manuals and guarantees		
	Fixed:Value related:		
	Time related:	item	
98	As built information		
	Fixed:Value related:		
	Time related:	item	
99	Tenant installations		
	Fixed:Value related:		
	Time related:	item	
	Carried to Collection	R	
	Section No. 1	K	L
	PRELIMINARIES		

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	

PRELIMINARIES Bill No. 1

Provisio	IDER INFORMATION nal Bills of Quantities utities are provisional NO		
2	Availability of construction documentation Construction documentation is complete YES		
1.3 <i>4]</i>	Interest of agentDetails: Encloyer: Linpopo Department of of Roads & Mirastucture 43 Church StreetPrivate Bag X9490POLOKWANE, 0700Ter: [015] 284 7000/1 Cell: 082 460 6271 Muteon Reddy Architects4 Jimini Office Park,POLOWANETer: [015] 065 0645 Fax: [011] 475 8364Eri: [015] 065 0645 Fax: [015] 633 6477Eri: [015] 033 6535 Fax: [015] 633 6477Eri: [015] 633 6535 Fax: [015] 633 6477Eri: [015] 633 6535 Fax: [015] 633 6477Eri: [015] 051 291 4065 Fax: [015] 291 4063Buteo Consulting39 Grobler StreetPOLOKWANEEri: [015] 291 4065 Fax: 015 291 4043Eri: [015] 291 4065 Fax: 015 295 2104Eri: [015] 291 201 4065 Fax: 015 295 2104Eri: [016] 201 201 201Eri: [016] 201 201 201Eri: [016] 201 201E		
	Carried to Collection	R	

Section No. 1 PRELIMINARIES Bill No. 1

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

	Carried to Collec	ction	
		NO	
[11.2]	Protection is required	NO	
12.1.20	Protection of existing/sectionally occ	upied works	
		NO	
	Option B (by employer)	YES	
[7.5]	Option A (by contractor)		
12.1.19	Ablution facilities	YES	
	E-mail	VEC	
	Facsimile	YES	
-		YES	
7.4]	Telephone		
2.1.18	Telecommunications	NO	
	Option C (by employer - metered)		
	Option B (by employer - free of charge)	NO	
3]	Option A (by contractor)	YES	
17	Electricity		
	Option C (by employer - metered)	NO	
	Option B (by employer - free of charge)	NO	
	Ontion B (by employer - free of charge)	YES	
.1.16 [<i>2]</i>	<i>water</i> Option A (by contractor)		
2.1.16	Water	YES/NO	
2.1.15 <i>6.6]</i>	<i>Subcontractor's notice board</i> Specific requirements:		
		2	
	or tubular posts and braces. The board is ivory white and the bead and 12mm wide of dark green. All wording shall be inscribed as per the coat of arms of SA. All working inscribed in dark green painted sans serif	to be painted dividing lines in dark green shall be	
	fixed to hoarding, where hoarding is provided, or fixed to and including a suitable supporting structure of timber		
	edges and projecting 12mm from face of b rounded on front edge. The board shall b		
	constructed of suitable boarding with flat s surface and with edging bead 19mm thick		
	maintain and remove on completion of the works a notice board size 3 x 3m as type Drawing GEN 063,		
	The contractor shall provide, erect where directed,		
5.5]	Specific requirements:		
2.1.14	Main notice board		

	Carried to Collection	on	R		
12.2.3	<i>Additional agreed preliminaries items</i> Details:	,			
[10.3]	Option A (three categories) Option B (detailed breakdown)	YES/NO YES/NO			
2.2.2	Adjustment of preliminaries				
	Option B (calculates)	YES/NO			
12.2.1 [<i>10.2]</i>	Payment of preliminaries Option A (prorated)	YES/NO			
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 ar provide and erect and remove on completion works all necessary temporary dust screens a satisfaction of the principal agent	nd shall i of the			
12.1.22 [<i>11.1]</i>	<i>Protection of works</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 ar provide and erect and remove on completion works all necessary temporary dust screens a satisfaction of the principal agent	nd shall 1 of the			
12.1.22 <i>[11.1]</i>	<i>Protection of works</i> Specific requirements				
	<i>Subcontractor</i> (4) details:				
	<i>Subcontractor</i> (3) details:				
	<i>Subcontractor</i> (2) details:				
[9.2]	Subcontractor (1) details:				

	SECTION C: SPECIFIC PRELIMINARIES		
	Section C contains specific preliminary items which apply to this contract except where N/A (Not Applicable) appears against an item		
101	C1 CONTRACT DRAWINGS		
	The drawings issued with the tender documents do not comprise the complete set but serve as a guide only for tendering purposes and for indicating the scope of the work to enable the tenderer the acquaint himself with the nature and extend of the works and the manner in which they are to be executed Should any part of the drawings not be clearly intelligible to the		
	tenderer he shall, before submitting his tender, obtain clarification in writing from the principal agent		
	Fixed:Value related: Time related:	item	
102	C2 GENERAL PREAMBLES		
	The document Specification of Materials and Methods to be used (PW371) is obtainable on request from the head office and all regional offices of the Department, and shall be read in conjunction with the 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	

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		
	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		

PRELIMINARIES Bill 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:	item	
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		
109	Fixed:Value related:Time related: C9 PROHIBITION ON TAKING OF PHOTOGRAPHS	item	
	In terms of article 119 of the Defence Act, 44 of 1957, it is prohibited to sketch or to take photographs of any military site or installation or any building or civic works thereon or to be in possession of a camera or other apparatus used for taking of photographs except when authorized thereto by or on behalf of the Minister.		
	Fixed:Value related: Time related:	item	
	Carried to Collection	R	
	Section No. 1		

C10	HIV/AIDS AWARENESS		
Specifica together Section Provisior C10.1 TC requiren be price of measu	uired of the contractor to thoroughly study the HIV/AIDS ation of the Department that must be read r with and is deemed to be incorporated under this of the Bills of Quantities. n for pricing of HIV/AIDS awareness is made under items O C10.5 hereafter and it is explicity pointed out that all ments of the aforementioned specification are deemed to ed hereunder, as the said items represent the only method urement and no additional items or extras to the contract egard shall be entertained		
Specifica compliar of Clause Prelimina reserves certifica compliar compensi	ntractor must take note that compliance with the HIV/AIDS ation is compulsory. In the event of partial or total non- nce, the principal agent , notwithstanding the provisions ate A 31 of Section A: waries (Section A) or any other clause to the contrary, is the right to delay issuing any progress payment that until the contractor provides satisfactory proof of nce. The contractor shall not be entitled to any usation of whatsoever nature, including interest, due to elay of payment		
C10.1	AWARENESS CHAMPION		
Awarene	n, appointment, briefing and making available of an ess Champion including provision of all relevant services, cordance with the HIV/AIDS Specification		
	Value related: lated:	item	
C10.2	AWARENESS WORKSHOPS		
approve Worksho worksho techniqu tuition m	n and appointment of a completed Services Provider ed by the principal agent , provision of a Service Provider op Plan and a suitable venue, conducting of awareness ops by means of traditional and/or modern multi-media ues, including follow-up courses, making available all naterial and performing assessment procedures, all in ance with the HIV/AIDS Specification		
Fixed : Time rela	Value related: lated:	item	
	Carried to Collection	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: Time 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	
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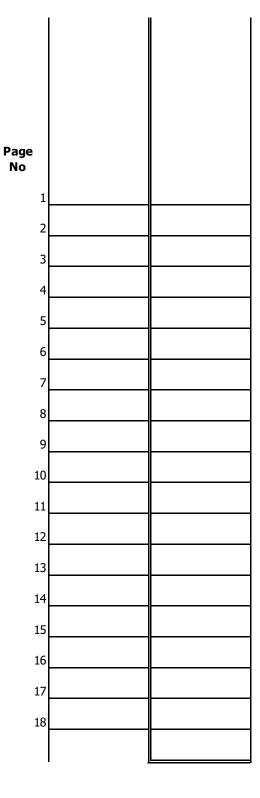
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PRELIMINARIES

Bill No.1

COLLECTION

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SECTION NO. 2

Renovations (12CR, 16Waterborne, Nutrition)

					Mokha	ri SS
I		Unit	Quantity	Rate	Amount	
	SECTION NO. 2					
	Renovations (12CR, 16Waterborne, Nutrition)					
	BILL NO. 1					
	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 and and supervise for singly as to a					
_	Taking out and removing fencing, gates, etc		000			
2	1800mm high steel fence	m	663			
	REMOVAL OF EXISTING WORK					
	Breaking up and removing unreinforced concrete					
3	100mm Thick surface beds	m²	180			
4	100mm thick aprons	m²	337			
	Taking down and removing roofs, floors, panelling,					
	<u>ceilings, partitions, etc:</u>					
5	10 x 250mm fascia and barge boards	m	337			
	Breaking down and removing brickwork etc					
6	One brick walls	m²	31			
	Taking out and removing sanitary fittings, tanks,					
	geysers, etc, including disconnecting from pipes,					
	traps, etc and making good floor and wall finishes					
	(making good tiling and paintwork elsewhere)					
7	Gutters and down pipes	m	585			
	Taking out and removing sundry joinery work, fittings, etc					
8	Chalk boards size 4800 x 1220mm high from brick wall.	No	12			
9	Pinning boards size 2440 x 1220mm high from brick					
	walls.	No	24			
	Carried to Collection			R		
	Section No. 2			N		
	Bill No. 1					
	Alterations					
	42					

I		Unit	Quantity	Rate	ari 55
	Taking out/off and removing glass and mirrors				
10	Glass from steel windows, including cleaning out rebates and preparing for new glass	m²	68		
	Taking out doors, windows, etc				
11	Timber single door size 813 x 2032mm high overall from steel frames.	No	40		
12	Steel gate size 813 x 2032mm high overall from steel frames.	No	20		
13	Steel gate size 1600 x 2032mm high overall from steel frames.	No	1		
	<u>Hack up and removing granolithic screeds, plaster , etc from concrete or brickwork and preparing surfaces for new screed, plaster, etc</u>				
14	30mm screed from floors	m²	902		
	Take out and remove existing pit toilet				
15	Demolish pit toilet 20m2 on plan and 3m high comprising concrete surface beds, one brick wall, corrugated roof sheeting including sucking of human waste, filling the pit, etc	No			
		No	2		
	<u>Taking down and removing roofs, floors, panelling, ceilings, partitions, etc</u>				
16	Pitched roof 330m2 on plan of timber trusses and purlins, corrugated sheet steel covering, ceilings and cornices, eaves soffit covering, fascias, barge boards, gutters and rainwater pipes	No	1		
17		m²	792		
18	,		192		
10	brandering, cornices, etc	m²	1 170		
19	Cornices	m	372		
	Taking up and removing wood block floor coverings, vinyl floor coverings, carpets, etc and preparing screeds for new floor coverings				
20	Floor coverings	m²	815		
	Hacking up/off and removing ceramic tiles including removing mortar bed or adhesive from concrete or brickwork and preparing surfaces for new screed, plaster, tile finish, etc				
21	Tiles to floors	m²	80		
	Carried to Collection			R	
	Section No. 2				
	Bill No. 1 Alterations				
	43				

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		Unit	Quantity	Rate	Amount	
	PREPARATORY WORK TO EXISTING SURFACES					
22	Making good defects in existing screeded floors with cement mortar	m²	45			
	MAKING GOOD OF FINISHES ETC					
	Making good untinted granolithic					
23	40mm Thick on floors in patches	m²	75			
	Making good cement screeds					
24	Floors where one brick walls removed	m	10			
	Making good internal cement plaster					
25	Walls in patches	m²	45			
26	Walls where one brick wall was removed	m²	31			
	Carried to Collection Section No. 2			R		
	Bill No. 1					
	Alterations					
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			Amount	I
BILL NO. 1 ALTERATIONS COLLECTION		Page No		
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Section No. 2 Bill No. 1				
Alterations	45			
	45			

Unit Quantity Rate Amount **SECTION NO. 2** Renovations (12CR, 16Waterborne, Nutrition) **BILL NO. 2 EARTHWORKS** PREAMBLES For preambles see "Specifications and methods to be used - PW371" SITE CLEARANCE Site clearance Digging up and removing rubbish, debris, vegetation, 1 hedges, shrubs, bush, etc and trees not exceeding 200mm girth m² 96 **EXCAVATIONS, FILLING, ETC OTHER THAN BULK** Excavation in earth not exceeding 2m deep: 2 Trenches 22 m³ Extra over bulk excavations in earth for excavation in Soft rock 3 m³ 2 4 Hard rock m³ 1 Extra over all excavations for carting away 5 Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor m³ 4 **Risk of collapse of excavations** Sides of bulk excavations not exceeding 1,5m deep 6 m² 64 Keeping excavations free of water Keeping excavations free of water other than 7 subterranean water Item **FILLING ETC** Earth filling obtained from the excavations Backfilling to trenches, holes, etc m³ 11 8 Under floors, steps, paving, etc 9 m³ 6 Earth filling supplied by the contractor, compacted to 95% Mod AASHTO density 29 10 Under floors, steps, paving, etc m³ Carried to Collection R Section No. 2 Bill No. 2 Earthworks

		Unit	Quantity	Rate	Amount	
	Compaction of surfaces					
11	Compaction of nof ground surfaces 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	96			
	TESTS					
	Prescribed tests to determine degree of compaction or other properties of ground or filling					
12	Modified AASHTO Density test	No	5			
13	Natural California Bearing Ratio test	No	1			
14	Field Density test including Optimum Moisture Content test (four readings per test)	No	1			
	SOIL POISONING					
	Soil insecticide in accordance with SANS 5859					
15	Under floors etc, including forming and poisoning shallow furrows against foundation walls etc, filling in					
	furrows and ramming	m²	96			
16	To bottoms and sides of trenches etc	m²	90			
						_
	Carried to Collection			R		-
	Section No. 2 Bill No. 2					
	Earthworks					
	47					

Amount <u>BILL NO. 2</u> **EARTHWORKS** COLLECTION Page No Brought Forward from Page 46 47 Carried To Section Summary R Section No. 2 Bill No. 2 Earthworks 48

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		Unit	Quantity	Rate	Amount	
	SECTION NO. 2					
	Renovations (12CR, 16Waterborne, Nutrition)					
	BILL NO. 3 CONCRETE, FORMWORK AND REINFORCEMENT					
	PREAMBLES					
	For preambles see "Specifications and methods to be used - PW371"					
	UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES					
	15Mpa/19mm concrete					
1	Pavings	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					
	Description					
	Thickening down the edge of apron 150mm deep, 200mm top and tapering to 100mm at bottom including all excavations, formwork, backfilling etc	m	96			
	REINFORCED CONCRETE CAST ON/IN FORMWORK					
	25MPa/19mm concrete					
4	Surface beds cast in panels	m³	10			
	REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES					
	25MPa/19mm concrete					
5	Footings	m³	6			
	TEST CUBES					
	Test Cubes					
6	Making and testing 150 x 150 x 150mm concrete strength test cube (Provisional)	No	10			
	CONCRETE SUNDRIES					
	Finishing top surfaces of concrete smooth with a wood float					
7	Surface beds, slabs, etc	M²	96			
	Carried to Collection			R		
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	Concrete, Formwork And Reinforcement 49					
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1		Unit	Quantity	Rate	Amount	1
	MOVEMENT JOINTS ETC					
	Saw-cut joints					
8	10 x 10mm Saw-cut joints in top of concrete	m	48			
	REINFORCEMENT					
	Mild steel reinforcement to structural concrete work					
9	Various sizes of reinforcement steel	Tonnes	2.00			
	Fabric reinforcement					
10	Type 193 fabric reinforcement in concrete slabs etc	m²	96			
	Carried to Collection			-		
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	Concrete, Formwork And Reinforcement					
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Unit Quantity Rate Amount SECTION NO.2 Removations (1C2C.169/aterborne.Nutrition) I I I BEIL NO.4 MASONRX I I I PREAMBLES For preambles see "Specification of materials and methods to be used - PW371" I I Brickwork of NFX bricks (14 MPa nominal compressive strength) in class II mortar I I I 1 One brick walls m ² 32 I 2 One brick walls m ² 98 I 2.5mm Brickwork neinforcement I I I 2 One brick walls m ² 32 3 150mm Wide reinforcement built in horizontally m 4229 Jurning pieces to Initels etc I I 4 220mm Wide tuming pieces m 16 5 Satvanised wire ties etc I I 6 Exita over brickwork for face brickwork in foundations (Provisional), Itsh vortical joints: m ³ 14 7 Exita over brickwork for face brick walls m 10 8 Half brick in facings in beamfiling m ³ 10 9 220mm Copings on top of one brick walls m 10 10 Exita over brickwork for bric						Mokha	ari SS
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Brickwork of NFP bricks in class II mortar m ² 98 2 One brick walls m ² 98 2.5mm Brickwork reinforcement m 429 3 150mm Wide reinforcement built in horizontally m 429 4 220mm Wide turning pieces m 16 5 4mm Diameter roof tie 2m girth bent double, with one end built into brickwork and other end fixed to timber No 32 FACE BRICKWORK Face bricks (Prime cost R5 500/1000 delivered to site excluding VAT) pointed with recessed horizontal and flush vertical joints: m ² 98 6 Extra over brickwork for face brickwork m ² 98 7 Extra over brickwork for face brickwork in foundations (Provisional). m ² 14 8 Half brick in facings in beamfilling m ² 10 9 220mm Copings on top of one brick walls m 10 10 Extra over brickwork for brick on edge header course m m 16 11 Carried to Collection m 16 12 Extra over brickwork for brick on edge header course m m 16 13 Extra over brick (Prime cost R5 500/1000 delivered to site excluding VAT							
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Turning pieces to lintels etc m 16 220mm Wide turning pieces m 16 Galvanised wire ties etc No 32 4 Amm Diameter roof tie 2m girth bent double, with one end built into brickwork and other end fixed to timber No 32 FACE BRICKWORK Face bricks (Prime cost R5 500/1000 delivered to site excluding VAT) pointed with recessed horizontal and flush vertical joints: No 32 6 Extra over brickwork for face brickwork m ² 98 7 Extra over brickwork for face brickwork in foundations (Provisional). m ² 14 8 Half brick in facings in beamfilling m ² 10 Brick-on-edge header course copings, sills, etc of face bricks (Prime cost R5 500/1000 delivered to site excluding VAT), pointed with recessed joints on all exposed faces 10 9 220mm Copings on top of one brick walls m 10 10 Extra over brickwork for brick on edge header course intel pointed on face and 220mm soffit m 16 Carried to Collection R Carried to Collection R Carried to Collection Carried to Collection							
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7 Extra over brickwork for face brickwork in foundations (Provisional). m² 14 8 Half brick in facings in beamfilling m² 10 Brick-on-edge header course copings, sills, etc of face bricks (Prime cost R5 500/1000 delivered to site excluding VAT), pointed with recessed joints on all exposed faces n 10 9 220mm Copings on top of one brick walls m 10 10 Extra over brickwork for brick on edge header course lintel pointed on face and 220mm soffit m 16 Carried to Collection R		excluding VAT) pointed with recessed horizontal and					
(Provisional).m²148Half brick in facings in beamfillingm²10Brick-on-edge header course copings, sills, etc of face bricks (Prime cost R5 500/1000 delivered to site excluding VAT), pointed with recessed joints on all exposed faces109220mm Copings on top of one brick wallsm1010Extra over brickwork for brick on edge header course lintel pointed on face and 220mm soffitm16RCarried to CollectionSection No. 2 Bill No. 4 MasonryI	6	Extra over brickwork for face brickwork	m²	98			
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Brick-on-edge header course copings, sills, etc of face bricks (Prime cost R5 500/1000 delivered to site excluding VAT), pointed with recessed joints on all exposed faces n 10 9 220mm Copings on top of one brick walls m 10 10 Extra over brickwork for brick on edge header course lintel pointed on face and 220mm soffit m 16 Section No. 2 Bill No. 4 Masonry Image: Carried to Collection is the section is the secti		(Provisional).	m²	14			
face bricks (Prime cost R5 500/1000 delivered to site excluding VAT), pointed with recessed joints on all exposed faces n	8	Half brick in facings in beamfilling	m²	10			
9 220mm Copings on top of one brick walls m 10 10 Extra over brickwork for brick on edge header course lintel pointed on face and 220mm soffit m 16 Carried to Collection Section No. 2 Bill No. 4 Masonry		face bricks (Prime cost R5 500/1000 delivered to site excluding VAT), pointed with recessed joints on all					
10 Extra over brickwork for brick on edge header course lintel pointed on face and 220mm soffit m 16 Carried to Collection R Section No. 2 Bill No. 4 Image: Carried to Collection Image: Carried to Collection Masonry Image: Carried to Collection Image: Carried to Collection	9		m	10			
lintel pointed on face and 220mm soffit m 16 Carried to Collection Section No. 2 Bill No. 4 Masonry Masonry	10						
Section No. 2 Bill No. 4 Masonry	10		m	16			
Section No. 2 Bill No. 4 Masonry							
Bill No. 4 Masonry		Carried to Collection			R		
Masonry		Section No. 2					
52							
		52					

		Unit	Quantity	Rate	Mokha Amount	ri SS
			Quantity	Nate	Amount	
11	220mm Wide sills set level and slightly projecting	m	5			
	FIBRE-CEMENT WINDOW SILLS Natural grey sills in single lengths bedded in class 1 mortar including metal fixing lugs, etc					
12	12 x 152mm Wide sills set sloping and slightly projecting	m	5			
	Carried to Collection			R		
	Section No. 2 Bill No. 4					
	Masonry 53					
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Amount <u>BILL NO. 4</u> MASONRY COLLECTION Page No Brought Forward from Page 52 53 Carried To Section Summary R Section No. 2 Bill No. 4 Masonry 54

		Unit	Quantity	Rate	Mokha Amount	ri SS
		•••••				
	SECTION NO. 2 Renovations (12CR, 16Waterborne, Nutrition) BILL NO. 5 WATERPROOFING					
	PREAMBLES For preambles see "Specifications and methods to be used - PW371"					
	DAMPPROOFING OF WALLS AND FLOORS					
	One layer 375 micron embossed polyethylene dampproof course (SANS 952-1985 type B)					
1	In walls	m²	7			
	One layer 250 micron green polyethylene waterproof sheeting (SANS 952-1985 type C) sealed at laps with PVC self-adhesive tape					
2	Under surface beds	m²	96			
	Carried To Section Summary Section No. 2 Bill No. 5 Waterproofing			R		
	55					

					Mokha	ri SS
1		Unit	Quantity	Rate	Amount	
	SECTION NO. 2					
	Renovations (12CR, 16Waterborne, Nutrition)					
	BILL NO. 6					
	ROOF COVERINGS					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW 371					
	General					
	PROFILED METAL SHEETING AND ACCESSORIES					
	0.58mm "Klip-lok light industrial" galvanised troughed sheet steel with "chromadek" finish one side,fixed to 76 x 50mm purlin complete under 5year quarantee by an approved firm of specialists, all in accordance with the materials supplied and methods employed by the manufacturer					
1	Roof covering with pitch not exceeding 25 degrees.	m²	1 249			
	0.58mm galvanised sheet iron, with "chromadek"					
	<u>one side in:</u>					
2	Standard type FK3 ridge or hip flashing	m	118			
	Carried To Section Summary Section No. 2 Bill No. 6			R		
	Roof Coverings 56					
ļ	50					

				Mokha	ri SS
1	Unit	Quantity	Rate	Amount	
SECTION NO. 2					
Renovations (12CR, 16Waterborne, Nutrition)					
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.					
<u>Joinery:</u>					
Descriptions of frames shall be deemed to include frames, transoms, mullions, rails, etc.					
Descriptions of hardwood joinery shall be deemed to include pelleting of bolt 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. 2 Bill No. 7 Carpentry And Joinery			R		
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		Unit	Quantity	Rate	Amount
1	Roof construction to double pitched roof with hipped ends approximately 100m2 (nutrition centre) on plan overall including trusses, rafters, purlins, permanent bracing, etc (measured flat).	No	1		
	ROOF SUNDRIES				
	Sundries:				
2	Two coats creosote on sawn timbers.	m²	91		
	EAVES, VERGES, ETC				
3	Everite FC77 or equal approved pressed fibre- cement: 10 x 250mm Fascias and barge boards including galvanised steel H-profile jointing strips.	m	373		
	Wrought meranti doors:				
	Wrought meranti doors hung to steel frames:				
4	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	20		
	DOORS ETC				
	Semi-solid flush doors with veneer				
5	40mm Door 813 x 2032mm high	No	16		
5		INO	10		
	Carried to Collection			R	
	Section No. 2				
	Bill No. 7				
	Carpentry And Joinery				
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<u>BILL NO. 7</u> CARPENTRY AND JOIN COLLECTION	<u>ERY</u>	Page No	
	Brought Forward from Page	57 58	
	Carried To Section Summary	R	
Section No. 2 Bill No. 7 Carpentry And Joinery	59		

Unit Quantity Rate Amount SECTION NO. 2 Renovations (12CR, 16Waterborne, Nutrition) **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: 100mm Insulation closely fitted and laid on top of 1 brandering between roof timbers etc. 1 166 m² Wrought softwood 19 x 76mm cornices nailed 694 2 m 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 1 166 Extra over ceiling for hinged trap door size 610 x 610mm 4 17 No Carried To Section Summary R Section No. 2 Bill No. 8 Ceilings Partitions And Access Flooring 60

					Mokha	ari SS
		Unit	Quantity	Rate	Amount	
	SECTION NO. 2					
	Renovations (12CR, 16Waterborne, Nutrition)					
	BILL NO. 9					
	IRONMONGERY					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	SUPPLEMENTARY PREAMBLES					
	Finishes to ironmongery:					
	Where applicable finishes to ironmongery are indicated by suffixes in accordance with the following list: BS Satin bronze lacquered : CH Chromium plated : SC Satin chromium plated : SE Silver enamelled : GE Grey enamelled : AS Anodised silver : AB Anodised bronze : AG Anodised gold : ABL Anodised black : PB Polished brass : PL Polished and lacquered : PT Epoxy coated.					
	SUNDRIES					
	Brass or equal approved:					
1	Sliding stays plugged.	No	230			
2	Window handle plugged.	No	156			
3	Peg stay plugged.	No	156			
	Locks:					
	Solid or equal approved:					
4	CZ6822461 "Gower" Four lever lockset.	No	36			
	CATCHES, CABIN HOOKS, ETC					
	Solid or equal approved					
5	100mm cabin hook and eye including 70 x 70 x 20mm chamfered hardwood block twice oiled and plugged	No	20			
	LOCKS					
	Solid or equal approved					
6	'Code 63' padlock plugged.	No	20			
	PINNING BOARDS, WRITING BOARDS, PROJECTION SCREENS, ETC					
7	Pinning board 2400 x 1200mm high plugged.	No	24			
8	White Magnetic Writing Board 4000 x 1200mm	No	12			
						<u> </u>
	Carried to Collection			R		
	Section No. 2					
	Bill No. 9 Ironmongery					
	61					
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					Mokha	ri SS
		Unit	Quantity	Rate	Amount	I
9	<u>Greenfield steel lockers with standard baked enamel</u> <u>finish</u> Double door steel cupboard 914 x 457 x 1828mm high with five shelves bolted to brickwork.	No	12			
	Carried to Collection Section No. 2 Bill No. 9 Ironmongery			R		
	62					

Amount <u>BILL NO. 9</u> IRONMONGERY COLLECTION Page No Brought Forward from Page 61 62 Carried To Section Summary R Section No. 2 Bill No. 9 Ironmongery 63

					Mokha	ari SS
I	I	Unit	Quantity	Rate	Amount	1
	SECTION NO. 2					
	Renovations (12CR, 16Waterborne, Nutrition)					
	<u>BILL NO. 10</u> METALWORK					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	SUPPLEMENTARY PREAMBLES					
	Descriptions:					
	Descriptions of bolts shall be deemed to include nuts and washers.					
	Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete.					
	Metalwork described as holed for bolt(s) shall be deemed to exclude the bolts unless otherwise described.					
	MILD STEEL HANDRAILS AND BALUSTRADING					
	Mild steel handrails and balustrades fixed to base					
	plates constructed of two number 6mm steel flat bar cut to profile mounted to wall with 6mm thick steel fixing plate welded to two steel flat bars with 4mm fillet welds chemical anchors (bolts included), 12mm					
	dia. Mild steel round spaced at 150mm centres,					
	pedrilled openning 3No. In each upright, top rail to be 30mm thick x 100mm wide steel					
1	Balustrading and handrails approximately 1000mm high fixed to concrete.	m	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	2			
	WELDED SCREENS, GATES, ETC.					
	Gates to external doors					
3	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	20			
	Carried to Collection			R		
	Section No. 2			ĸ		+
	Bill No. 10					
	Metalwork					
	64					
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		Unit	Quantity	Rate	Amount	
	Repair to existing steel frames					
4	Repair to existing steel frames including replacing striking plates	No	20			
	GALVANISED STEEL GATES, SCREENS, ETC					
	Frame and gate out of 50 x 25 x 1.6mm M/S rectangular tubing mitre 45 drgrees at corner before welded and secured in openning with brackets welded to gate (backed with expanded metal mesh on inside) and bolted to wall					
5	Double gate 2000 x 4 370mm high, each leaf of 920 x 4 320mm high, with ears for padlock and 150mm drop bolt welded on with keep in concrete	No	2			
	STEEL WINDOWS, DOORS, ETC					
	Standard SS Industrial windows with 12 x 12 (B33) solid burglar bars to all sashes:					
	<u>Description</u>					
	Standard residential windows with 12 x 12(B33) solid burglar bars to all sashes:					
6	Window type SS41/SS41, 2 604 x 1 956mm high with	No	2			
	STEEL ROLLER SHUTTERS ETC					
	Standard Wispeco or equal approved chromadek steel roller shutters fixed to brickwork or concrete					
7	Roller shutter for 2 185 x 2 400mm high opening	No	5			
	Carried to Collection			R		
	Section No. 2 Bill No. 10			i v		
	Metalwork					
	65					

Amount <u>BILL NO. 10</u> **METALWORK** COLLECTION Page No Brought Forward from Page 64 65 Carried To Section Summary R Section No. 2 Bill No. 10 Metalwork 66

					Mokha	ri SS
		Unit	Quantity	Rate	Amount	
	SECTION NO. 2					
	Renovations (12CR, 16Waterborne, Nutrition)					
	BILL NO. 11					
	<u>PLASTERING</u>					
	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 and landings.	m²	902			
	GRANOLITHIC					
	Untinted wood floated granolithic on concrete					
2	30mm Thick on floors and landings.	m²	72			
	INTERNAL PLASTER					
	<u>Cement plaster steel trowelled, on brickwork</u>					
3	On walls	m²	98			
4	Narrow widths	m²	5			
	Carried To Section Summary			R		
	Section No. 2					
	Bill No. 11					
	Plastering 67					
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1		Unit	Quantity	Rate	Mokha Mokha	ari SS
	<u>SECTION NO. 2</u> <u>Renovations (12CR, 16Waterborne, Nutrition)</u> <u>BILL NO. 12</u> <u>TILING</u>					
	PREAMBLES For preambles see "Specification of materials and methods to be used - PW371					
	FLOOR TILING					
	300 x 300 x 11.5mm ceramic floor tiles (Prime Cost amount R250.00/m2 delivered excluding vat) fixed with adhesive to screed (screed elsewhere) and flush pointed with tinted waterproof jointing compound					
1	On floors and landings.	m²	895			
2	Skirting formed of ceramic tile cut to 300 x 75mm high	m	694			
	Carried To Section Summary			R		
	Section No. 2					
	Bill No. 12 Tiling					
	68					

				Mokha	ri SS
1	Unit	Quantity	Rate	Amount	
SECTION NO. 2					
Renovations (12CR, 16Waterborne, Nutrition)					
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 Section No. 2 Bill No. 13			R		
Plumbing And Drainage					
69					

				Mokha	ri SS
	Unit	Quantity	Rate	Amount	
Reducing fittings:					
Where fittings have reducing ends or branches they are					
described as 'reducing'. In the case of pipes with					
diameters not exceeding 60mm only the largest end or					
branch size is given. Should the Contractor wish to use other fittings and bushes or reducers he may do so on					
the understanding that no claim in this regard will be					
entertained. In the case of pipes with diameters exceeding 60mm all sizes are given and no claim for					
extra bushes, reducers, etc will be entertained.					
Wire gratings:					
Descriptions of gutter outlets etc shall be deemed to					
include wire balloon gratings.					
Septic tanks:					
Descriptions of septic tanks shall be deemed to include excavation, bedding and jointing, concrete base slabs,					
jointing to drains and backfilling, compaction, etc all in					
accordance with the manufacturer's instructions.					
Exposed concrete surfaces:					
Exposed surfaces of concrete stormwater channels, cover slabs, inspection eye marker slabs, gulley tops,					
cleaning eye tops, catchpits, inspection chambers, etc					
shall be finished smooth with plaster.					
Excavations:					
No claim for rock excavation will be entertained unless					
the Contractor has timeously notified the quantity surveyor thereof prior to backfilling.					
'Soft rock' and 'hard rock' shall be as defined in					
'Earthworks'.					
Laying, backfilling, bedding, etc of pipes:					
Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers'					
instructions.					
Where no manufacturers' instructions exist pipes shall					
be laid in accordance with clauses 5.1 and 5.2 of each of					
the following: SABS 1200 L : Medium pressure pipelines LD : Sewers LE : Stormwater drainage Pipe trenches					
etc shall be backfilled in accordance with clause 3, 5.5,					
5.6, 5.7 and 7 of SAB.					
Flush pans:					
Flush pans shall have straight or side outlets and 'P' or 'S' traps as necessary.					
					<u> </u>
Carried to Collection			R		
Section No. 2					
Bill No. 13					
Plumbing And Drainage					
70					

					Mokha	ri SS
		Unit	Quantity	Rate	Amount	
	<u>Stainless steel basins, sinks, wash troughs, urinals, etc:</u>					
	Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable.					
	Waste unions:					
	Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings.					
	RAINWATER DISPOSAL					
	Approved .6mm galvanised sheet iron with "chromadek" finish ,in:					
1	100 x 100mm Eaves gutters	m	337			
2	Extra over eaves gutter for angle/corner.	No	30			
3	Extra over eaves gutter for stopped end	No	30			
4	Extra over eaves gutter for outlet for 75mm pipe.	No	48			
5	75mm Diameter rainwater pipes.	m	192			
6	Extra over rainwater pipe for bend.	No	48			
7	Extra over rainwater pipe for shoe.	No	48			
	FIRE APPLIANCES ETC.					
	<u>'Chubb' or equal approved:</u>					
8	9kg Dry chemical fire extinguisher plugged.	No	17			
	RAINWATER HARVESTING					
	Rainwater harvesting					
9	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	8			
	Carried to Collection			R		
	Section No. 2			ĸ		
	Bill No. 13					
	Plumbing And Drainage 71					
	71					

			Mokhari SS	;
BILL NO. 13			Amount	
PLUMBING AND DRAIN	AGE	Page No		
	Brought Forward from Page	69 70 71		
	Carried To Section Summary	R		
Section No. 2 Bill No. 13 Plumbing And Drainage	72			_

		Unit	Quantity	Rate	Mokha Amount	ri SS
1	SECTION NO. 2 Renovations (12CR, 16Waterborne, Nutrition) BILL NO. 14 GLAZING PREAMBLES For preambles see "Specification of materials and methods to be used - PW371 GLAZING TO STEEL WITH PUTTY Smm Clear float glass: Dense set succeding 0.4m2	m²	65			
	Panes not exceeding 0,1m2.					
	Carried To Section Summary Section No. 2 Bill No. 14 Glazing 73			R		

					Mokhari	SS
1		Unit	Quantity	Rate	Amount	
	SECTION NO. 2					
	Renovations (12CR, 16Waterborne, Nutrition)					
	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	98			
	ON FIBRE-CEMENT, ETC.					
	Prepare , etc as specified and apply two coats of					
	super acrylic Pva paint:					
2	On ceilings and cornices.	m²	1 166			
3	On fascias and barge boards.	m²	373			
	ON METAL					
	Prepare, etc as specified and apply two coats of gloss enamel paint on :					
4	Door frames	m²	54			
5	On windows with burglar bars (both sides measured).	m²	150			
6	On gates, grilles, burglar screens, balustrades, etc (both sides measured over the full flat area).	m²	110			
7	Steel poles	m	6			
8	Palisade Fence (both sides measured over the full flat area).	m²	3 000			
	Prepare, etc as specified and paint inside eaves gutters with waterproofing based paint:					
9	Inside eaves gutters with waterproofing based paint	m²	131			
	ON WOOD, WOOD BOARD					
	Prepare, etc as specified and apply two coats of polyurethane suede varnish:					
10	On general surfaces of doors.	m²	53			
	Carried to Collection			R		
	Section No. 2					
	Bill No. 15					
	Paintwork 74					
	74		1		1	

					Mokha	ari SS
		Unit	Quantity	Rate	Amount	I
11	ON WOOD SURFACES One coat alkyd based universal undercoat and two coat superior quality universal enamel paint Doors	m²	66			
	Carried to Collection Section No. 2 Bill No. 15 Paintwork 75	n		R		

Amount <u>BILL NO. 15</u> PAINTWORK COLLECTION Page No Brought Forward from Page 74 75 Carried To Section Summary R Section No. 2 Bill No. 15 Paintwork 76

			Amount	
	SECTION NO. 2			
	Renovations (12CR, 16Waterborne, Nutrition)			
	SECTION SUMMARY			
Bill No.		Page		
1	ALTERATIONS	45		
2	EARTHWORKS	48		
3	CONCRETE, FORMWORK AND REINFORCEMENT	51		
4	MASONRY	54		
5	WATERPROOFING	55		
6	ROOF COVERINGS	56		
7	CARPENTRY AND JOINERY	59		
8	CEILINGS PARTITIONS AND ACCESS FLOORING	60		
9	IRONMONGERY	63		
10	METALWORK	66		
11	PLASTERING	67		
12	TILING	68		
13	PLUMBING AND DRAINAGE	72		
14	GLAZING	73		
15	PAINTWORK	76		
	Carried to Final Summary	R		
	Section No. 2 SECTION SUMMARY			
	77			

SECTION NO. 3

2 x 5 Classroom Block

					Mokha	ri SS
		Unit	Quantity	Rate	Amount	
	SECTION NO. 3					
	<u>2 x 5 Classroom Block</u>					
	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	580			
	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	15			
5	Hard rock.	m³	8			
	Risk of collapse of excavations:					
6	Sides of trench and hole excavations not exceeding 1,5m deep.	m²	418			
	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	72			
9	Under floors, steps, pavings, etc.	m³	62			
	Carried to Collection			R		
	Section No. 3					
	Bill No. 1					
	Foundations 79					
	75				ll	

Unit Quantity Rate Amount Earth filling supplied by the Contractor and compacted to 95% Mod AASHTO density): Under floors, steps, pavings, etc. т³ 103 10 **Cart Away** Extra over excavation for cart away: Surplus material from excavations on site to a dumping 11 site be located by the contractor 23 m³ Coarse river sand filling supplied by the Contractor: 12 Under floors etc. 21 m³ COMPACTION **Compaction of surfaces:** Compaction of ground surface under floors etc including 13 scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 90%. Mod AASHTO density. m² 410 Prescribed density tests on filling: Modified AASHTO Density test. 15 14 No SOIL POISONING Soil insecticide: 15 Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming. 410 m² 16 To bottoms and sides of trenches etc. m² 585 Carried to Collection R Section No. 3 Bill No. 1 Foundations

Amount <u>BILL NO. 1</u> **FOUNDATIONS** COLLECTION Page No Brought Forward from Page 79 80 Carried To Section Summary R Section No. 3 Bill No. 1 Foundations 81

Unit Quantity Rate Amount **SECTION NO. 3** 2 x 5 Classroom Block **BILL NO. 2** CONCRETE, FORMWORK AND REINFORCEMENT PREAMBLES For preambles see "Specification of materials and methods to be used - PW371" **UNREINFORCED CONCRETE** 15Mpa/19mm Concrete Aprons cast in panels. 12 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 119 m **REINFORCED CONCRETE** 25 MPa/19mm Concrete: m³ 37 4 Footings. Surface beds cast in panels on waterproofing. 5 m³ 48 **TEST BLOCKS** Test blocks: Making and testing set of three 150 x 150 x 150mm 6 concrete strength test cubes (Provisional). Sets 10 7 Paving to falls. m² 120 8 Ramps to falls. m² 4 FINISHING TOP SURFACE OF CONCRETE ROUGH FORMWORK (DEGREE OF ACCURACY III) (CPAP Work Group No 111) **Rough Formwork to Sides:** Edges and reveals not exceeding 300mm high or wide. 124 9 m **MOVEMENT JOINTS ETC** Two layers of .5mm galvanised mild steel slip joints between horizontal concrete and brick surfaces including cement mortar bed: 10 Not exceeding 300mm wide. m 60 Carried to Collection R Section No. 3 Bill No. 2 Concrete, Formwork And Reinforcement 82

Unit Quantity Rate Amount Expansion joints with bitumen impregnated softboard between vertical concrete and brick surfaces: 12mm Joints not exceeding 300mm high. 11 75 m **Dividing Strips**,etc 6 x 38mm Angle iron step guard cast into concrete with 12 3x 6mm anchors 5 m REINFORCEMENT(PROVISIONAL) Fabric reinforcement: Type 193 fabric reinforcement in concrete surface beds, 13 slabs, etc. m² 410 Steel reinforcement to structural concrete work: Various sizes 6 14 Tonnes Carried to Collection R Section No. 3 Bill No. 2 Concrete, Formwork And Reinforcement 83

		Mokhari SS
		Amount
BILL NO. 2		
CONCRETE, FORMWORK AND REINFORCEMENT		
COLLECTION		
	Page No	
Brought Forward from Page	82	
	83	
Carried To Section Summary	R	
Section No. 3		
Bill No. 2 Concrete, Formwork And Reinforcement		
84		
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Unit Quantity Rate Amount **SECTION NO. 3** 2 x 5 Classroom Block BILL NO. 3 MASONRY PREAMBLES For preambles see "Specification of materials and methods to be used - PW371" BRICKWORK Sizes in descriptions: Where sizes in descriptions are given in brick units, 'one brick' shall represent the length and 'half brick' the width of a brick. Face bricks: Bricks shall be ordered timeously to obtain uniformity in size and colour. Pointing: Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc. **SAMPLES** Samples of all masonry building units, except those for walls described as 'load bearing', shall consist of a minimum of 6 units. Samples of building units to be used in walls described as 'load bearing' shall consist of 30 units from every 30 000 units delivered to site. **BRICKWORK IN FOUNDATIONS (PROVISIONAL)** Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar: One brick walls 217 m² **BRICKWORK IN SUPERSTRUCTURE** Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar: 2 One brick walls 671 m² **BRICKWORK SUNDRIES Brickwork reinforcement:** 3 150mm Wide reinforcement built in horizontally. 2 9 3 0 m **Turning pieces:** 220mm Wide turning piece to lintels etc. 56 4 m Carried to Collection R Section No. 3 Bill No. 3 Masonry

1

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1		Unit	Quantity	Rate	Amount	
	Galvanised wire ties etc:					
5	4mm Diameter roof tie 2m girth bent double with one end fixed to timber and other end built into					
	brickwork.(Provisional)	No	120			
	Colvenies dhean iron aramna tica ata					
6	Galvanised hoop iron cramps, ties, etc: 30 x 1,6mm Cramp 500mm long with one end fixed to					
0	wood and other end built into brickwork.(Provisional)	No	120			
	Prestressed fabricated concrete lintels including					
	necessary temporary supports					
7	115 x 100mm Lintels in lengths not exceeding 3m	m	5			
	FACE BRICKWORK					
	Face bricks (Prime cost R5 500/1000 delivered to					
	site excluding VAT) pointed with flush horizontal					
0	and vertical joints: Extra over brickwork for face brickwork.		045			
8		m²	315			
9	Extra over brickwork for face brickwork in foundations (Provisional).	m²	54			
10	Half brick in facings in beamfilling	m²	36			
	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	61			
12	230mm Wide sill set sloping and slightly projecting.	m	56			
13	Coping on top of one brick wall pointed on exposed	m	54			
	faces					
	NUTEC-CEMENT/FIBRE-CEMENT WINDOW SILLS					
	<u>Natural grey sills in single lengths bedded in class l</u> mortar including metal fixing lugs etc:					
14	12 x 152mm Wide sills set flat and slightly projecting.	m	56			
	Carried to Collection			R		
	Section No. 3					
	Bill No. 3 Masonry					
	86					
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Amount <u>BILL NO. 3</u> MASONRY COLLECTION Page No Brought Forward from Page 85 86 Carried To Section Summary R Section No. 3 Bill No. 3 Masonry 87

SECTION NO. 3 Quantity Rate 2 x 5 Classroom Block BILL NO. 4 Image: Classic Clascic Classic Classic Clascic Classic Classic Clascic Classic Class	Amount	
2 x 5 Classroom Block BILL NO. 4 WATERPROOFINGIIIII NO. 4 WATERPROOFINGPREAMBLES For preambles see "Specification of materials and methods to be used - PW371IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII		
2 x 5 Classroom Block BILL NO. 4 WATERPROOFINGIIIII NO. 4 WATERPROOFINGPREAMBLES For preambles see "Specification of materials and methods to be used - PW371IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII		
2 x 5 Classroom Block BILL NO. 4 WATERPROOFINGIIIII NO. 4 WATERPROOFINGPREAMBLES For preambles see "Specification of materials and methods to be used - PW371IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII		
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.		
WATERPROOFING Image: Section of materials and methods to be used - PW371 DAMPPROOFING OF WALLS AND FLOORS Image: Section of materials and methods to be used - PW371 1 In walls. 1 Image: Mathematical methods to be used - PW371		
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.		
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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.		
One layer of 375 micron Consol Plastics Brikgrip DPC embossed damp proof course:1In walls.m²50		
DPC embossed damp proof course: 1 In walls. m ² 50		
One layer of 250 micron Consol Plastics Gunnlas		
USB Green waterproof sheeting sealed at laps with Gunplas Pressure Sensitive Tape:		
2 Under surface beds. m ² 410		
JOINT SEALANTS ETC		
silicone sealing compound including backing cord, bond breaker,primer,etc		
312 x 20mm in expansion joints in floors including raking out expansion joint filler as necessary (Provisional)m118		
412 x 20mm in vertical expansion joints in walls including raking out expansion joint filler as necessarym48		
Carried To Section Summany		
Carried To Section Summary R		—
Bill No. 4		
Waterproofing		
88		

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		Unit	Quantity	Rate	Amount	
	SECTION NO. 3					
	2 x 5 Classroom Block					
	BILL NO. 5					
	ROOF COVERINGS					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW 371					
	PROFILED METAL SHEETING AND ACCESSORIES					
	.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	555			
	<u>.8mm galvanised sheet iron, with "chromadek" one</u> side in:					
2	Standard type FK3 ridge or hip flashing	m	54			
	Carried To Section Summary Section No. 3 Bill No. 5 Roof Coverings 89			R		

Unit Cuantity Rate Amount SECTION NO.3 2x & Classroom Block SLL NO.5 CARPENTRY AND JOINERX PREAMBLES For preambles see "Specification of materials and methods to be used - PW371 SUPLEMENTARY PREAMBLES Particle board: Descriptions of frames shall be deemed to include frames, transoms, mullions, ratis, etc. Descriptions of hardwood joinery shall be deemed to include frames, transoms, mullions, ratis, etc. Descriptions of thardwood joinery shall be deemed to include frames, transoms, mullions, ratis, etc. Descriptions of thardwood joinery shall be deemed to include frames, transoms, mullions, ratis, etc. Descriptions of thardwood joinery shall be deemed to include frames, transoms, mullions, ratis, etc. Descriptions of the shall be gued under pressure. Edge strips shall be attrained in an attraite shall be of pressure. Edge strips shall be attrained in an attraite shall be of pressure. Edge strips shall be attrained in an attraite shall be of pressure. Edge strips shall be attrained in an attraite shall be attraith					Mokha	iri SS
2 x 5 Classroom Block BiLL No. 6 CARPENTRY AND JOINERY PREAMBLES For preambles see "Specification of materials and methods to be used - PW371 SUPPLEMENTARY PREAMBLES Particle board: in all comply with the following specifications: a) SABS 1300 Particle board: exterior and flooring type b) 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 patienting of both holes. Extinct Descriptions of hardwood joinery shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete. Descriptions at patient of the gued under pressure. Edge strips shall be gued under pressure. Edge strips shall be but jointed at junctions with adjacent similar finish. Laminate finish shall be gued under pressure. Edge strips shall be but jointed at junctions multi adjacent similar finish. PREFABRICATED ROOF TRUSSES, ETC. PREFABRICATED ROOF TRUSSES, ETC. Plate nailed timber roof trusses construction: Trusses are daminum 200m centres Roof covering is %Dipme prints. Calings are from sheeting on 38 x 50mm prints. Practise Design of Timber Trusses Strip Professional Epgineer(in accordance with the drif SABS Code of Preactos for Design of Timber SABS Code of	1	Unit	Quantity	Rate	Amount	1
2 x 5 Classroom Block BiLL No. 6 CARPENTRY AND JOINERY PREAMBLES For preambles see "Specification of materials and methods to be used - PW371 SUPPLEMENTARY PREAMBLES Particle board: Particle board: Iooning ype b) SABS 1300 Particle board: exterior and flooring ype b) SABS 1300 Particle board: exterior and flooring ype b) SABS 1301 Particle board: exterior and flooring ype b) SABS 1301 Particle board: Joinery: Descriptions of frames shall be deemed to include frames, transoms, mullions, rails, etc. Descriptions of hardwood joinery shall be deemed to include patient of the state in alls or shot pins to brickwork or concrete. Concrete Percastive laminate finish: Laminate finish shall be gued under pressure. Edge strips shall be but jointed at junctions with adjacent similar finish. PREFABRICATED ROOF TRUSSES, ETC. Plate naided timber or fruss construction: Thrusses are a maximum 1200m centres Roof covering is 'Kilp-lok' roof sheeting on 76 x 50mm purins. Cellings are from sheeting on 38 x 50mm prantiles. Chell dealing, all key deemed bills of quantilies for ful dealis. All thrusses shall supply a written quarantee that the furses shall supply a written quarantee that the uses shall supply a written quarantee that the uses are designed, manufactured and recret, to support						
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PREAMBLES For preambles see "Specification of materials and methods to be used - PW371 SUPLEMENTARY PREAMBLES Particle board shall comply with the following specifications: a) SABS 1300 Particle board: exterior and thooning type 0 SABS 1301 Particle board: interior type. Joinery Descriptions of frames shall be deemed to include frames, transoms, mullions, rails, etc. Descriptions of hardwood joinery shall be deemed to include pelleting of both holes. Filma; Item adescribed as nailed shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete. Descriptions of hardwood joinery shall be deemed to strips shall be butt jointed at junctions with adjacent similar finish. PREFABICATED ROOF TRUSSES, ETC. Plate nailed timber roof truss construction: Trussees are maximum 1200mm centres Roof covering is RUJe-lok troof sheeting on 76 x 50mm purlins. Cellings are form sheeting on 38 x 50mm paraleting a gradient of trusses are forciated in a factory by specialists approved by the Architect. All a trusses are floated manufacture of trusses shall supply a written quarantee that the trusses and edispend, manufactured and eracted, manufactured and eracted, manufactured and eracted, manufactured and eracted, to support the roof covering specified. The quartities for Design of Timber Trusses). The manufacture of trusses shall supply a written quarantee that the trusses are designed, manufactured and eracted, to support the roof covering specified. The quartites for Design of Timber Trusses). The manufacture of trusses shall supply a written quarantee that the trusses ar						
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	Section No. 3 Bill No. 6			R		

					Mokhari	SS
1		Unit	Quantity	Rate	Amount	
	Sawn softwood:					
1	Roof construction to double pitched roof with two hipped ends approximately 483m2 (five classrooms) on plan					
	overall including trusses, rafters, purlins, permanent					
	bracing, etc (measured flat).	No	1			
	ROOF CONSTRUCTION					
	Sawn softwood:					
2	114 x 38mm Wall plates.	m	119			
3	114 x 38mm rafters exceeding 2.4m and not exceeding					
5	3.9m.	m	45			
4	50 x 76mm purlins.	m	240			
5	50 x 220mm support beam.	m	54			
	ROOF SUNDRIES					
	<u>Sundries:</u>					
6	Two coats creosote on sawn timbers.	m²	41			
	EAVES, VERGES, ETC					
	Everite FC77 or equal approved pressed fibre-					
	<u>cement:</u>					
7	10 x 250mm Fascias and barge boards including		110			
	galvanised steel H-profile jointing strips.	m	119			
	Wrought meranti doors:					
	Wrought meranti doors hung to steel frames:					
8	44mm Framed batten door 914 x 2032mm high of 44 x 150m top rail and stiles ,16 x 150mm middle ledge and					
	braces and 22 x 220mm bottom rail, filled in with					
	22mmV-jointed one side boarding and covered on other side with 4mm plywood with veneer to match door, let					
	into and including rebates all round.	No	5			
	DOORS ETC					
	40mm semi-solid flush doors with veneer	Na				
9	40mm Door 813 x 2032mm high	No	5			
10	Shelving 400mm wide made up of 25mm thick hardwood top					
	and 250 x 250mm high triangular mild steel brackets bolted to					
	wall	m	52			
	EITTINGS					
	<u>FITTINGS</u>					
	Carried to Collection			R		
	Section No. 3					
	Bill No. 6					
	Carpentry And Joinery					
	91					

		Mokhari	SS
		Amount	
BILL NO. 6 CARPENTRY AND JOINERY COLLECTION	Page No		
Brought Forwar			
	91		
Carried To Section Summary Section No. 3	R		
Bill No. 6			
Carpentry And Joinery			
92			

Unit Quantity Rate Amount **SECTION NO. 3** 2 x 5 Classroom Block BILL NO. 7 **CEILINGS PARTITIONS AND ACCESS FLOORING** PREAMBLES For preambles see "Specification of materials and methods to be used - PW371 SUPPLEMENTARY PREAMBLES Descriptions: Items described as nailed shall be deemed to be fixed with hardened steel nails or pins or shot pinned to brickwork or concrete. Items described as plugged shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres, and where described as bolted the bolts have been given. INSULATION Aerolite insulation: 100mm Insulation closely fitted and laid on top of 1 brandering between roof timbers etc. 410 m² Wrought softwood 19 x 76mm cornices nailed 265 2 m 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 410 Extra over ceiling for hinged trap door size 610 x 610mm 4 5 No Carried To Section Summary R Section No. 3 Bill No. 7 Ceilings Partitions And Access Flooring 93

					Mokha	ri SS
I		Unit	Quantity	Rate	Amount	
	SECTION NO. 3					
	2 x 5 Classroom Block					
	BILL NO. 8					
	IRONMONGERY					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	SUPPLEMENTARY PREAMBLES					
	Finishes to ironmongery:					
	Where applicable finishes to ironmongery are indicated by suffixes in accordance with the following list: BS Satin bronze lacquered : CH Chromium plated : SC Satin chromium plated : SE Silver enamelled : GE Grey enamelled : AS Anodised silver : AB Anodised bronze : AG Anodised gold : ABL Anodised black : PB Polished brass : PL Polished and lacquered : PT Epoxy coated.					
	CATCHES, CABIN HOOKS, ETC					
	Solid or equal approved:					
1	100mm cabin hook and eye including 70 x 70 x 20mm chamfered hardwood block twice oiled and plugged.	No	5			
	LOCKS					
	Solid or equal approved:					
2	"Code 630" or equal approved padlock.	No	5			
	'Solid" or equal approved					
3	CZ6822461 "Gower" Four lever lockset.	No	10			
	SUNDRIES					
	Solid or equal approved:					
4	38mm Diameter rubber door stop plugged.	No	10			
	<u>PINNING BOARDS, WRITING BOARDS,</u> PROJECTION SCREENS, ETC					
	Vitrex or equal approved:					
5	Pinning board 2400 x 1200mm high plugged.	No	10			
6	White magnetic Writing Board 4000mm x 1200mm	No	5			
	Carried to Collection			R		
	Section No. 3					<u> </u>
	Bill No. 8					
	Ironmongery					
	94					

Unit Quantity Rate Amount SHELVES ETC Proprietary type steel shelving with standard powder coated finish Heavy duty double slot wall band 1800mm long, plugged 7 No 87 8 Heavy duty shelf bracket for 300mm shelf plugged No 348 Carried to Collection R Section No. 3 Bill No. 8 Ironmongery 95

Amount <u>BILL NO. 8</u> IRONMONGERY COLLECTION Page No Brought Forward from Page 94 95 Carried To Section Summary R Section No. 3 Bill No. 8 Ironmongery 96

					Mokha	ri SS
		Unit	Quantity	Rate	Amount	
	SECTION NO. 3					
	2 x 5 Classroom Block					
	BILL NO. 9 METALWORK					
	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			
2	<u>Mild Steel Poles</u> 76 x 76 x 3mm mild steel square tubing columns 3m					
	high secured on top of foundation with 5mm thick fixing plate including 10mm dia 4No. bolts	No	17			
	Corried to Collection					
	Carried to Collection Section No. 3			R		
	Bill No. 9					
	Metalwork					
	97					
1			· I			'

		Unit	Quantity	Rate	Mokha Amount	ri SS
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	5			
		NO				
	PRESSED STEEL DOOR FRAMES 1,2mm Rebated frames suitable for one brick walls:					
4	Frame for door 813 x 2032mm high.	No	10			
	STEEL WINDOWS, DOORS, ETC.					
	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	45			
6	Window Code 5 (NTY or equal approved), 1143 x 846mm high.	No	6			
	STEEL LOUVRES,ETC					
	Purpose made louvres:					
7	Triangular shaped (on elevation) residential section louvred ventilators 3138 wide (at the horizontal bottom) x 571mm high overall, filled in with type LC fixed horizontal louvre blades fixed to surround and covered at back with No. 256 galvanised mesh mosquito gauze,fixed with and including 3 x 20mm steel flat section cover strips screwed	No	2			
	Carried to Collection Section No. 3 Bill No. 9 Metalwork 98			R		

Amount <u>BILL NO. 9</u> **METALWORK** COLLECTION Page No Brought Forward from Page 97 98 Carried To Section Summary R Section No. 3 Bill No. 9 Metalwork 99

					Mokhari SS	3
		Unit	Quantity	Rate	Amount	
	SECTION NO. 3					
	2 x 5 Classroom Block					
	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	343			
	GRANOLITHIC					
	Untinted wood floated granolithic on concrete					
2	30mm Thick on floors and landings.	m²	66			
	INTERNAL PLASTER					
	Cement plaster steel trowelled, on brickwork					
3	On walls	m²	657			
4	On narrow widths not exceeding 300mm wide	m²	24			
5	30 x 3mm Flat section brass dividing strips between different floor finishes.	m	5			
	CORNER PROTECTORS, DIVIDING STRIPS, ETC (CPAP Work Group No 136)					
	Carried To Section Summary			R		
	Section No. 3			· · ·		_
	Bill No. 10					
	Plastering					
	100					

Unit Quantity Rate Amount **SECTION NO. 3** 2 x 5 Classroom Block 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 excluding vat) fixed with adhesive to screed (screed elsewhere) and flush pointed with tinted waterproof jointing compound On floors and landings. 1 m² 343 2 Skirting formed of ceramic tile cut to 300 x 75mm high 265 m Carried To Section Summary R Section No. 3 Bill No. 11 Tiling 101

				Mokha	ri SS
1	Unit	Quantity	Rate	Amount	I
SECTION NO. 3					
2 x 5 Classroom Block					
BILL NO. 12					
PLUMBING AND DRAINAGE					
PREAMBLES					
For preambles see "Specification of materials and methods to be used - PW371					
SUPPLEMENTARY PREAMBLES					
Concrete pipes:					
Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rings.					
uPVC pressure pipes and fittings:					
Pipes for water supply shall be of the class stated.					
Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings.					
Pipes of 50mm diameter and greater shall have sockets and spigots with push-in type integral rubber ring joints. Bends shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints.					
Copper pipes:					
Pipes shall be hard drawn and half-hard pipes of the class stated. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), class 2 (half- hard) and class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings and compression fittings shall be 'Cobra Watertech' type. Capillary solder fittings shall comply with ISO 2016. Only compression fittings shall be used in walls or in ground.					
Fixing of pipes					
Unless specifically otherwise stated, descriptions of pipes shall be deemed to include for fixing to walls etc. casting in, building in or suspending not exceeding 1m below suspension level					
Carried to Collection Section No. 3 Bill No. 12			R		
Plumbing And Drainage					
102					

				Mokhari S	ss
	Unit	Quantity	Rate	Amount	
Reducing fittings:					
Where fittings have reducing ends or branches they are described as 'reducing'. In the case of pipes with diameters not exceeding 60mm only the largest end or branch size is given. Should the Contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained. In the case of pipes with diameters exceeding 60mm all sizes are given and no claim for extra bushes, reducers, etc will be entertained.					
Wire gratings:					
Descriptions of gutter outlets etc shall be deemed to include wire balloon gratings.					
Septic tanks:					
Descriptions of septic tanks shall be deemed to include excavation, bedding and jointing, concrete base slabs, jointing to drains and backfilling, compaction, etc all in accordance with the manufacturer's instructions.					
Exposed concrete surfaces:					
Exposed surfaces of concrete stormwater channels, cover slabs, inspection eye marker slabs, gulley tops, cleaning eye tops, catchpits, inspection chambers, etc shall be finished smooth with plaster.					
Excavations:					
No claim for rock excavation will be entertained unless the Contractor has timeously notified the quantity surveyor thereof prior to backfilling.					
'Soft rock' and 'hard rock' shall be as defined in 'Earthworks'.					
Laying, backfilling, bedding, etc of pipes:					
Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions.					
Where no manufacturers' instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following: SABS 1200 L : Medium pressure pipelines LD : Sewers LE : Stormwater drainage Pipe trenches etc shall be backfilled in accordance with clause 3, 5.5, 5.6, 5.7 and 7 of SAB.					
Flush pans:					
Flush pans shall have straight or side outlets and 'P' or 'S' traps as necessary.					
Carried to Collection Section No. 3 Bill No. 12			R		
Plumbing And Drainage					
103					

					Mokha	ri SS
		Unit	Quantity	Rate	Amount	
	<u>Stainless steel basins, sinks, wash troughs, urinals, etc:</u>					
	Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable.					
	Waste unions:					
	Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings.					
	RAINWATER DISPOSAL					
	Approved .6mm galvanised sheet iron with "chromadek" finish ,in:					
1	100 x 100mm Eaves gutters	m	119			
2	Extra over eaves gutter for angle/corner.	No	4			
3	Extra over eaves gutter for outlet for 75mm pipe.	No	30			
4	75mm Diameter rainwater pipes.	m	120			
5	Extra over rainwater pipe for bend.	No	30			
6	Extra over rainwater pipe for shoe.	No	30			
	FIRE APPLIANCES ETC.					
	'Chubb' or equal approved:					
7	9kg Dry chemical fire extinguisher.	No	5			
	RAINWATER HARVESTING					
	Rainwater Harvesting					
8	Allow a sum of R15 000.00/each (Fifteen Thousand Rands) for provision of 5000l Jojo or equal approved tank complete with lid, fittings, tap, concrete plinth as per Architect details	No	2			
	Carried to Collection			R		
	Section No. 3					
	Bill No. 12					
	Plumbing And Drainage 104					
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		Amount
BILL NO. 12		
PLUMBING AND DRAINAGE		
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Section No. 3		
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Plumbing And Drainage		
105		

Unit Quantity Rate Amount **SECTION NO. 3** 2 x 5 Classroom Block BILL NO. 13 **GLAZING** PREAMBLES For preambles see "Specification of materials and methods to be used - PW371 **GLAZING TO STEEL WITH PUTTY** 5mm Clear float glass: 1 Panes not exceeding 0,1m2. m² 55 5mm obscure glass: 2 Panes not exceeding 0,1m2. m² 25 Carried To Section Summary R Section No. 3 Bill No. 13 Glazing

					Mokha	ri SS
		Unit	Quantity	Rate	Amount	
	SECTION NO. 2					
	<u>SECTION NO. 3</u> <u>2 x 5 Classroom Block</u>					
	<u>2 x 5 Classicolli Block</u> BILL NO. 14					
	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	657			
	ON FIBRE-CEMENT, ETC.					
	Prepare , etc as specified and apply two coats of super acrylic Pva paint:					
2	On ceilings and cornices.	m²	410			
3	On fascias and barge boards.	m	119			
	ON METAL					
	Prepare, etc as specified and apply two coats of gloss enamel paint on :					
4	Door frames	m²	6			
5	On windows with burglar bars (both sides measured).	m²	58			
6	On gates, grilles, burglar screens, balustrades, etc (both sides measured over the full flat area).	m²	17			
7	Steel poles	m	21			
	Eaves Gutter					
8	Inside eaves gutter with waterproofing based paint	m²	42			
				_		
	Carried to Collection Section No. 3			R		
	Bill No. 14					
	Paintwork					
	107					
						1

					Mokha	ri SS
		Unit	Quantity	Rate	Amount	
	Prepare,etc as specified and apply two coats of super acrylic Pva paint on:					
9	General surfaces of doors (interior).	m²	7			
	ON WOOD, WOOD BOARD					
	Prepare, etc as specified and apply two coats of					
	polyurethane suede varnish:	_				
	On general surfaces of doors.	m²	7			
11	On laminated beam.	m²	13			
12	On shelves.	m²	57			
				_		
	Carried to Collection Section No. 3			R		
	Bill No. 14					
	Paintwork					
	108					

Amount <u>BILL NO. 14</u> PAINTWORK COLLECTION Page No Brought Forward from Page 107 108 Carried To Section Summary R Section No. 3 Bill No. 14 Paintwork 109

			Amount
	SECTION NO. 3		
	<u>2 x 5 Classroom Block</u>		
	SECTION SUMMARY		
Bill No.		Page	
1	FOUNDATIONS	81	
2	CONCRETE, FORMWORK AND REINFORCEMENT	84	
3	MASONRY	87	
4	WATERPROOFING	88	
5	ROOF COVERINGS	89	
6	CARPENTRY AND JOINERY	92	
7	CEILINGS PARTITIONS AND ACCESS FLOORING	93	
8	IRONMONGERY	96	
9	METALWORK	99	
10	PLASTERING	100	
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12	PLUMBING AND DRAINAGE	105	
13	GLAZING	106	
14	PAINTWORK	109	
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	Section No. 3 SECTION SUMMARY		
	110		

SECTION NO. 4

Medium Administration Block

					Mokhari SS	
		Unit	Quantity	Rate	Amount	
	SECTION NO. 4 Madium Administration Block					
	Medium Administration Block					
	BILL NO. 1 FOUNDATIONS					
	PREAMBLES					
	For preambles see " Specification of materials and methods to be used - PW371"					
	SITE CLEARANCE ETC					
	Site clearance:					
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc.	m²	537			
	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	134			
	Extra over trench and hole excavations in earth for excavation:					
4	Soft rock.	m³	9			
5	Hard rock.	m³	5			
	Risk of collapse of excavations:					
6	Sides of trench and hole excavations not exceeding					
0	1,5m deep.	m²	312			
	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	23			
9	Under floors, steps, pavings, etc.	m³	42			
						_
	Carried to Collection			R		
	Section No. 4					-
	Bill No. 1					
	Foundations					
	112					

Unit Quantity Rate Amount Earth filling supplied by the Contractor and compacted to 95% Mod AASHTO density): Under floors, steps, pavings, etc. т³ 173 10 Cart Away Extra over excavation for cart away: Surplus material from excavations on site to a dumping 11 site be located by the contractor 28 m³ Coarse river sand filling supplied by the Contractor: 12 Under floors etc. 15 m³ COMPACTION **Compaction of surfaces:** Compaction of ground surface under floors etc including 13 scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 90%. Mod AASHTO density. m² 297 Prescribed density tests on filling: Modified AASHTO Density test. 16 14 No SOIL POISONING Soil insecticide: 15 Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming. 297 m² 16 To bottoms and sides of trenches etc. m² 445 Carried to Collection R Section No. 4 Bill No. 1 Foundations

Amount <u>BILL NO. 1</u> **FOUNDATIONS** COLLECTION Page No Brought Forward from Page 112 113 Carried To Section Summary R Section No. 4 Bill No. 1 Foundations 114

Unit Quantity Rate Amount **SECTION NO. 4 Medium Administration Block** BILL NO. 2 CONCRETE, FORMWORK AND REINFORCEMENT PREAMBLES For preambles see "Specification of materials and methods to be used - PW371" **UNREINFORCED CONCRETE** 15Mpa/19mm Concrete Aprons cast in panels. 11 1 m³ 2 Ramps. m³ 4 3 Thickening down the edge of apron 150mm deep, 200mm top and tapering to 100mm at bottom including all excavations, formwork, backfilling etc 79 m **REINFORCED CONCRETE** 25MPa/19mm Concrete: Surface beds cast in panels on waterproofing. m³ 27 4 Footings. 27 5 т³ 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). 20 Sets FINISHING TOP SURFACE OF CONCRETE Paving to falls. 79 8 m² **ROUGH FORMWORK (DEGREE OF ACCURACY III) Rough Formwork to Sides:** Edges and reveals not exceeding 300mm high or wide. 25 9 m **Rough Formwork to Soffits:** 10 Slabs propped up exceeding 1.5 and not exceeding 3.5m high. m² 10 Carried to Collection R Section No. 4 Bill No. 2 Concrete, Formwork And Reinforcement 115

		Unit	Quantity	Rate	Mokhari Amount	55
			Quantity	i tato		
	MOVEMENT JOINTS ETC					
	Two layers of .5mm galvanised mild steel slip joints between horizontal concrete and brick surfaces					
	including cement mortar bed:					
11	Not exceeding 300mm wide.	m	70			
	Expansion joints with bitumen impregnated softboard between vertical concrete and brick surfaces:					
12	12mm Joints not exceeding 300mm high.	m	75			
	Dividing Strips ,etc					
13		m	8			
	REINFORCEMENT(PROVISIONAL)					
	Fabric reinforcement:					
14	Type 193 fabric reinforcement in concrete surface beds, slabs, etc.	m²	297			
15	Type 395 fabric reinforcement in concrete surface beds, slabs, etc.	m²	10			
	Mild steel reinforcement to structural concrete work:					
16	10mm Diameter bars.	Tonnes	1.00			
	High tensile steel reinforcement to structural concrete work:					
17	20mm Diameter bars.	Tonnes	1.00			
18	16mm Diameter bars.	Tonnes	2.00			
19	12mm Diameter bars.	Tonnes	1.00			
	Carried to Collection			R		
	Section No. 4					
	Bill No. 2					
	Concrete, Formwork And Reinforcement 116					
	110					

Amount **BILL NO. 2** CONCRETE, FORMWORK AND REINFORCEMENT **COLLECTION** Page No Brought Forward from Page 115 116 Carried To Section Summary R Section No. 4 Bill No. 2 Concrete, Formwork And Reinforcement 117

Unit Quantity Rate Amount SECTION NO. 4 **Medium Administration Block BILL NO. 3** MASONRY PREAMBLES For preambles see "Specification of materials and methods to be used - PW371" BRICKWORK Sizes in descriptions: Where sizes in descriptions are given in brick units, 'one brick' shall represent the length and 'half brick' the width of a brick. Face bricks: Bricks shall be ordered timeously to obtain uniformity in size and colour. Pointing: Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc. **SAMPLES** Samples of all masonry building units, except those for walls described as 'load bearing', shall consist of a minimum of 6 units. Samples of building units to be used in walls described as 'load bearing' shall consist of 30 units from every 30 000 units delivered to site. **BRICKWORK IN FOUNDATIONS (PROVISIONAL)** Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar: Half brick walls. 36 m² One brick walls m² 130 **BRICKWORK IN SUPERSTRUCTURE** Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar: Piers m³ 3 Half brick walls 138 m² Half brick walls in beam filling. m² 28 One brick walls m² 357 Carried to Collection R Section No. 4 Bill No. 3 Masonry

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		Unit	Quantity	Rate	Amount
	BRICKWORK SUNDRIES				
	Brickwork reinforcement:				
7	75mm Wide reinforcement built in horizontally.	m	749		
8	150mm Wide reinforcement built in horizontally.	m	3 125		
	Prestressed fabricated lintels:				
9	110 x 75mm Lintels in lengths not exceeding 3m.	m	55		
	Turning pieces:				
10	110mm Wide turning piece to lintels etc.	m	55		
11	220mm Wide turning piece to lintels etc.	m	20		
	Galvanised wire ties etc:				
12	4mm Diameter roof tie 2m girth bent double with one end fixed to timber and other end built into brickwork (Provisional)	No	125		
	Galvanised hoop iron cramps, ties, etc:				
13	30 x 1,6mm Cramp 500mm long with one end fixed to wood and other end built into brickwork (Provisional)	No	125		
	FACE BRICKWORK				
	Face bricks (Prime cost R5 500/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints:				
14	Extra over brickwork for face brickwork.	m²	297		
15	Extra over brickwork for face brickwork in foundations (Provisional).	m²	51		
16	Extra over brickwork for face brickwork to piers.	m²	4		
17	Half brick in facings in beamfilling	m²	27		
	FACE BRICKWORK COPINGS, SILLS, ETC.				
	Brick-on-edge header course copings, sills, etc of face bricks (Prime cost R5 500/1000 delivered to site excluding VAT) and pointed with recessed joints on all exposed faces:				
18	Extra over brickwork for brick-on-edge header course lintel pointed on face and 110mm soffit.	m	54		
19	Extra over brickwork for brick-on-edge header course lintel pointed on face and 220mm soffit	m	17		
20	110mm cut brick Wide sills set flat	m	14		
	Carried to Collection Section No. 4 Bill No. 3 Masonry 119			R	
	119				

		Unit	Quantity	Rate	Mokha Amount	ri SS
21	230mm Wide sill set sloping and slightly projecting.	m	10			
22	Coping on top of one brick wall pointed on exposed faces	m	14			
	NUTEC-CEMENT/FIBRE-CEMENT WINDOW SILLS					
	Natural grey sills in single lengths bedded in class I mortar including metal fixing lugs etc:					
23	12 x 152mm Wide sills set flat and slightly projecting.	m	8			
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	Carried to Collection Section No. 4			R		
	Bill No. 3					
	Masonry 120					

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BILL NO. 3 MASONRY COLLECTION	Brought Forward from Page	Page No 118	
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		120	
	Carried To Section Summany	_	
Section No. 4	Carried To Section Summary	R	
Bill No. 3			
Masonry	121		

					Mokha	ri SS
I		Unit	Quantity	Rate	Amount	
	SECTION NO. 4					
	Medium Administration Block					
	<u>BILL NO. 4</u>					
	WATERPROOFING					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	DAMPPROOFING OF WALLS AND FLOORS					
	One layer of 375 micron Consol Plastics Brikgrip DPC embossed damp proof course:					
1	In walls.	m²	38			
	One layer of 250 micron Consol Plastics Gunplas USB Green waterproof sheeting sealed at laps with Gunplas Pressure Sensitive Tape:					
2	Under surface beds.	m²	297			
	JOINT SEALANTS ETC					
	Silicone sealing compound including backing cord,					
	bond breaker, primer, etc					
3	12 x 20mm in expansion joints in floors including raking out expansion joint filler as necessary (Provisional).	m	46			
4	12 x 20mm in vertical expansion joints in walls including raking out expansion joint filler as necessary.	m	40			
				_		<u> </u>
	Carried To Section Summary			R		
	Section No. 4 Bill No. 4					
	Waterproofing					
	122					
I					1	4

					Mokha	ri SS
		Unit	Quantity	Rate	Amount	
	SECTION NO. 4					
	Medium Administration Block					
	BILL NO. 5					
	ROOF COVERINGS					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW 371					
	<u>General</u>					
	PROFILED METAL SHEETING AND ACCESSORIES					
	0.58mm "Klip-lok light industrial" galvanised troughed sheet steel with "Globalcoat" finish one side (colour Traffic Green), fixed to 76 x 50mm purlin complete under 5year quarantee by an approved firm of specialists, all in accordance with the materials supplied and methods employed by the manufacturer					
1	Roof covering with pitch not exceeding 25 degrees.	m²	376			
	0.58mm galvanised sheet iron, with "chromadek" one side in:					
2	Standard type FK3 ridge or hip flashing	m	26			
3	Standard valley flashing	m	16			
	Carried To Section Summary Section No. 4 Bill No. 5 Roof Coverings 123			R		

Unit Quantity Rate Amount SECTION NO.4 Medium Administration Block Medium Administration Block BillL No.5 CARPENTRY AND JOINERY PECAMBLES Propreambles see "Specification of materials and methods to be used - PW371 SUPPLEMENTARY PREAMBLES Particle board shall comply with the following specifications: a) SABS 1300 Particle board: interior type. Joinery: Descriptions of frames shall be deemed to include frames, transoms, mullions, ralls, etc. Descriptions of frames shall be deemed to include frames, transoms, mullions, ralls, etc. Descriptions of hardwood joinery shall be deemed to include frames, transoms, mullions, ralls, etc. Descriptions of the second bot pins to brickwork or concrete. Descriptions of the second shall be deemed to be fixed with hardened stell nails on the pressure. Edge strips shall be but jointed at junctions with adjacent similar finish. PREFARICATED ROOF TRUSSES, ETC. Plato neid dimber of trusses construction: The following is applicable in respect of roof trusses: Trusses are at maximum 1200mm carties Roof or cortuses are at maximum 1200mm carties Roof or pressure. Edge strips shall be designed by a registered Professional Engineer(in accordance with the draft SABS Code of Practice for Design of Timber Trusses). The manufacture of trusses are ability and the draft SABS Code of Practice for Design of Timber Trusses are ability of the second code and of these bills of runsses are designed with addeed and encoded, and erceted, to support the cod SABS Code of Practice for Design of Timber Trusses are desinded, and erceted, to support the cod coverings specified.					Mokha	ıri SS
Medium Administration Block BiLL No. 6 CARPENTRY AND JOINERY PREAMBLES For preambles see "Specification of materials and methods to be used - PW371 SUPPLEMENTARY PREAMBLES Particle board: Particle board shall comply with the following specifications: a) SABS 1300 Particle board: exterior and flooring type b) SABS 1300 Particle board: exterior and flooring type b) SABS 1301 Particle board: exterior and flooring type b) SABS 1301 Particle board: exterior and flooring type b) SABS 1301 Particle board: exterior and flooring type b) SABS 1301 Particle board: exterior and flooring type b) SABS 1301 Particle board: exterior and flooring type b) SABS 1301 Particle board: exterior and flooring type b) SABS 1301 Particle board: exterior and flooring type b) SABS 1301 Particle board: exterior and flooring type b) SABS 1301 Particle board: exterior and flooring type b) SABS 1301 Particle board: exterior type. Descriptions of frames 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 pins to brickwork or concrete. Descriptions and the guided under pressure. Edge strips shall be buil jointed at junctions with adjacent similar finish. PREFARKICEDE ROOF TRUSSES, ETC. Plate nailed timber roof truss construction: Trusses are at maximum 1200mm centres Roof covering is Klip-lok' roof sheeling on 76 x 50mm puritis. Cellings are forms sheeting on 38 x 50mm paradering is applicable in respect of roof trussescontal expriner trusses shall supply a written quaranti	1	Unit	Quantity	Rate	Amount	
Medium Administration Block BiLL No. 6 CARPENTRY AND JOINERY PREAMBLES For preambles see "Specification of materials and methods to be used - PW371 SUPPLEMENTARY PREAMBLES Particle board: Particle board shall comply with the following specifications: a) SABS 1300 Particle board: exterior and flooring type b) SABS 1300 Particle board: exterior and flooring type b) SABS 1301 Particle board: exterior and flooring type b) SABS 1301 Particle board: exterior and flooring type b) SABS 1301 Particle board: exterior and flooring type b) SABS 1301 Particle board: exterior and flooring type b) SABS 1301 Particle board: exterior and flooring type b) SABS 1301 Particle board: exterior and flooring type b) SABS 1301 Particle board: exterior and flooring type b) SABS 1301 Particle board: exterior and flooring type b) SABS 1301 Particle board: exterior and flooring type b) SABS 1301 Particle board: exterior type. Descriptions of frames 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 pins to brickwork or concrete. Descriptions and the guided under pressure. Edge strips shall be buil jointed at junctions with adjacent similar finish. PREFARKICEDE ROOF TRUSSES, ETC. Plate nailed timber roof truss construction: Trusses are at maximum 1200mm centres Roof covering is Klip-lok' roof sheeling on 76 x 50mm puritis. Cellings are forms sheeting on 38 x 50mm paradering is applicable in respect of roof trussescontal expriner trusses shall supply a written quaranti						
Medium Administration Block BiLL No. 6 CARPENTRY AND JOINERY PREAMBLES For preambles see "Specification of materials and methods to be used - PW371 SUPPLEMENTARY PREAMBLES Particle board: Particle board shall comply with the following specifications: a) SABS 1300 Particle board: exterior and flooring type b) SABS 1300 Particle board: exterior and flooring type b) SABS 1301 Particle board: exterior and flooring type b) SABS 1301 Particle board: exterior and flooring type b) SABS 1301 Particle board: exterior and flooring type b) SABS 1301 Particle board: exterior and flooring type b) SABS 1301 Particle board: exterior and flooring type b) SABS 1301 Particle board: exterior and flooring type b) SABS 1301 Particle board: exterior and flooring type b) SABS 1301 Particle board: exterior and flooring type b) SABS 1301 Particle board: exterior and flooring type b) SABS 1301 Particle board: exterior type. Descriptions of frames 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 pins to brickwork or concrete. Descriptions and the guided under pressure. Edge strips shall be buil jointed at junctions with adjacent similar finish. PREFARKICEDE ROOF TRUSSES, ETC. Plate nailed timber roof truss construction: Trusses are at maximum 1200mm centres Roof covering is Klip-lok' roof sheeling on 76 x 50mm puritis. Cellings are forms sheeting on 38 x 50mm paradering is applicable in respect of roof trussescontal expriner trusses shall supply a written quaranti						
BillLNO.6 CARPENTRY AND JOINERY PREAMBLES For preambles see "Specification of materials and methods to be used - PW371 SUPLEMENTARY PREAMBLES Particle board: Particle board: Particle board: Particle board: Descriptions of 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 pelieting of tooth toles. Flying: Descriptions of nardwood joinery shall be deemed to include pelieting of tooth toles. Prize anilate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish shall be glued under pressure. Edge strips shall be butt glointed in trappect of roof trusses: Trussee are at maxium 1200nm centres Roof covering is Klip-lok roof sheeting on 76 x 50mm purlins. Ceilings are fina sheeting on 78 x 50mm purlins. Ceilings are fina torawings at the end of these bills of quantities for full details. All trusses are fasticated in a factory by specialists approved by the Architect. All trussees shall be designed by a Registered Professional Engineer(in accordance with the draft SABS Code of Practice tro Design of Timber Trusses). The manufacture of trusses shall supply a written quarantee that the trusses shall bupply a written quarantee that the trusses shall bupple written quarantee that the trusses are designed, manufactured, and erected, to supoprof the roof coverings specified. The quaran	SECTION NO. 4					
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I		Unit	Quantity	Rate	Amount	
	Sawn softwood:					
1	Roof construction to double pitched roof with two hipped					
	ends approximately 297m2 (Administration Block) on plan including trusses, hipped ends, jack rafters, purlins,					
	permanent bracing, etc (measured flat).	No	1			
	BOOF CONSTRUCTION					
	Sawn softwood :					
2	114 x 38mm Wall plates.	m	134			
3	50 x 228mm support beam	m	50			
	ROOF SUNDRIES					
	Sundries:					
4	Two coats creosote on sawn timbers.	m²	52			
	EAVES, VERGES, ETC					
	Everite FC77 or equal approved pressed fibre-					
	<u>cement:</u>					
5	10 x 250mm Fascias and barge boards including					
	galvanised steel H-profile jointing strips.	m	86			
	JOINERY SUNDRIES					
	Wrought Meranti					
6	450mm wide slatted seats, etc of 76 x 38mm thick					
	(50mm centres) screwed under and including steel 50 x 50 x 3mm L section steel holed to concrete fixed with					
	bolts	m²	10			
	SEMI SOLID CORE FLUSH DOORS					
	<u>44 semi-solid flush doors with 3,2mm standard</u> hardboard covering on both sides hung to steel					
	frames:					
7	40mm Door 813 x 2032mm high.	No	11			
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	Bill No. 6 Carpentry And Joinery					
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Carpentry And Joinery				
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Unit Quantity Rate Amount SECTION NO. 4 **Medium Administration Block** BILL NO. 7 **CEILINGS PARTITIONS AND ACCESS FLOORING** PREAMBLES For preambles see "Specification of materials and methods to be used - PW371 SUPPLEMENTARY PREAMBLES Descriptions: Items described as nailed shall be deemed to be fixed with hardened steel nails or pins or shot pinned to brickwork or concrete. Items described as plugged shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres, and where described as bolted the bolts have been given. INSULATION Aerolite insulation: 100mm Insulation closely fitted and laid on top of 1 brandering between roof timbers etc. 297 m² Wrought softwood 19 x 76mm cornices nailed 482 2 m 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 297 Extra over ceiling for hinged trap door size 610 x 610mm 4 2 No Carried To Section Summary R Section No. 4 Bill No. 7 Ceilings Partitions And Access Flooring 127

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		Unit	Quantity	Rate	Amount	1
	SECTION NO. 4 Madium Administration Block					
	Medium Administration Block BILL NO. 8					
	IRONMONGERY					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	SUPPLEMENTARY PREAMBLES					
	Finishes to ironmongery:					
	Where applicable finishes to ironmongery are indicated by suffixes in accordance with the following list: BS Satin bronze lacquered : CH Chromium plated : SC Satin chromium plated : SE Silver enamelled : GE Grey enamelled : AS Anodised silver : AB Anodised bronze : AG Anodised gold : ABL Anodised black : PB Polished brass : PL Polished and lacquered : PT Epoxy coated.					
	HINGES, FLOOR SPRING HINGES, BOLTS, PANIC BOLTS, ETC					
	"Solid" or equal approved:					
1	150mm 8052-150 Brass flush bolt with keep fixed to metal.	No	2			
2	150mm 8052-150 Brass flush bolt with keep let into concretet.	No	2			
3	CZ 80941WC indicator bolt with keep fixed to metal.	No	2			
	CATCHES, CABIN HOOKS, ETC					
	Solid or equal approved:					
4	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:					
5	"Code 630" padlock.	No	2			
	'Solid" or equal approved					
6	CZ682-24-95SC"Gower" two lever lockset.	No	11			
	DOOR CLOSERS					
	<u>"Yale" or equal approved</u>					
7	Y202RC Door closer with cover fixed to metal	No	2			
1		INO.	2			
	Carried to Collection					
	Section No. 4			R		<u> </u>
	Bill No. 8					
	Ironmongery					
	128					

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		Unit	Quantity	Rate	Amount	
	BATHROOM FITTINGS					
	Kimberley-Clark or equal approved:					
8	19mm Diameter chromium plated towel rail 900mm long including flanged end brackets.	No	2			
9	Vandal proof lockable toilet roll holder plugged.	No	2			
	<u>SUNDRIES</u>					
	Solid or equal approved:					
10	38mm Diameter rubber door stop plugged.	No	15			
	MATS					
	Squeegee or equal approved					
11	1500 x 800 x 17mm Door mat laid loose in mat surround fixed with 25 x 25mm aluminium angle plugged to concrete (Provisional).	No	2			
	VERTICAL AND ROLLER BLINDS					
	<u>127mm wide non-fade material vertical blinds as per</u> <u>"Windowvert" or similar approved ,fitted as per</u> <u>manufacturere's instructions</u>					
12	To fit window 2 044 x 954mm high.	No	1			
13	To fit window 1 511 x 1 245mm high.	No	14			
14	To fit window 1 022 x 1 224mm high.	No	3			
15	To fit window 533 x 949mm high.	No	5			
	<u>PINNING BOARDS, WRITING BOARDS,</u> PROJECTION SCREENS, ETC					
	Vitrex or equal approved:					
16	Pinning board 2400 x 1200mm high plugged.	No	1			
17	Pinning board 3000 x 1200mm high plugged.	No	4			
	STEEL LOCKERS					
	Greenfield steel lockers with standard baked enamel finish					
18	Double door steel cupboard 914 x 457 x 1828mm high with five shelves bolted to brickwork.	No	4			
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	Section No. 4					
	Bill No. 8					
	Ironmongery 129					
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Amount <u>BILL NO. 8</u> IRONMONGERY COLLECTION Page No Brought Forward from Page 128 129 Carried To Section Summary R Section No. 4 Bill No. 8 Ironmongery 130

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I		Unit	Quantity	Rate	Amount	1
	SECTION NO. 4					
	Medium Administration Block					
	BILL NO. 9					
	METALWORK					
	PREAMBLES					
	For preambles see "Specification of materials and					
	methods to be used - PW371					
	SUPPLEMENTARY PREAMBLES					
	Descriptions:					
	Descriptions of bolts shall be deemed to include nuts					
	and washers.					
	Descriptions of expansion anchors and bolts and					
	chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete.					
	Metalwork described as holed for bolt(s) shall be					
	deemed to exclude the bolts unless otherwise described.					
	Mild steel handrails and balustrades fixed to base					
	plates constructed of two number 6mm steel flat bar					
	cut to profile mounted to wall with 6mm thick steel fixing plate welded to two steel flat bars with 4mm					
	fillet welds chemical anchors (bolts included), 12mm					
	diameter mild steel round spaced at 150mm centres,					
	predrilled openning 3no in each upright, top rail to be 30mm thick x 100mm wide steel					
1	Balustrades including steel handrails approximately					
'	1000mm high fixed to concrete.	m	16			
	WELDED SCREENS, GATES, ETC.					
	Gates to external doors					
2	Ditto, double gate and frame 1613 x 2032mm high					
2	overall as per Architectural drawing	No	2			
	PRESSED STEEL DOOR FRAMES					
	1,2mm Rebated frames suitable for half brick walls:	Nia	10			
3	Frame for door 813 x 2032mm high.	No	10			
	1,2mm Rebated frames suitable for one brick walls:					
4	Frame for door 813 x 2032mm high.	No	1			
	Carried to Collection			R		<u> </u>
	Section No. 4					
	Bill No. 9 Metalwork					
	131					
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I		Unit	Quantity	Rate	Amount
	STEEL WINDOWS, DOORS, ETC.				
	Standard residential windows with 12 x 12(B33) solid burglar bars to all sashes:				
5	Window type SWE37S/SWE37S, size 2044 x 954mm high.	No	1		
6	Window type SWE418, size 1511 x 1245mm high.	No	14		
7	Window type SW37, size 1022 x 1224mm high.	No	3		
8	Window type SWE31S, size 533 x 949mm high.	No	5		
9	Composite window type NG9/D4HS, size 1511 x 1623mm high.	No	1		
	STEEL STRONGROOM DOORS, VENTILATORS, ETC.				
	Strongroom doors etc. suitable for 220mm walls fixed to brickwork or concrete				
10	Double ended strongroom ventilator.	No	1		
11	Record room door and frame 1030 x 2010mm high overall with a mass of 324kg, including one 7lever security lock and wall mounted door stop	No	1		
	ALUMINIUM DOORS AND WINDOWS, ETC				
	Purpose made natural anodised aluminium windows glazed with 6mm thick laminated safety glass and plugged to brickwall or concrete				
12	Window 1525 x 1300mm high overall in clear panes.	No	3		
13	Window 2400 x 1300mm high overall in clear panes.	No	1		
	Purpose made natural anodised aluminium doors glazed with 6mm thick laminated safety glass and plugged to brickwall or concrete				
14	Double door size 1575 x 2125mm high in four panes with each leaf side hung and one pair type TS550 satin chromium plated double action floor spring hinges with standard open feature, including adjustable top centre and box let into concrete, two double cylinder lockset, and two pairs of AL5512-300BB ABL aluminium pull handles fixing back to back.	No	2		
	SECURITY BARRIERS				
15	Trellidoor 1600 x 2125mm high plugged.	No	2		
	Carried to Collection			R	
	Section No. 4 Bill No. 9				
	Metalwork				
	132				

I		Unit	Quantity	Rate	Mokha Amount	ri SS
16	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			
17	Ditto but approximately 3700 x 1000mm high overall	No	2			
	Carried to Collection Section No. 4 Bill No. 9 Metalwork 133			R		

			Amount
BILL NO. 9			
METALWORK			
COLLECTION			
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Section No. 4 Bill No. 9			
Metalwork			
	134		

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	I	Unit	Quantity	Rate	Amount	
	SECTION NO. 4					
	Medium Administration Block					
	BILL NO. 10					
	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 and landings.	m²	297			
	GRANOLITHIC					
	Untinted wood floated granolithic on concrete					
2	30mm Thick on floors and landings.	m²	4			
	INTERNAL PLASTER					
	Cement plaster on brickwork:					
3	On walls.	m²	658			
4	On narrow widths.	m²	6			
5	On concrete soffit.	m²	6			
	CORNER PROTECTORS, DIVIDING STRIPS, ETC					
6						
Ŭ	different floor finishes.	m	7			
	Carried To Section Summary			R		
	Section No. 4 Bill No. 10					
	Plastering					
	135					
			I			

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I		Unit	Quantity	Rate	Amount	
	SECTION NO. 4					
	Medium Administration Block					
	BILL NO. 11					
	TILING					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	WALL TILING					
	200 x 200 x 10mm White glazed ceramic tiles fixed with adhesive to plaster (plaster elsewhere):					
1	On walls in isolated panels, splashbacks, etc.	m²	32			
2	On narrow widths.	m²	1			
	FLOOR TILING					
	300 x 300 x 11.5mm ceramic floor tiles (Prime Cost amount R250.00/m2 excluding vat) fixed with adhesive to screed (screed elsewhere) and flush					
_	pointed with tinted waterproof jointing compound	-				
3	On floors and landings.	m²	297			
4	Skirting formed of ceramic tile cut to 300 x 75mm high	m	211			
	Carried To Section Summary Section No. 4 Bill No. 11 Tiling 136			R		

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1	Unit	Quantity	Rate	Amount	
SECTION NO. 4					
Medium Administration Block					
BILL NO. 12 PLUMBING AND DRAINAGE					
PLOMBING 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 Section No. 4			R		<u> </u>
Bill No. 12					
Plumbing And Drainage					
137					
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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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		Unit	Quantity	Rate	Amount	
	<u>Stainless steel basins, sinks, wash troughs, urinals,</u> etc:					
	Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable.					
	Waste unions:					
	Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings.					
	RAINWATER DISPOSAL					
	Approved .6mm galvanised sheet iron with "chromadek" finish ,in:					
1	100 x 100mm Eaves gutters	m	79			
2	Extra over eaves gutter for angle/corner.	No	12			
3	Extra over eaves gutter for stopped end	No	6			
4	Extra over eaves gutter for outlet for 75mm pipe.	No	12			
5	75mm Diameter rainwater pipes.	m	48			
6	Extra over rainwater pipe for bend.	No	12			
7	Extra over rainwater pipe for shoe.	No	12			
	SANITARY FITTINGS					
	'Citimetal' stainless steel or equal approved:					
8	Series single end bowl overlay sink, size 1200 x 535mm fitted to top of cabinet.	No	1			
	"Vaal" or equal approved					
9	510 x 405mm "Hibiscus" (code 7050) white vitreous china rounded lavatory basin with two tapholes supported on and including two bolts(code 84467Z0)	No	3			
10	White vitreous china "Daisy" semi-close coupled 90degree outlet open rim washdown pan (code 774000) and matching 9litre cistern (code 710034) complete with lid, fitments and flush pipe elbow and conversion bend (code 710044) and "deluxe" toilet seat	No	2			
	WASTE UNIONS ETC					
	<u>'Cobra Watertech'' or equal approved</u>					
11	38mm "Cobra 316" unslotted waste and plug with chain	No	1			
	TRAPS ETC					
	"Marley' or equal approved					
12	40mm Flexi butyl rubber trap with reseal "P" trap	No	1			
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	Plumbing And Drainage 139					
	139					l

"Cobra Watertech" or equal approved "Cobra Ref. 365/40" CP Bottle trap. 2 No TAPS, VALVES, ETC 'Cobra Watertech' or equal approved "Cobra Rf. 107EC-15" Bib tap plugged No 3 15mm Gate valves plugged No 6 "Cobra Ref. 232/350' Angle regulating valve 2 No "Cobra Ref. 166/041 wall type "Star" sink mixer with overarm swivel outlet No 1 SANITARY PLUMBING **uPVC pipes:** 50mm Pipes 60 m 110m Pipes. m 55 50mm Pipes laid in and including trenches not exceeding 1m deep. 25 m 110mm Pipes laid in and including trenches not exceeding 1m deep under surface beds. 25 m Extra over uPVC pipes for fittings: 50mm Bend. 10 No 100mm Bend. 8 No 110mm Junction. No 6 50mm Junction. No 12 110mm Reducing junction. 6 No 110mm Double junction. 5 No 110mm Pan connector No 2 110mm "G1 Two-way " vent valve 2 No Sundries: Testing waste pipe system. Item WATER SUPPLIES Class 9 uPVC pressure pipes: 63mm Pipes laid in and including trenches not exceeding 1000mmm deep 60 m

Unit

Quantity

Rate

Carried to Collection

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		Unit	Quantity	Rate	Amount	
	Extra over uPVC pressure pipes for solvent welded pressure fittings:					
32	63mm Elbow	No	6			
33	63mm Tee	No	4			
34	63mm Reducer.	No	4			
	Class o copper pipes:					
35	15mm Pipes	m	30			
36	22mm Pipes.	m	40			
	Extra over class o copper pipes for capillary fittings:					
37	15mm Fittings.	No	20			
38	22mm Fittings.	No	15			
	Copper overflow and service pipes:					
39	15mm Service pipe 300mm girth.	No	1			
	Sundries:					
40	450 x 450m cast iron stopcock box including brick chamber below not exceeding 750mm deep internally.	No	1			
41	'ZIP Hydroboil code 3800' 25 litre white powder coated water boiler as manufactured by Franke Kitchen Systems, plugged and screwed to wall.	NI-				
		No	1			
	"Kwikot" or equal approved					
42	150 litre Horizontally floor mounted electric water heater	No	1			
	Testing:					
43	Testing water pipe system.	Item				
	FIRE APPLIANCES ETC.					
	<u>'Chubb' or equal approved:</u>					
44	'Everyway' hose reel complete with 30m plastic hose, chromium plated stopcock, shut-off nozzle and wall					
	bracket.	No	1			
45	9kg Dry chemical fire extinguisher.	No	2			
	Carried to Collection			R		
	Section No. 4					
	Bill No. 12					
	Plumbing And Drainage 141					
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		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		Quantity 2	Rate	Amount		
	Carried to Collection			R			
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<u>BILL NO. 12</u>				
PLUMBING AND DRAINAG	<u>)E</u>			
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I		Unit	Quantity	Rate	Amount	
	SECTION NO. 4					
	Medium Administration Block					
	BILL NO. 13					
	<u>GLAZING</u>					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	GLAZING TO STEEL WITH PUTTY					
	5mm Clear float glass:					
1	Panes exceeding 0,1m2 and not exceeding 0,5m2.	m²	43			
	5mm Rough cast glass:					
2	Panes exceeding 0,1m2 and not exceeding 0,5m2.	m²	2			
	TOPS, SHELVES, DOORS, MIRRORS, ETC.					
	6mm Silvered float glass copper backed mirrors with					
	polished edges fixed with double sided adhesive					
3	<u>tape:</u> Mirror 450 x 600 mm high.	No	3			
ა		INO	3			
	Carried To Section Summary			R		
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	Glazing 144					
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I		Unit	Quantity	Rate	Amount	
	SECTION NO. 4					
	Medium Administration Block					
	BILL NO. 14					
	PAINTWORK					
	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	658			
	ON FIBRE-CEMENT, ETC.					
	Prepare, etc as specified and apply two coats of					
	super acrylic Pva paint:					
2	On ceilings and cornices.	m²	297			
3	On fascias and barge boards.	m	172			
	<u>ON METAL</u>					
	Prepare, etc as specified and apply two coats of gloss enamel paint on :					
4	Door frames	m²	16			
5	On windows with burglar bars (both sides measured).	m²	74			
6	On gates, grilles, burglar screens, balustrades, etc (both sides measured over the full flat area).	m²	21			
	Inside eaves gutter					
7	Inside eaves gutter with waterproofing paint	m²	60			
			00			
	ON WOOD, WOOD BOARD					
	Prepare,etc as specified and apply two coats of					
	super acrylic Pva paint on:					
8	General surfaces of doors (interior).	m²	36			
	Prepare, etc as specified and apply two coats of					
	polyurethane suede varnish:					
9	On open slatted seating.	m²	9			
10	On laminated beam.	m²	3			
	Carried To Section Summary			R		
	Section No. 4					
	Bill No. 14					
	Paintwork					
	145					
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Amount

			Amount	
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2	CONCRETE, FORMWORK AND REINFORCEMENT	117		
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4	WATERPROOFING	122		
5	ROOF COVERINGS	123		
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7	CEILINGS PARTITIONS AND ACCESS FLOORING	127		
8	IRONMONGERY	130		
9	METALWORK	134		
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SECTION NO. 5

4 x 4 Waterborne Toilet

Unit Quantity Rate Amound SECTION NO. 5 4 x 4 Waterborne Toilet 4 x 4 Waterborne Toilet 4 x 4 Waterborne Toilet BILL NO. 1 FOUNDATIONS 4 x 4 Waterborne Toilet 4 x 4 Waterborne Toilet 4 x 4 Waterborne Toilet BILL NO. 1 FOUNDATIONS 9REAMBLES 4 x 4 Waterborne Toilet 4 x 4 Waterborne Toilet SITE CLEARANCE ETC Site clearance: 4 x 4 Waterborne Toilet And trees not exceeding 200mm girth, bush, etc. 4 x 4 waterborne Toilet 4 x 4 waterborne Toilet 1 Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc. m² 24 4 x 4 x 4 x 4 x 4 x 4 x 4 x 4 x 4 x 4 x	nt
4 x 4 Waterborne Toilet 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. m ² 24	
4 x 4 Waterborne Toilet 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. m ² 24	
4 x 4 Waterborne Toilet 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. m ² 24	
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 24	
FOUNDATIONS Image: Constraint of the section of th	
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 24	
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. m ² 24	
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. methods to be used - PW371" SITE CLEARANCE ETC methods to be used - PW371" Site clearance: methods to be used - PW371" methods to be used - PW371" Site clearance: methods to be used - PW371" methods to be used - PW	
Site clearance: 1 Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc. m² 24 REMOVAL OF TREES, ETC.	
1 Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc. m² 24 REMOVAL OF TREES, ETC. 1 1	
hedges, shrubs and trees not exceeding 200mm girth, bush, etc. m ² 24 REMOVAL OF TREES, ETC. 1	
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. m ³ 28	
4 Pit. m ³ 4	
Extra over trench and hole excavations in earth for excavation:	
5 Soft rock. m ³ 3	
6 Hard rock. m ³ 1	
Risk of collapse of excavations:	
7 Sides of trench and hole excavations not exceeding 1,5m deep. m ² 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. m ³ 4	
10 Under floors, steps, pavings, etc. m ³ 5	
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Foundations	
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		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			
	<u>Cart Away</u>					
	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 Section No. 5 Bill No. 1			R		
	Foundations					
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Amount <u>BILL NO. 1</u> **FOUNDATIONS** COLLECTION Page No Brought Forward from Page 148 149 Carried To Section Summary R Section No. 5 Bill No. 1 Foundations 150

Unit Quantity Rate Amount **SECTION NO. 5** 4 x 4 Waterborne Toilet **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. 2 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 29 m **REINFORCED CONCRETE** 25 MPa/19mm Concrete: Surface beds cast in panels on waterproofing. 2 4 m³ 7 Footings. 5 т³ 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 Paving to falls. 17 8 m² 9 Ramps to falls. m² 2 **ROUGH FORMWORK (DEGREE OF ACCURACY III)** (CPAP Work Group No 111) **Rough Formwork to Sides:** Edges and reveals not exceeding 300mm high or wide. 6 10 m Formwork to soffits of slabs 9 11 m² Carried to Collection R Section No. 5 Bill No. 2 Concrete, Formwork And Reinforcement 151

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: Not exceeding 300mm wide. 6 12 m Expansion joints with bitumen impregnated softboard between vertical concrete and brick surfaces: 12mm Joints not exceeding 300mm high. 6 13 m **Dividing Strips**, etc 6 x 38mm Angle iron step guard cast into concrete with 14 3x 6mm anchors 2 m **REINFORCEMENT(PROVISIONAL)** Fabric reinforcement: Type 193 fabric reinforcement in concrete surface beds, 15 slabs, etc. m² 26 Mild steel reinforcement to structural concrete work: 10mm Diameter bars. 16 Tonnes 1 High tensile steel reinforcement to structural concrete work: 20mm Diameter bars. 17 Tonnes 1 18 16mm Diameter bars. Tonnes 1 Carried to Collection R Section No. 5 Bill No. 2 Concrete, Formwork And Reinforcement 152

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		Amount	
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CONCRETE, FORMWORK AND REINFORCEMENT			
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Concrete, Formwork And Reinforcement 153			
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		Unit	Quantity	Rate	Amount	
	SECTION NO. 5					
	<u>4 x 4 Waterborne Toilet</u>					
	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			
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	Carried to Collection			R		<u> </u>
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	Masonry					
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		Unit	Quantity	Rate	Amount	
	BRICKWORK SUNDRIES					
	Brickwork reinforcement:					
6	75mm Wide reinforcement built in horizontally.	m	64			
7	150mm Wide reinforcement built in horizontally.	m	194			
	Turning pieces:					
8	110mm Wide turning piece to lintels etc.	m	5			
9	220mm Wide turning piece to lintels etc.	m	2			
	Galvanised wire ties etc:					
10	4mm Diameter roof tie 2m girth bent double with one end fixed to timber and other end built into brickwork.(Provisional)	No	24			
	Galvanised hoop iron cramps, ties, etc:					
11	30 x 1,6mm Cramp 500mm long with one end fixed to wood and other end built into brickwork.(Provisional)	No	24			
	FACE BRICKWORK					
	Face bricks (Prime cost R5 500/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints:					
12	Extra over brickwork for face brickwork.	m²	79			
13	Extra over brickwork for face brickwork in foundations (Provisional).	m²	6			
14	Extra over brickwork for face brickwork to piers.	m²	2			
15	Half brick in facings in beamfilling	m²	5			
	FACE BRICKWORK COPINGS, SILLS, ETC.					
	Brick-on-edge header course copings, sills, etc of face bricks (Prime cost R5 500/1000 delivered to site excluding VAT) and pointed with recessed joints on all exposed faces:					
16	Extra over brickwork for brick-on-edge header course lintel pointed on face and 110mm soffit.	m	2			
17	230mm Wide sill set sloping and slightly projecting.	m	5			
18	Coping on top of one brick wall pointed on exposed faces	m	16			
	Carried to Collection Section No. 5 Bill No. 3 Masonry 155			R		
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I		Unit	Quantity	Rate	Amount	1
	NUTEC-CEMENT/FIBRE-CEMENT WINDOW SILLS					
	Natural grey sills in single lengths bedded in class I mortar including metal fixing lugs etc:					
19		m	4			
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	Carried to Collection Section No. 5			R	<u> </u>	
	Bill No. 3 Masonry					
	156					

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Section No. 5 Bill No. 3 Masonry

<u>BILL NO. 3</u> MASONRY COLLECTION

Carried To Section Summary

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					Mokha	ri SS
I		Unit	Quantity	Rate	Amount	
	SECTION NO. 5					
	<u>4 x 4 Waterborne Toilet</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	10			
	One layer of 250 micron Consol Plastics Gunplas USB Green waterproof sheeting sealed at laps with Gunplas Pressure Sensitive Tape:					
2	Under surface beds.	m²	16			
	JOINT SEALANTS ETC					
	silicone sealing compound including backing cord, bond breaker,primer,etc					
3	12 x 20mm in expansion joints in floors including raking out expansion joint filler as necessary (Provisional)	m	38			
4	12 x 20mm in vertical expansion joints in walls including raking out expansion joint filler as necessary	m	48			
	Carried To Section Summary Section No. 5 Bill No. 4 Waterproofing 158			R		

					Mokha	ri SS
I		Unit	Quantity	Rate	Amount	1
	SECTION NO. 5					
	<u>4 x 4 Waterborne Toilet</u>					
	BILL NO. 5					
	ROOF COVERINGS					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW 371					
	<u>General</u>					
	PROFILED METAL SHEETING AND ACCESSORIES					
	0.58mm "Klip-lok light industrial" galvanised troughed sheet steel with "Globalcoat" finish one side(colour Traffic Green), fixed to 76 x 50mm purlin complete under 5year quarantee by an approved firm of specialists, all in accordance with the materials supplied and methods employed by the manufacturer					
1	Roof covering with pitch not exceeding 25 degrees.	m²	20			
	0.58mm galvanised sheet iron, with "Globalcoat" one side in:					
2	Standard type FK3 ridge or hip flashing	m	8			
	Carried To Section Summary Section No. 5 Bill No. 5 Roof Coverings 159			R		

				Mokha	ri SS
1	Unit	Quantity	Rate	Amount	
SECTION NO. 5					
<u>4 x 4 Waterborne Toilet</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 Collection Section No. 5 Bill No. 6 Carpentry And Joinery			R		
160					

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I		Unit	Quantity	Rate	Amount	
	Sawn softwood:					
1	Roof construction to double pitched roof with two gable					
	ends approximately 16m2 on plan overall including trusses, rafters, purlins, permanent bracing, etc					
	(measured flat).	No	1			
	ROOF CONSTRUCTION					
2	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-					
	<u>cement:</u>					
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			
	Ĵ	NO	-			
	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			
	5					
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	Section No. 5			1		
	Bill No. 6					
	Carpentry And Joinery					
	161					

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Carpentry And Joinery					
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Unit Quantity Rate Amount SECTION NO. 5 4 x 4 Waterborne Toilet 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: 100mm Insulation closely fitted and laid on top of 1 brandering between roof timbers etc. 16 m² Wrought softwood 19 x 76mm cornices nailed 2 16 m NAILED UP AND SCREW UP CEILINGS 6mm Everite Nutec or equal approved fibre-cement boards with H-type steel cover strips over joints: 3 Ceilings including 38 x 38mm sawn softwood brandering at 400mm centres. m² 16 Extra over ceiling for hinged trap door size 610 x 610mm 4 1 No Carried To Section Summary R Section No. 5 Bill No. 7 Ceilings Partitions And Access Flooring 163

Unit Quantity Rate Amount SECTION NO.5 4x4 Waterborne Tollet BiLL NO.3 IRONMONGERY PREAMBLES For preambles see "Specification of materials and methods to be used - PW371 Image: Control of Contr						Mokha	ri SS
4 x 4 Waterborne Toilet BILL NO. 3 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 I: AG Anodised gold : ABL Anodised black : PB Polished brass : PL Polished and lacquered : CH Chronium plated : SC Satin chromised brazs : 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 ICCKS Solid or equal approved: 2 "Code 630" padlock. 3 CZ682-24-95SC"Gower" two lever lockset. 4 CZ682-24-95SC"Gower" two lever lockset. 5 Solid or equal approved: 5 Solid or equal approved: 6 Solid or equal approved: 7 "Solid or equal approved: 8 Solid or equal approved: 9 "Solid" or equal approved: 9 "Solid" or equal approved: 9 Solid or equal approved:			Unit	Quantity	Rate	Amount	
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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 : SC Silver enamelled : GC Grey enamelled : AS Anodised silver : AB Anodised bronze : AG Anodised gold : ABL Anodised bk: PB Polished brass : PL Polished and lacquered : PT Epoxy coated. brass: PL Polished and lacquered : PT Epoxy coated. brass: PL Polished and lacquered : PT Epoxy coated. brass: Silver enamelled : GC Grey enamelled : AS Anodised silver : AB Anodised bronze : AG Anodised proxee in the onlow coated. Domm cabin hook and eye including 70 x 70 x 20mm charmfered hardwood block twice oiled and plugged. No 2 CCKS Solid or equal approved: 2 'Code 630" padlock. 3 CZ682:24:95SC"Gower" two lever lockset. No 2 Solid or equal approved: No 3 CZ682:24:95SC"Gower" two lever lockset. No 2 Solid or equal approved: No 3 Solid or equal approved: 3 Solid or equal approved: <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>							
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Solid or equal approved: 100mm cabin hook and eye including 70 x 70 x 20mm chamfered hardwood block twice oiled and plugged.No2LOCKS Solid or equal approved: * Code 630" padlock.No2* Solid '' or equal approved * Ca682-24-95SC"Gower" two lever lockset.No2* CZ682-24-95SC"Gower" two lever lockset.No4* SUNDRIES * Solid or equal approved: * 38mm Diameter rubber door stop plugged.No6Lockable toilet roll holderNo6		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					
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Ironmongery							
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		Unit	Quantity	Rate	Amount	
	<u>SECTION NO. 5</u> 4 x 4 Waterborne Toilet					
	<u>4 x 4 Waterborne Tonet</u> 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.					
	WELDED SCREENS, GATES, ETC.					
	Gates to external doors					
1	Single gate and frame 813×2032 mm high of $25 \times 25x$ 2mm hollow section frame and $25 \times 25x$ 2mm hollow section horizontal middle rail filled in with 12×12 mm 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 $25 \times 25 \times 2$ mm hollow section welded frame bolted to brickwork.	No	2			
	PRESSED STEEL DOOR FRAMES					
	1,2mm Rebated frames suitable for half brick walls:					
2	Frame for door 813 x 2032mm high.	No	4			
	1,2mm Rebated frames suitable for one brick walls:					
3	Frame for door 813 x 2032mm high	No	2			
	STEEL WINDOWS, DOORS, ETC.					
	Standard residential windows with 12 x 12(B33)					
	solid burglar bars to all sashes:					
4	Window type NE1, 533 x 654mm high	No	4			
	Carried to Collection			R		
	Section No. 5					
	Bill No. 9					
	Metalwork 165					
	601					_

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		Unit	Quantity	Rate	Amount	
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. 5 Bill No. 9			R		
	Metalwork 166					

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BILL NO. 9 METALWORK COLLECTION		Page No		
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Section No. 5	Carried To Section Summary	R		
Bill No. 9				
Metalwork	167			

					Mokha	ri SS
		Unit	Quantity	Rate	Amount	
	SECTION NO. 5					
	<u>4 x 4 Waterborne Toilet</u>					
	BILL NO. 10					
	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		m²	16			
	INTERNAL PLASTER					
	Cement plaster steel trowelled, on brickwork					
2	On walls	m²	92			
3	On narrow widths	m²	1			
U			•			
	Carried To Section Summary			R		
	Section No. 5					
	Bill No. 10					
	Plastering					
	168					_

					Mokha	ri SS
		Unit	Quantity	Rate	Amount	
	SECTION NO. 5					
	<u>4 x 4 Waterborne Toilet</u>					
	BILL NO. 11					
	TILING					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	WALL TILING					
	200 x 200 x 5mm White glazed ceramic tiles on brickwork including cement plaster backing					
1	On walls	m²	2			
	FLOOR TILING					
	300 x 300 x 11.5mm glazed 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					
2	On floors and landings.	m²	16			
3	Skirting formed of ceramic tile cut to 300 x 75mm high	m	16			
	Carried To Section Summary Section No. 5 Bill No. 11 Tiling 169			R		

				Mokha	ri SS
I	Unit	Quantity	Rate	Amount	1
SECTION NO. 5					
4 x 4 Waterborne Toilet					
BILL NO. 12 PLUMBING AND DRAINAGE					
PLOMBING AND DRAINAGE					
PREAMBLES					
For preambles see "Specification of materials and methods to be used - PW371					
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 Section No. 5 Bill No. 12 Plumbing And Drainage			R		
170					
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	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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Plumbing And Drainage 171					
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		Unit	Quantity	Rate	Amount	
	Stainless steel basins, sinks, wash troughs, urinals,					
	etc:					
	Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable.					
	Waste unions:					
	Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings.					
	RAINWATER DISPOSAL					
	Approved .6mm galvanised sheet iron with "chromadek" finish ,in:					
1	100 x 100mm Eaves gutters	m	18			
2	Extra over eaves gutter for angle/corner.	No	4			
3	Extra over eaves gutter for outlet for 75mm pipe.	No	4			
4	75mm Diameter rainwater pipes.	m	16			
5	Extra over rainwater pipe for bend.	No	4			
6	Extra over rainwater pipe for shoe.	No	4			
	SANITARY FITTINGS					
	"Vaal" or equal approved					
7	510 x 405mm "Hibiscus" (code 7050) white vitreous china rounded lavatory basin with two tapholes supported on and including two bolts(code 84467Z0)	No	4			
8	White vitreous china "Daisy" semi-close coupled 90degree outlet open rim washdown pan (code 774000) and matching 9litre cistern (code 710034) complete with lid, fitments and flush pipe elbow and conversion bend (code 710044) and "deluxe" toilet seat	No	4			
	WASTE UNIONS ETC					
	'Cobra Watertech" or equal approved					
9	38mm "Cobra 316" unslotted waste and plug with chain	No	4			
	TRAPS ETC					
	"Marley' or equal approved					
10	40mm Flexi butyl rubber trap with reseal "P" trap	No	4			
	"Cobra Watertech" or equal approved					
11	"Cobra Ref. 365/40" CP Bottle trap.	No	4			
	Carried to Collection			R		
	Section No. 5					
	Bill No. 12					
	Plumbing And Drainage					
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					Mokhari SS
	1	Unit	Quantity	Rate	Amount
	TAPS, VALVES, ETC				
	'Cobra Watertech' or equal approved:				
12	"Cobra Rf. 107EC-15" Bib tap plugged	No	4		
13	15mm Gate valves plugged	No	8		
14	"Cobra Ref. 232/350' Angle regulating valve	No	4		
	SANITARY PLUMBING				
	uPVC pipes:				
15	50mm Pipes	m	30		
16	110m Pipes.	m	50		
17	50mm Pipes laid in and including trenches not exceeding 1m deep.	m	20		
18	110mm Pipes laid in and including trenches not exceeding 1m deep under surface beds.	m	30		
	Extra over uPVC pipes for fittings:				
19	50mm Bend.	No	6		
20	100mm Bend.	No	4		
21	110mm Junction.	No	4		
22	50mm Junction.	No	4		
23	110mm Reducing junction.	No	4		
24	110mm Double junction.	No	4		
25	110mm Pan connector	No	4		
26	110mm "G1 Two-way " vent valve	No	4		
	Sundries:				
27	Testing waste pipe system.	Item			
	WATER SUPPLIES				
28	<u>Class 9 uPVC pressure pipes:</u> 63mm Pipes laid in and including trenches not exceeding 1000mmm deep	m	30		
	Extra over uPVC pressure pipes for solvent welded pressure fittings:				
29	63mm Elbow	No	2		
30	63mm Tee	No	2		
	Carried to Collection Section No. 5 Bill No. 12			R	
	Plumbing And Drainage 173				
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		Unit	Quantity	Rate	Mokha Amount	ri SS
31	63mm Reducer.	No	1			
	Class o copper pipes:					
32	15mm Pipes	m	20			
33	22mm Pipes.	m	15			
	Extra over class o copper pipes for capillary fittings:					
34	15mm Fittings.	No	10			
35	22mm Fittings.	No	10			
	Copper overflow and service pipes:					
36	15mm Service pipe 300mm girth.	No	1			
	Sundries:					
37	450 x 450m cast iron stopcock box including brick chamber below not exceeding 750mm deep internally.	No	1			
	FIRE APPLIANCES ETC.					
	<u>'Chubb':</u>					
38	9kg Dry chemical fire extinguisher fixed on and including 22mm thick x 400 x 200mm wide meranti timber back plate with chamfered edges	No				
		No	2			
	Carried to Collection Section No. 5			R		
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	Plumbing And Drainage					
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1			Amount	
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		Unit	Quantity	Rate	Mokha Amount	ri SS
1	SECTION NO. 5 4 x 4 Waterborne Toilet 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: Panes not exceeding 0,1m2.	m²	4			
	Carried To Section Summary Section No. 5 Bill No. 13 Glazing 176			R		

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I		Unit	Quantity	Rate	Amount	
	SECTION NO. 5					
	4 x 4 Waterborne Toilet					
	<u>BILL NO. 14</u> PAINTWORK					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	ON INTERNAL FLOATED PLASTER SURFACES					
	One coat alkali resistant primer and two coats superior quality acrylic emulsion paint for interior					
	<u>use</u>	_				
1	Walls	m²	91			
	ON FIBRE-CEMENT, ETC.					
	<u>Prepare , etc as specified and apply two coats of super acrylic Pva paint:</u>					
2	On ceilings and cornices.	m²	16			
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	9			
5	On windows with burglar bars (both sides measured).	m²	4			
6	On gates, grilles, burglar screens, balustrades, etc (both sides measured over the full flat area).	m²	7			
	Inside eaves gutter					
7	Inside eaves gutter with waterproofing paint	m²	6			
-	ON WOOD, WOOD BOARD					
	Prepare,etc as specified and apply two coats of super acrylic Pva paint on:					
8	General surfaces of doors (interior).	m²	13			
	Prepare, etc as specified and apply two coats of polyurethane suede varnish:					
9	On general surfaces of doors.	m²	7			
10	On general surfaces of timber.	m²	2			
10	on general surfaces of timber.	111	2			
						—
	Carried To Section Summary Section No. 5			R		
	Bill No. 14					
	Paintwork					
	177					
						0

			Amount
	SECTION NO. 5		
	<u>4 x 4 Waterborne Toilet</u>		
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2	CONCRETE, FORMWORK AND REINFORCEMENT	153	
3	MASONRY	157	
4	WATERPROOFING	158	
5	ROOF COVERINGS	159	
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7	CEILINGS PARTITIONS AND ACCESS FLOORING	163	
8	IRONMONGERY	164	
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10	PLASTERING	168	
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12	PLUMBING AND DRAINAGE	175	
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SECTION NO. 6

Guard House

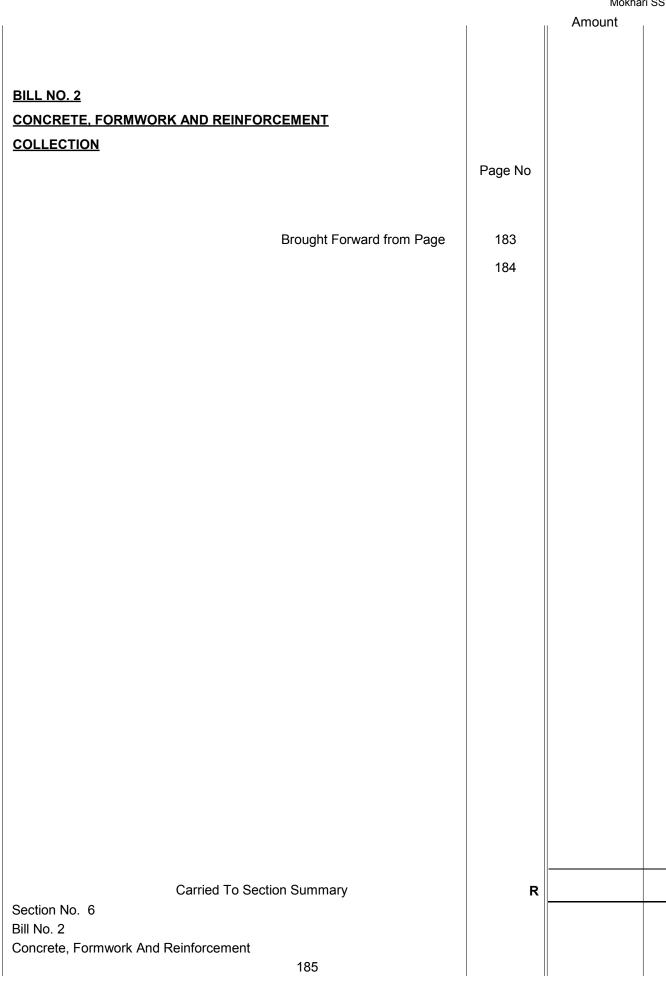
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		Unit	Quantity	Rate	Amount	
	<u>SECTION NO. 6</u> Guard House					
	BILL NO. 1					
	FOUNDATIONS					
	PREAMBLES					
	For preambles see " Specification of materials and methods to be used - PW371"					
	SITE CLEARANCE ETC					
	Site clearance:					
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			
	Hard rock.					
5		Т³	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. 6					
	Bill No. 1					
	Foundations 180					
	160					ן ה

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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		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			
						<u> </u>
	Carried to Collection			R		
	Section No. 6					
	Bill No. 1					
	Foundations					
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1			Amount	
BILL NO. 1 FOUNDATIONS COLLECTION		Page No		
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					Mokhari SS
	I	Unit	Quantity	Rate	Amount
	SECTION NO. 6				
	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				
1	Aprons cast in panels.	m³	1		
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	11		
4	Footings.	m³	4		
	25MPa/19mm Concrete:				
5	Surface beds cast in panels on waterproofing.	m³	1		
	TEST BLOCKS				
	Test blocks:				
6	Making and testing set of three 150 x 150 x 150mm 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:				
8	Edges and reveals not exceeding 300mm high or wide.	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.	m	5		
	Carried to Collection			R	
	Section No. 6 Bill No. 2				
	Concrete, Formwork And Reinforcement				
	183				
					-

Unit Quantity Rate Amount Expansion joints with bitumen impregnated softboard between vertical concrete and brick surfaces: 12mm Joints not exceeding 300mm high. 10 4 m **Dividing Strips**,etc 6 x 38mm Angle iron step guard cast into concrete with 11 3x 6mm anchors m 1 REINFORCEMENT(PROVISIONAL) Fabric reinforcement: Type 193 fabric reinforcement in concrete surface beds, 12 slabs, etc. 9 m² Carried to Collection R Section No. 6 Bill No. 2 Concrete, Formwork And Reinforcement 184



					Mokha	ri SS
	1	Unit	Quantity	Rate	Amount	
	SECTION NO. 6					
	Guard House					
	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	3			
2	One brick walls	m²	11			
	BRICKWORK IN SUPERSTRUCTURE					
	Brickwork of NFX bricks (14 MPa nominal					
3	<u>compressive strength) in Class I mortar:</u> Piers	m³	1			
	Half brick walls		9			
4		m²				
5	One brick walls	m²	34			
	Carried to Collection			R		
	Section No. 6					
	Bill No. 3					
	Masonry 186					
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		Unit	Quantity	Rate	Mokhai Amount	riss
		Offic	Quantity	Tute	7 unount	
	BRICKWORK SUNDRIES					
	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)	N La				
	· · · · ·	No	11			
	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	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 Section No. 6 Bill No. 3			R		
	Masonry					
	187					

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I		Unit	Quantity	Rate	Amount	1
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	5			
						<u> </u>
	Carried to Collection Section No. 6			R		
	Bill No. 3					
	Masonry 188					

Amount <u>BILL NO. 3</u> MASONRY COLLECTION Page No Brought Forward from Page 186 187 188 Carried To Section Summary R Section No. 6 Bill No. 3 Masonry

Unit Cuantity Rate Amount SECTION NO. 6 Guard House Bill. No. 4 WATERPROOFING Image: Construct of the sec "Specification of materials and methods to be used - PW371 Image: Construct of the sec "Specification of materials and methods to be used - PW371 Image: Construct of the sec "Specification of materials and methods to be used - PW371 Image: Construct of the sec "Specification of materials and methods to be used - PW371 Image: Construct of the sec "Specification of materials and methods to be used - PW371 Dome layer of 325 micron Consol Plastics Brinkrip DPC embossed damp proof course: USB Green waterproof sheeting sealed at laps with Cound bracket primer.ctc Image: Consol Plastics Gunplas USB Green waterproof sheeting sealed at laps with Cound sec as possibility Tape. Image: Consol Plastics Gunplas USB Green waterproof sheeting sealed at laps with Cound sec as possible of the sec as any (Provision) out expansion joints in floore including taking out expansion joint filler as necessary Image: Consol Plastics Count of the sec as any (Provision) m 2 1 12 x 20mm in expansion joints in Novalis including raking out expansion joint filler as necessary Image: Consol Plastics Count of the sec as any (Provision) m 2 2 Carried To Section Summary Waterproofing Image: Consol Count of the sec as any (Provision) m 2 Image: Count of the sec as any (Provision) m 2						Mokha	ri SS
Suard House BLLN0.4 WATERPROOFING PREAMBLES For preambles see "Specification of materials and methods to be used - PW371 DAMPPROOFING OF WALLS AND FLOORS DAMPROOFING OF WALLS AND FLOORS One layer of 375 micron Consol Plastics Brikgrip: DPC embossed damp proof course: n** 1 In walts. m* 6 One layer of 250 micron Consol Plastics Gunplas water of 375 micron Consol Plastics Gunplas 9 2 Under surface beds. m* 9 JOINT SEALANTS ETC Silicone sealing compound including backing cord, boot pressure Sensitivo Tape: 0 12 x 20mm in expansion joints in floors including raking out expansion joints in stors including raking out expansion joint filler as necessary (Provisional) m 2 4 12 x 20mm in expansion joints in soluts including raking out expansion joint filler as necessary m 2 4 12 x 20mm in vercical arganesion joints in walls including m 2 2 3 12 x 20mm in expansion joint filler as necessary m 2 4 12 x 20mm in vercical arganesio joint in walls including m m 2 5 Expendence Expendence Expendence Expendence 6 Bill No. 4	1		Unit	Quantity	Rate	Amount	
Suard House BLLN0.4 WATERPROOFING PREAMBLES For preambles see "Specification of materials and methods to be used - PW371 DAMPPROOFING OF WALLS AND FLOORS DAMPROOFING OF WALLS AND FLOORS One layer of 375 micron Consol Plastics Brikgrip: DPC embossed damp proof course: n** 1 In walts. m* 6 One layer of 250 micron Consol Plastics Gunplas water of 375 micron Consol Plastics Gunplas 9 2 Under surface beds. m* 9 JOINT SEALANTS ETC Silicone sealing compound including backing cord, boot pressure Sensitivo Tape: 0 12 x 20mm in expansion joints in floors including raking out expansion joints in stors including raking out expansion joint filler as necessary (Provisional) m 2 4 12 x 20mm in expansion joints in soluts including raking out expansion joint filler as necessary m 2 4 12 x 20mm in vercical arganesion joints in walls including m 2 2 3 12 x 20mm in expansion joint filler as necessary m 2 4 12 x 20mm in vercical arganesio joint in walls including m m 2 5 Expendence Expendence Expendence Expendence 6 Bill No. 4							
Suard House BLLN0.4 WATERPROOFING PREAMBLES For preambles see "Specification of materials and methods to be used - PW371 DAMPPROOFING OF WALLS AND FLOORS DAMPROOFING OF WALLS AND FLOORS One layer of 375 micron Consol Plastics Brikgrip: DPC embossed damp proof course: n** 1 In walts. m* 6 One layer of 250 micron Consol Plastics Gunplas water of 375 micron Consol Plastics Gunplas 9 2 Under surface beds. m* 9 JOINT SEALANTS ETC Silicone sealing compound including backing cord, boot pressure Sensitivo Tape: 0 12 x 20mm in expansion joints in floors including raking out expansion joints in stors including raking out expansion joint filler as necessary (Provisional) m 2 4 12 x 20mm in expansion joints in soluts including raking out expansion joint filler as necessary m 2 4 12 x 20mm in vercical arganesion joints in walls including m 2 2 3 12 x 20mm in expansion joint filler as necessary m 2 4 12 x 20mm in vercical arganesio joint in walls including m m 2 5 Expendence Expendence Expendence Expendence 6 Bill No. 4							
BiLL NO. 4 WATERPROFING PEABLES For preambles 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: m² 1 In walts. m² 2 Under surface beds. m² 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 valis including raking out expansion joint filler as necessary m 2 5 Section No. 6 Bit No. 4 Waterproofing Earried To Section Summary R							
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Section No. 6 Bill No. 4 Waterproofing	4		m	2			
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Bill No. 4 Waterproofing		-			ĸ		
Waterproofing							
190							
		190					

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		Unit	Quantity	Rate	Amount	
	SECTION NO. 6					
	<u>BILL NO. 5</u> ROOF COVERINGS					
	<u>KOOL COVERINGS</u>					
	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 side in:					
2	Standard type FK3 ridge or hip flashing	m	10			
	Carried To Section Summary Section No. 6 Bill No. 5 Roof Coverings 191			R		

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1	Unit	Quantity	Rate	Amount	
SECTION NO. 6					
Guard House					
BILL NO. 6 CARPENTRY AND JOINERY					
CARPENTRY 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. 6			R		
Bill No. 6					
Carpentry And Joinery 192					
192				1	

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I		Unit	Quantity	Rate	Amount	
	Sawn softwood:					
1	Roof construction to double pitched roof with two hipped					
	ends approximately 9m2 (Guard House) on plan including trusses, hipped ends, jack rafters, purlins,					
	permanent bracing, etc (measured flat).	No	1			
	BOOF CONSTRUCTION					
	ROOF CONSTRUCTION					
	Sawn softwood :					
2	114 x 38mm Wall plates.	m	11			
	ROOF SUNDRIES					
	Sundries:					
3	Two 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	m²	1			
	SEMI SOLID CORE FLUSH DOORS					
	44 semi-solid flush doors with 3,2mm standard					
	hardboard covering on both sides hung to steel					
	frames:					
6	40mm Door 813 x 2032mm high.	No	1			
	Carried to Collection			R		
	Section No. 6					<u> </u>
	Bill No. 6					
	Carpentry And Joinery					
	193					
						_

			Amount	1
BILL NO. 6 CARPENTRY AND JOINE COLLECTION	RY	Page No		
	Brought Forward from Page	192 193		
	Carried To Section Summary	R		
Section No. 6 Bill No. 6 Carpentry And Joinery	194			

Unit Quantity Rate Amount **SECTION NO. 6 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: 100mm Insulation closely fitted and laid on top of 1 brandering between roof timbers etc. m² 9 Wrought softwood 19 x 76mm cornices nailed 2 16 m NAILED UP AND SCREW UP CEILINGS 6mm Everite Nutec fibre-cement boards with H-type steel cover strips over joints: Ceilings including 38 x 38mm sawn softwood brandering 3 at 400mm centres. m² 9 Extra over ceiling for hinged trap door size 610 x 610mm 4 No 1 Carried To Section Summary R Section No. 6 Bill No. 7 Ceilings Partitions And Access Flooring 195

					Mokha	ri SS
		Unit	Quantity	Rate	Amount	
	<u>SECTION NO. 6</u> Guard House					
	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	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					
	"Yale"					
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 holder plugged.	No	1			
	SUNDRIES					
	Solid:	N				
6	38mm Diameter rubber door stop plugged.	No	2			
	Carried To Section Summary			R		
	Section No. 6					
	Bill No. 8					
	Ironmongery 196					
	190					

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		Unit	Quantity	Rate	Amount	
	SECTION NO. 6					
	Guard House					
	<u>BILL NO. 9</u> 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			
	Corriad To Costian Ourses			-		
	Carried To Section Summary Section No. 6			R		
	Bill No. 9					
	Metalwork					
	197					
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I		Unit	Quantity	Rate	Amount	
	SECTION NO. 6					
	Guard House					
	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 Summary Section No. 6 Bill No. 10 Plastering			R		
	198					
						ົ

	1	Unit	Quantity	Rate	Mokha Amount	ri SS
1	SECTION NO. 6 Guard House BILL NO. 11 TILING 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.	m²	1			
	Carried To Section Summary Section No. 6 Bill No. 11 Tiling 199			R		

Unit Quantity Rate Amount SECTION NO.5 Guard House Bulk NO.12 SULNO.12 PLUMBING AND DRAINAGE Image: Control of the section of materials and methods to be used - PW371 SUPPLEMENTARY PREAMBLES Control of the section of materials and methods to be used - PW371 SUPPLEMENTARY PREAMBLES Control of the section of materials and methods to be used - PW371 SUPPLEMENTARY PREAMBLES Control of the section of materials and methods to be used - PW371 Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rings. Image: Control of the section of materials and methods to be of the class stated. Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings. Image: Control of the section of the section of the section of the plants. Copper pipes Class 0 (thin walled hard rings shall be cast iron, all with pub-hir type joints. Image: Control of the shall hard pipes shall hore collars of the diass stated. Pripes for state of the diase stated. Class 0 (thin walled hard hard) pipes shall on the first shall be cast iron, all with inner and outer formers. Eitings to collection the section of the section walls etc. casting to the ritings shall be cast iron, all with section be section walls etc. casting the section of the section of the section be shall and only be shall be deemed to includ					Mokha	ri SS
Suard House 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 roll class stated. Pipes of 40mm diameter and smaller shall be plain ended with publen type lintgar tubber ring joints. Berd of 50mm diameter and greater shall have sockets and fittings. Pipes of 50mm diameter and greater shall have sockets and fittings. Progre pipes: Pipes of class 0 (thin) walled hard framary pipes shall not be bent. Class 1 (thin walled hard-frand pipes of the class stated. Class 0 (thin) walled hard-frand pipes of the class stated. Pipes or pipes: Purbling source progres: Piges or pipes. Pope pipes Pope pipes Pope pipes wall, we run and anti-sphon pipes, capilary solder fittings and compression fittings shall be comper waste, were and anti-sphon pipes, capilary solder fittings and compression fittings shall be comper waste, were and anti-sphon pipes, capilary solder fittings and compression fittings shall be comper waste, were and anti-sphon pipes, capilary solder fittings and compression fittings shall be comper waste, were and anti-sphon pipes, capilary solder fittings and compression fittings shall be comper waste, were and anti-sphon pipes, capilary solder fittings and compression fitting	1	Unit	Quantity	Rate	Amount	
Suard House 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 roll class stated. Pipes of 40mm diameter and smaller shall be plain ended with publen type lintgar tubber ring joints. Berd of 50mm diameter and greater shall have sockets and fittings. Pipes of 50mm diameter and greater shall have sockets and fittings. Progre pipes: Pipes of class 0 (thin) walled hard framary pipes shall not be bent. Class 1 (thin walled hard-frand pipes of the class stated. Class 0 (thin) walled hard-frand pipes of the class stated. Pipes or pipes: Purbling source progres: Piges or pipes. Pope pipes Pope pipes Pope pipes wall, we run and anti-sphon pipes, capilary solder fittings and compression fittings shall be comper waste, were and anti-sphon pipes, capilary solder fittings and compression fittings shall be comper waste, were and anti-sphon pipes, capilary solder fittings and compression fittings shall be comper waste, were and anti-sphon pipes, capilary solder fittings and compression fittings shall be comper waste, were and anti-sphon pipes, capilary solder fittings and compression fittings shall be comper waste, were and anti-sphon pipes, capilary solder fittings and compression fitting						
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Bill NO. 12 PLUMBING AND DRAINAGE PREAMBLES For preambles see "Specification of materials and methods to bused - PW371 SUPPLEMENTARY PREAMBLES Concrete pipes Pipes shall be jointed with ogee joints with rubber collars or socket and spipet joints with rubber rings. UPVC pressure pipes and fittings: Pipes of SOmm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings. Pipes of SOmm diameter and greater shall have sockets and spipot joints. Bends shall be UPVC and all other fitting shall be cast iron, all with similar push-in type integral rubber ring joints. Copper pipes: Pipes of Class 1 (thin walled half-hard) pipes shall on to be hord Class 1 (thin walled half-hard) pipes shall to cast 1 (thin walled half-hard) pipes shall to case 3 (harf-hard) and class 3 (hard-primes) solvent timgs shall be cast iron, all with bendres with usber stated, descriptions of pipes shall be corper waste, vert and anti-sython pipes, capillary solder fittings shall be corpore. Cobra Materech type: Capillary solder fittings shall be cast in ground. Exiting of Dipes Unless specifically otherwise stated, descriptions of pipes shall be deemed to include for fittings that be cast in ground. Cobra Materech type: Capillary solder fittings shall be cast in ground. Exiting of Dipes Copillary in or suspending not exceeding 1m below suspension level						
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 spiod joints with rubber rings. uPVC pressure pipes and fittings: Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and spipots 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. Comper Dipes: Pipes of 50mm diameter and greater shall have sockets and spipots with push-in type joints. Dender bland drawn and half-hard pipes of the class stated. Class 0 (thin walled hard drawn) pipes shall ont be bent. Class 1 (thin walled hard drawn) pipes shall on be bent. Class 1 (thin walled hard drawn) pipes shall on poper waste, yent and anti-spipon pipes, capiliary solder fittings and compression fittings shall be used in walls or in ground. Fitting to coper waste, yent and anti-spipon pipes, capiliary solder fittings and compression fittings shall be used in walls to in ground. Exting of pipes Capilary solder fittings and compression fittings shall be comply with ISO 2016. Only compression fittings shall be used in walls or in ground. Exting of pipes Capilary solder fittings and complexito to walls etc. casting in, building in or suspending not exceeding 1m below suspension level Carried to Collection <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
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 of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and tittings. Pipes of 40mm diameter and greater shall have sockets and tittings shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints. Bends shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints. Depres fitting and class 3 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled hard drawn) pipes shall be copper wate, vent and anti-syphon pipes, capillary solder fittings and outer formers. Fittings to copper wate, vent and anti-syphon pipes, capillary solder fittings shall be 'Cobra Waterech' type. Capillary solder fittings shall be 'Cobra Waterech' type. Capillary solder fittings shall be used in walls or in ground. Muless specifically otherwise stated, descriptions of pipes shall be doemed to include for fixing to value etc. casting in, building in or suspending not exceeding 1m below suspension level Carried to Collection R Carried to Collection R						
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Section No. 6 Bill No. 12 Plumbing And Drainage	pipes shall be deemed to include for fixing to walls etc. casting in, building in or suspending not exceeding 1m					
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Plumbing And Drainage				R		
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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 Section No. 6 Bill No. 12 Plumbing And Drainage			R		
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UnitQuantityRateAmountStainless steel basins, sinks, wash troughs, urinals, stc:II<	
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:1100 x 100mm Eaves guttersm162Extra over eaves gutter for angle/corner.No43Extra over eaves gutter for outlet for 75mm pipe.No2475mm Diameter rainwater pipes.5Extra over rainwater pipe for bend.No25SANITARY FITTINGS "Yaal"7510 x 405mm "Hibiscus" (code 7050) white vitreous china rounded lavatory basin with two tapholes	
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 2 Extra over eaves gutter for angle/corner. No 4 3 Extra over eaves gutter for outlet for 75mm pipe. No 2 4 75mm Diameter rainwater pipes. m 8 5 Extra over rainwater pipe for bend. No 2 6 Extra over rainwater pipe for shoe. No 2 SANITARY FITTINGS "Vaal" 7 510 x 405mm "Hibiscus" (code 7050) white vitreous china rounded lavatory basin with two tapholes 	
 3 Extra over eaves gutter for outlet for 75mm pipe. 4 75mm Diameter rainwater pipes. 5 Extra over rainwater pipe for bend. 6 Extra over rainwater pipe for shoe. 7 SANITARY FITTINGS "Vaal" 7 510 x 405mm "Hibiscus" (code 7050) white vitreous china rounded lavatory basin with two tapholes 	
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 6 Extra over rainwater pipe for shoe. No 2 SANITARY FITTINGS "Vaal" 7 510 x 405mm "Hibiscus" (code 7050) white vitreous china rounded lavatory basin with two tapholes For the description of the description	
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7 510 x 405mm "Hibiscus" (code 7050) white vitreous china rounded lavatory basin with two tapholes	
china rounded lavatory basin with two tapholes	
8 White vitreous china "Daisy" semi-close coupled 90degree outlet open rim washdown pan (code 774000) and matching 9litre cistern (code 710034) complete with lid, fitments and flush pipe elbow and conversion bend (code 710044) and "deluxe" toilet seat No 1	
WASTE UNIONS ETC	
'Cobra Watertech''	
9 38mm "Cobra 316" unslotted waste and plug with chain No 1	
TRAPS ETC	
"Marley'	
1040mm Flexi butyl rubber trap with reseal "P" trapNo1	
TAPS, VALVES, ETC	
<u>'Cobra Watertech':</u>	
11 "Cobra Rf. 107EC-15" Bib tap No 1	
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1		Unit	Quantity	Rate	Amount	33
12	15mm Gate valves	No	2			
	SANITARY PLUMBING					
	<u>uPVC pipes:</u>					
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			
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	Carried to Collection Section No. 6			R		
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Unit Quantity Rate Amount Extra over class o copper pipes for capillary fittings: 15mm Fittings. 5 32 No 33 22mm Fittings. 5 No Copper overflow and service pipes: 15mm Service pipe 300mm girth. 34 No 1 Sundries: 35 450 x 450m cast iron stopcock box including brick chamber below not exceeding 750mm deep internally. 1 No Testing: 36 Testing water pipe system. Item FIRE APPLIANCES ETC. 'Chubb': 37 9kg Dry chemical fire extinguisher. No 1 Carried to Collection R Section No. 6 Bill No. 12 Plumbing And Drainage

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BILL NO. 12			
PLUMBING AND DRAINAGE			
COLLECTION			
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Plumbing And Drainage			
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I		Unit	Quantity	Rate	Amount	I
	SECTION NO. 6					
	Guard House					
	BILL NO. 13					
	<u>GLAZING</u>					
	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	4			
	<u>5 mm Rough cast glass:</u>					
2	Panes exceeding 0,1m2 and not exceeding 0,5m2.	m²	1			
	TOPS, SHELVES, DOORS, MIRRORS, ETC.					
	<u>6 mm Silvered float glass copper backed mirrors</u> with polished edges fixed with double sided adhesive tape:					
3	Mirror 450 x 600 mm high.	No	1			
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	Carried To Section Summary Section No. 6			R		
	Bill No. 13					
	Glazing					
	206					
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I		Unit	Quantity	Rate	Amount	1
	SECTION NO. 6					
	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			
	-					
	<u>ON METAL</u>					
	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			
	Carried to Collection			R		
	Section No. 6					
	Bill No. 14					
	Paintwork					
	207					
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Unit Quantity Rate Amount Prepare,etc as specified and apply two coats of super acrylic Pva paint on: General surfaces of doors (interior). 3 7 m² ON WOOD, WOOD BOARD Prepare, etc as specified and apply two coats of polyurethane suede varnish: 3 8 On doors m² Carried to Collection R Section No. 6 Bill No. 14 Paintwork 208

Amount <u>BILL NO. 14</u> PAINTWORK COLLECTION Page No Brought Forward from Page 207 208 Carried To Section Summary R Section No. 6 Bill No. 14 Paintwork 209

Amount

		I	Amount	
	SECTION NO. 6			
	Guard House			
	SECTION SUMMARY			
Bill No.		Page		
1	FOUNDATIONS	182		
2	CONCRETE, FORMWORK AND REINFORCEMENT	185		
3	MASONRY	189		
4	WATERPROOFING	190		
5	ROOF COVERINGS	191		
6	CARPENTRY AND JOINERY	194		
7	CEILINGS PARTITIONS AND ACCESS FLOORING	195		
8	IRONMONGERY	196		
9	METALWORK	197		
10	PLASTERING	198		
11	TILING	199		
12	PLUMBING AND DRAINAGE	205		
13	GLAZING	206		
14	PAINTWORK	209		
	Carried to Final Summary	R		
	Section No. 6 SECTION SUMMARY			
	210			

SECTION NO. 7

Provisional Sums

			Mokhari SS
			Amount
	SECTION NO. 7		
	Provisional Sums		
	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		
	Flags, Flag Poles & Plaque		
1	Provide the amount of R30 000.00 (Thirty Thousand Rands) for flags and plaque by a specialist	Item	30 000 00
2	Profit on above item.	Item	
3	Attendance on ditto.	Item	
	Signage		
4	Provide the sum of R35 000.00 (Thirty Five Thousand Rands) for signage	Item	35 000 00
5	Profit	Item	
6	Attendance	Item	
	School furniture		
7	Provide the sum of R900 000.00 (Nine Hundred Thousand Rands) for supply of school furniture	Item	900 000 00
8	Profit	Item	
9	Attendance	Item	
	Office equipments and furniture		
10	Provide the sum of R300 000.00 (Three Hundred Thousand Rands) for		
	supply of Office equipments, furniture, first aid kit and sick bed in the administration block by specialist.	Item	300 000 00
11	Profit	Item	
12	Attendance	Item	
12		item	
13	<u>Community liason officer</u> Provide the budgedary allowance of R120 000.00 (One Hundred and Twenty		
15	Thousand Rands) for employement of a community liason officer for labour requirements by the contractor and deducted in whole or part if not required.	ltem	120 000 00
14	Profit	Item	
15	Attendance	Item	
	Carried To Section Summar	-	
	Carried To Section Summary Section No. 7	R	
	Bill No. 1		
	Provisional Sums		
	212		

I				Mokhar Amount	'i SS
	Project Steering Committee (PSC)				
16	Provide the budgetary allowance of R12 000.00 (Tw for employement of a PSC for labour requirements deducted in whole or part if not required.	velve Thousand Rands) by the contractor and	Item	12 000	00
17	Profit		Item	12 000	00
18	Attendance		ltem		
	Joinery fittings				
19	Provide the sum of R300 000 (Three Hundred Thou fittings by specialist	usand Rands) for joinery	Item	300 000	00
20	Profit		Item		
21	Attendance		ltem		
	Occupational Health and Safety Consultancy Se	rvices			
22	Provide the sum of R500 000.00 (Five Hundred The occupational health and safety services to be appoint		Item	500 000	00
23	Profit		Item		
24	Attendance		Item		
	Ca Section No. 7 Bill No. 1 Provisional Sums 213	rried To Section Summary	R		

1			Amount
SECTION NO. 7			
Provisional Sums			
SECTION SUMMARY			
		Page	
	Brought forward from page	212	
	Brought forward from page	213	
		_	
Section No. 7	Carried to Final Summary	R	
Section No. 7 SECTION SUMMARY			
	214		
1			II

Section No.	FINAL SUMMARY	Page	
1	Preliminaries and Generals	40	
2	Renovations (12CR, 16Waterborne, Nutrition)	77	
3	2 x 5 Classroom Block	110	
4	Medium Administration Block	146	
5	4 x 4 Waterborne Toilet	178	
6	Guard House	210	
7	Provisional Sums	214	
	ADD: PART B - ELECTRICAL INSTALLATIONS TENDER AMOUNT CARRIED OVER FROM PART B (separate document attached marked Part B) ADD:PART C- CIVIL WORKS TENDER AMOUNT CARRIED OVER FROM PART C (separate document attached marked Part C) ADD: CONTINGENCIES Allow the Amount of R600 000 (Six Hundred Thousand Rands) for contingencies, to be used by the Architect in terms of Clause 17 of the		600 000 00
	Principal Building Agreement. Carried to N FINAL SUMMARY 215	ext R	

Brought from Previous R ADD: CPAP ALLOWANCE Allow the amount of R600 000 (Six Hundred Thousand Rands) for CPAP 600 000 00 (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. SubTotal excluding Value Added Tax ADD VAT @ 15%: R Carried to Tender FINAL SUMMARY

Mokhari SS

REPUBLIC OF SOUTH AFRICA

LIMPOPO DEPARTMENT OF PUBLIC WORKS INFRASTRUCTURE

MOKHARI COMBINED SCHOOL

LDPWRI-B/20290

PART B ELECTRICAL INSTALLATIONS BILLS OF QUANTITIES

Summar	y- Mokhari School						
BILL	DESCRIPTION	AMOUNT					
1A and 1B	Preliminary and General and Transport	R 0,00					
2	2 Internal Installation						
3	Site Reticulation	R 0,00					
4	PVC Sleeves for Electric Installation	R 0,00					
5	HVAC	R 0,00					
6	Prov Sum for Eskom Bulk Power Supply	R 327 500,00					
7	Prov Sum for CCTV	R 100 000,00					
SUB TOTAL	SUB TOTAL A						

SUB TOTAL TOTAL FOR THE WORKS

New Rate Items:

Mark-up percentage on New Rate Items%. Labour cost shall be based on the bill of rates.

CONTRACTOR:

SIGNATURE:

DATE:

Intern	al Installations Bill- Mokhari 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	5000		0,00
2,2	Installation	m	5000		0,00
	50 mm dia PVC				
2,3	Material	m	2500		0,00
2,4	Installation	m	2500		0,00
3	STEEL BOXES AND COVER PLATES				
	20mm PVC Round conduit boxes				
3,1	Material	No	206		0,00
3,2	Installation	No	206		0,00
	Galvanized Steel wall boxes with cover plates				
	100 x 50 x 50 mm				
3,3	Material	No	102		0,00
3,4	Installation	No	102		0,00
	TOTAL CARRIED FORWARD				0,00

ITEM	DESCRIPTION	UNIT	Scheduled Qty	TOTAL
	TOTAL BROUGHT FORWARD			0,00
				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	10000	0,00
4,4	Installation	m	10000	0,00
	4sq mm			
4,5	Material	m	5000	0,00
4,6	Installation	m	5000	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	5000	0,00
		m	5000	0,00
	4,0sq mm			
4,13	Material	m	2500	0,00
4,14	Installation	m	2500	0,00
	Galvanized Draw wire			
	1,5sq mm			
4,15	Material	m	5000	0,00
4,16	Installation	m	5000	0,00
5	SWITCHES, SOCKET OUTLETS AND ISOLATORS FOR FLUSH INSTALLATION INCLUDING COVERPLATES			
	Switches			
	16 A Single Lever 1 way			
5,1	Material	No	80	0,00
5,2	Installation	No	80	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	80	0,00
5,6	Installation	No	80	0,00
	Isolators			
	20A 2 pole, 100 x 100			
5,6	Material	No	27	0,00
5,7	Installation	No	27	0,00
	40A 2 pole, 100 x 100			
5,8	Material	No	28	0,00
5,9	Installation	No	28	0,00
	TOTAL CARRIED FORWARD			0,00

			Scheduled	
ITEM	DESCRIPTION	UNIT	Qty	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	8	0,00
7,2	Installation	No	8	0,00
8	BONDING OF DISTRIBUTION BOARDS TO WATER AND ROOF			
	Installation	lot	5	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	8	0,00
9,2	Installation	lot	8	0,00
10	TESTS OF THE COMPLETE ELECTRICAL INSTALLATION AND ISSUING OF COC'S			
10,1	Installation	lot	5	0,00
	Total for Bill 2 carried to summary sheet			0,00
ITEM	DESCRIPTION	UNIT	Scheduled Qty	TOTAL
	BILL 3			
11	LIGHT FITTINGS Tenderer shall include tubes or lamps and 5A unswitched plug in his tender rates. The light fittings shall be installed complete with lamps. Colour to be advised where not specified Light Fittings samples shall be submitted for approval before final order is made			
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	214	0,00
	Installation	No	214	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	4	0,00
	Installation	No	4	0,00
11,3	TYPE B1 - IP65 Wall and ceiling mounted mounted bulkhead complete with 1 x 30W LED bulb .			
	Material	No	74	0,00
	Installation	No	74	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
	l			

Total for Bill 3 carried to summary sheet		0,00

ITEM	DESCRIPTION	UNIT	Scheduled Qty	TOTAL
	BILL 4			
12	DISTRIBUTION BOARDS AND KIOSKS			
	Site Kiosk. Refer to the Kiosk Schematics			
12,1 12,2	Material Installation, including Kiosk plinth	No No	1	0,00 0,00
12,2		110		0,00
12,3	Block DBs, Refer to Schematics Material	No	5	0,00
12,4	Installation	No	5	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	5	0,00
12,8	Installation	No	5	0,00
	Computer point			
12,9	Material	No	5	0,00
12,10	Installation	No	5	0,00
	Total for Bill 4 carried to summary sheet			0,00
ITEM	DESCRIPTION	UNIT	Scheduled 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

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	50		0,00
13,2	Installation	m	50		0,00
	16mm sq x 2 core				
13,3	Material	m	400		0,00
13,4	Installation	m	400		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	16		0,00
13,8	Installation	No	16		0,00
	TOTAL CARRIED FORWARD				0,00

ITEM	DESCRIPTION	UNIT	Scheduled Qty	TOTAL
	TOTAL BROUGHT FORWARD			0,00
14	COPPER EARTH WIRE			
	25mm sq			
14,1	Material	m	50	0,00
14,2	Installation	m	50	0,00
	16mm sq			
14,3	Material	m	400	0,00
14,40	Installation	m	400	0,00
15	Yellow Cable Marker / Danger Tape			
-	Material	m	25	0,00
15,2	Installation	m	25	0,00
	TOTAL CARRIED FORWARD TO SUMMARY			0,00
	SUMMARY OF QUANTITIES			0,00

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

Site Reticulation Bill- Mokhari School

ITEM	DESCRIPTION	UNIT	Scheduled Qty	Rate	TOTAL
	BILL 6				
16	PVC SLEEVES FOR ELECTRIC AND COMMUNICATION				
	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	150		0,00
16,4	Installation	m	150		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	Prepare As Built Drawings for all Layouts				
	As Built Drawings	lot	1		0,00
18	Manholes 600 x 600mm with Heavy duty Steel 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

REPUBLIC OF SOUTH AFRICA

LIMPOPO DEPARTMENT OF PUBLIC WORKS INFRASTRUCTURE

MOKHARI COMBINED SCHOOL

LDPWRI-B/20290

PART C CIVIL WORKS BILLS OF QUANTITIES

Item	Payment Referenc e	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 1200DM		Buildings	m²	1978		
Alternative see		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	296.70		
		Spoil at designated spoil site	m³	118.68		
		EXCAVATION				
	8.3.2	Excavate in all materials and use as fill, compacted to 90% mod				
		Platforms	m³	356.04		
	8.3.2	Extra over item 8.3.2 (a) for				
		Intermediate excavation	m³	106.81		
		Hard rock excavation	m³	71.21		
		Boulder excavation class A	m³	7.12		
		Boulder excavation class B	m³	7.12		
		COMMERCIAL MATERIAL				
	8.3.4	Extra over item 8.3.2 (a) for importation of materials from:				
		Commercial sources selected by the Contractor	m³	237.36		
			тот	AL CARRIE	D FORWARD	

Item	Payment Referenc e	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	1,186.80		
	8.3.4	Opening up and closing down of designated borrow pit	sum	1.00		
		<u>OVERHAUL</u>				
	8.3.6	<u>Overhaul (Provisional)</u>				
		Limited overhaul	m³	356.04		
		Long overhaul	m³.km	237.36		
		COMPACTION OF BACKFILLING				
	8.3.9	Selected material compacted to 93% mod AASHTO density	m³	1,424.16		
		Mod AASHTO Tests	No.	29.00		
Carried forwa	ard to Sum	mary of Schedules	I			

ITEM NO.	PAYMENT REFER.	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		SCHEDULE 2: EARTHWORKS (ROADS AND SUBGRADE)				
1	SANS	EARTHWORKS				
	SANS	LARTHWORKS				
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	m³	422.40		
1.2.2	8.3.3(b)	In-place treatment of road-bed in intermediate or hard material				
		Ripping	m ³	84.48		
1.3		EARTHWORKS				
1.3.1	8.3.4	Cut to fill				
		Compact to 90 % mod. AASHTO maximum density	m ³	211.20		
		Selected layer compacted to 93 % mod. AASHTO maximum density	m³	211.20		
1.3.2	8.3.6	Extra-over items 1.3.1 inclusive for excavating and breaking down material in:				
		Intermediate excavation	m³	42.24		
		Hard excavation	m ³	21.12		
1.3.3	8.3.7	Cut to spoil from				
		Soft excavation	m ³	422.40		
		Intermediate excavation	m ³	84.48		
		Hard excavation	m ³	12.67		
1.3.4	8.3.8	Removal of oversize material	m ³	6.34		
		TOTAL	CARRIED	FORWARD		
P						

ITEM 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	m³	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	422.40		
	8.3.4	Extra over items .1 to .2 inclusive for class of				
		Intermediate excavation	m³	84.48		
		Hard rock excavation	m³	63.36		
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	m³	422.40		
1.7	8.3.4	Stabilizing Agent				
		(b) Portland Cement	m³	12.67		
1.8	SANS 1200 MJ	SEGMENTED BLOCK PAVING TO THE ACCESS ROAD				
	8.2.2	80mm Type S-A 35mPa for roadway (Grey	m²	0.00		
	8.2.2	60mm Type S-A 35mPa for roadway (Grey	m²	2,816.00		
	8.2.1	The construction of edge restraints	m	125.16		
			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 Strenɑth).				
		a) 1m Length on straight	m	155.00		
		b) 330mm Length on curves	m	20.00		
1.8.2		300X150 Barrier Kerb (SABS 927 Fig 3).	m	558.00		
1.8.3		Mountable Kerb (SABS 927 Fig 3).	m	111.60		
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	1200 AH 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		FORWARD	

ITEM NO.	PAYMENT REFER.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		TOTAL BROUGHT FORWARD				
10		STORMWATER MANAGEMENT				
	SANS	EARTHWORKS				
10.1		EXCAVATIONS				
10.1.1	1200 D 8.3.2	Excavate and prepare all cut off trenches and berms around the site as shown on the drawings and as directed by the Engineer.	m³	7.50		
10.1.2		Disposal of unsuitable or surplus material off site	m³	2.25		
10.2	SANS 1200 G	Concrete				
10.2.1	8.4.1	Mass concrete backfilling to replace unsuitable material, prescribed mix, Grade 10MPa/20 mm	M3	2.25		
10.2.2	8.4.2	Blinding layer, 50 mm minimum, prescribed mix, Grade 15MPa/20 mm	m²	2.50		
10.2.3	8.4.3	Strength concrete Grade 25 MPa/20 mm for:				
10.3		Concrete Channels	m³	11.25		
10.3.1	8.1.1	Formwork				
10.3.2	8.2.5	Rough, vertical, circular, maximum height 300 mm.	m	90.00		
10.3.3	8.2.5	Smooth, circular, vertical, 175 mm high to outer edge of base footing, (including forming of drainage lips with 110 mm dia drips)	m	20.00		
10.3.4	PSA8-11	Forming of drainage lips with 110 mm dia drips as per detail, Drawing	No	4.00		
10.3.5	8.4.4	Unformed surface finishes				
10.3.6		Steel float finish	m²	50.00		
			TOTAL	CARRIED TO	SUMMARY	

ltem No.	Payment Refers	Short Description	Unit	Quantity	Rate	Amount
2	SABS 1200A	SCHEDULE 3 - STEEL PALISADE FENCING				
2.1	PCC-4.1	Steel palisade fencingn 2,4m high according to specification including excavations, foundation concreting, posts, pales and ground beams. All as per drawing.	m	625.00		
2.2	PCC-4.1	Supply and install according to specification a 6m wide vehicular gate	No	1.00		
2.3	PCC-4.1	Supply and install according to specification 1.5m wide pedestrian gate as per drawing	No	1.00		
2.4	PCC-4.1	Repainting of the existing fence	m²	0.00		
SUB - T	OTAL CA	RRIED TO SUMMARY				

REFRES Image: Control of the control of t	ITEM NO.	PAYMEN T	DESCRIPTION	UNIT	Estimated		AMOUNT
SOURCE Image: Source Sourc	NU.	REFRES			QTY	RATE	
12000EAR INVORUS: FIPE INERCIESImage: Rest involution in the interval in the interval in the interval in the interval interval in the interval inter							
3.1.18.3.1(a)Clear 2m wide vegetation and trees of girth up to 1mm1.520.003.1.28.3.1(b)Remove trees over 1 m and up to 2 m girthNo.0.003.2PSDB12EXCAVATIONImage: Constraint of the const			EARTHWORKS : PIPE TRENCHES				
Instruction Description No. 0.00 3.12 8.3.1(b) Remove trees over 1 m and up to 2 m girth No. 0.00 3.2 PSDB12 EXCAVATION 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 m ³ 1.520.00 3.2.1 B.3.2(b) Extra-over item 3.2.1 incl. for excavation (provisional) in : a) Intermediate material b) Hard rock material m⁴ 3.24.00 methods in layers of 200mm compacted to 90% mod AASHTO m⁴ n.520.00 a) Backfill and compact by means of labour intensive construction methods in layers of 200mm compacted to 90% mod AASHTO m⁴ n.520.00 gasckfill and compact by means of labour intensive construction methods in layers of 200mm compacted to 90% mod AASHTO m⁴ n.520.00 gasckfill and compact by means of labour intensive construction methods in layers of 200mm compacted to 90% mod AASHTO m⁴ n.520.00 gasckfill and compact by means of labour intensive construction methods in layers of 200mm compacted to 90% mod AASHTO 3.22.1 8.3.3.1(a) Imported backfill materials from designated borrow pits (Only if approved by Engineer) m ³ 532.00 3.22.2 <td>3.1</td> <td></td> <td>SITE CLEARANCE</td> <td></td> <td></td> <td></td> <td></td>	3.1		SITE CLEARANCE				
All Internet interview of the problem in the problem interview of the problem inthe problem interview of the proble	3.1.1	8.3.1(a)	Clear 2m wide vegetation and trees of girth up to 1m	m	1,520.00		
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 m ^a 1,520.00 3.2.1 8.3.2(b) Extra-over item 3.2.1 incl. for excavation (provisional) in : a) Intermediate material b) Hard rock material m^{ma} a) Intermediate material m^{ma} a) Backfill and compact by means of labour intensive construction methods in layers of 200mm compacted to 90% mod AASHTO m^a n.520.00 1,520.00 3.2.2 8.3.3.1(b) Imported backfill materials from designated borrow pits (Only if approved by Engineer) m ^a 1,520.00 3.2.2.2 8.3.3.2 Opening up and closing down of designated borrow pits (Only if approved by Engineer) m ^a 0.00 22,000.00 R 22,000.00	3.1.2	8.3.1(b)	Remove trees over 1 m and up to 2 m girth	No.	0.00		
3.2.1.1 Support of 1,5m in depth m³ 1,520.00 3.2.1.1 8.3.2() Extra-over item 3.2.1 incl. for excavation (provisional) in : m³ 304.00 3.2.1.2 Extra-over item 3.2.1 incl. for excavation (provisional) in : m³ 304.00 3.2.1.2 Extra-over item 3.2.1 m³ 304.00 3.2.1.2 Extra over item 3.2.1 m³ 304.00 3.2.1.2 Extra over item 3.2.1 m³ 1,520.00 3.2.2.3 Backfill and compact by means of labour intensive construction methods in layers of 200mm compacted to 90% mod AASHTO m³ 1,520.00 3.2.2.2 8.3.3.3 Opening up and closing down of designated borrow pits (Only if approved by Engineer) m³ 532.00 3.2.2.4 8.3.3.4 Overhaul : m³ 0.00 22,000.00 3.2.2.4 8.3.3.4 Overhaul : m³ . . 3.2.4.1 SABS120 B S2.01 Provision of bedding material from trench excavations m³ . . 3.2.4.1 SABS120 B S2.1 Provision of bedding material from trench excavations m³ . . 3.2.4.2 SABS120 B S2.1 Provision of bedding material fr	3.2	PSDB12	EXCAVATION				
3.2.1.18.3.2(b)Extra-over item 3.2.1 incl. for excavation (provisional) in : a) Intermediate material b) Hard rock material c) Hard rock material a) Backfill and compact by means of labour intensive construction methods in layers of 200mm compacted to 90% mod AASHTOm³ m³304.00 228.003.2.1.2Extra over Item 3.2.1 a) Backfill and compact by means of labour intensive construction methods in layers of 200mm compacted to 90% mod AASHTOm³1,520.003.2.2EXCAVATION ANCILLARIES approved by Engineer)m³532.00R22,000.003.2.2.38.3.3.2Opening up and closing down of designated borrow pits (Only if approved by Engineer)m³532.00R22,000.003.2.2.48.3.3.4Overhaul : 	3.2.1		between 20 mm and 100 mm, backfill compact and dispose of				
3.2.12 a) Intermediate material b) Hard rock material m³ 304.00 228.00 a) add, 00 228.00 3.2.12 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 1,520.00 3.2.2 B.3.3.1(a) Imported backfill materials from designated borrow pits (Only if approved by Engineer) m³ 532.00 22,000.00 R 22,000.00 3.2.2.2 8.3.3.2 Opening up and closing down of designated borrow pits (Only if approved by Engineer) m³ 0.00 22,000.00 R 22,000.00 3.2.2.4 8.3.3.4 Opening up and closing down of designated borrow pits openation in road reserves m³ 0.00 22,000.00 R 2,000.00 R 2,000.00 <td></td> <td></td> <td>Up to 1,5m in depth</td> <td>m³</td> <td>1,520.00</td> <td></td> <td></td>			Up to 1,5m in depth	m³	1,520.00		
3.2.1.2 b) Hard rock material m ^a 228.00 3.2.1.2 Extra over Item 3.2.1 m ^a 228.00 a) Backfill and compact by means of labour intensive construction methods in layers of 200mm compacted to 90% mod AASHTO m ^a 1,520.00 3.2.2 EXCAVATION ANCILLARIES m ^a 532.00 3.2.2.1 8.3.3.1 (a) Imported backfill materials from designated borrow pits (Only if approved by Engineer) m ^a 532.00 3.2.2.2 8.3.3.2 Opening up and closing down of designated borrow pits (Only if approved by Engineer) m ^a 0.00 3.2.2.3 8.3.3.3 Compaction in road reserves m ^a 0.00 3.2.2.4 8.3.3.4 Overhaul : a) Short haul m ^a m ^a b) Truck haul b) Truck haul m ^b m ^a 228.00 provision of bedding material from trench excavations m ^a a) Short haul b) Truck haul m ^b m ^a 228.00 provision of bedding material from trench excavations m ^a 228.00 provision of bedding material from trench excavations m ^a 228.00 provision of bedding material from trench excavations m ^a 228.00 provision of bedding material from trench excav	3.2.1.1	8.3.2(b)	Extra-over item 3.2.1 incl. for excavation (provisional) in :				
3.2.2 8.3.3.1 (a) Imported backfill and compact by means of labour intensive construction methods in layers of 200mm compacted to 90% mod AASHTO m³ 1,520.00 n <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>							
a.2.2methods in layers of 200mm compacted to 90% mod AASHTOm³1,520.003.2.2EXCAVATION ANCILLARIESImported backfill materials from designated borrow pits (Only if approved by Engineer)m³532.003.2.2.18.3.3.2Opening up and closing down of designated borrow pitsP.Sum1.0022,000.003.2.2.38.3.3.3Compaction in road reservesm³0.003.2.4.48.3.3.4Overhaul : a) Short haul b) Truck haulm³n³- m³3.2.4.1SABS120 B2.1PROVISION OF BEDDING (PIPES) Provision of bedding material from trench excavations a) Selected fill materialm³228.00 532.00532.003.2.4.2Provision of bedding material by importation from other necessary excavations (freehaul within the village boundaries)m³273.60	3.2.1.2		Extra over Item 3.2.1				
3.2.2.18.3.3.1(a)Imported backfill materials from designated borrow pits (Only if approved by Engineer)ma532.00R22,000.00R22,000.003.2.2.28.3.3.2Opening up and closing down of designated borrow pitP.Sum1.0022,000.00R22,000.00R22,000.003.2.2.38.3.3.3Compaction in road reservesma0.00ma0.001.00				m³	1,520.00		
approved by Engineer)m³532.003.2.2.28.3.3.2Opening up and closing down of designated borrow pitP.Sum1.0022,000.00R22,000.003.2.2.38.3.3.3Compaction in road reservesm³0.00 <td>3.2.2</td> <td></td> <td>EXCAVATION ANCILLARIES</td> <td></td> <td></td> <td></td> <td></td>	3.2.2		EXCAVATION ANCILLARIES				
3.2.2.38.3.3.3Compaction in road reservesm³0.003.2.2.48.3.3.4Overhaul : a) Short haul b) Truck haulm³- m³/km-3.2.4SABS120 OLB 8.2.1PROVISION OF BEDDING (PIPES) Provision of bedding material from trench excavations a) Selected granular material b) Selected fill materialm³228.00 m³3.2.4.2Provision of bedding material by importation from other necessary excavations (freehaul within the village boundaries) a) Selected granular materialm³273.60	3.2.2.1	8.3.3.1(a)		m³	532.00		
3.2.2.48.3.3.4Overhaul : a) Short haul b) Truck haulm³ m³/km-3.2.4SABS120 0LB 8.2.1PROVISION OF BEDDING (PIPES) Provision of bedding material from trench excavations a) Selected granular material b) Selected fill materialm³ m³-3.2.4.2PROVISION OF BEDDING (PIPES) Provision of bedding material from trench excavations a) Selected granular material b) Selected granular material b) Selected granular materialm³ m³228.00 532.003.2.4.2Provision of bedding material by importation from other necessary excavations (freehaul within the village boundaries) a) Selected granular materialm³ m³273.60	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
3.2.4a) Short haul b) Truck haulm³ m³/km- -3.2.4.1SABS120 0LB 8.2.1PROVISION OF BEDDING (PIPES) Provision of bedding material from trench excavations- m³ m³- -3.2.4.1a) Selected granular material b) Selected fill materialm³ m³ m³228.00 532.003.2.4.2Provision of bedding material by importation from other necessary excavations (freehaul within the village boundaries)m³ m³273.60	3.2.2.3	8.3.3.3	Compaction in road reserves	m³	0.00		
3.2.4SABS120 OLB 8.2.1PROVISION OF BEDDING (PIPES) Provision of bedding material from trench excavationsm³/km-3.2.4.13.Selected granular material b) Selected fill materialm³228.00 532.003.2.4.2Provision of bedding material by importation from other necessary excavations (freehaul within the village boundaries)m³228.00 532.003.2.4.2Notice of bedding material by importation from other necessary excavations (freehaul within the village boundaries)m³273.60	3.2.2.4	8.3.3.4	Overhaul :				
 3.2.4.1 8.2.1 Provision of bedding material from trench excavations a) Selected granular material b) Selected fill material 3.2.4.2 Provision of bedding material by importation from other necessary excavations (freehaul within the village boundaries) a) Selected granular material m³ 228.00 532.00 					-		
 3.2.4.1 8.2.1 Provision of bedding material from trench excavations a) Selected granular material b) Selected fill material 3.2.4.2 Provision of bedding material by importation from other necessary excavations (freehaul within the village boundaries) a) Selected granular material m³ 228.00 532.00 	3.2.4	SABS120	PROVISION OF BEDDING (PIPES)				
3.2.4.2 b) Selected fill material m³ 532.00 3.2.4.2 Provision of bedding material by importation from other necessary excavations (freehaul within the village boundaries) m³ 273.60	3.2.4.1	ULD					
excavations (freehaul within the village boundaries) a) Selected granular material m ³ 273.60							
, u	3.2.4.2						
TOTAL CARRIED FORWARD	τοται α		I CORWARD		<u> </u>		

ITEM NO.	PAYMEN T	DESCRIPTION	UNIT	Estimated QTY		AMOUNT
	REFRES			_	RATE	
OTAL E	BROUGHT	FORWARD		T		
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	60.00 440.00 20.00		
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		

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

ITEM NO.	PAYMEN T	DESCRIPTION	UNIT	Estimated QTY		AMOUNT
	REFRES				RATE	
OTAL E	BROUGHT	FORWARD				
		Site Establishment/De-establishment				
		Mobilisation and set up of plant to/at first borehole. Rate to including inter-borehole moves and de-estalishment from Site, of the given drilling batch	No	1.00		
		Pump testing of borehole.				
		Rate to include the following:installation of pump testing equipment and remove after, calibration testing, 24hr constant testing, recoverv 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.				
		Pump Installation, Head & Flow fas per borehole test report	No	1.00		
		Electric Motor installation, as per pump size requirements determined in item above.	No	1.00		
		Pump Protection				
		Mechanical pressure switch, PN16, Complete with cabling to panel : Limits between 160m and 80m, WIKA PSM-550 or Equivalent	No	1.00		
		Mechanical flow switch, PN16, Complete with cabling to panel	No	1.00		
		Float Switch for Switching off Pump on Low Level, c/w wiring to panel's liquid level control relay.	No	1.00		
		Electric Motor Control Panel				
		Supply and install control panel with all fittings required to operate pumps and motors efficiently, including 0-20 second delay timer and0-24 hour timer.	No	1.00		
		Pipework Supply and install borehole discharge pipework complete with flow meter, non return and pressure valves on the following pipework.				
		Submersed pipe: Ø 63mm HDPE, Class 12, 7,1mm Wall thickness, SANS 4427, Borehole to Surface	m	110.00		
		Metal Base plate - Double choke	No.	1.00		
		65 NB Schedule 40 pipe discharge Galvanised Steel pipe, Incl Elbows and fittings	m	5.00		
		65 NB Threaded Brass Type Isolation valve, PN10	No.	2.00		

ITEM NO.	PAYMEN T	DESCRIPTION	UNIT	Estimated QTY	B.1	AMOUNT
	REFRES	FORWARD			RATE	
TUTAL	BROUGHT	FORWARD				
		65 NB Flanged Non Return Valve,tilted disc type, PN 10	No.	1.00		
		65 NB Flanged Mechanical flow meter, PN 10	No.	1.00		
		M16 galvanised bolts and nuts	No.	96.00		
		65 NB Gaskets, Incl Consumables	No.	24.00		
		Mechanical Pressure Gauge, Wika (100mm dial and filled with glycerine),with a range from 400 kPa to 1600 kPa, complete with ball isolating valve and piping	No.	1.00		
		T-Pieces and Bushes to mount Pressure gauge, Pressure Switch and Flow Switch Submersible pump steel cage	No.	3.00		
		Supply and install borehole discharge pipework complete as per	No	1.00		
3.2.18		TESTING AND COMMISSIONING				
		Testing and commission borehole installation includibg pumps, motrs, control system and verify discharge and head characteristics	No	1.00		
		Eletricity Supply				
		Supply material and erect a three phase electricity power line to the new borehole	No	1.00		
		Mark-up on item 4.2.1				
		Supply all material and install a 25kVa transformer	No	1.00		
		WATER TREATMENT (PROVISIONAL)				
		10kl PVC pre-treatment tank	No.	1		
		Supply, installation, connections, testing and handing over in working order of a 20m ³ /hr package water treatment plant	Prov. Sum	1	350,000.00	R 350,000.00
		Overheads, charges and profit.	%	350,000.00		
	CARRIED F					
UTAL 0						

	PAYMEN	DESCRIPTION	UNIT	Estimated		A	MOUNT
NO.	T REFRES	DESCRIPTION		QTY	RATE		
OTAL	BROUGHT	FORWARD				R	
		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	10,000.00	R	10,000.0
		Outlet and overflow Pipe Schedule for items below:	Sum	4			
		a) 1½" to 50mm MALE ELBOW (Plasson)					
		b) 50mm Ø HDPE PIPE CLASS 10	m	4	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	No	4	Included		
		m) 50mm Ø GMS STAND PIPE 300 LONG (400 long in sandy conditions)	No	4	Included		
		n) 50mm Ø GMS STAND PIPE 700 LONG	No	4	Included		
		o) 50mm Ø GMS SOCKET	No	4	Included		
		p) 50mm Ø GMS STAND PIPE 150mm	No	4	Included		

ITEM NO.	PAYMEN T	DESCRIPTION	UNIT	Estimated QTY	DATE	AMOUNT
	REFRES	FORWARD			RATE	
	SILOUGITI			<u>г г</u>		_
		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		
		O SUMMARY				

ltem	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	135.00		
	b) Exceeding 1,0m but not exceeding 2.0m	m³	6.75		
4.2	Extra-over all excavations in pickable material irrespective of depth. for excavating in:-				
4.2.1	Intermediate excavation	m³	27.00		
4.2.2	Hard rock excavation	m³	20.25		
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		

SCHEDULE 5: EXTERNAL SEWER RETICULATION

ltem	Description	Unit	Qty	Rate	Amount
Amount	Brought Forward				0.00
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	135.00		
	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	-		

ltem	Description	Unit	Qty	Rate	Amount
Amount	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	1.00		
4.8.1.1	Precast concrete manholes 1200mm diameter, exceeding 1000mm and not exceeding 1250m deep, complete with precast concrete heavy duty cover and frame TYPE 4A	No	1.00		
4.8.1.1	Precast concrete manholes 1200mm diameter, exceeding 1250mm and not exceeding 1500m deep, complete with precast concrete heavy duty cover and frame TYPE 4A	No	2.00		
4.9	PIPE ANCILLARIES				
4.9.1	Encasing around pipe				
4.9.1.1 4.9.1.2	Anchor blocks in strength concrete 25Mpa /19mm including all formwork, reinforcement, reinforcement, etc. Anchor block size 600 x 600mm	No	10.00		
4.10	EXISTING SERVICES				
4.10.1	Connection to existing sewer				
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				
mount					

ltem	Description	Unit	Qty	Rate	Amount
Amount	Brought Forward				0.00
4.11	SEPTIC TANK				
4.11.1	Septic tank:				
	Excavate in soft material exceeding 2m deep.	m³	73.017		
	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		
	Risk of collapse to sides septic tank excavations not exceeding 1,5m deep.	m²	49.09		
	Earthfilling obtained from the excavations or stock piles compacted to 93% in septic tank.	m³	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.	m³	5.48		
	25 MPa Reinforced concrete base.	M³	5.48		
	Backfilling to sides of septic tank.	m³	7.30		
	Type 395 fabric reinforcement in concrete surface beds, floor slabs, etc.	m²	40		
	Rough formwork to soffit of slab.	m²	36.51		
	Plaster to vertical surfaces.	m²	49.09		
	One brick wall in commons including wire ties for septic tank walls.	m²	6.588		
	Two brick wall in commons including wire ties for septic tank walls.	m²	49.09		
	Lintels as permanent shatters	m	73.017		
	600 x 600mm Cast iron manhole covers	No	2		
	Pipework				
	Extra over excavation in soft material for pipe trenches, chambers, etc. for excavation in intermediate material.	M ³	35		
	Connecting 110mm uPVC pipe including 110mm channel junction and making good concrete benching.	No	2		
	Connecting 160mm pipe including inserting 160mm 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.				
	service polycolor rabito, moldang ini, rani, calling away, etc.	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	5		
	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 REFRES	DESCRIPTION	UNIT	Estimated QTY	RATE	AMOUNT
	SABS 1200 GB	SCHEDULE 6 : WALKWAYS AND CARPORTS				
5.1		FORMWORK				
5.1.1	8.2.1(b)	Normal formwork to				
		c) Column Foundations	m³	189.44		
5.2		REINFORCEMENT				
5.2.1	8.2.4	Mild steel bars of nominal diameter				
5.2.1.1		12mm	t	7.58		
5.2.2		High-tensile steel bars of nominal diameter				
5.2.2.1		16mm	t	11.37		
5.2.3		High-tensile welded mesh of nominal mass				
5.2.3.1		a) 3.95 ko/m²	m²	0.00		
5.3		CONCRETE				
5.3.1	8.2.5	Strength concrete, Grade 25MPa/19 mm in Column Footings	m³	18.94		
5.3.2		Blinding layer, Grade 10/19,0 mm	m³	2.37		
5.3.4	8.2.6	Unformed surface finishes				
5.3.4.1		Wood-float to all floors except	m²	47.36		
	SABS 1200 AH	SECTION : STRUCTURAL STEELWORK				
5.5	8.3.1	PRELIMINARY AND GENERAL				
5.5.1	8.3.1	SUPPLY AND FABRICATION				
5.5.1.1	8.3.1.1	Preparation of shop detail drawings	Sum	1.00		
5.5.2	8.3.1.2	Supply, delivery and installation of steelwork (see Drawings) complete with all the necessary cleats, brackets. aussets. 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	3.32		
5.5.2.2		Square Tubing Beams - beams (welded)	t	1.15		
5.5.2.3		Square Tubing purlins	t	3.38		
5.5.2.4		Unequal Angle rafter bracing	t	3.92		
5.5.2.5		200 x 200 x 6mm Base Plates	No.	188.00		
		Fasteners for angles hexhead bolts with washers - Grade 8.8	No.	564.00		
		Sika Non-shrink grout or Similar	m³	1.50		
		M12 Holding Down Bolta - Grade 8.8 hexhead bolts	No.	752.00		
		b) Using steel to SABS 1431 Grade 350WA for assembly				
		Simple Square Tubing - columns (welded)	t	1.75		
		Square Tubing Beams - beams (welded)	t	1.52		
		Square Tubing purlins	t	1.74		
		Unequal Angle rafter bracing	t	1.78		

20	00 x 200 x 6mm Base Plates	No.	86.00		
	asteners for angles hexhead bolts with washers - Grade				
8.8		No.	258.00		
Sil	ka Non-shrink grout or Similar	m³	0.69		
M	12 Holding Down Bolta - Grade 8.8 hexhead bolts	No.	344.00		
c)	Using steel to SABS 1431 Grade 350WA for carports				
Si	mple Square Tubing - columns (welded)	t	0.81		
Sc	quare Tubing Beams - beams (welded)	t	0.50		
Sc	quare Tubing purlins	t	3.21		
Ur	nequal Angle rafter bracing	t	2.45		
St	eel Fascia beams	t	1.54		
20	00 x 200 x 6mm Base Plates	No.	22.00		
Fa 8.8	asteners for angles hexhead bolts with washers - Grade 8	No.	66.00		
Sil	ka Non-shrink grout or Similar	m ³	0.18		
M	12 Holding Down Bolta - Grade 8.8 hexhead bolts	No.	88.00		
TOTAL CARRIED FORW	ARD				

ITEM NO.	PAYMENT REFRES	DESCRIPTION	UNIT	Estimated QTY	0.00	AMOUNT
	BROUGHT FC	RWARD		<u> </u>		
5.5.5	8.3.5	SITE WELDING				
5.5.5.1		Site weld items inclusive	m	88.80		
		CLADDING AND SHEETING				
		ROOF CLADDING				
5.6		Supply, deliver to Site, erect and fix green chromedeck sheeting/cladding etc, including the supply of all necessary fasteners etc. and cutting and notching: (See Drawings)	m²	1,173.20		
		Approved troughed profile-sheeting to roofs, 0,6mm				
5.6.2	8.2.3	Ridge flashing 450-600mm girth x 1mm - 3 bends, baked enamel external finish	m	32.00		
	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	364.00		
		Extra for stopped end	no	6.00		
		Extra for 150mm diameter outlet	no	52.50		
		1mm Thick 150mm diameter rainwater pipe including straps, fixed to steel columns	m	136.50		
		Extra for 45° bend	no	52.50		
	SABS 1200 HC	CORROSION PROTECTION OF STRUCTURAL STEELWORK				
		Steelwork included under Items 1 to 7inclusive, of Section 1200H (Supply. Fabrication and Erection)	t	18.58		
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	18.58		
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	18.58		
5.7.2		Sitework. Clean down surfaces, touch up damaged shop coats and apply finish coats as specified	t	18.58		
5.7.2.1		Cold-formed sections				
		Tonnage shall be gross quantities inclusive of unpainted steel (e.g. embedded portions and underside of baseplate,etc.				
			t	18.58		
TOTAL	CARRIED TO	SUMMARY				

DEPARTMENT OF EDUCATION : LIMPOPO

STORM DAMAGED SCHOOL: MOKHARI SECONDARY SCHOOL

PRELIMINARY COSTS ESTIMATE FOR CIVIL ENGINEERINGS SERVICES

SUMMARY OF BILL OF QUANTITIES

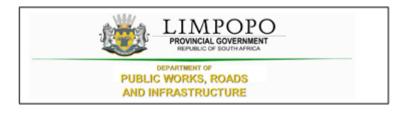
SCHEDULE 1: EARTHWORKS	
SCHEDULE 2: EARTHWORKS (ROADS AND SUBGRADE)	
SCHEDULE 3: STEEL PALISADE FENCE	
SCHEDULE 4:WATER SUPPLY PIPELINES AND WATER SOURCE	
SCHEDULE 5:EXTERNAL SEWER RETICULATION	
SCHEDULE 6:COVERED PARKING	
TENDER (CONTRACT) SUM (CIVIL AND STRUCTURAL WORKS)	0.00
	11

PART C3 SCOPE OF WORKS

SCOPE OF WORKS

BID NUMBER: LDPWRI-B/20290

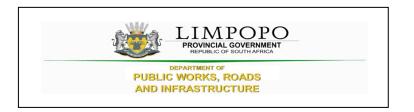
APPOINTMENT OF A CONTRACTOR FOR REFURBISHMENT OF 12 CLASSROOMS, 16 WATERBORNE TOILETS AND NUTRITIONAL BLOCK, CONSTRUCTION OF 10 CLASSROOMS, MEDIUM ADMINISTRATION BLOCK, NEW 16 SEATER ENVIROLOO TOILETS, STEEL PALISADEFENCE AND EXTERNAL WORKS AT MOKHARI SECONDARY SCHOOL IN NABOOMSPRUIT, WATERBERG DISTRICT



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



DEPARTMENT OF PUBLIC WORKS, ROADS AND INFRASTRUCTURE

PART C4 SITE INFORMATION

SITE INFORMATION

BID NUMBER: LDPWRI-B/20290

REFURBISHMENT AND ADDITIONS AT MOKHARI SECONDARY SCHOOL IN NABOOMSPRUIT, WATERBERG DISTRICT, LIMPOPO PROVINCE.

CO-ORDINDATES

24°31'22.41" S 28°43'49.01' E



C4.1 DRAWINGS





LOCALITY MAP

X 2713300

TA	ABLE 2A:	DEMOLITION	NWORKS				
NO. 01 02	Building Usa Shack Block (-			(sqm)	Quantity	
03 04							
05 06 07							
ΤA	ABLE 2B:	RENOVATIO	N/REFURBRI	SHMEN	IT WOF	RKS	
NO. 01 02	Building Usa Water-borne To 4 Classroom F	-			(sqm) 35 334	Quantity 16 seats 3	
03 04	Nutrition Block	(, ,			185	1	
05							
07 08			0				
NO.	Building Usa	-	5		(sqm)	Quantity	
01 02 03	5 Classroom B	Block (E)			325 500 500	1	
04 05	Guard house ((J)			16 seats 16 seats		
06 07 08	New assembly	v area		200	20 1 624M		
			RKS				
01 02 03	Multi-purpose	Hall(K)			134 220 255	1 1 1	
04 05	5 Classroom B	Block (I)			255 500	1 1	
⁰⁶ TA	-		I SUMMARY			1	
	embly Area al number of clas	srooms				440M ² 22	
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	ber Of Pupils	BOYS	GIRLS	TOT	AL.		
	number of classrooms TABLE 01: SUMMARY FOR HUMAN CAPIT. E 1A: Grade Enrolment Figures For: ber Of Pupils: SRADES BOYS GIRLS I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I IIII IIII IIIIIIIIIIIIIIIIIIIIIIIIIII						
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J.		hing station ed the bulk					
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		25mm ² PVC Cu Cable					
	16mm ² PVC						
	Kiosk						

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

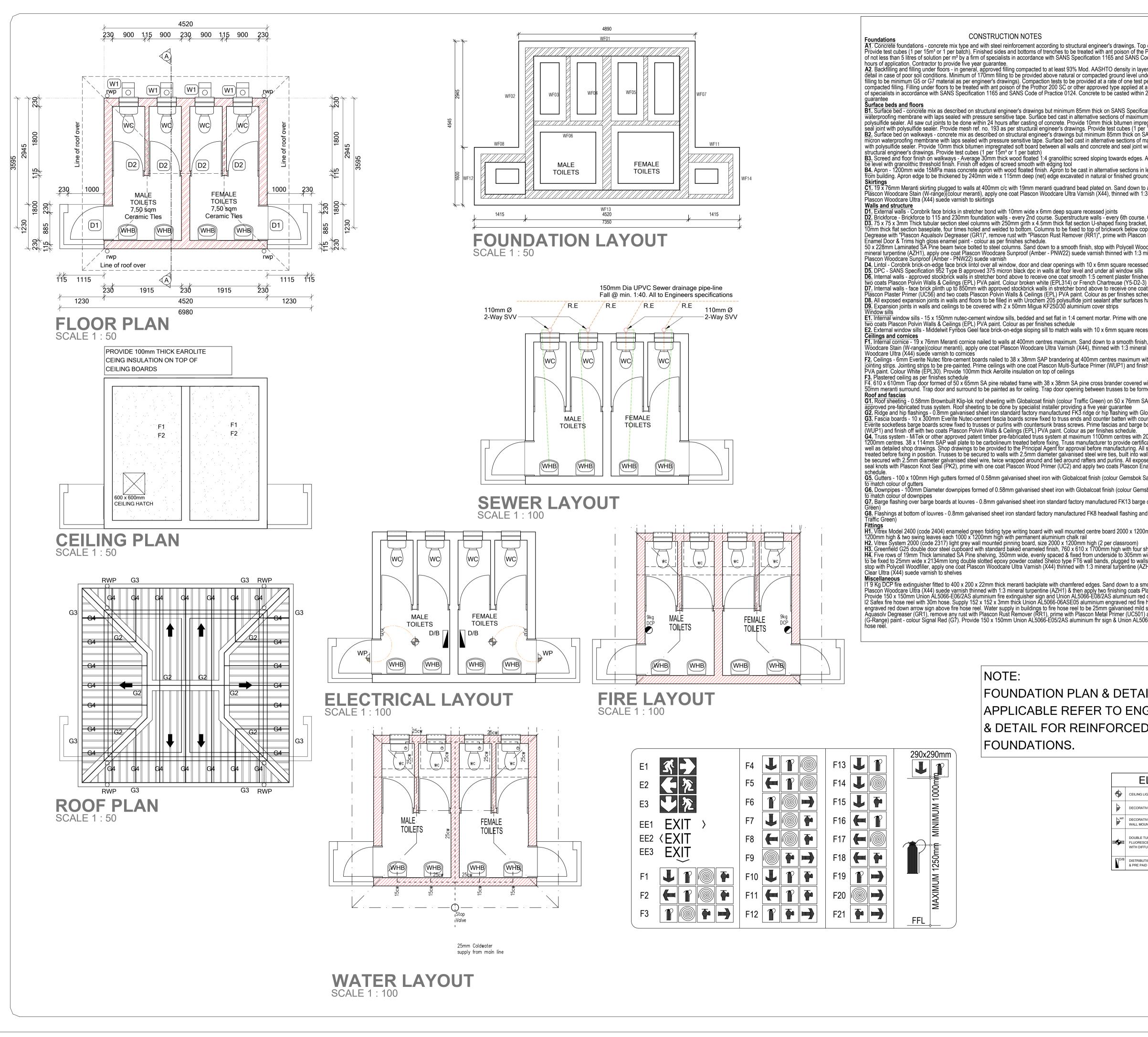
7) WEST FACING FACADES TO HAVE STANDARDISED ALUMINIUM LOUVRES FROM BELOW EAVES TO DROP OF 1200MM

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

ISSUED FOR TENDER

	SIGNA	TURE	TABLE:	
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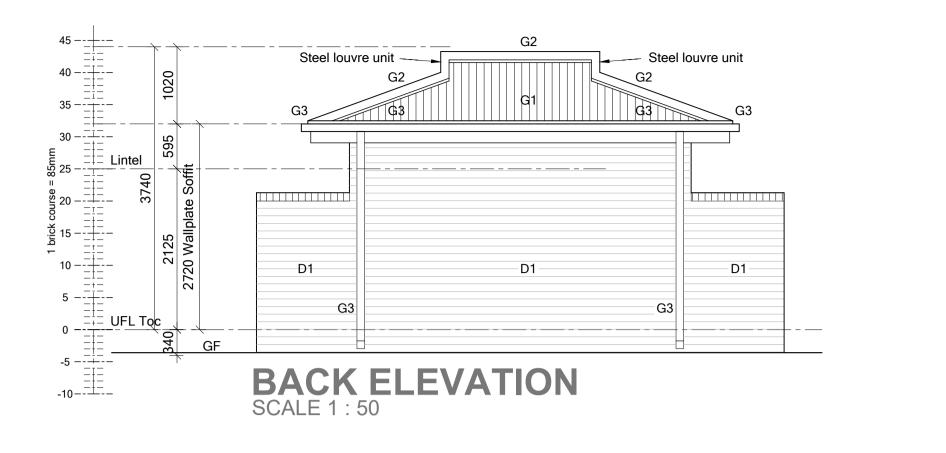


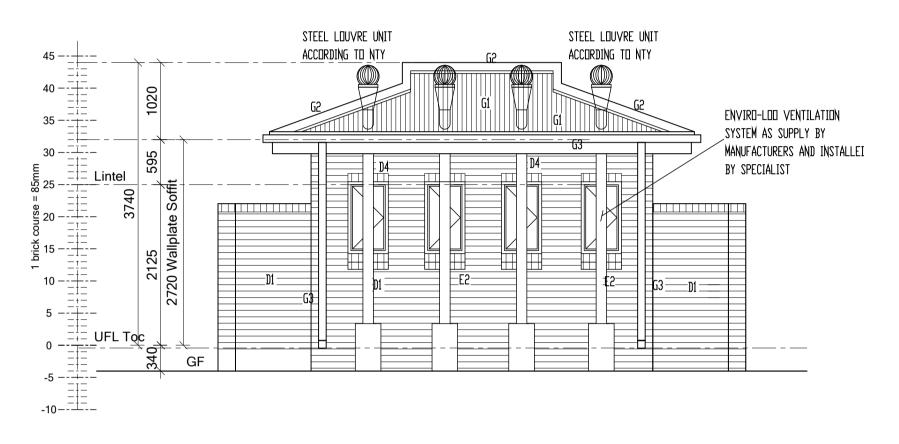
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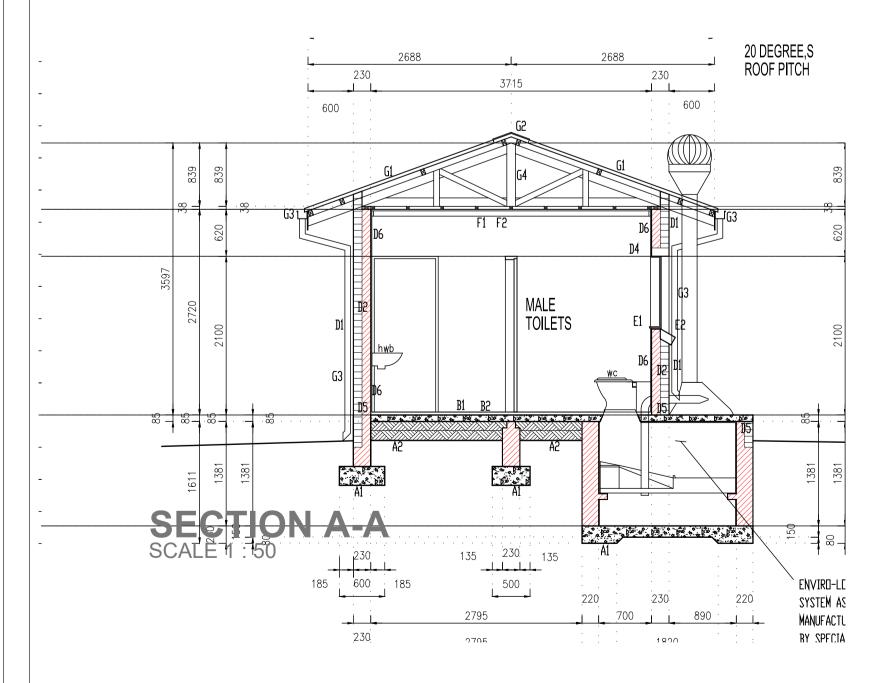
			•		
	Top of strip footings to be 340mm minimum below N.G.L.	methods to be 2)Light Switch 3)If Step over	used - SABS 0400 in Disabled toilet to 900 mm Build in Ba	be at 1200 mm above Iustrade	FFL
	ne Prothor 200 SC or other approved type applied at a rate Code of Practice 0124. Concrete to be casted within 24 ayers of maximum 150mm - refer to engineer's drawings for	design 5) 2 x coats sea markings) 6) 50 mm minera	alant on all exposed al wool insulation	trusses (sand off al to be installed where th	I SABS & other here are ceilings .
	Inder floors. All filling to be approved by engineer (imported t 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	all areas that d 7) West Facing eaves to drop o 8) Trusses to b	o not have ceilings Facades to have of 1200 mm e designed in accol	standardised aluminium	louvres from below
	num 20m ² with saw cut joints with joints filled up with pregnated soft board between all walls and concrete and				
	SANS Specification 952 Type C approved USB Green 250 maximum 20m ² with expansion joints with joints filled up				
	n lengths of maximum 3m and to have a 1:100 fall away				
	und level to a smooth finish, stop with Polycell Woodfiller, stain with				
	ket, 200mm long, twice holed and welded to top, 200 x 200 x				
	on Metal Primer (UC501) and apply two coats Plascon odfiller, provide one coat raw linseed oil thinned with 1:3				
	ssed joints lls shed off with one coat Plascon Plaster Primer (UC56) and 2-3) as per Principal Agent coat smooth 1:5 cement plaster finished off with one coat chedule.				
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Interpretend Call and pages the information calls Planetical and the data in appendix the control filter data in appendix the control	cessed joints				
In the calling particular flags: Calling and the future of the set	eral turpentine (AZH1) and apply two finishing coats Plascon with galvanised clout nails. Provide H-profile galvanised				
SAP purifies at maximum 120mm carries on patient and Gebatication frame (court Trylin: Cover) Support patients in the court patients in the control of the court patients in the co	d with ceiling board and fitted flush in opening. Provide 18 x				
Diederster Auforder Die Statute Die Statute 20 derster Auforder Die Statute Die Statute 20 der Die Statute Die Statute Die Statute <	SAP purlins at maximum 1200mm centres on patent and				
Interest and questions of reases, purities, etc. to be pre-called with Gebakication and concentration of the concentra	countersunk brass screws. Barge boards - 200 x 80mm e boards with one coat Plascon Multi-Surface Primer				
Besch part of trusses, pulme, beit, bie service stands and the Gebaldust find (All Doddenset, brackade, edit, to be pre-coaled with Gebaldust find, and survivation of the Gebaldust find, with Gebaldust find, bie of the Gebaldust find, with Gebaldust find, bie of the Gebaldust find, bie	ificate 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	FIRE CONTROL			
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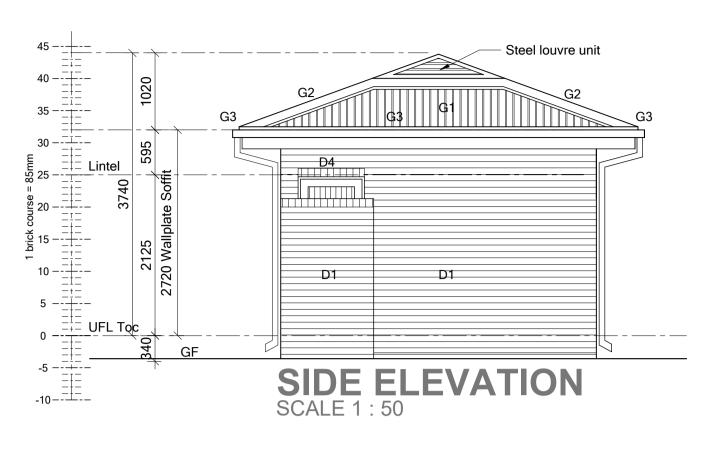
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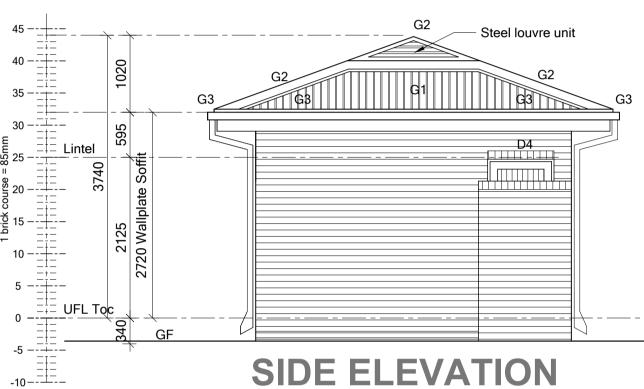




FRONT ELEVATION SCALE 1:50







SCALE 1:50

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 CONSTRUCTION NOTES If Step over 900 mm Build in Balustrade) 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 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 PROVINCIAL GOVERNMENT REPUBLIC OF SOUTH AFRICA DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE INSTITUTION MOKHARI SECONDARY SCHOOL INSTITUTION EMIS NUMBER 906121051 SERVICE **NEW BUILDINGS & ALTERATIONS** CONTRACT - SECTION DOCUMENTATION PROJECT STAGE DISCIPLINE ARCHITECTURAL 4 WORK DESCRIPTION - SUB DIVISION **4 CUBICLE WATERBORNE ABLUTION BLOCK** DRAWING DESCRIPTION SECTION AND ELEVATION FILE No. ITEM No. DESIGN DRAWN SCALE 1: 100 CHECKED RESPONSIBLE PROFESSIONA PR NUMBER MAG 7812 2023.06.20 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, Emaîl: info@rubenreddyarch.co.za Web: www.rubenreddyarch.co.za CONTRACTOR AUTO CAD DRAWING NUMBER

/indow sills o match colour of downpipes

NOTES :

1. 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. 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 Enamel Door & Trims high gloss enamel paint - colour as per finishes schedule. 29. Expansion joints in walls and ceilings to be covered with 2 x 50mm Migua KF250/30 aluminium cover strips Noodcare Ultra (X44) suede varnish to cornices -3. Plastered ceiling as per finishes schedule Roof and fascias 33. 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 37. 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 Traffic Green)

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 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 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) **P3.** Surface bed floar fiber floar floar cuber of the search and the search engineer's drawing address at all external door expansion external surface bed mutting and the search engineer's drawing address at all external door expansion external surface bed mutting and the search engineer's drawing address at a search engineer's drawing address at all external door expansion external search ending address at all external door expansion external engineer's drawing address at a search ending address at all external door expansion external engineer's drawing address at a search ending address B3. Screed and floor finish on walkways - Average 30mm thick wood floated 1:4 granolithic screed sloping towards edges. At all external door openings external surface beds must be level with granolithic threshold finish. Finish off edges of screed smooth with edging tool B4. Apron - 1200mm wide 15MPa mass concrete apron with wood floated finish. Apron to be cast in alternative sections in lengths of maximum 3m and to have a 1:100 fall away from building. Apron edge to be thickened by 240mm wide x 115mm deep (net) edge excavated in natural or finished ground level C1. 19 x 76mm Meranti skirting plugged to walls at 400mm c/c with 19mm meranti quadrand bead plated on. Sand down to a smooth finish, stop with Polycell Woodfiller, stain with Plascon Woodcare Stain (W-range)(colour meranti), apply one coat Plascon Woodcare Ultra Varnish (X44), thinned with 1:3 mineral turpentine (AZH1) and apply two finishing coats Plascon Woodcare Ultra (X44) suede varnish to skirtings

 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

 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 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 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 Polyin 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 **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 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 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) G2. Ridge and hip flashings - 0.8mm galvanised sheet iron standard factory manufactured FK3 ridge or hip flashing with Globalcoat finish (colour Traffic Green) 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 for approval before manufacturing. All sections in contact with wet trades to be carbolineum treated before for approval before manufacturing. All sections in contact with wet trades to be carbolineum treated before for approval before manufacturing. All sections in contact with wet trades to be carbolineum treated before for approval before manufacturing. 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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 **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 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) Here to be fixed to 25 mm wide x 2134mm long double slotted epoxy powder coated Shelco type FT6 wall bands, plugged to walls at maximum 600mm c/c. Sand down to a smooth finish, stop with Polycell Woodfiller, apply one coat Plascon Woodcare Ultra Varnish (X44) thinned with 1:3 mineral turpentine (AZH1) then apply two finishing coats Plascon Woodcare Clear Ultra (X44) suede varnish to shelves I1 9 Kg DCP fire extinguisher fitted to 400 x 200 x 22mm thick meranti backplate with chamfered edges. Sand down to a smooth finish, stop with Polycell Woodfiller, apply one coat Plascon Woodcare Ultra (X44) suede varnish thinned with 1:3 mineral turpentine (AZH1) & then apply two finishing coats Plascon Woodcare Ultra (X44) suede varnish to back plate. Provide 150 x 150mm Union AL5066-E06/2AS aluminium fire extinguisher sign and Union AL5066-E08/2AS aluminium red down arrow sign above fire extinguisher 12 Safex fire hose reel with 30m hose. Supply 152 x 152 x 3mm thick Union AL5066-06ASE05 aluminium engraved red fire hose reel sign & Union Al5066-06ASE08 aluminium engraved red down arrow sign above fire hose reel. Water supply in buildings to fire hose reel to be 25mm galvanised mild steel. Degrease exposed parts of pipes with Plascon Aquasolv Degreaser (GR1), remove any rust with Plascon Rust Remover (RR1), prime with Plascon Metal Primer (UC501) and apply two coats Plascon Enamel Doors & trims (G-Range) paint - colour Signal Red (G7). Provide 150 x 150mm Union AL5066-E05/2AS aluminium fhr sign & Union AL5066-E08/2AS aluminium red down arrow sign above fire

2020_67- 4WAB- 101

DOOR SCHEDULE: Scale 1:50.		
DOOR NUMBER:	D1	D2
POSITION:	TOILET ENTRANCE DOOR AREA TOILET	ENTRANCE TO TOILET
QUANTITY:	2 (1=LH) (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 DOUBLE REBATED 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 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: FITTINGS:	HINGES - 2x100mm M/S STEEL BUTT HINGES PER DOOR LEAF LOCKSET - "SOLID BLESBOK" 460/313 FOUR LEVER LOCKSET.	HINGES - 2x100mm M/S STEEL BUTT PER DOOR 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

CONSTRUCTION NOTES

Foundations A1. Concrete foundations - concrete mix type and with steel reinforcement according to structural engineer's drawings. Provide test cubes (1 per 15m³ or 1 per batch). Finished sides and bottoms of trenches to be treated with ant poison of 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 at of specialists in accordance with SANS Specification 1165 and SANS Code of Practice 0124. Concrete to be casted within an and the second secon guarantee Surface beds and floors B1. Surface bed - concrete mix as described on structural engineer's drawings but minimum 85mm thick on SANS Specifi B1. Surface bed - concrete mix as described with processors consitive table. Surface bed cast in alternative sections of maxim

waterproofing membrane with laps sealed with pressure sensitive tape. Surface bed cast in alternative sections of maxin polysulfide sealer. All saw cut joints to be done within 24 hours after casting of concrete. Provide 10mm thick bitumen im seal joint with polysulfide sealer. Provide mesh ref. no. 193 as per structural engineer's drawings. Provide test cubes (1 seal joint with polysulfide sealer. Provide mesh ref. no. 193 as per structural engineer's drawings. Provide test cubes (1 per B2. Surface bed on walkways - concrete mix as described on structural engineer's drawings but minimum 85mm thick on a 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 from building. Apron edge to be thickened by 240mm wide x 115mm deep (net) edge excavated in natural or finished gro **C1.** 19 x 76mm Meranti skirting plugged to walls at 400mm c/c with 19mm meranti quadrand bead plated on. Sand down Plascon Woodcare Stain (W-range)(colour meranti), apply one coat Plascon Woodcare Ultra Varnish (X44), thinned with

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

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

Plascon Woodcare Sunproof (Amber - PNW22) suede varish Plascon Woodcare Sunproof (Amber - PNW22) suede varish 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 coats approach and the provided stockbrick walls in stretcher bond above to receive one coats approach and the provided stockbrick walls in stretcher bond above to receive one coats approach and the provided stockbrick walls in stretcher bond above to receive one coats approach and the provided stockbrick walls in stretcher bond above to receive one coats approach and the provided stockbrick walls in stretcher bond above to receive one coats approach and the provided stockbrick walls in stretcher bond above to receive one coats approach and the provided stockbrick walls in stretcher bond above to receive one coats approach and the provided stockbrick walls in stretcher bond above to receive one coats approach and the provided stockbrick walls in stretcher bond above to receive one coats approach and the provided stockbrick walls in stretcher bond above to receive one coats approach and the provided stockbrick walls in stretcher bond above to receive one coats approach and the provided stockbrick walls in stretcher bond above to receive one coats approach and the provided stockbrick walls approach approach and the provided stockbrick walls approach appr Plascon Plaster Primer (UC56) and two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour as per finishes so D8. All exposed expansion joints in walls and floors to be filled in with Urochem 205 polysulfide joint sealant after surface 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 out 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 fin 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 jointing strips. Jointing strips to be pre-painted. Prime ceilings with one coat Plascon Multi-Surface Primer (WUP1) and fin 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 50mm meranti surround. Trap door and surround to be painted as for ceiling. Trap door opening between trusses to be for Roof and fascias

G1. Roof sheeting - 0.58mm Brownbuilt Klip-lok roof sheeting with Globalcoat finish (colour Traffic Green) on 50 x 76mm 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 **G3.** 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. G4. Truss system - MiTek or other approved patent timber pre-fabricated truss system at maximum 1100mm centres with 1200mm centres. 38 x 114mm SAP wall plate to be carbolineum treated before fixing. Truss manufacturer to provide certification of the provide data to the pre-fabricated truss system at maximum 100mm centres with 1200mm centres. 38 x 114mm SAP wall plate to be carbolineum treated before fixing. Truss manufacturer to provide certification of the provide data the provide data to the provid

well as detailed shop drawings. Shop drawings to be provided to the Principal Agent for approval before manufacturing. treated before fixing in position. Trusses to be secured to walls with 2.5mm diameter galvanised steel wire ties, built into 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 G5. Gutters - 100 x 100mm High gutters formed of 0.58mm galvanised sheet iron with Globalcoat finish (colour Gemsbol

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

G7. Barge flashing over barge boards at louvres - 0.8mm galvanised sheet iron standard factory manufactured FK13 bar

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

Fittings H1. Vitrex Model 2400 (code 2404) enameled green folding type writing board with wall mounted centre board 2000 x 120 1200mm high & two swing leaves each 1000 x 1200mm high with permanent aluminium chalk rail e 2317) light grev wall mounted pinning board, size 2000 x 1200mm high (2 per cla H3. Greenfiéld G25 double door steel cupboard with standard baked enameled finish, 760 x 610 x 1700mm high with fo H4. Five rows of 19mm Thick laminated SA Pine shelving, 350mm wide, evenly spaced & fixed from underside to 305ml to be fixed to 25mm wide x 2134mm long double slotted epoxy powder coated Shelco type FT6 wall bands, plugged to w 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

119 Kg DCP fire extinguisher fitted to 400 x 200 x 22mm thick meranti backplate with chamfered edges. Sand down to Plascon Woodcare Ultra (X44) suede varnish thinned with 1:3 mineral turpentine (AZH1) & then apply two finishing coats Provide 150 x 150mm Union AL5066-E06/2AS aluminium fire extinguisher sign and Union AL5066-E08/2AS aluminium re I2 Safex fire hose reel with 30m hose. Supply 152 x 152 x 3mm thick Union AL5066-06ASE05 aluminium engraved red fi

engraved red down arrow sign above fire hose reel. Water supply in buildings to fire hose reel to be 25mm galvanised mi 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 AL hose ree

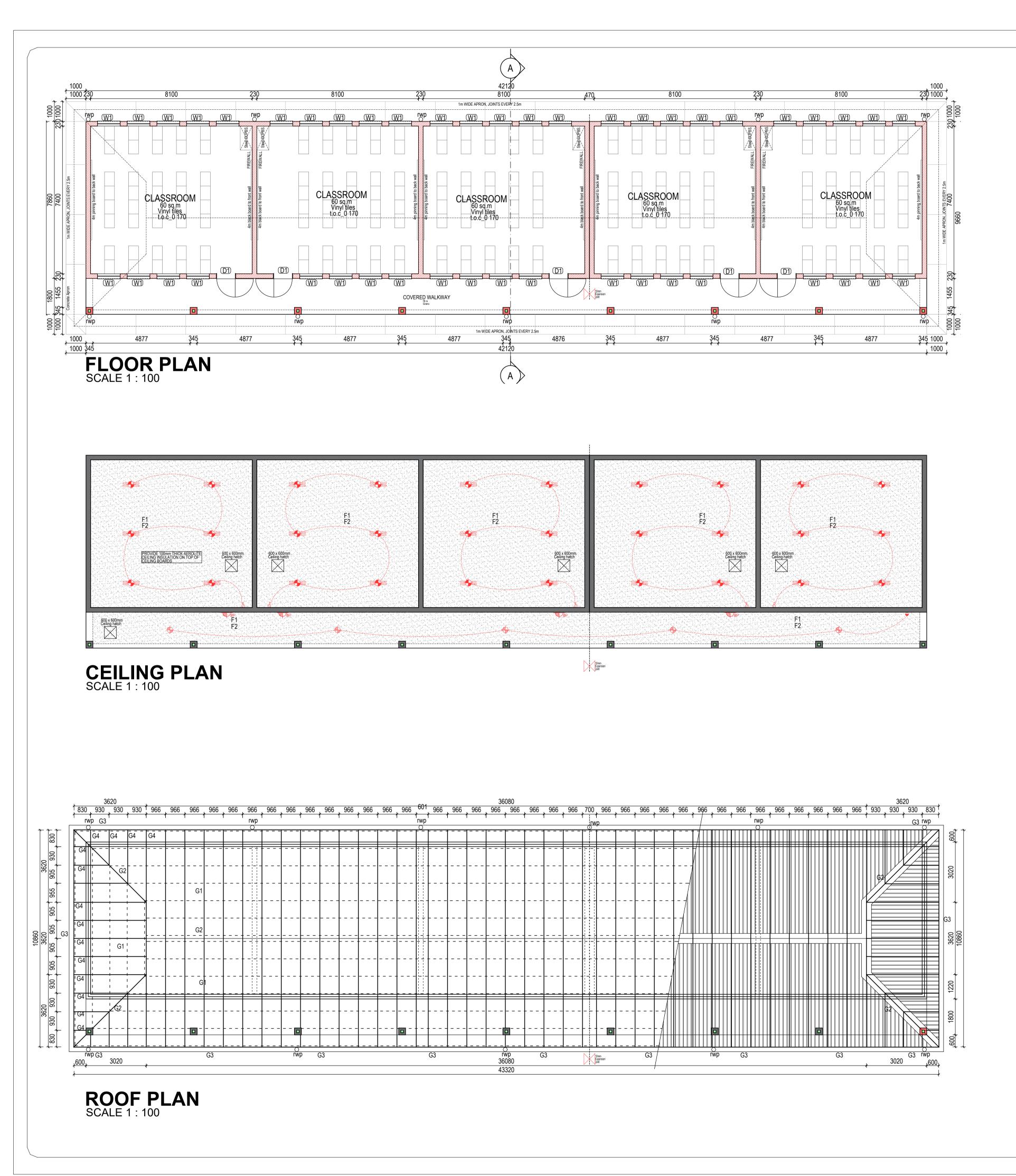
	NOTES :
	1) Workmanship to comply with Standard Specification of materials and methods to be used - SABS 0400 2)Light Switch in Disabled toilet to be at 1200 mm above FFL
. Top of strip footings to be 340mm minimum below N.G.L. f the Prothor 200 SC or other approved type applied at a rate	 a) If Step over 900 mm Build in Balustrade 4) Gulley positions to be determined as per site prescribed overall drainage design
IS Code of Practice 0124. Concrete to be casted within 24	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 .
n layers of maximum 150mm - refer to engineer's drawings for el under floors. All filling to be approved by engineer (imported test per 125m ² filling area under floors per each layer of 150mm	Bubble plastic insulation with foil backing to be installed with wire supports in all areas that do not have ceilings
d at a rate of not less than 5 litres of solution per m ² by a firm ithin 24 hours of application. Contractor to provide five year	 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
ecification 952 Type C approved USB Green 250 micron	Filipeut Eligineers
kimum 20m² with saw cut joints with joints filled up with impregnated soft board between all walls and concrete and 1 per 15m³ or 1 per batch)	
on SANS Specification 952 Type C approved USB Green 250 s of maximum 20m ² with expansion joints with joints filled up oint with polysulfide sealer. Provide mesh ref. no. 193 as per	
ges. At all external door openings external surface beds must	
ns in lengths of maximum 3m and to have a 1:100 fall away ground level	
wn to a smooth finish, stop with Polycell Woodfiller, stain with ith 1:3 mineral turpentine (AZH1) and apply two finishing coats	
urse. Over openings formed in brickwork as per table below acket, 200mm long, twice holed and welded to top, 200 x 200 x	
w copings with four M10 x 75mm masonry anchor bolts. ascon Metal Primer (UC501) and apply two coats Plascon	
Woodfiller, provide one coat raw linseed oil thinned with 1:3 1:3 mineral turpentine (AZH1) and apply two finishing coats	
essed joints sills	
inished off with one coat Plascon Plaster Primer (UC56) and D2-3) as per Principal Agent e coat smooth 1:5 cement plaster finished off with one coat	
schedule. ces have been primed with Urochem 614 primer	
h one coat Plascon Multi-surface Primer (WUP1) and apply	
recessed joints	
finish, stop with Polycell Woodfiller, stain with Plascon ineral turpentine (AZH1) and apply two finishing coats Plascon	
um with galvanised clout nails. Provide H-profile galvanised I finish off with two coats Plascon Polvin Walls & Ceilings (EPL)	
red with ceiling board and fitted flush in opening. Provide 18 x e formed with 38 x 114mm SA pine bearers, nailed to trusses	ISSUED FOR TENDER
The SAP purlins at maximum 1200mm centres on patent and the Globalcoat finish (colour Traffic Green)	SIGNATURE TABLE
h countersunk brass screws. Barge boards - 200 x 80mm rge boards with one coat Plascon Multi-Surface Primer	DISCIPLINE SIGNATURE DATE
e. vith 20 degrees pitch. 50 x 76mm SAP purlins at maximum ertificate and guarantee for design and erection of trusses as	CLIENT PLAN EXAMINER
ertificate and guarantee for design and erection of trusses as g. All sections in contact with wet trades to be carbolineum to walls minimum 6 courses. Purlins nailed to trusses must also	FIRE CONTROL ENVIRONMENTAL OFFICER
xposed parts of trusses, purlins, etc. to be sanded smooth, n Enamel Doors & Trims paint. Colour as per finishes	ROADS / STORMWATER
bok Sand). All brackets, etc. to be pre-coated with Globalcoat Gemsbok Sand). All holderbats, brackets, etc. to be pre-coated	ENVIRONMENTAL OFFICER
arge or gable flashing with Globalcoat finish (colour Traffic	
g and FK7 counter flashing with Globalcoat finish (Colour	
1200mm high, two wall mounted side boards each 1000 x	
n)	REV NO DATE : DESCRIPTION : REVISIONS
our shelves (2 per classroom)	
our shelves (2 per classroom) nm wide Shelco epoxy powder coated steel brackets. Brackets walls at maximum 600mm c/c. Sand down to a smooth finish, a (AZH1) then apply two finishing coats Plascon Woodcare	SIZE ON ORIGINAL DRAWING 100 mm
our shelves (2 per classroom) nm wide Shelco epoxy powder coated steel brackets. Brackets walls at maximum 600mm c/c. Sand down to a smooth finish, (AZH1) then apply two finishing coats Plascon Woodcare	
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n) our shelves (2 per classroom) mm wide Shelco epoxy powder coated steel brackets. Brackets o valls at maximum 600mm c/c. Sand down to a smooth finish, e (AZH1) then apply two finishing coats Plascon Woodcare a smooth finish, stop with Polycell Woodfiller, apply one coat ats Plascon Woodcare Ultra (X44) suede varnish to back plate. In red down arrow sign above fire extinguisher of the hose reel sign & Union Al5066-06ASE08 aluminium mild steel. Degrease exposed parts of pipes with Plascon (501) and apply two coats Plascon Enamel Doors & trims AL5066-E08/2AS aluminium red down arrow sign above fire	SIZE ON ORIGINAL DRAWING 100 mm
our shelves (2 per classroom) nm wide Shelco epoxy powder coated steel brackets. Brackets walls at maximum 600mm c/c. Sand down to a smooth finish, e (AZH1) then apply two finishing coats Plascon Woodcare	SIZE ON ORIGINAL DRAWING 100 mm
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L	
WINDOW SCHEDULE: Scale 1:50.	
WINDOW NUMBER:	W1
POSITION:	GUARD ROOM
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:	OUT OF 10mm WIDE FLAT-BARS
FINISHES:	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

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 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 4) Gulley positions to be determined as per site prescribed overall drainage 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 5) 2 x coats sealant on all exposed trusses (sand off all SABS & other hours of application. Contractor to provide five year guarantee. markings) 6) 50 mm mineral wool insulation to be installed where there are ceilings. 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 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 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 eáves to drop of 1200 mm 8) Trusses to be designed in accordance with SABS 0400 & approved by 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 Project Engineers 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 and concrete and seal joint with polysulfide sealer. Provide mesh ref. no. 193 as per structural engineer's drawings and concrete and seal joint with polysulfide sealer. Provide mesh ref. no. 193 as per structural engineer's drawings. Provide test cubes (1 per 15m³ or 1 per batch) B3. Screed and floor finish on walkways - Average 30mm thick wood floated 1:4 granolithic screed sloping towards edges. At all external door openings external surface beds must be level with granolithic threshold finish. Finish off edges of screed smooth with edging tool B4. Apron - 1200mm wide 15MPa mass concrete apron with wood floated finish. Apron to be cast in alternative sections in lengths of maximum 3m and to have a 1:100 fall away from building. Apron edge to be thickened by 240mm wide x 115mm deep (net) edge excavated in natural or finished ground level C1. 19 x 76mm Meranti skirting plugged to walls at 400mm c/c with 19mm meranti quadrand bead plated on. Sand down to a smooth finish, stop with Polycell Woodfiller, stain with Plascon Woodcare Stain (W-range)(colour meranti), apply one coat Plascon Woodcare Ultra Varnish (X44), thinned with 1:3 mineral turpentine (AZH1) and apply two finishing coats Plascon Woodcare Ultra (X44) suede varnish to skirtings 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 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 **ISSUED FOR TENDER** 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) SIGNATURE TABLE 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 DISCIPLINE SIGNATURE DATE 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 CLIENT PLAN EXAMINER 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 FIRE CONTROL 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 ENVIRONMENTAL OFFICER 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, ROADS / STORMWATER 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 WATER AND SANITATION 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 ENVIRONMENTAL OFFICER 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 raffic 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 REV No DATE DESCRIPTION ode 2317) light grey wall mounted pinning board, size 2000 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 SIZE ON ORIGINAL DRAWING 100 mm 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 back parts and the buildings to fire hose reel sign & Union Al5066-06ASE08 aluminium engraved red down arrow sign above fire back parts with Plascon LIMPOPO 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 PROVINCIAL GOVERNMENT REPUBLIC OF SOUTH AFRICA DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE INSTITUTION MOKHARI SECONDARY SCHOOL INSTITUTION EMIS NUMBER 906121051 SERVICE **NEW BUILDINGS & ALTERATIONS** CONTRACT - SECTION DOCUMENTATION PROJECT STAGE DISCIPLINE ARCHITECTURAL 4 WORK DESCRIPTION - SUB DIVISION **4 CUBICLE WATERBORNE ABLUTION BLOCK** DRAWING DESCRIPTION WINDOW SCHEDULE FILE No. ITEM No. DESIGN DRAWN SCALE 1: 100 CHECKED RESPONSIBLE PROFESSIONAL NAME SIGNATURE DATE PR NUMBER ALLO 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 AUTO CAD DRAWING NUMBER REV

NOTES :

2020_67-4WAB-103



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

<u>B1.</u> Surface bed - concrete mix as described on structural engineer's drawings bu 952 Type C approved USB Green 250 micron waterproofing membrane with laps bed cast in alternative sections of maximum $20m^2$ with saw cut joints with joints fil 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. 19 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 membritape. Surface bed cast in alternative sections of maximum 20m² with expansion jour 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 to B3. Screed and floor finish on walkways - Average 30mm thick wood floated 1:4 g all external door openings external surface beds must be level with granolithic throws mooth 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 (V 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 to bottom. Columns to be fixed to top of brickwork below copings with four M10 x 75 "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 Woodfiller, provide one coat raw linseed oil thinned with 1:3 mineral turpentine (A 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 clea

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

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 (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

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 <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 W

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

Ceilings and cornices

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

<u>F2.</u> Ceilings - 6mm Everite Nutec fibre-cement boards nailed to 38 x 38mm SAP to 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. Tr. ceiling. Trap door opening between trusses to be formed with 38 x 114mm SA pin Roof and fascias

 $\overline{G1.}$ 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 countersunk brass screws. Prime fascias and barge boards with one coat Plascor with two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour as per fir G4. Truss system - MiTek or other approved patent timber pre-fabricated truss sy degrees pitch. 50 x 76mm SAP purlins at maximum 1200mm centres. 38 x 114m before fixing. Truss manufacturer to provide certificate and guarantee for design 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 galvanised steel wire ties, built into walls minimum 6 courses. Purlins nailed to tru 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 o apply two coats Plascon Enamel Doors & Trims paint. Colour as per finishes sche 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 gutte 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 st 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)

<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

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

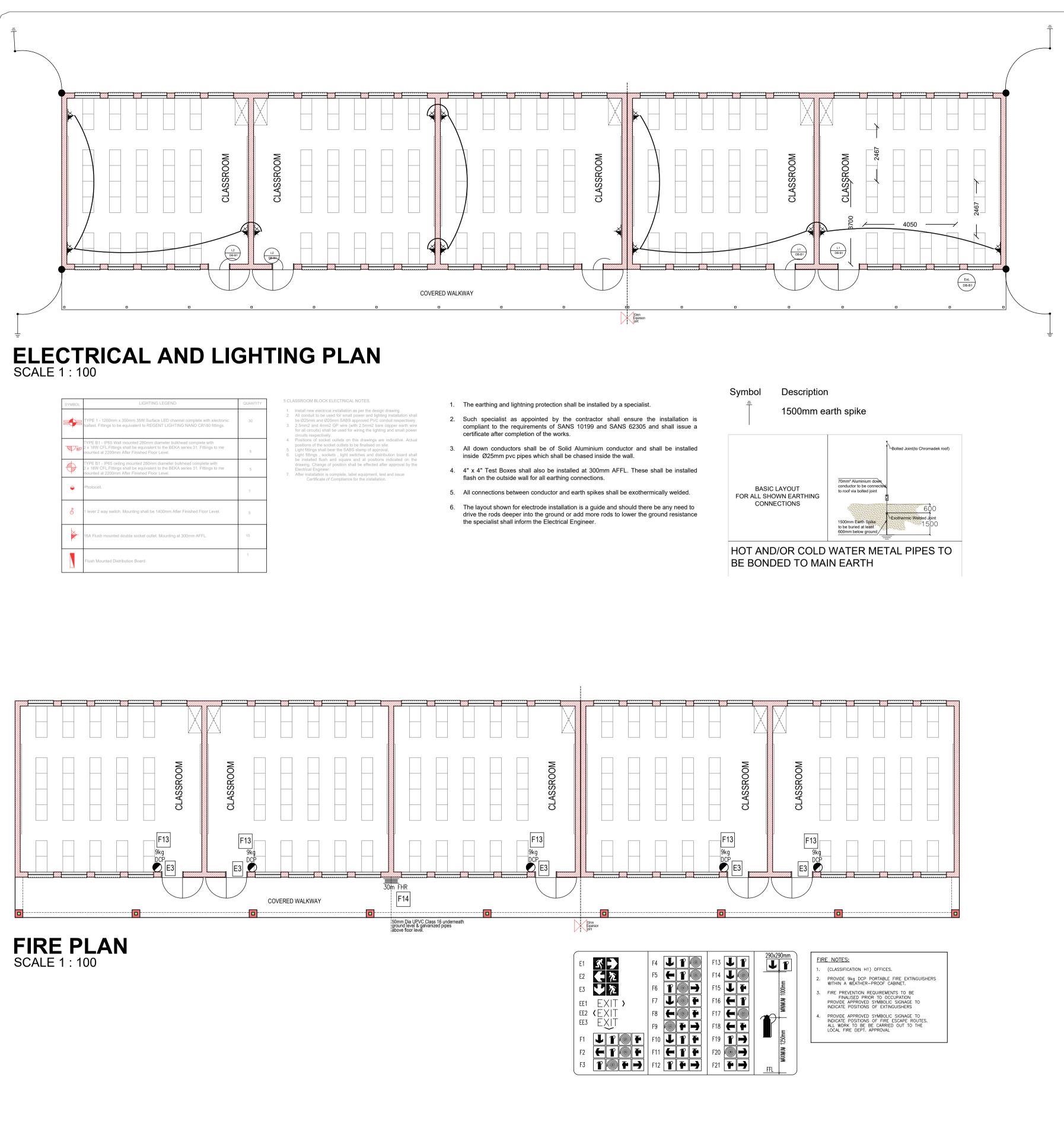
H4. Five rows of 19mm Thick laminated SA Pine shelving, 350mm wide, evenly s Shelco epoxy powder coated steel brackets. Brackets to be fixed to 25mm wide x coated Shelco type FT6 wall bands, plugged to walls at maximum 600mm c/c. Sa Woodfiller, apply one coat Plascon Woodcare Ultra Varnish (X44) thinned with 1: 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 Ult 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 AL500 hose reel sign & Union Al5066-06ASE08 aluminium engraved red down arrow sig buildings to fire hose reel to be 25mm galvanised mild steel. Degrease exposed p Degreaser (GR1), remove any rust with Plascon Rust Remover (RR1), prime with coats Plascon Enamel Doors & trims (G-Range) paint - colour Signal Red (G7). P aluminium fhr sign & Union AL5066-E08/2AS aluminium red down arrow sign abo

	NOTES :
	1) Workmanship to comply with Standard Specification of materials and methods to be used - SABS 0400
ording to structural engineer's drawings. Top of	 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
m³ or 1 per batch). Finished sides and bottoms ed type applied at a rate of not less than 5 litres	design 5) 2 x coats sealant on all exposed trusses (sand off all SABS & other markings)
n 1165 and SANS Code of Practice 0124. year guarantee.	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
at least 93% Mod. AASHTO density in layers conditions. Minimum of 170mm filling to be	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
approved by engineer (imported filling to be e provided at a rate of one test per 125m ² filling	Project Engineers
s to be treated with ant poison of the Prothor ion per m ² by a firm of specialists in accordance e casted within 24 hours of application.	
o subted within 24 nours of application.	
out minimum 85mm thick on SANS Specification sealed with pressure sensitive tape. Surface	
filled up with polysulfide sealer. All saw cut bitumen impregnated soft board between all	
193 as per structural engineer's drawings.	
er's drawings but minimum 85mm thick on SANS brane with laps sealed with pressure sensitive	
joints with joints filled up with polysulfide and concrete and seal joint with polysulfide	
e test cubes (1 per 15m³ or 1 per batch) I granolithic screed sloping towards edges. At breshold finish, Finish off edges of screed	
hreshold finish. Finish off edges of screed	
e to be thickened by 240mm wide x 115mm	
nti quadrand bead plated on. Sand down to a	
(W-range)(colour meranti), apply one coat H1) and apply two finishing coats Plascon	
nm deep square recessed joints se. Superstructure walls - every 6th course.	
nm thick flat section U-shaped fixing bracket,	
n baseplate, four times holed and welded to 75mm masonry anchor bolts. Degrease with (DD1)!! prime with Discours Matel Driver	
er (RR1)", prime with Plascon Metal Primer paint - colour as per finishes schedule.	
n to a smooth finish, stop with Polycell (AZH1), apply one coat Plascon Woodcare AZH1) and apply two finishing coats Plascon	
AZH1) and apply two finishing coats Plascon ear openings with 10 x 6mm square recessed	ISSUED FOR TENDER
alls at floor level and under all window sills	SIGNATURE TABLE
e one coat smooth 1:5 cement plaster finished Valls & Ceilings (EPL) PVA paint. Colour	DISCIPLINE SIGNATURE DATE CLIENT
in stretcher bond above to receive one coat	PLAN EXAMINER FIRE CONTROL
C56) and two coats Plascon Polvin Walls &	ENVIRONMENTAL OFFICER
205 polysulfide joint sealant after surfaces have	ROADS / STORMWATER WATER AND SANITATION
F250/30 aluminium cover strips	ENVIRONMENTAL OFFICER
set flat in 1:4 cement mortar. Prime with one Walls & Ceilings (EPL) PVA paint. Colour as	
ll to match walls with 10 x 6mm square	
res maximum. Sand down to a smooth finish,	A 2023.06.20 ISSUED FOR TENDER REV No DATE : DESCRIPTION :
bur meranti), apply one coat Plascon Woodcare nishing coats Plascon Woodcare Ultra (X44)	REVISIONS SIZE ON ORIGINAL DRAWING 100 mm
P brandering at 400mm centres maximum with	
s to be pre-painted. Prime ceilings with one coat /in Walls & Ceilings (EPL) PVA paint. Colour	
88 x 38mm SA pine cross brander covered with Trap door and surround to be painted as for	
hine bearers, nailed to trusses	
nish (colour Traffic Green) on 50 x 76mm SAP ss system. Roof sheeting to be done by	
nufactured FK3 ridge or hip flashing with	
ed to truss ends and counter batten with e boards screw fixed to trusses or purlins with	
on Multi-Surface Primer (WUP1) and finish off finishes schedule.	MOKHARI SECONDARY SCHOOL
system at maximum 1100mm centres with 20 nm SAP wall plate to be carbolineum treated	INSTITUTION EMIS NUMBER
and erection of trusses as well as detailed al before manufacturing. All sections in contact	906121051 SERVICE
e secured to walls with 2.5mm diameter russes must also be secured with 2.5mm	NEW BUILDINGS & ALTERATIONS
nd purlins. All exposed parts of trusses, purlins, one coat Plascon Wood Primer (UC2) and	CONTRACT - SECTION
nedule. on with Globalcoat finish (colour Gemsbok ters	DOCUMENTATION & PROCUREMENT
ters eet iron with Globalcoat finish (colour Gemsbok pes	ARCHITECTURAL 4
pes standard factory manufactured FK13 barge or	WORK DESCRIPTION - SUB DIVISION 5 CLASSROOM BLOCK
ory manufactured FK8 headwall flashing and	DRAWING DESCRIPTION
ith wall mounted centre board 2000 x 1200mm	
ves each 1000 x 1200mm high with permanent	FILE No. ITEM N DESIGN DRAW
2000 x 1200mm high (2 per classroom) finish, 760 x 610 x 1700mm high with four	SCALE 1: 100 CHECK
spaced & fixed from underside to 305mm wide	DATE NAME SIGNATURE PR NUMBER
x 2134mm long double slotted epoxy powder Sand down to a smooth finish, stop with Polycell	2023.06.20 Y.VAHED 7812 DRAWING CO-ORDINATED
1:3 mineral turpentine (AZH1) then apply two	
e with chamfered edges. Sand down to a	CONSULTANT :
Jltra (X44) suede varnish thinned with 1:3 Jltra (X44) suede varnish to back plate. Provide	Oruben reddy architects
on AL5066-E08/2AS aluminium red down arrow	Suite 4 No 6 Ismini Office Building, 6 Ismini Street, Polokwane, D699 South Africa Tel: +27 15 065 0645, Fax: +27 11 475 8364,
5066-06ASE05 aluminium engraved red fire sign above fire hose reel. Water supply in I parts of pipes with Plascon Aquasoly	Email: info@rubenreddyarch.co.za Web: www.rubenreddyarch.co.za
parts of pipes with Plascon Aquasolv th Plascon Metal Primer (UC501) and apply two Provide 150 x 150mm Union AL5066-E05/2AS	CONTRACTOR :
bove fire hose reel.	CADD AUTO CAD FILE SYSTEM AUTO CAD NAM
	SIZE DRAWING NUMBER REV
/	

2020_67-5CL-100



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 15m² 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 Concrete to be casted within 24 hours of application. Contractor to provide five ye A2. Backfilling and filling under floors - in general, approved filling compacted to of maximum 150mm - refer to engineer's drawings for detail in case of poor soil c provided above natural or compacted ground level under floors. All filling to be ap 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 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 bu 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 fi 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. 19 Provide test cubes (1 per 15m³ or 1 per batch)

B2. Surface bed on walkways - concrete mix as described on structural engineer Specification 952 Type C approved USB Green 250 micron waterproofing membr tape. Surface bed cast in alternative sections of maximum 20m² with expansion i 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 B3. Screed and floor finish on walkways - Average 30mm thick wood floated 1:4 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 (\ 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 to bottom. Columns to be fixed to top of brickwork below copings with four M10 x 75 "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 Woodfiller, provide one coat raw linseed oil thinned with 1:3 mineral turpentine (A 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 clea

D5. DPC - SANS Specification 952 Type B approved 375 micron black dpc in wal

D6. Internal walls - approved stockbrick walls in stretcher bond above to receive 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 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 KF3

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 W

per finishes schedule E2. External window sills - Middelwit Fynbos Geel face brick-on-edge sloping sill 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)(colou 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 galvanised clout nails. Provide H-profile galvanised jointing strips. Jointing strips 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. The 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 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 114mr 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 tru 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 or apply two coats Plascon Enamel Doors & Trims paint. Colour as per finishes sche 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 st

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 2 H3. Greenfield G25 double door steel cupboard with standard baked enameled fir shelves (2 per classroom)

H4. Five rows of 19mm Thick laminated SA Pine shelving, 350mm wide, evenly s Shelco epoxy powder coated steel brackets. Brackets to be fixed to 25mm wide x coated Shelco type FT6 wall bands, plugged to walls at maximum 600mm c/c. San 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

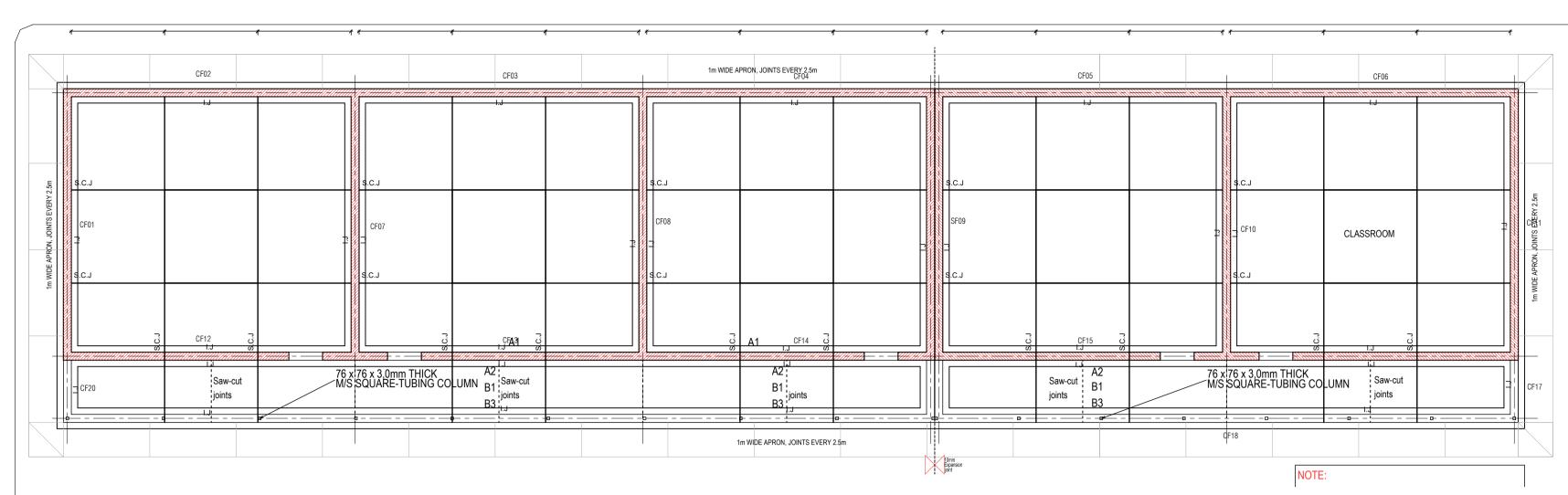
I1 9 Kg DCP fire extinguisher fitted to 400 x 200 x 22mm thick meranti backplate smooth finish, stop with Polycell Woodfiller, apply one coat Plascon Woodcare Ult mineral turpentine (AZH1) & then apply two finishing coats Plascon Woodcare Ultr 150 x 150mm Union AL5066-E06/2AS aluminium fire extinguisher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

I2 Safex fire hose reel with 30m hose. Supply 152 x 152 x 3mm thick Union AL50 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 p Degreaser (GR1), remove any rust with Plascon Rust Remover (RR1), prime with coats Plascon Enamel Doors & trims (G-Range) paint - colour Signal Red (G7). P aluminium fhr sign & Union AL5066-E08/2AS aluminium red down arrow sign abo

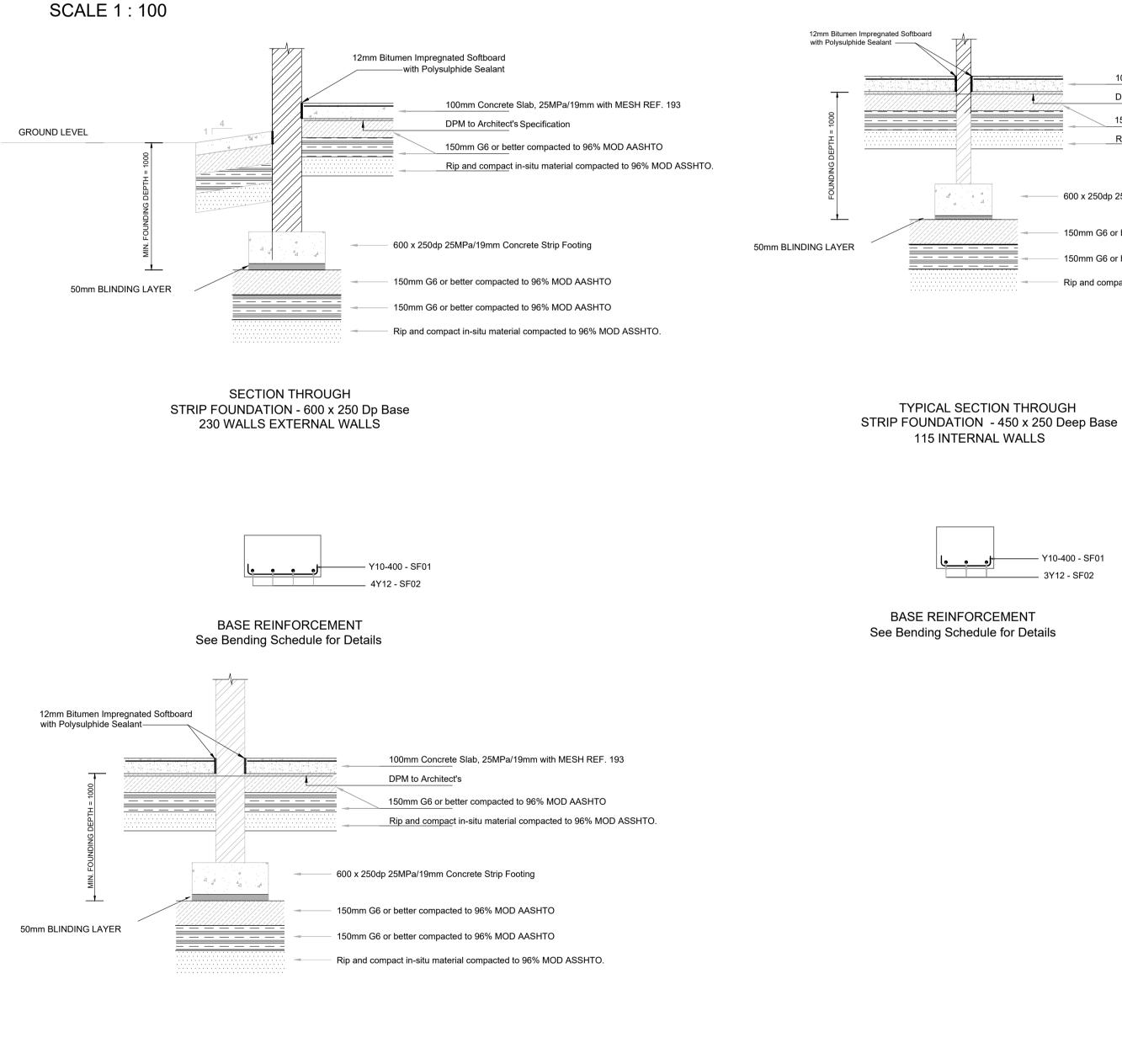
	NOTES :
	1) Workmanship to comply with Standard Specification of materials and methods to be used - SABS 0400
ding to structural engineer's drawings. Top of ³ or 1 per batch). Finished sides and bottoms d type applied at a rate of not less than 5 litres 1165 and SANS Code of Practice 0124. ear guarantee. at 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.	 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
ut minimum 85mm thick on SANS Specification s sealed with pressure sensitive tape. Surface illed up with polysulfide sealer. All saw cut itumen impregnated soft board between all 93 as per structural engineer's drawings.	
's drawings but minimum 85mm thick on SANS rane with laps sealed with pressure sensitive oints with joints filled up with polysulfide d concrete and seal joint with polysulfide test cubes (1 per 15m ³ or 1 per batch) granolithic screed sloping towards edges. At reshold finish. Finish off edges of screed	
Apron to be cast in alternative sections in to be thickened by 240mm wide x 115mm	
iti quadrand bead plated on. Sand down to a W-range)(colour meranti), apply one coat 1) and apply two finishing coats Plascon	
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ar openings with 10 x 6mm square recessed Ils at floor level and under all window sills	SIGNATURE TABLE
one coat smooth 1:5 cement plaster finished alls & Ceilings (EPL) PVA paint. Colour	DISCIPLINE SIGNATURE DATE CLIENT PLAN EXAMINER
in stretcher bond above to receive one coat 56) and two coats Plascon Polvin Walls &	FIRE CONTROL ENVIRONMENTAL OFFICER
05 polysulfide joint sealant after surfaces have	ROADS / STORMWATER WATER AND SANITATION
250/30 aluminium cover strips et flat in 1:4 cement mortar. Prime with one	ENVIRONMENTAL OFFICER
/alls & Ceilings (EPL) PVA paint. Colour as to match walls with 10 x 6mm square	
	A 2023.06.20 ISSUED FOR TENDER REV No DATE : DESCRIPTION :
s maximum. Sand down to a smooth finish, r meranti), apply one coat Plascon Woodcare shing coats Plascon Woodcare Ultra (X44)	REVISIONS
orandering at 400mm centres maximum with o be pre-painted. Prime ceilings with one coat o Walls & Ceilings (EPL) PVA paint. Colour	
x 38mm SA pine cross brander covered with ap door and surround to be painted as for ne bearers, nailed to trusses	
sh (colour Traffic Green) on 50 x 76mm SAP s system. Roof sheeting to be done by	
ufactured FK3 ridge or hip flashing with	
l to truss ends and counter batten with boards screw fixed to trusses or purlins with n Multi-Surface Primer (WUP1) and finish off	INSTITUTION
nishes schedule. stem at maximum 1100mm centres with 20 m SAP wall plate to be carbolineum treated	MOKHARI SECONDARY SCHOOL
and erection of trusses as well as detailed before manufacturing. All sections in contact	906121051 SERVICE
secured to walls with 2.5mm diameter sses must also be secured with 2.5mm I purlins. All exposed parts of trusses, purlins,	NEW BUILDINGS & ALTERATIONS
ne coat Plascon Wood Primer (UC2) and edule. with Globalcoat finish (colour Gemsbok	DOCUMENTATION & PROCUREMENT DISCIPLINE PROJECT STAGE
rs et iron with Globalcoat finish (colour Gemsbok	ARCHITECTURAL 4
es andard factory manufactured FK13 barge or	WORK DESCRIPTION - SUB DIVISION 5 CLASSROOM BLOCK
y manufactured FK8 headwall flashing and	DRAWING DESCRIPTION ELECTRICAL, LIGHTING & FIRE PLAN
h wall mounted centre board 2000 x 1200mm s each 1000 x 1200mm high with permanent	FILE No. ITEM No DESIGN DRAWN
000 x 1200mm high (2 per classroom) ish, 760 x 610 x 1700mm high with four	SCALE 1: 100 CHECKEI
paced & fixed from underside to 305mm wide 2134mm long double slotted epoxy powder	DATE NAME SIGNATURE PR NUMBER
nd down to a smooth finish, stop with Polycell mineral turpentine (AZH1) then apply two	DRAWING CO-ORDINATED
with chamfered edges. Sand down to a	CONSULTANT :
tra (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 Suite 4 No 6 Ismini Office Building, 6 Ismini Street, Polokwane, D699 South Africa
066-06ASE05 aluminium engraved red fire gn above fire hose reel. Water supply in parts of pipes with Plascon Aquasolv n Plascon Metal Primer (UC501) and apply two Provide 150 x 150mm Union AL5066-E05/2AS	Tel: +27 15 065 0645, Fax: +27 11 475 8364, Email: info@rubenreddyarch.co.za Web: www.rubenreddyarch.co.za CONTRACTOR
ove fire hose reel.	CADD AUTO CAD FILE NAME
	SIZE DRAWING NUMBER REV2

A 304

2020_67-5CL-101







SECTION THROUGH STRIP FOUNDATION - 600 x 250 Dp Base 230 WALLS INTERNAL WALLS

- Y10-400 - SF01 4Y12 - SF02

BASE REINFORCEMENT See Bending Schedule for Details



100mm Concrete Slab, 25MPa/19mm with MESH REF. 193 DPM to Architect's 150mm G6 or better compacted to 96% MOD AASHTO Rip and compact in-situ material compacted to 96% MOD ASSHTO. 600 x 250dp 25MPa/19mm Concrete Strip Footing

150mm G6 or better compacted to 96% MOD AASHTO 150mm G6 or better compacted to 96% MOD AASHTO

Rip and compact in-situ material compacted to 96% MOD ASSHTO.

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 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 ap 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 t 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 bu 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 fil 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 membr 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 t B3. Screed and floor finish on walkways - Average 30mm thick wood floated 1:4 g 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 (V 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 to bottom. Columns to be fixed to top of brickwork below copings with four M10 x 75r "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 clea

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 of 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 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 KF3 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 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)(colou 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 galvanised clout nails. Provide H-profile galvanised jointing strips. Jointing strips 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. Tr 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

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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 or apply two coats Plascon Enamel Doors & Trims paint. Colour as per finishes sche 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

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H2. Vitrex System 2000 (code 2317) light grey wall mounted pinning board, size 2 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 s Shelco epoxy powder coated steel brackets. Brackets to be fixed to 25mm wide x coated Shelco type FT6 wall bands, plugged to walls at maximum 600mm c/c. San 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 smooth finish, stop with Polycell Woodfiller, apply one coat Plascon Woodcare Ult 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

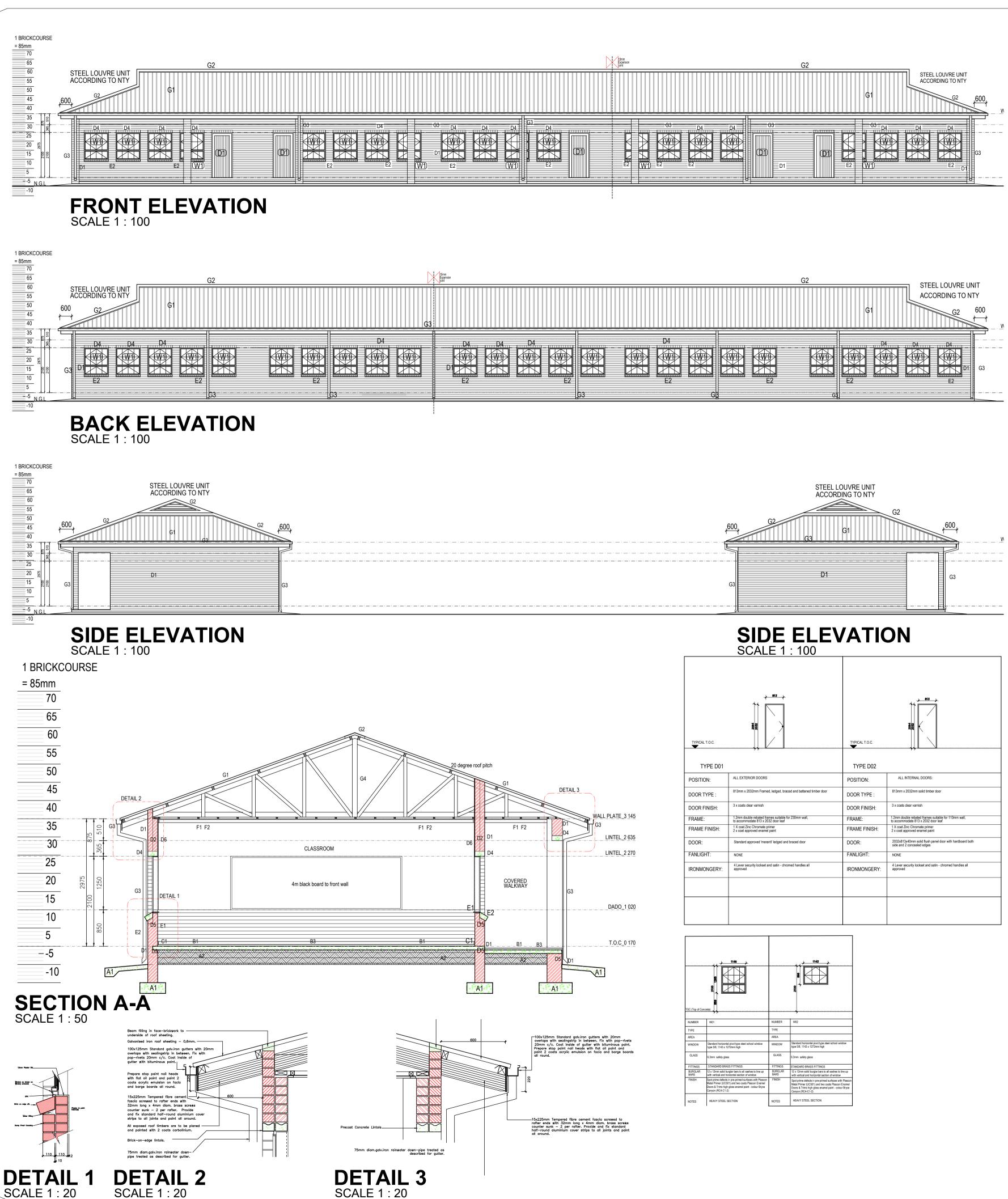
I2 Safex fire hose reel with 30m hose. Supply 152 x 152 x 3mm thick Union AL50 hose reel sign & Union Al5066-06ASE08 aluminium engraved red down arrow sign buildings to fire hose reel to be 25mm galvanised mild steel. Degrease exposed pa Degreaser (GR1), remove any rust with Plascon Rust Remover (RR1), prime with coats Plascon Enamel Doors & trims (G-Range) paint - colour Signal Red (G7). P aluminium fhr sign & Union AL5066-E08/2AS aluminium red down arrow sign abor

	 NOTE	ES :				
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secured to walls with 2.5mm diameter usses must also be secured with 2.5mm	NE	W BUIL	.DINGS &		٧S	
d purlins. All exposed parts of trusses, purlins, ne coat Plascon Wood Primer (UC2) and						
edule. with Globalcoat finish (colour Gemsbok rs			DISCI		PROJECT	
et iron with Globalcoat finish (colour Gemsbok	<u> </u>		ARCHITE	CTURAL		5
andard factory manufactured FK13 barge or			5 CLASSRO	OM BLOCK		
y manufactured FK8 headwall flashing and	FOUN		DRAWING D	ESCRIPTION	& DE	TAIL
h wall mounted centre board 2000 x 1200mm s each 1000 x 1200mm high with permanent	FILE No.					ITEM No.
2000 x 1200mm high (2 per classroom) hish, 760 x 610 x 1700mm high with four	DESIGN SCALE		1: 100			DRAWN CHECKED
paced & fixed from underside to 305mm wide			RESPONSIBLE NAME	PROFESSIONAL SIGNATURE	PR NUM	
2134mm long double slotted epoxy powder nd down to a smooth finish, stop with Polycell 3 mineral turpentine (AZH1) then apply two	2023.06.20	· · · · · · · · · · · · · · · · · · ·	CVAHED	D-ORDINATED	7812	2
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tra (X44) suede varnish thinned with 1:3 tra (X44) suede varnish to back plate. Provide n AL5066-E08/2AS aluminium red down arrow				dy archite	ects	
66-06ASE05 aluminium engraved red fire gn above fire hose reel. Water supply in parts of pipes with Plascon Aquasolv n Plascon Metal Primer (UC501) and apply two Provide 150 x 150mm Union AL5066-E05/2AS			Ismini Street, Polok +27 15 065 0645 Email: info@ru	mini Office Building, wane, D699 South Afric: 5, Fax: +27 11 475 836 benreddyarch.co.za enreddyarch.co.za		
ove fire hose reel.	CADD SYSTEM	AUT) CAD			FILE NAME
	SIZE	0	DRAWING			REV2

NOTES :

A 305

2020 67-5CL-102



TYPICAL T.O.C.		TYPICAL T.O.C.	
TYPE D01		TYPE D02	
POSITION:	ALL EXTERIOR DOORS	POSITION:	ALL INTERNAL DOORS:
DOOR TYPE :	813mm x 2032mm Framed, ledged, braced and battened timber door	DOOR TYPE :	813mm x 2032mm solid timber door
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 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
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

TOC (Top of Cor			
NUMBER	W01	NUMBER	r w02
NUMBER	W01		1102
TYPE		TYPE	
AREA		AREA	
WINDOW	Standard horizontal pivot type steel school window type 5/8, 1143 x 1272mm high	WINDOW	Standard horizontal pivot type steel school window type 5/8, 1143 x 1272mm high
GLASS	6.3mm safety glass	GLASS	6.3mm safety glass
FITTINGS	STANDARD BRASS FITTINGS	FITTINGS	STANDARD BRASS FITTINGS
BURGLAR BARS	12 x 12mm solid burglar bars to all sashes to line up with vertical and horizontal section of window	BURGLAR BARS	12 x 12mm solid burglar bars to all sashes to line up with vertical and horizontal section of window
FINISH	Spot prime defects in pre-primed surfaces with Plascon Metal Primer (UC501) and two coats Plascon Enamel Doors & Trims high gloss enamel paint - colour Bryce Canyon (RC4-C1-2)	FINISH	Spot prime defects in pre-primed surfaces with Plascon Metal Primer (UC501) and two coats Plascon Enamel Doors & Trims high gloss enamel paint - colour Bryce Canyon (RC4-C1-2)
NOTES	HEAVY STEEL SECTION	NOTES	HEAVY STEEL SECTION

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 15m² 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 Concrete to be casted within 24 hours of application. Contractor to provide five ye A2. Backfilling and filling under floors - in general, approved filling compacted to of maximum 150mm - refer to engineer's drawings for detail in case of poor soil of provided above natural or compacted ground level under floors. All filling to be ap 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 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 bu 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 fi 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. 1 Provide test cubes (1 per 15m³ or 1 per batch)

B2. Surface bed on walkways - concrete mix as described on structural engineer Specification 952 Type C approved USB Green 250 micron waterproofing membr tape. Surface bed cast in alternative sections of maximum 20m² with expansion j sealer. Provide 10mm thick bitumen impregnated soft board between all walls an sealer. Provide mesh ref. no. 193 as per structural engineer's drawings. Provide B3. Screed and floor finish on walkways - Average 30mm thick wood floated 1:4 all external door openings external surface beds must be level with granolithic thr 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 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 (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 75 "Plascon Aqualsolv Degreaser (GR1)", remove rust with "Plascon Rust Remover (UC501) and apply two coats Plascon Enamel Door & Trims high gloss enamel p 50 x 228mm Laminated SA Pine beam twice bolted to steel columns. Sand down Woodfiller, provide one coat raw linseed oil thinned with 1:3 mineral turpentine (A 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 clea

D5. DPC - SANS Specification 952 Type B approved 375 micron black dpc in wa D6. Internal walls - approved stockbrick walls in stretcher bond above to receive 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 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 2 been primed with Urochem 614 primer D9. Expansion joints in walls and ceilings to be covered with 2 x 50mm Migua KF3

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 W

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

Ceilings and cornices

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

F2. Ceilings - 6mm Everite Nutec fibre-cement boards nailed to 38 x 38mm SAP galvanised clout nails. Provide H-profile galvanised jointing strips. Jointing strips 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. T 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 man

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 countersunk brass screws. Prime fascias and barge boards with one coat Plascor with two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour as per fir G4. Truss system - MiTek or other approved patent timber pre-fabricated truss sy degrees pitch. 50 x 76mm SAP purlins at maximum 1200mm centres. 38 x 114m before fixing. Truss manufacturer to provide certificate and guarantee for design 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 galvanised steel wire ties, built into walls minimum 6 courses. Purlins nailed to tru 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 or apply two coats Plascon Enamel Doors & Trims paint. Colour as per finishes sche 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 gutte 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 s gable flashing with Globalcoat finish (colour Traffic Green)

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

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

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

H4. Five rows of 19mm Thick laminated SA Pine shelving, 350mm wide, evenly s Shelco epoxy powder coated steel brackets. Brackets to be fixed to 25mm wide coated Shelco type FT6 wall bands, plugged to walls at maximum 600mm c/c. Sa Woodfiller, apply one coat Plascon Woodcare Ultra Varnish (X44) thinned with 1 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 smooth finish, stop with Polycell Woodfiller, apply one coat Plascon Woodcare Ult mineral turpentine (AZH1) & then apply two finishing coats Plascon Woodcare UI 150 x 150mm Union AL5066-E06/2AS aluminium fire extinguisher sign and Unior sign above fire extinguisher

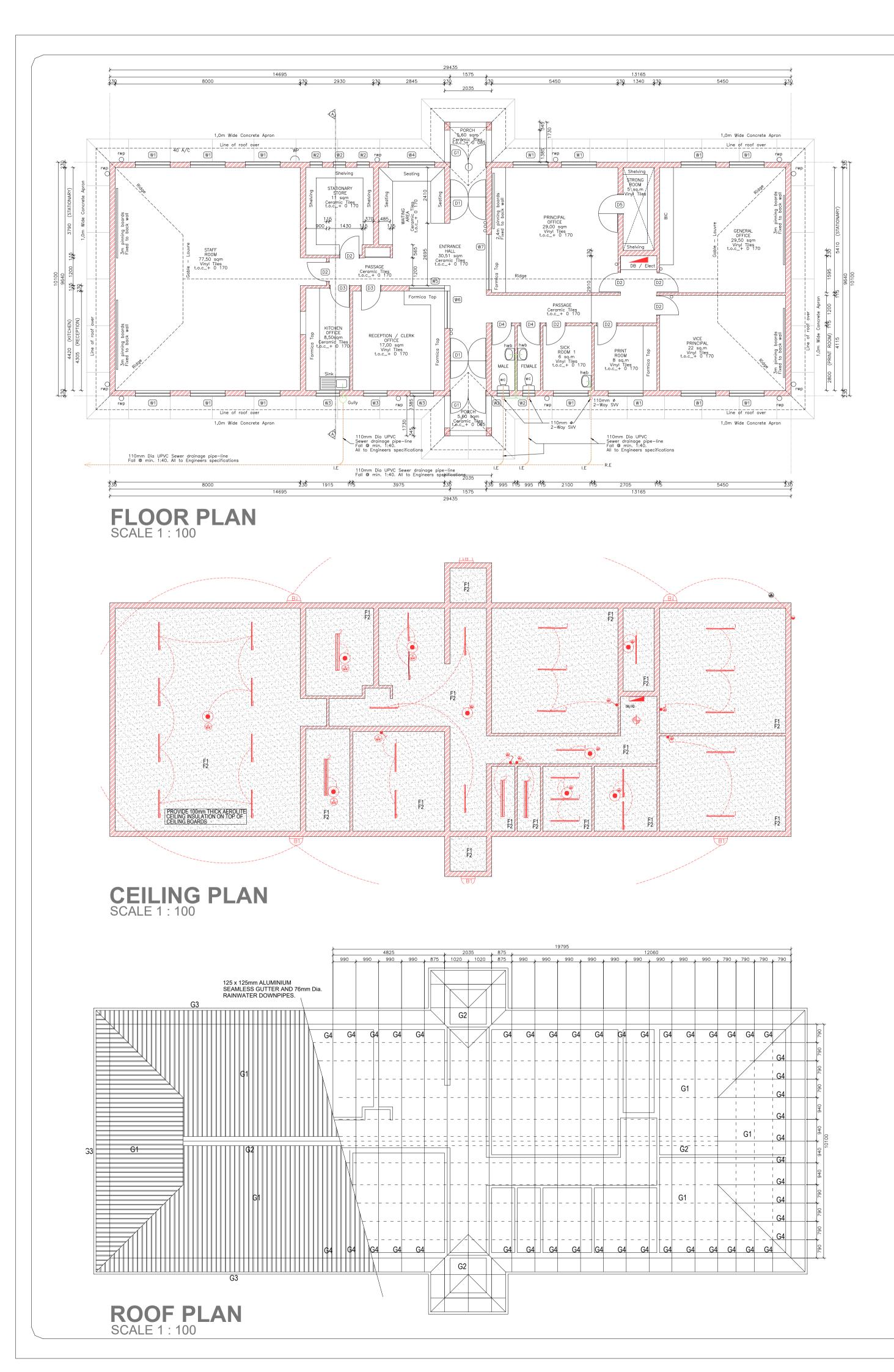
I2 Safex fire hose reel with 30m hose. Supply 152 x 152 x 3mm thick Union AL50 hose reel sign & Union Al5066-06ASE08 aluminium engraved red down arrow sig buildings to fire hose reel to be 25mm galvanised mild steel. Degrease exposed Degreaser (GR1), remove any rust with Plascon Rust Remover (RR1), prime with coats Plascon Enamel Doors & trims (G-Range) paint - colour Signal Red (G7). F aluminium fhr sign & Union AL5066-E08/2AS aluminium red down arrow sign abo

	 NOTES .
ording to structural engineer's drawings. Top of m ³ or 1 per batch). Finished sides and bottoms ed type applied at a rate of not less than 5 litres in 1165 and SANS Code of Practice 0124. year guarantee. to at least 93% Mod. AASHTO density in layers conditions. Minimum of 170mm filling to be approved by engineer (imported filling to be e provided at a rate of one test per 125m ² filling is to be treated with ant poison of the Prothor ion per m ² by a firm of specialists in accordance e casted within 24 hours of application.	 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
out minimum 85mm thick on SANS Specification os sealed with pressure sensitive tape. Surface filled up with polysulfide sealer. All saw cut bitumen impregnated soft board between all 193 as per structural engineer's drawings.	
er's drawings but minimum 85mm thick on SANS brane with laps sealed with pressure sensitive joints with joints filled up with polysulfide and concrete and seal joint with polysulfide test cubes (1 per 15m ³ or 1 per batch) granolithic screed sloping towards edges. At hreshold finish. Finish off edges of screed	
a. Apron to be cast in alternative sections in e to be thickened by 240mm wide x 115mm	
nti quadrand bead plated on. Sand down to a (W-range)(colour meranti), apply one coat H1) and apply two finishing coats Plascon	
nm deep square recessed joints se. Superstructure walls - every 6th course.	
nm thick flat section U-shaped fixing bracket, n baseplate, four times holed and welded to 75mm masonry anchor bolts. Degrease with er (RR1)", prime with Plascon Metal Primer paint - colour as per finishes schedule. (n to a smooth finish, stop with Polycell (AZH1), apply one coat Plascon Woodcare AZH1) and apply two finishing coats Plascon	
ear openings with 10 x 6mm square recessed	ISSUED FOR TENDER
alls at floor level and under all window sills one coat smooth 1:5 cement plaster finished Walls & Ceilings (EPL) PVA paint. Colour	SIGNATURE TABLE DISCIPLINE SIGNATURE DATE CLIENT Image: Client state
s in stretcher bond above to receive one coat C56) and two coats Plascon Polvin Walls &	PLAN EXAMINER FIRE CONTROL ENVIRONMENTAL OFFICER
205 polysulfide joint sealant after surfaces have	ROADS / STORMWATER WATER AND SANITATION
F250/30 aluminium cover strips	ENVIRONMENTAL OFFICER
set flat in 1:4 cement mortar. Prime with one Walls & Ceilings (EPL) PVA paint. Colour as I to match walls with 10 x 6mm square	
	REV No DATE : DESCRIPTION :
res maximum. Sand down to a smooth finish, our meranti), apply one coat Plascon Woodcare nishing coats Plascon Woodcare Ultra (X44)	REVISIONS
P brandering at 400mm centres maximum with s to be pre-painted. Prime ceilings with one coat vin Walls & Ceilings (EPL) PVA paint. Colour	
88 x 38mm SA pine cross brander covered with Trap door and surround to be painted as for bine bearers, nailed to trusses	
nish (colour Traffic Green) on 50 x 76mm SAP ss system. Roof sheeting to be done by	
nufactured FK3 ridge or hip flashing with ed to truss ends and counter batten with	
e boards screw fixed to trusses or purlins with on Multi-Surface Primer (WUP1) and finish off	INSTITUTION
finishes schedule. system at maximum 1100mm centres with 20 nm SAB wall plate to be carbolingum tracted	MOKHARI SECONDARY SCHOOL
nm SAP wall plate to be carbolineum treated and erection of trusses as well as detailed al before manufacturing. All sections in contact	906121051 SERVICE
e secured to walls with 2.5mm diameter russes must also be secured with 2.5mm	NEW BUILDINGS & ALTERATIONS
nd purlins. All exposed parts of trusses, purlins, one coat Plascon Wood Primer (UC2) and hedule.	CONTRACT - SECTION DOCUMENTATION & PROCUREMENT
on with Globalcoat finish (colour Gemsbok ters	DISCIPLINE PROJECT STAGE
eet iron with Globalcoat finish (colour Gemsbok pes standard factory manufactured FK13 barge or	ARCHITECTURAL 4
ory manufactured FK8 headwall flashing and	5 CLASSROOM BLOCK
<i>v</i> ith wall mounted centre board 2000 x 1200mm	ELEVATIONS & SECTIONS
ves each 1000 x 1200mm high with permanent	FILE No. ITEM No. DESIGN DRAWN
2000 x 1200mm high (2 per classroom) finish, 760 x 610 x 1700mm high with four	SCALE 1: 100 CHECKED RESPONSIBLE PROFESSIONAL DATE NAME SIGNATURE PR NUMBER
spaced & fixed from underside to 305mm wide x 2134mm long double slotted epoxy powder	DATE NAME SIGNATORE PR NUMBER 2023.06.20 Y.VAHED 7812
Sand down to a smooth finish, stop with Polycell 1:3 mineral turpentine (AZH1) then apply two	DRAWING CO-ORDINATED
e with chamfered edges. Sand down to a Jltra (X44) suede varnish thinned with 1:3 Jltra (X44) suede varnish to back plate. Provide	
on AL5066-E08/2AS aluminium red down arrow 5066-06ASE05 aluminium engraved red fire sign above fire hose reel. Water supply in	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
I parts of pipes with Plascon Aquasolv ith Plascon Metal Primer (UC501) and apply two Provide 150 x 150mm Union AL5066-E05/2AS bove fire hose reel.	CONTRACTOR :
	CADD SYSTEM AUTO CAD FILE NAME SIZE DRAWING NUMBER REV

NOTES

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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)

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

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)

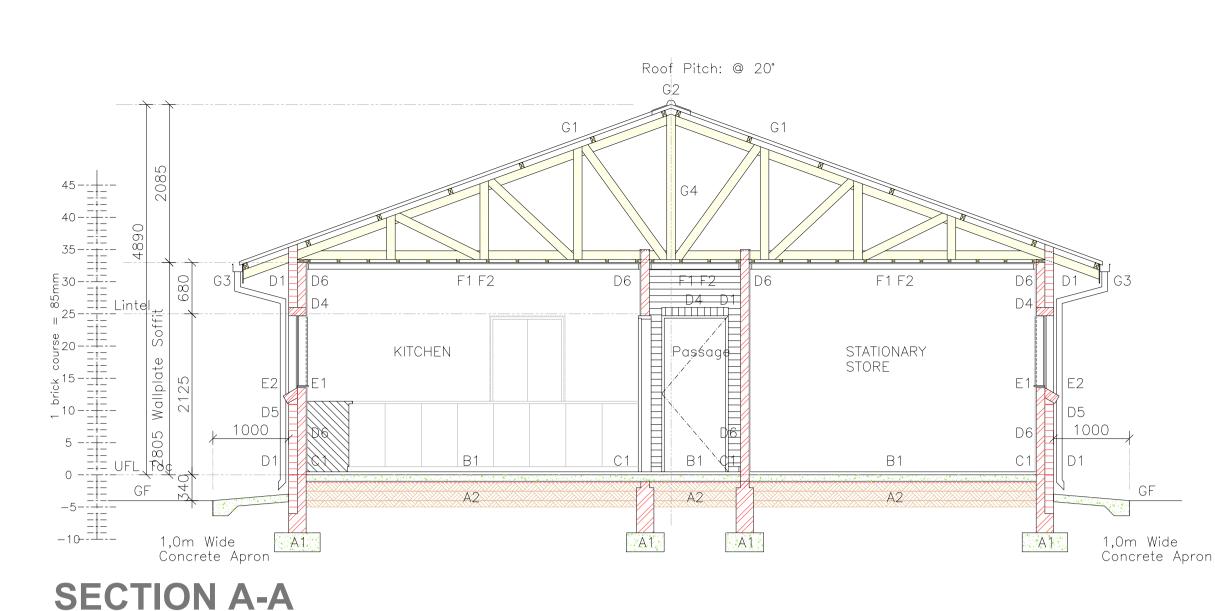
H4. Five rows of 19mm Thick laminated SA Pine shelving, 350mm wide, evenly spaced & fixed from underside to 305mm wide Shelco epoxy powder coated steel brackets. Brackets to be fixed to 25mm wide x 2134mm long double slotted epoxy powder coated Shelco type FT6 wall bands, plugged to walls at maximum 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

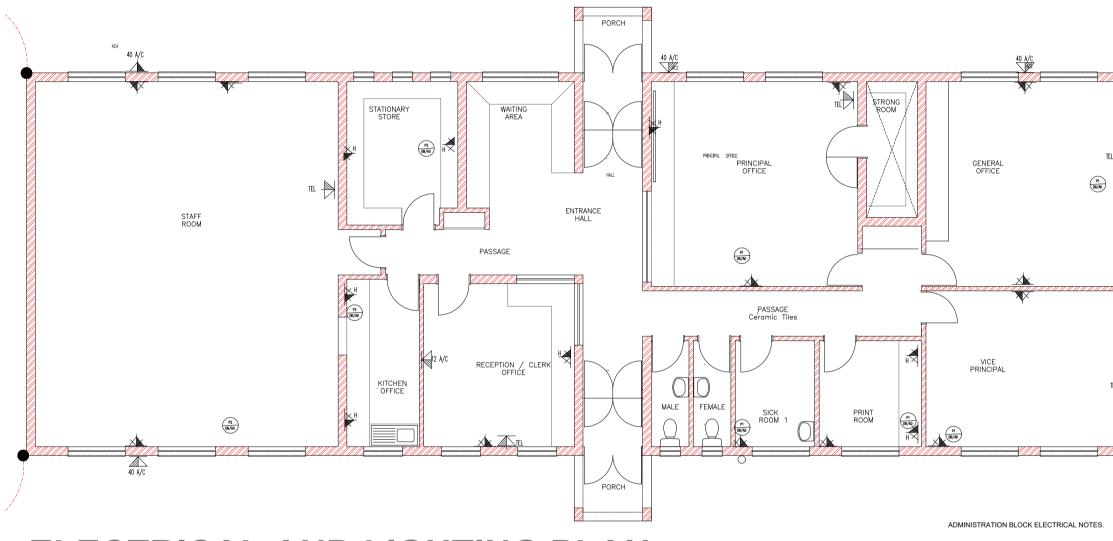
I1 9 Kg DCP fire extinguisher fitted to 400 x 200 x 22mm thick meranti backplate with chamfered edges. Sand down to a smooth finish, stop with Polycell Woodfiller, apply one coat Plascon Woodcare Ultra (X44) suede varnish thinned with 1:3 mineral turpentine (AZH1) & then apply two finishing coats Plascon 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.

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 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 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 B2. Surface bed on walkways - concrete mix as described on structural engineer's drawings but minimum 85mm thick on SANS **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 SIZE ON ORIGINAL DRAWING 100 mm LIMPOPO **PROVINCIAL GOVERNMENT** REPUBLIC OF SOUTH AFRICA DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE INSTITUTION MOKHARI SECONDARY SCHOOL INSTITUTION EMIS NUMBER 906121051 SERVICE **NEW BUILDINGS & ALTERATIONS** CONTRACT - SECTION **DOCUMENTATION & PROCUREMENT** DISCIPLINE PROJECT STAGE ARCHITECTURAL WORK DESCRIPTION - SUB DIVISION MEDIUM ADMINISTRATION BLOCK DRAWING DESCRIPTION FLOOR, CEILING & ROOF PLAN FILE No. ITEM No DESIGN DRAWN SCALE CHECKED 1: 100 RESPONSIBLE PROFESSIONAL SIGNATURE DATE PR NUMBER 2023.06.20 Y.VAHED 7812 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

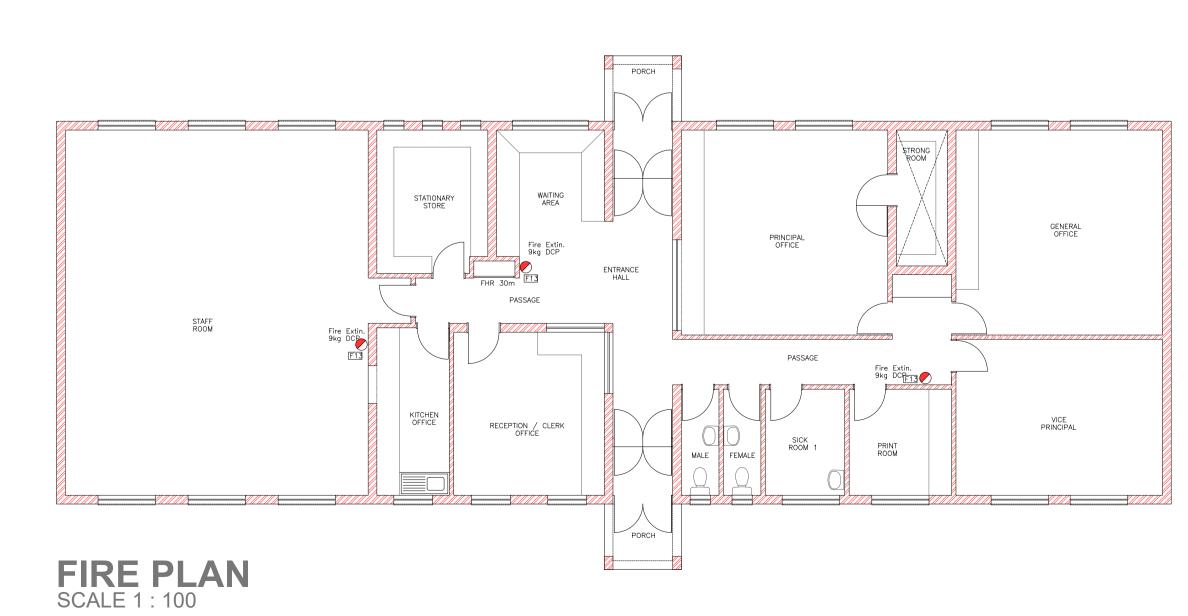
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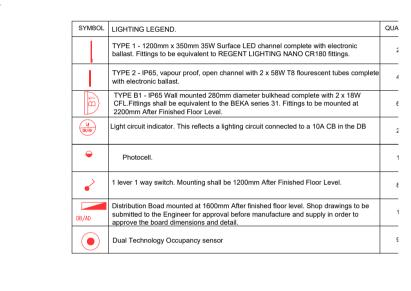




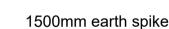
ELECTRICAL AND LIGHTING PLAN SCALE 1 · 100

SCALE 1 : 50



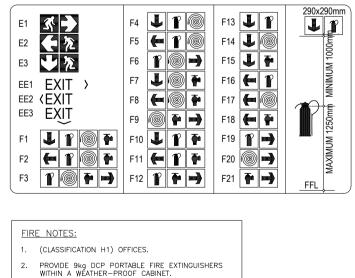


Symbol Description



70mm² Aluminium down

conductor to be connected



FIRE PREVENTION REQUIREMENTS TO BE FINALISED PRIOR TO OCCUPATION PROVIDE APPROVED SYMBOLIC SIGNAGE TO INDICATE POSITIONS OF EXTINGUISHERS

PROVIDE APPROVED SYMBOLIC SIGNAGE TO INDICATE POSITIONS OF FIRE ESCAPE ROUTES. ALL WORK TO BE BE CARRIED OUT TO THE LOCAL FIRE DEPT. APPROVAL

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.

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

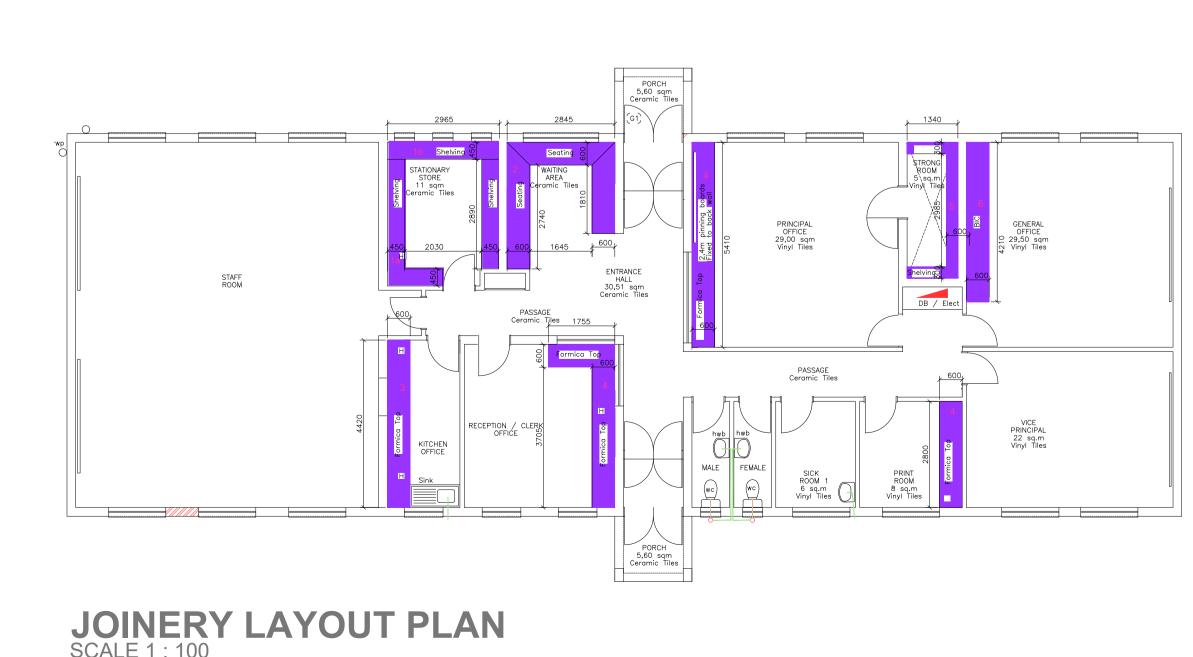
I1 9 Kg DCP fire extinguisher fitted to 400 x 200 x 22mm thick meranti backplate with chamfered edges. Sand down to a smooth finish, stop with Polycell Woodfiller, apply one coat Plascon Woodcare Ultra (X44) suede varnish thinned with 1:3 mineral turpentine (AZH1) & then apply two finishing coats Plascon 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.

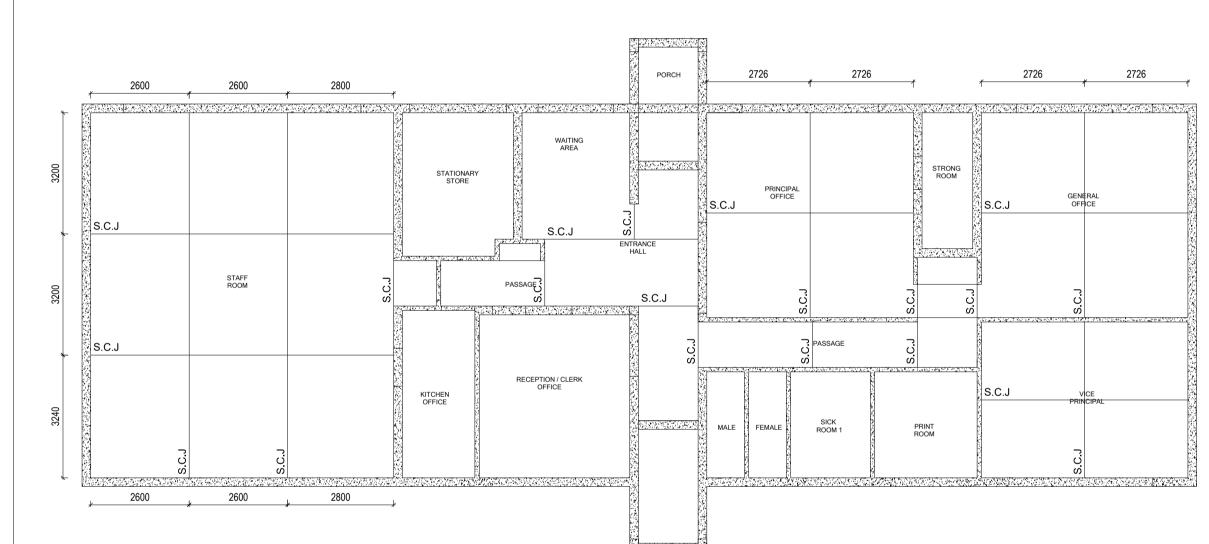
1) Workmanship to comply with Standard Specification of materials and methods to be used - SABS 0400 2)Light Switch in Disabled toilet to be at 1200 mm above FFL) If Step over 900 mm Build in Balustrade 4) Gulley positions to be determined as per site prescribed overall drainage 5) 2 x coats sealant 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 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 **ISSUED FOR TENDER** SIGNATURE TABLE DISCIPLINE SIGNATURE DATE **CLIENT** PLAN EXAMINER FIRE CONTROL ENVIRONMENTAL OFFICER ROADS / STORMWATER D8. All exposed expansion joints in walls and floors to be filled in with Urochem 205 polysulfide joint sealant after surfaces have WATER AND SANITATION ENVIRONMENTAL OFFICER REV No DATE DESCRIPTION SIZE ON ORIGINAL DRAWING 100 mm LIMPOPO PROVINCIAL GOVERNMENT REPUBLIC OF SOUTH AFRICA DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE INSTITUTION MOKHARI SECONDARY SCHOOL INSTITUTION EMIS NUMBER 906121051 SERVICE **NEW BUILDINGS & ALTERATIONS** CONTRACT - SECTION **DOCUMENTATION & PROCUREMENT** DISCIPLINE PROJECT STAGE ARCHITECTURAL WORK DESCRIPTION - SUB DIVISION MEDIUM ADMINISTRATION BLOCK DRAWING DESCRIPTION SECTION, ELECTRICAL AND FIRE PLAN FILE No. ITEM No. DESIGN DRAWN SCALE CHECKED 1: 100 RESPONSIBLE PROFESSIONAL VAME SIGNATURE DATE PR NUMBER 2023.06.20 Y.VAHED 7812 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

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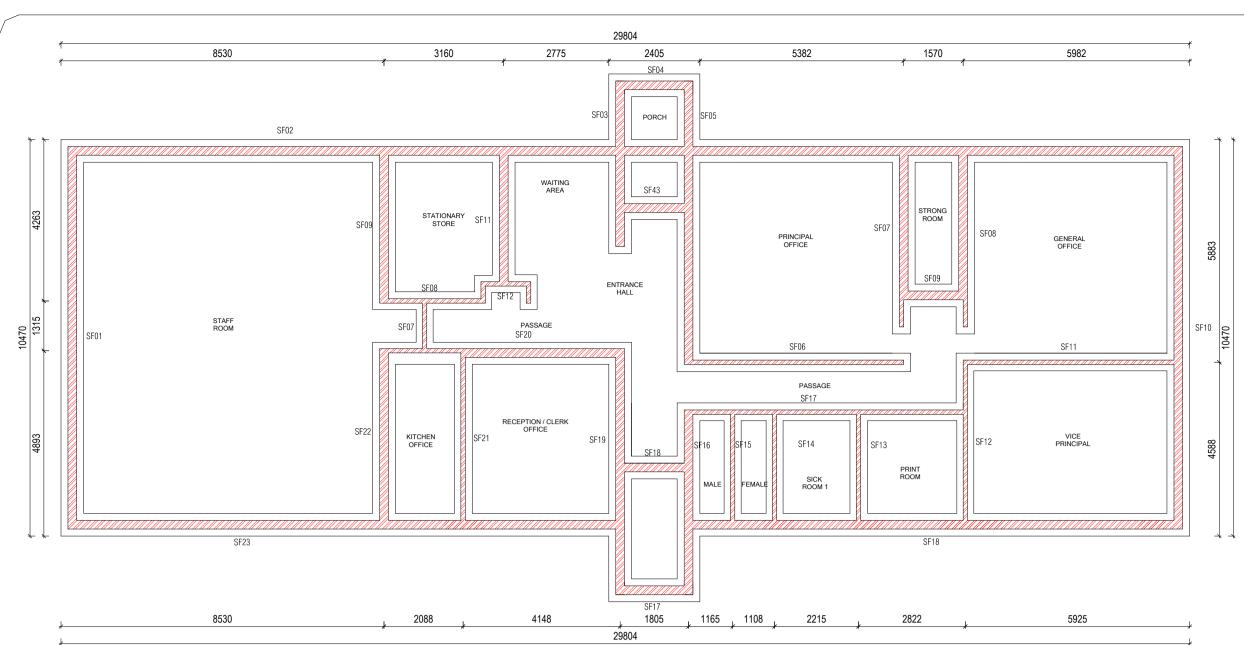
A 308



FLOOR JOINT LAYOUT PLAN SCALE 1 · 100



FOUNDATION PLAN 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)

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

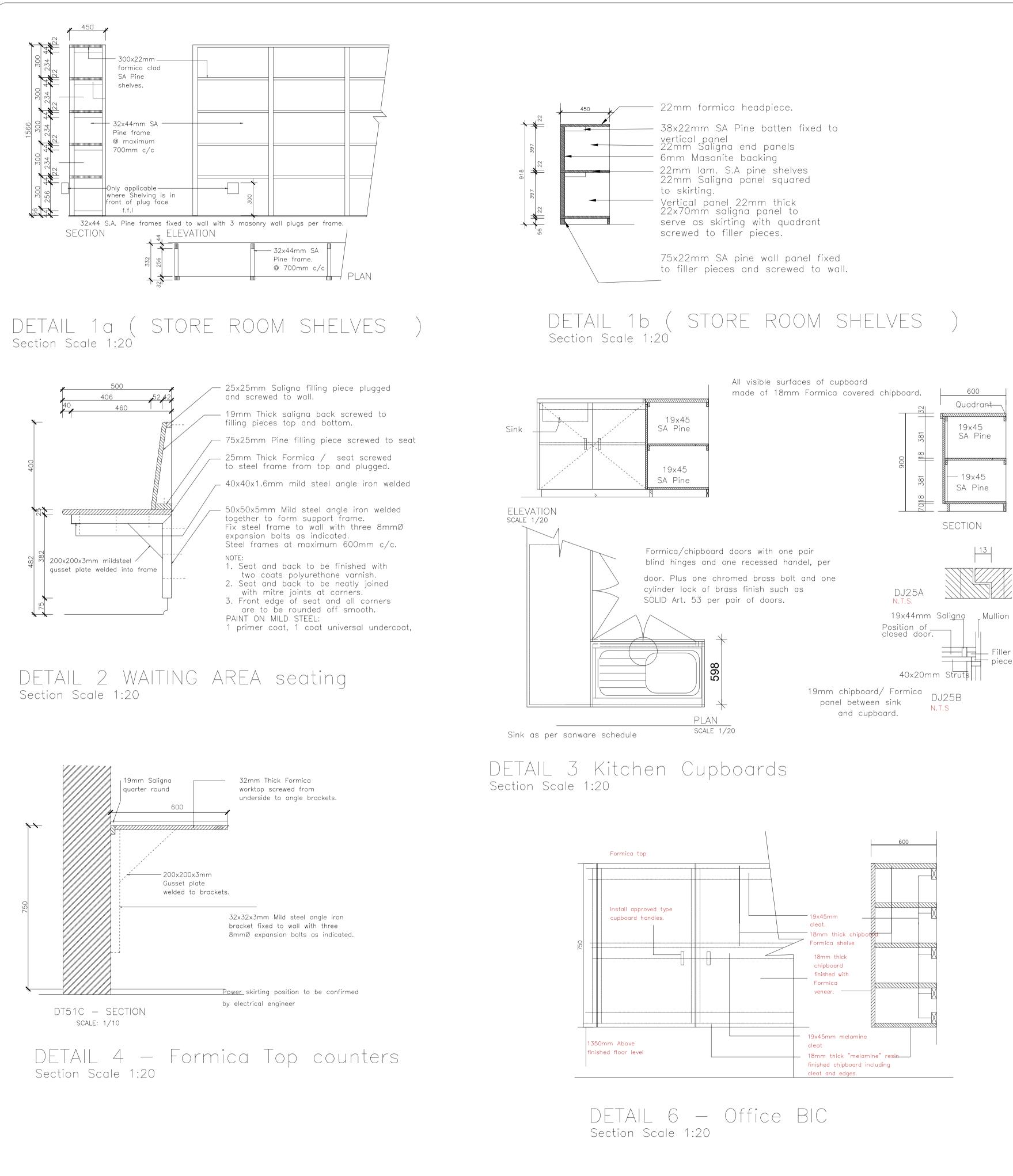
I1 9 Kg DCP fire extinguisher fitted to 400 x 200 x 22mm thick meranti backplate with chamfered edges. Sand down to a smooth finish, stop with Polycell Woodfiller, apply one coat Plascon Woodcare Ultra (X44) suede varnish thinned with 1:3 mineral turpentine (AZH1) & then apply two finishing coats Plascon 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.

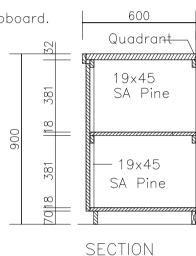
1) Workmanship to comply with Standard Specification of materials and methods to be used - SABS 0400 2)Light Switch in Disabled toilet to be at 1200 mm above FFL 3) If Step over 900 mm Build in Balustrade 4) Gulley positions to be determined as per site prescribed overall drainage design 5) 2 x coats 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 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 B2. Surface bed on walkways - concrete mix as described on structural engineer's drawings but minimum 85mm thick on SANS **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 SIZE ON ORIGINAL DRAWING 100 mm LIMPOPO PROVINCIAL GOVERNMENT REPUBLIC OF SOUTH AFRICA DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE INSTITUTION MOKHARI SECONDARY SCHOOL INSTITUTION EMIS NUMBER 906121051 SERVICE **NEW BUILDINGS & ALTERATIONS** CONTRACT - SECTION **DOCUMENTATION & PROCUREMENT** DISCIPLINE PROJECT STAGE ARCHITECTURAL WORK DESCRIPTION - SUB DIVISION MEDIUM ADMINISTRATION BLOCK DRAWING DESCRIPTION **FOUNDATION PLAN, JOINT & JOINERY** FILE No. ITEM No. DESIGN DRAWN SCALE CHECKED 1: 100 RESPONSIBLE PROFESSIONAL SIGNATURE DATE PR NUMBER 2023.06.20 Y.VAHED 7812 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

NOTES :

A 309







- Filler pieces 19mm chipboard/ Formica DJ25P N.T.S

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

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)

Fittinas 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

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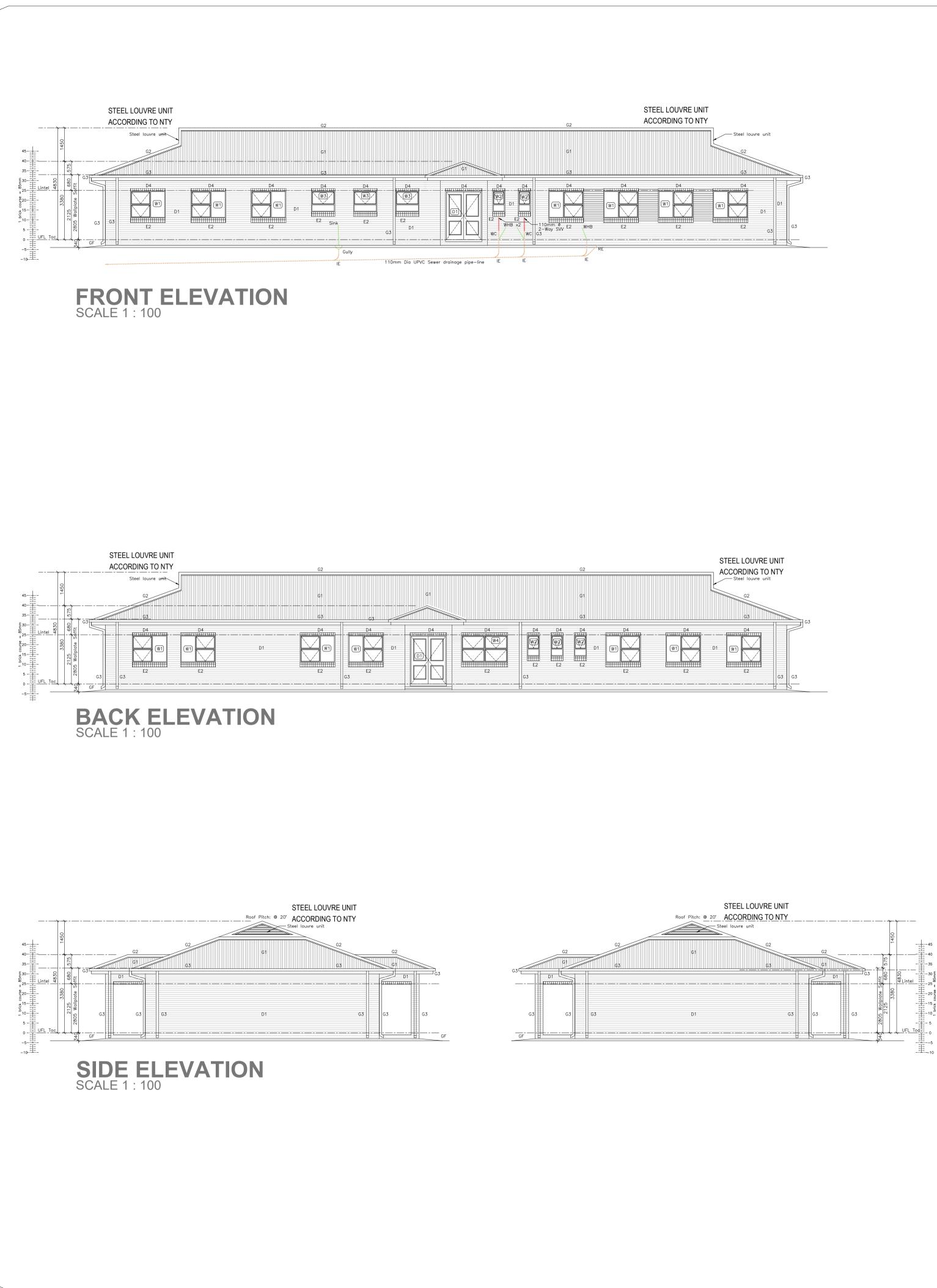
H4. Five rows of 19mm Thick laminated SA Pine shelving, 350mm wide, evenly spaced & fixed from underside to 305mm wide Shelco epoxy powder coated steel brackets. Brackets to be fixed to 25mm wide x 2134mm long double slotted epoxy powder coated Shelco type FT6 wall bands, plugged to walls at maximum 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.

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 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 **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 SIZE ON ORIGINAL DRAWING 100 mm LIMPOPO PROVINCIAL GOVERNMENT REPUBLIC OF SOUTH AFRICA DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE INSTITUTION MOKHARI SECONDARY SCHOOL INSTITUTION EMIS NUMBER 906121051 SERVICE **NEW BUILDINGS & ALTERATIONS** CONTRACT - SECTION **DOCUMENTATION & PROCUREMENT** DISCIPLINE PROJECT STAGE ARCHITECTURAL WORK DESCRIPTION - SUB DIVISION MEDIUM ADMINISTRATION BLOCK DRAWING DESCRIPTION JOINERY DETAILS FILE No. ITEM No. DESIGN DRAWN SCALE CHECKED 1: 100 RESPONSIBLE PROFESSIONAL IAME SIGNATURE DATE PR NUMBER WHO 2023.06.20 Y.VAHED 7812 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

NOTES :



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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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)

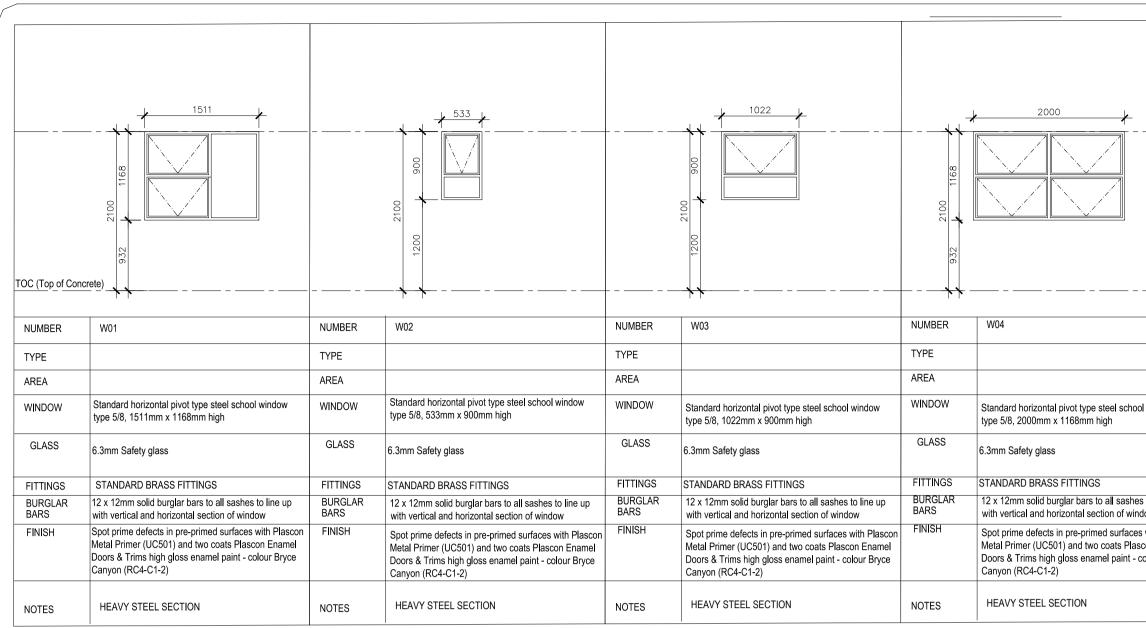
H4. Five rows of 19mm Thick laminated SA Pine shelving, 350mm wide, evenly spaced & fixed from underside to 305mm wide Shelco epoxy powder coated steel brackets. Brackets to be fixed to 25mm wide x 2134mm long double slotted epoxy powder coated Shelco type FT6 wall bands, plugged to walls at maximum 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

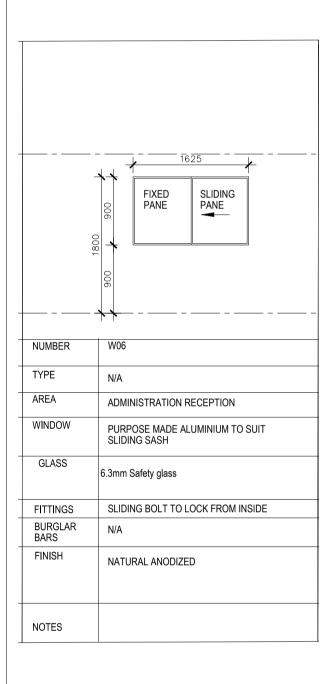
I1 9 Kg DCP fire extinguisher fitted to 400 x 200 x 22mm thick meranti backplate with chamfered edges. Sand down to a smooth finish, stop with Polycell Woodfiller, apply one coat Plascon Woodcare Ultra (X44) suede varnish thinned with 1:3 mineral turpentine (AZH1) & then apply two finishing coats Plascon 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.

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 5) 2 x coats sealant on all exposed trusses (sand off all SABS & othe 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 all areas that do not have ceilings) West Facing Facades to have standardised eaves to drop of 1200 mm 3) 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 SIZE ON ORIGINAL DRAWING 100 mm LIMPOPO **PROVINCIAL GOVERNMENT** REPUBLIC OF SOUTH AFRICA DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE INSTITUTION MOKHARI SECONDARY SCHOOL INSTITUTION EMIS NUMBER 906121051 SERVICE **NEW BUILDINGS & ALTERATIONS** CONTRACT - SECTION **DOCUMENTATION & PROCUREMENT** DISCIPLINE PROJECT STAGE ARCHITECTURAL WORK DESCRIPTION - SUB DIVISION MEDIUM ADMINISTRATION BLOCK DRAWING DESCRIPTION **ELEVATIONS** FILE No. ITEM No. DESIGN DRAWN SCALE 1: 100 CHECKED RESPONSIBLE PROFESSIONAL SIGNATURE DATE PR NUMBER 2023.06.20 Y.VAHED 7812 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

NOTES :





		PANE PANE		FIXED SLIDING PANE PANE 006 007 006 007 007 007 007 007 007 007
	NUMBER	W05	NUMBER	W06
	TYPE	N/A	TYPE	N/A
	AREA	ADMINISTRATION RECEPTION	AREA	ADMINISTRATION RECEPTION
ol window	WINDOW	PURPOSE MADE ALUMINIUM TO SUIT SLIDING SASH	WINDOW	PURPOSE MADE ALUMINIUM TO SUIT SLIDING SASH
	GLASS	6.3mm Safety glass	GLASS	6.3mm Safety glass
	FITTINGS	SLIDING BOLT TO LOCK FROM INSIDE	FITTINGS	SLIDING BOLT TO LOCK FROM INSIDE
es to line up ndow	BURGLAR BARS	N/A	BURGLAR BARS	N/A
s with Plascon scon Enamel colour Bryce	FINISH	NATURAL ANODIZED	FINISH	NATURAL ANODIZED
	NOTES		NOTES	

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)

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

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

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

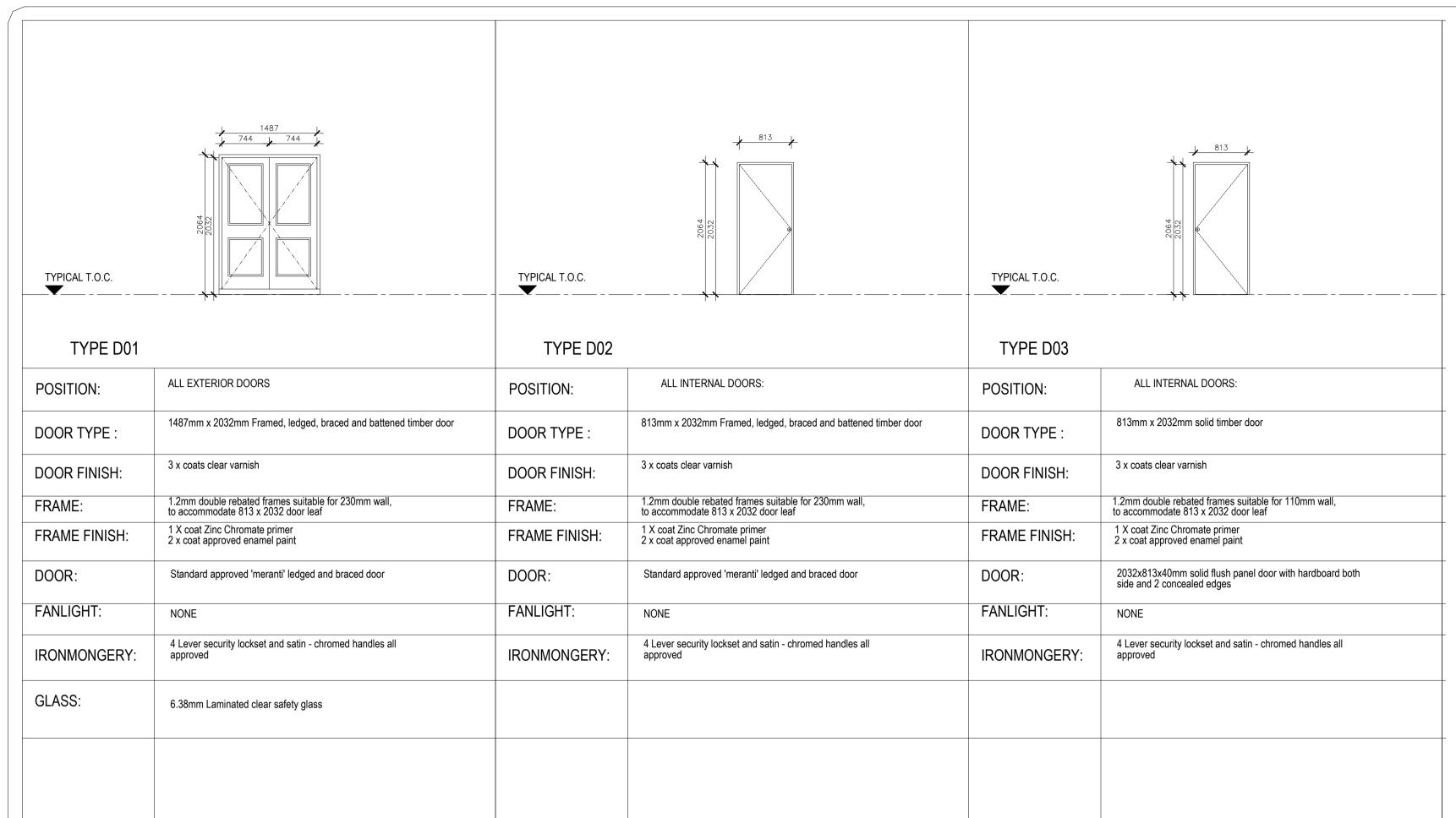
I1 9 Kg DCP fire extinguisher fitted to 400 x 200 x 22mm thick meranti backplate with chamfered edges. Sand down to a smooth finish, stop with Polycell Woodfiller, apply one coat Plascon Woodcare Ultra (X44) suede varnish thinned with 1:3 mineral turpentine (AZH1) & then apply two finishing coats Plascon 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

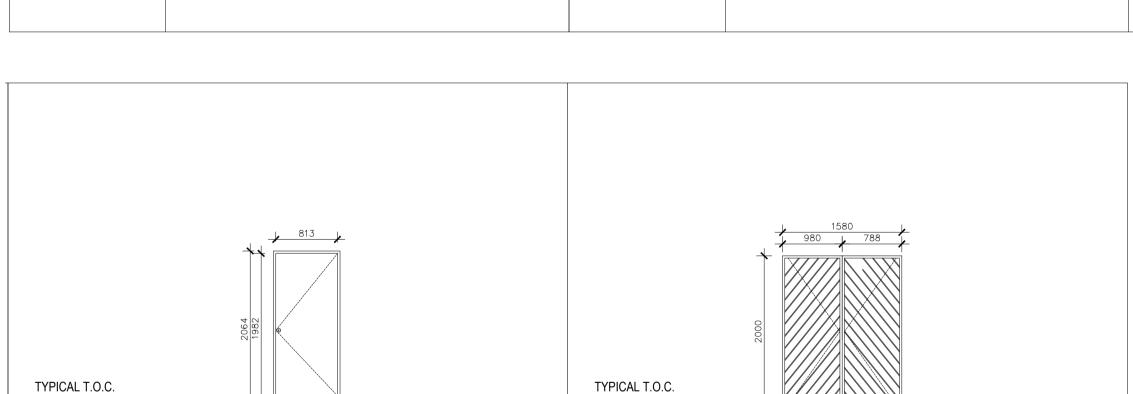
I2 Safex fire hose reel with 30m hose. Supply 152 x 152 x 3mm thick Union AL5066-06ASE05 aluminium engraved red fire hose reel sign & Union Al5066-06ASE08 aluminium engraved red down arrow sign above fire hose reel. Water supply in buildings to fire hose reel to be 25mm galvanised mild steel. Degrease 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.

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 1) 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 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 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 B2. Surface bed on walkways - concrete mix as described on structural engineer's drawings but minimum 85mm thick on SANS **ISSUED FOR TENDER** SIGNATURE TABLE DISCIPLINE SIGNATURE DATE **CLIENT** PLAN EXAMINER D7. Internal walls - face brick plinth up to 850mm with approved stockbrick walls in stretcher bond above to receive one coat FIRE CONTROL ENVIRONMENTAL OFFICER ROADS / STORMWATER WATER AND SANITATION ENVIRONMENTAL OFFICER REV No DATE DESCRIPTION SIZE ON ORIGINAL DRAWING 100 mm LIMPOPO PROVINCIAL GOVERNMENT REPUBLIC OF SOUTH AFRICA DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE INSTITUTION MOKHARI SECONDARY SCHOOL INSTITUTION EMIS NUMBER 906121051 SERVICE **NEW BUILDINGS & ALTERATIONS** CONTRACT - SECTION **DOCUMENTATION & PROCUREMENT** DISCIPLINE PROJECT STAGE ARCHITECTURAL WORK DESCRIPTION - SUB DIVISION MEDIUM ADMINISTRATION BLOCK DRAWING DESCRIPTION WINDOW SCHEDULE FILE No. ITEM No. DESIGN DRAWN SCALE CHECKED 1: 100 RESPONSIBLE PROFESSIONAL SIGNATURE DATE PR NUMBER 2023.06.20 Y.VAHED 7812 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

NOTES

A 312





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TYPE D04		TYPE G01	
POSITION:	TOILET CUBICLES	POSITION:	ENTRANCE
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
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
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
IRONMONGERY:	4 Lever security lockset and satin - chromed handles all approved	IRONMONGERY:	4 Lever security lockset and satin - chromed handles all approved

CONSTRUCTION NOTES:

Foundations

<u>A1</u>. 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. <u>A2</u>. 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

<u>B1.</u> Surface bed - concrete mix as described on structural engineer's drawings but minimum 85mm thick on SANS Specification 952 Type C approved USB Green 250 micron waterproofing membrane with laps sealed with pressure sensitive tape. Surface bed cast in alternative sections of maximum $20m^2$ 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

<u>B4.</u> 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

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

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

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

joints <u>D5.</u> DPC - SANS Specification 952 Type B approved 375 micron black dpc in walls at floor level and under all window sills <u>D6.</u> 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. <u>D8.</u> 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

<u>D9.</u> 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

<u>F1.</u> 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

<u>F2.</u> 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

<u>G1.</u> 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) <u>G8.</u> 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)

<u>Fittings</u> <u>H1.</u> 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

<u>H2</u>. Vitrex System 2000 (code 2317) light grey wall mounted pinning board, size 2000 x 1200mm high (2 per classroom) <u>H3</u>. 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

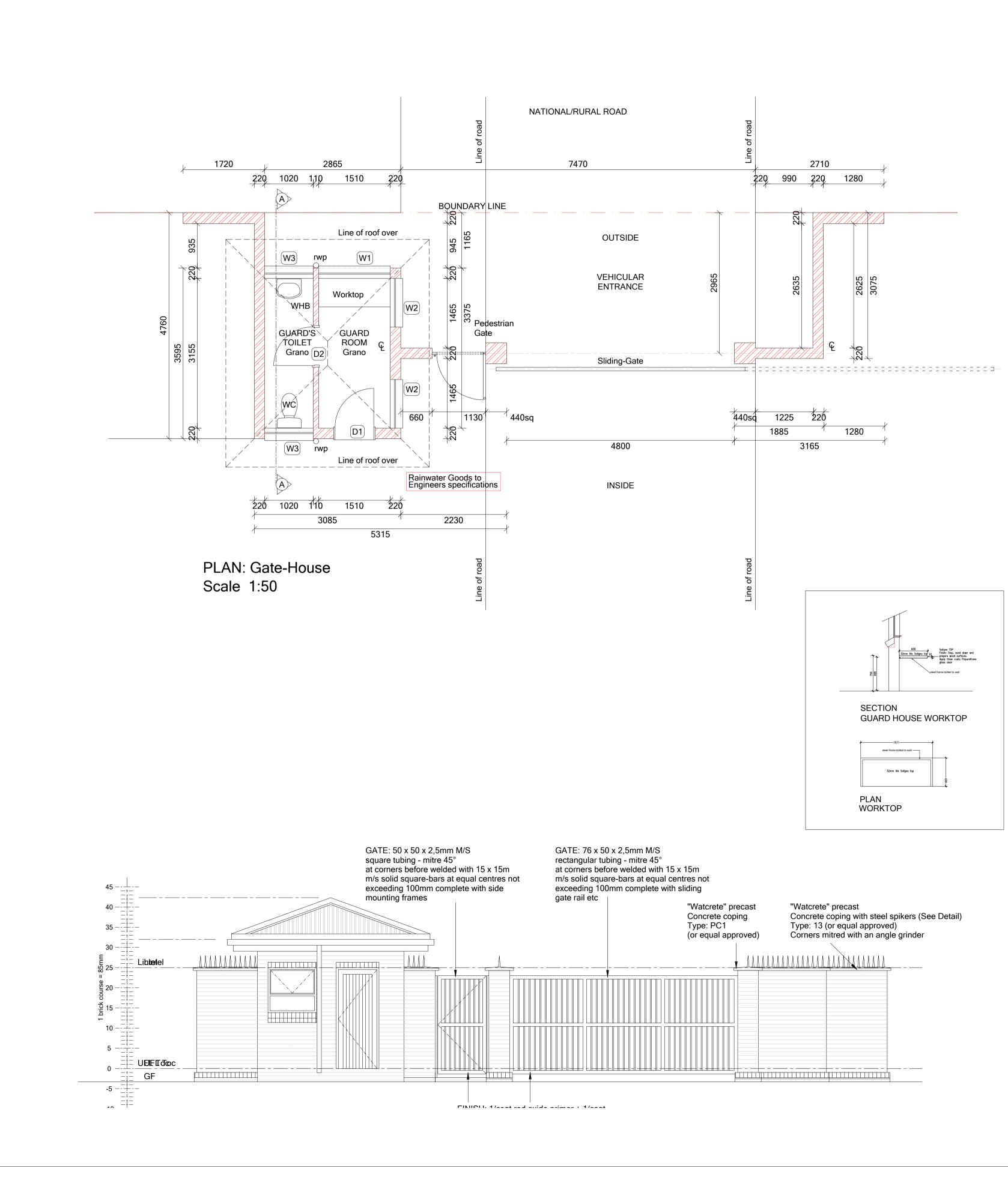
I1 9 Kg DCP fire extinguisher fitted to 400 x 200 x 22mm thick meranti backplate with chamfered edges. Sand down to a smooth finish, stop with Polycell Woodfiller, apply one coat Plascon Woodcare Ultra (X44) suede varnish thinned with 1:3 mineral turpentine (AZH1) & then apply two finishing coats Plascon 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

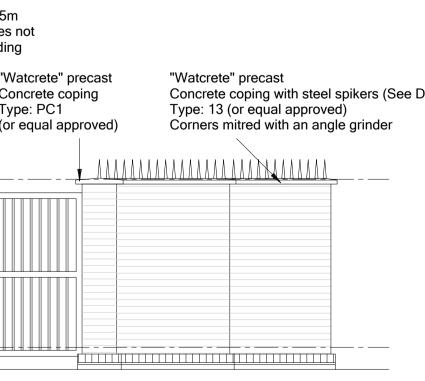
I2 Safex fire hose reel with 30m hose. Supply 152 x 152 x 3mm thick Union AL5066-06ASE05 aluminium engraved red fire hose reel sign & Union Al5066-06ASE08 aluminium engraved red down arrow sign above fire hose reel. Water supply in buildings to fire hose reel to be 25mm galvanised mild steel. Degrease 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.

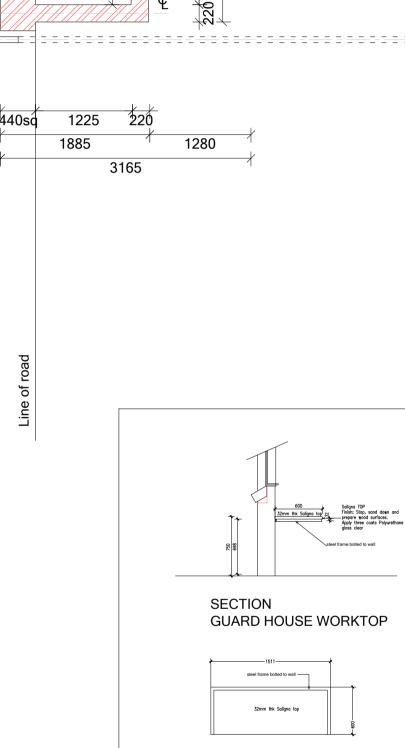
1) Workmanship to comply with Standard Specification of materials and methods to be used - SABS 0400 2)Light Switch in Disabled toilet to be at 1200 mm above FFL 3) If Step over 900 mm Build in Balustrade 4) Gulley positions to be determined as per site prescribed overall drainage design 5) 2 x coats 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 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 DRAWINGS FOR CONSTRUCTION SIGNATURE TABLE DISCIPLINE SIGNATURE DATE **CLIENT** PLAN EXAMINER FIRE CONTROL ENVIRONMENTAL OFFICER ROADS / STORMWATER WATER AND SANITATION ENVIRONMENTAL OFFICER REV No DATE DESCRIPTION SIZE ON ORIGINAL DRAWING 100 mm LIMPOPO **PROVINCIAL GOVERNMENT** REPUBLIC OF SOUTH AFRICA DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE INSTITUTION (MMAPHUTI MANAMELA SECONDARY SCHOOL INSTITUTION EMIS NUMBER 991104202 SERVICE **NEW BUILDINGS & ALTERATIONS** CONTRACT - SECTION CONSTRUCTION DISCIPLINE PROJECT STAGE ARCHITECTURAL 5 WORK DESCRIPTION - SUB DIVISION MEDIUM ADMINISTRATION BLOCK DRAWING DESCRIPTION **DOOR SCHEDULE** FILE No. ITEM No. DESIGN DRAWN SCALE CHECKED 1: 100 RESPONSIBLE PROFESSIONAL SIGNATURE DATE PR NUMBER 2023.05.08 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 AUTO CAD DRAWING NUMBER

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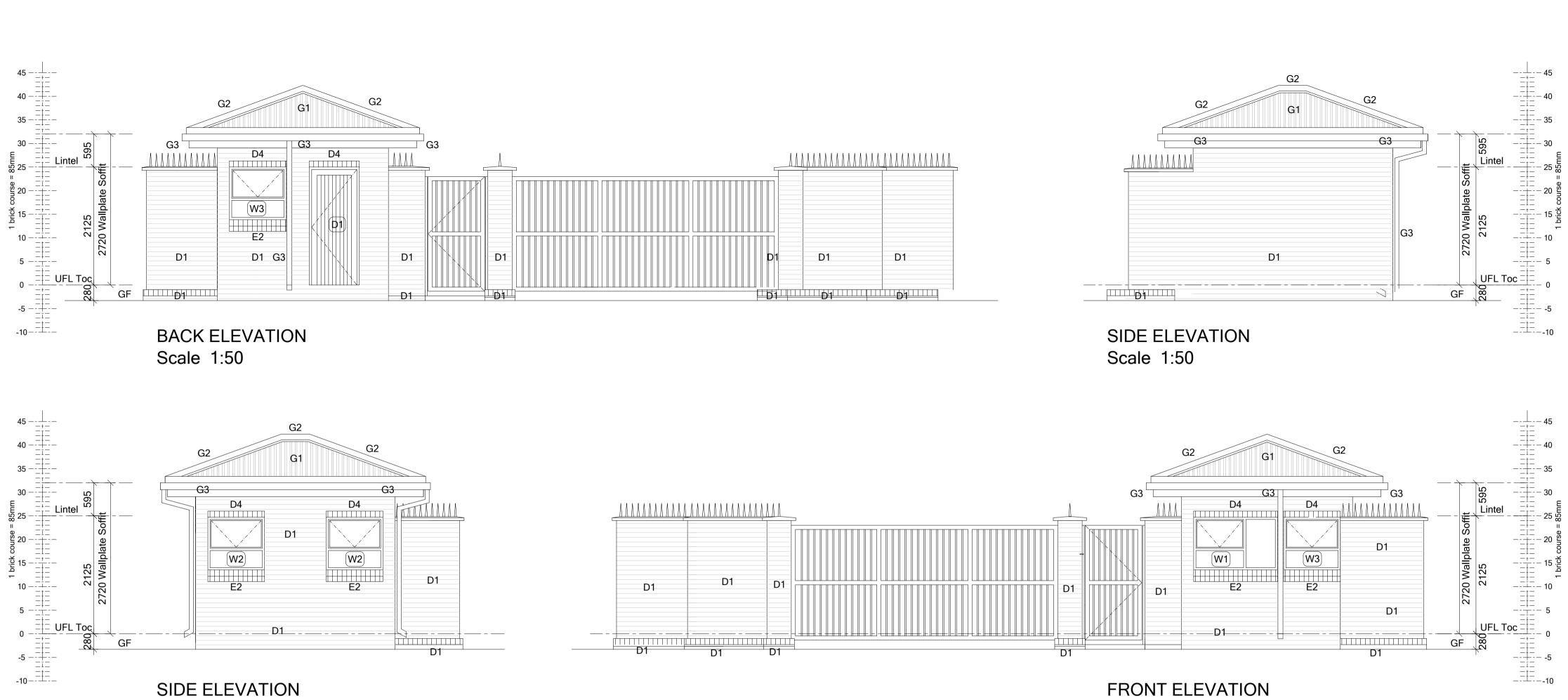




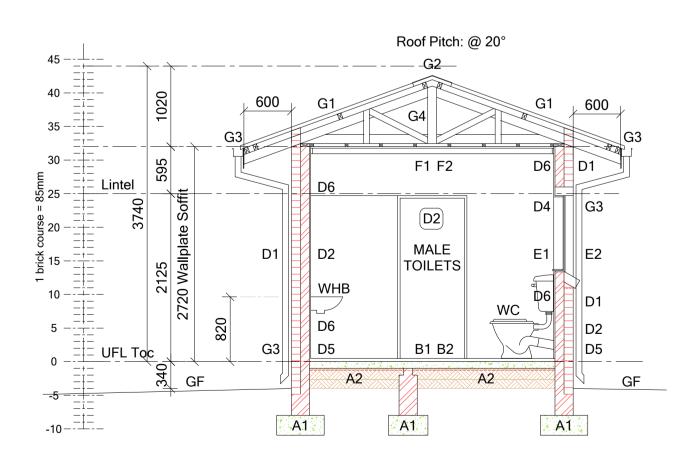


o match colour of downpipes

Foundations CONSTRUCTION NOTES A1: Concrete foundations - concrete mix type and with steel reinforcement according to structural engineer's drawings. Top of strip foolings to be 340mm minimum below N.G.L. Provide test cubes (1 per 15m ² or 1 per batch), Finished sides and bottoms of trenches to be treated with ant poison of the Prothor 200 SC or other approved type applied at a rate of not less than 5 litres of solution per m ² 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 they ear guarantee. A2. Backfilling and filling under floors to be treated with ant poison of the Protived 200 SC or other approved by regimeer (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 starts are of one test set in the soft solution. Winimum of 150mm rife provided atoes of CS or other approved by regimeer (imported filling to be minimum G5 or G7 material as per engineer's drawings). Compaction tests to be provided ta rate of no test starts of these of solution por m ² 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 filling earlies bed - concrete mix as described on structural engineer's drawings. Provide test cubes (1 per 15m ² or 1 per batch). B1. Surface bed - concrete B1. Surface bed - concrete B1. Surface bed - concrete mix as described on structural engineer's drawings. Provide test cubes (1 per 15m ² or 1 per batch). B2. Surface bed on walkways - concrete mix as described on structural engineer's drawings. Provide test cubes (1 per 15m 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) Qulley 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
Plascon Woodcare Stain (W-rañge)[Golour merant), 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 DT: External walls - Corobink face bricks in stretcher bond with 10mm wide x 6mm deep square recessed joints DZ: Striktforce - 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 steps lead and welded to botom. Columns to be fixed to top of brickwork felow copings with four M10 x 75mm masony anchor bolts. Degresses with TPlascon Aduation Values Voltanes (CR1), remover usit with "Plascon Kaller Bromer (RR1)", prime with Plascon Metal Primer (UCS6) and apply two Enishing coats Plascon Enamel Door & Tims high gloss enamel paint - colour as per finishes schedule. S0 x 228mm Laminated SA Pine beam twice tolker of lown to a smooth finish, stop with Polycell Woodfiller, provide one coat raw liniseed oil thinned with 1:3 mineral turpentine (AZH1), apply one coat Plascon Woodcare Surproof (Amber - PNW22) suede varnish thinned with 1:3 mineral turpentine (AZH1) and apply two Enishing coats Plascon Woodcare Surproved 3to: Kolinck walls in stretcher bond above to receive one coat smooth files the divide of the set and under all window sills D5 DPC - SNRS Specification 992. Type Baryoved 375 mile (2H2) PLA paint (EPL314) and specific value of with one coat Plascon Plaster Primer (UCS6) and two coats Plascon Polin Walls & Cellings (2H1) PLA paint (EPL314) Prince Chartrause (FIS-D23) as per Principal Agent D7. Internal walls - adproved stockthoick walls in stretcher bond above to receive one coat smooth files schedule. B4. Until All Sa Cellings (EPL) PLA paint (EPL314) and paly two Ensisted for surproved as and the start files schedule. B4. B4. B4. B4. B4. B4. B4. B4. B4. B4.	ISSUED FOR TENDER SIGNATURE TABLE DISCIPLINE SIGNATURE
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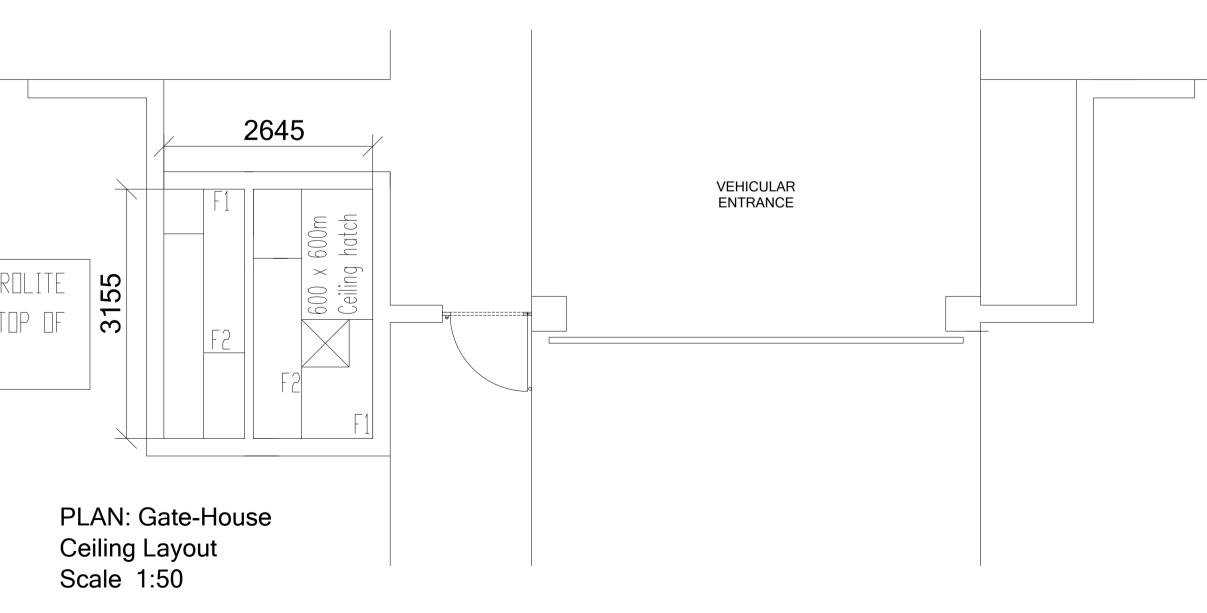


Scale 1:50



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

Scale 1:50



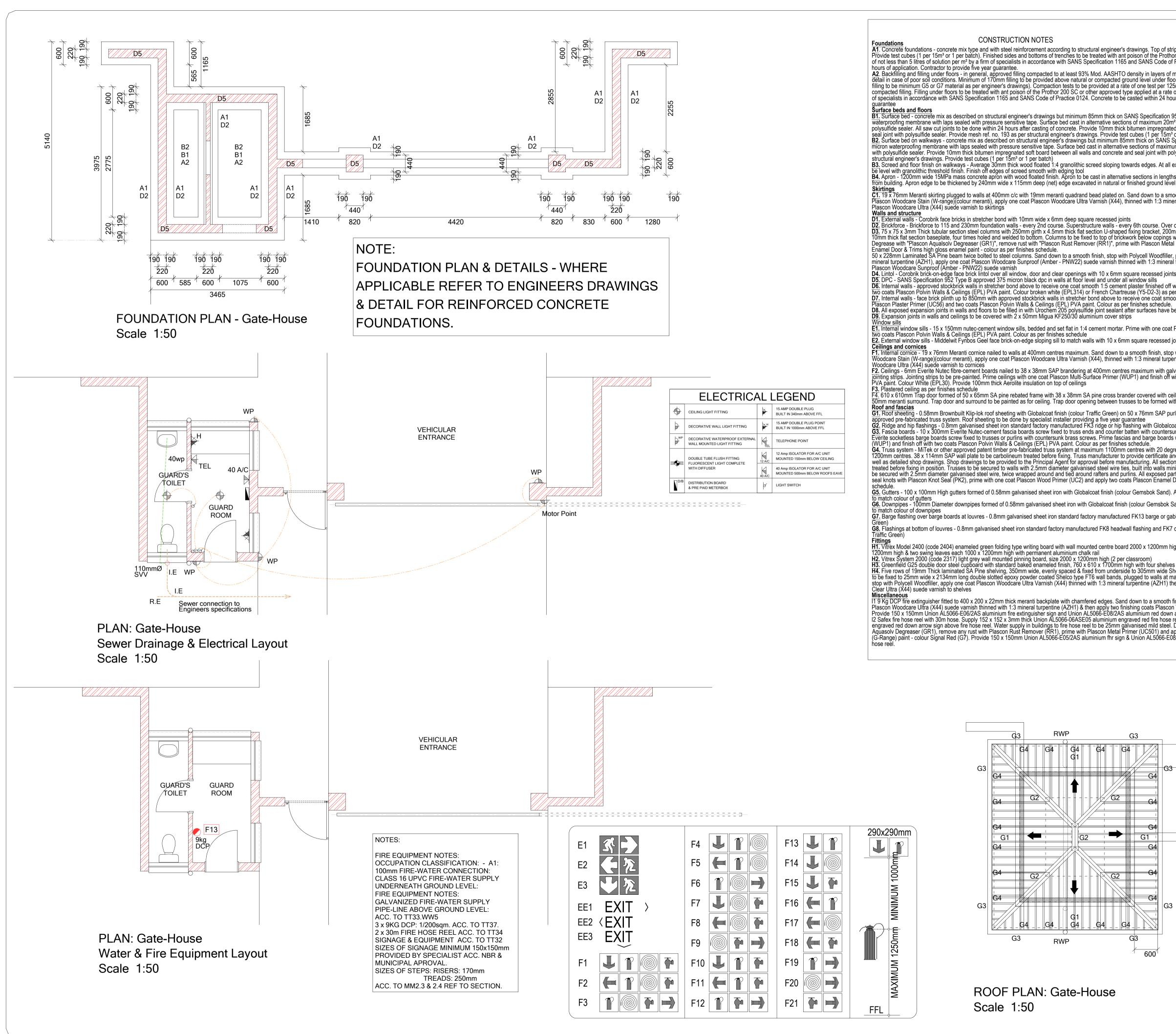
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A1. Concrete foundations - concrete mix type and with steel reinforcement according to structural engineer's drawings. Top of stri Provide test cubes (1 per 15m³ or 1 per batch). Finished sides and bottoms of trenches to be treated with ant poison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

A2. Backfilling and filling under floors - in general, approved filling compacted to at least 93% Mod. AASHTO density in layers of n detail in case of poor soil conditions. Minimum of 170mm filling to be provided above natural or compacted ground level under floor 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 125 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 125 filling to be minimum of material as per engineer's drawings). Compaction tests to be provided at a rate of one test per 125 filling to be minimum of the Drate test per 125 filling to be minimum of the Drate test per 125 filling to be provided at the provided test per 125 filling test per test per test per 125 filling test per test per test per 125 filling test per test 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 specialists in accordance with SANS Specification 1165 and SANS Code of Practice 0124. Concrete to be casted within 24 hou

B1. Surface bed - concrete mix as described on structural engineer's drawings but minimum 85mm thick on SANS Specification 95 waterproofing membrane with laps sealed with pressure sensitive tape. Surface bed cast in alternative sections of maximum 20m² polysulfide sealer. All saw cut joints to be done within 24 hours after casting of concrete. Provide 10mm thick bitumen impregnated seal joint with polysulfide sealer. Provide mesh ref. no. 193 as per structural engineer's drawings. Provide test cubes (1 per 15m³ c B2. Surface bed on walkways - concrete mix as described on structural engineer's drawings but minimum 85mm thick on SANS Sp minimum 85mm thick on SANS Sp

micron waterproofing membrane with laps sealed with pressure sensitive tape. Surface bed cast in alternative sections of maximu with polysulfide sealer. Provide 10mm thick bitumen impregnated soft board between all walls and concrete and seal joint with pol 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 e

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 smoc Plascon Woodcare Stain (W-range)(colour meranti), apply one coat Plascon Woodcare Ultra Varnish (X44), thinned with 1:3 miner

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 D3. 75 x 75 x 3mm Thick tubular section steel columns with 250mm girth x 4.5mm thick flat section U-shaped fixing bracket, 200r 10mm thick flat section baseplate, four times holed and welded to bottom. Columns to be fixed to top of brickwork below copings

Degrease with "Plascon Aqualsolv Degreaser (GR1)", remove rust with "Plascon Rust Remover (RR1)", prime with Plascon Meta 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, mineral turpentine (AZH1), apply one coat Plascon Woodcare Sunproof (Amber - PNW22) suede varnish thinned with 1:3 mineral

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 join 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

D6. Internal walls - approved stockorick walls in stretcher bond above to receive one coat smooth 1.5 certent plaster finished on w two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour broken white (EPL314) or French Chartreuse (Y5-D2-3) as per D7. Internal walls - face brick plinth up to 850mm with approved stockbrick walls in stretcher bond above to receive one coat smoo 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 be D9. Expansion joints in walls and ceilings to be covered with 2 x 50mm Migua KF250/30 aluminium cover strips

E1. Internal window sills - 15 x 150mm nutec-cement window sills, bedded and set flat in 1:4 cement mortar. Prime with one coat 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 j

Woodcare Stain (W-range)(colour meranti), apply one coat Plascon Woodcare Ultra Varnish (X44), thinned with 1:3 mineral turpe

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

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

G1. Roof sheeting - 0.58mm Brownbuilt Klip-lok roof sheeting with Globalcoat finish (colour Traffic Green) on 50 x 76mm SAP purl 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 G3. Fascia boards - 10 x 300mm Everite Nutec-cement fascia boards screw fixed to truss ends and counter batten with countersure Everite socketless barge boards screw fixed to trusses or purlins with countersure brass screws. Prime fascias and barge boards with Columna and barge boards with countersure boards and part of the socketless barge boards screw fixed to trusses or purlins with countersure brass screws. Prime fascias and barge boards with Columna and part of the socketless barge boards screw fixed to trusses or purling with countersure brass screws. Prime fascias and barge boards with countersure barge boards screw fixed to trusses or purling with countersure brass screws. Prime fascias and barge boards with countersure barge boards with the socketless barge boards barge boards barge boards with countersure barge boards with the socketless barge boards barge barge

(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 degre 1200mm centres. 38 x 114mm SAP wall plate to be carbolineum treated before fixing. Truss manufacturer to provide certificate and well as detailed shop drawings. Shop drawings to be provided to the Principal Agent for approval before manufacturing. All sections treated before fixing in position. Trusses to be secured to walls with 2.5mm diameter galvanised steel wire ties, built into walls minibe secured with 2.5mm diameter galvanised steel wire, twice wrapped around and tied around rafters and purlins. All exposed par seal knots with Plascon Knot Seal (PK2), prime with one coat Plascon Wood Primer (UC2) and apply two coats Plascon Enamel D

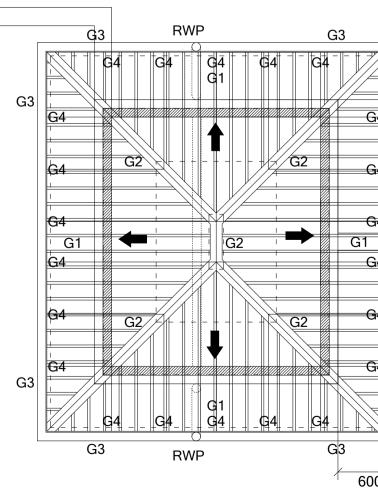
G5. Gutters - 100 x 100mm High gutters formed of 0.58mm galvanised sheet iron with Globalcoat finish (colour Gemsbok Sand) to match colour of gutters G6. Downpipes - 100mm Diameter downpipes formed of 0.58mm galvanised sheet iron with Globalcoat finish (colour Gemsbok

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

38. Flashings at bottom of louvres - 0.8mm galvanised sheet iron standard factory manufactured FK8 headwall flashing and FK7

Fittings H1. Vitrex Model 2400 (code 2404) enameled green folding type writing board with wall mounted centre board 2000 x 1200mm hi 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
 H4. Five rows of 19mm Thick laminated SA Pine shelving, 350mm wide, evenly spaced & fixed from underside to 305mm wide SI to be fixed to 25mm wide x 2134mm long double slotted epoxy powder coated Shelco type FT6 wall bands, plugged to walls at n stop with Polycell Woodfiller, apply one coat Plascon Woodcare Ultra Varnish (X44) thinned with 1:3 mineral turpentine (AZH1) t

Miscellaneous 11 9 Kg DCP fire extinguisher fitted to 400 x 200 x 22mm thick meranti backplate with chamfered edges. Sand down to a smooth fini Plascon Woodcare Ultra (X44) suede varnish thinned with 1:3 mineral turpentine (AZH1) & then apply two finishing coats Plascon V Provide 150 x 150mm Union AL5066-E06/2AS aluminium fire extinguisher sign and Union AL5066-E08/2AS aluminium red down a 12 Safex fire hose reel with 30m hose. Supply 152 x 152 x 3mm thick Union AL5066-06ASE05 aluminium engraved red fire hose reel Provide red down arrow sign above fire hose reel. Water supply in buildings to fire hose reel to be 25mm galvanised mild steel. D engraved red down arrow sign above fire hose reel. Water supply in buildings to fire hose reel to be 25mm galvanised mild steel. Aquasolv Degreaser (GR1), remove any rust with Plascon Rust Remover (RR1), prime with Plascon Metal Primer (UC501) and (G-Range) paint - colour Signal Red (G7). Provide 150 x 150mm Union AL5066-E05/2AS aluminium fhr sign & Union AL5066-E0



ROOF PLAN: Gate-House Scale 1:50

	NUTES .
trip footings to be 340mm minimum below N.G.L. hor 200 SC or other approved type applied at a rate of Practice 0124. Concrete to be casted within 24 f maximum 150mm - refer to engineer's drawings for ioors. All filling to be approved by engineer (imported 25m² filling area under floors per each layer of 150mm e of not less than 5 litres of solution per m² by a firm ours of application. Contractor to provide five year 1952 Type C approved USB Green 250 micron m² with saw cut joints with joints filled up with ted soft board between all walls and concrete and 1° or 1 per batch) • Specification 952 Type C approved USB Green 250 num 20m² with expansion joints with joints filled up polysulfide sealer. Provide mesh ref. no. 193 as per I external door openings external surface beds must ths of maximum 3m and to have a 1:100 fall away vel mooth finish, stop with Polycell Woodfiller, stain with neral turpentine (AZH1) and apply two finishing coats er openings formed in brickwork as per table below 0mm long, twice holed and welded to top, 200 x 200 x s with four M10 x 75mm masonry anchor bolts. tal Primer (UC501) and apply two coats Plascon er, provide one coat raw linseed oil thinned with 1:3 al turpentine (AZH1) and apply two finishing coats ints f with one coat Plascon Plaster Primer (UC56) and per Principal Agent iooth 1:5 cement plaster finished off with one coat been primed with Urochem 614 primer at Plascon Multi-surface Primer (WUP1) and apply 4 joints op with Polycell Woodfiller, stain with Plascon pentine (AZH1) and apply two finishing coats Plascon alvanised clout nails. Provide H-profile galvanised f with wo coats Plascon Polvin Walls & Ceilings (EPL) exiling board and fitted flush in opening. Provide 18 x	NUTES . 1) Workmanship to comply with Standard Specification of materials and retroots to be used - SABS 0400. 2) Higher postions to be determined as per site prescribed overall drainage of the postions to be determined as per site prescribed overall drainage of the postions to be determined as per site prescribed overall drainage of the postion manifered wool insulation to be installed where there are cellings. 2) Workmanship to comply with folloacing to be installed with wire supports in a market on the are cellings. 3) Work Facing Facedes to have standardised aluminium louves from below to drain of the are cellings. 4) The second face of the are cellings. 6) The design of the designed in accordance with SABS 0400 & approved by Project Engineers. 8) The design of the designed in accordance with SABS 0400 & approved by Project Engineers. 8) The design of the designed in accordance with SABS 0400 & approved by Project Engineers. 8) The design of the designed in accordance with SABS 0400 & approved by Project Engineers. 8) The design of the d
with 38 x 114mm SA pine bearers, nailed to trusses	SIGNATURE TABLE
ourlins at maximum 1200mm centres on patent and coat finish (colour Traffic Green) sunk brass screws. Barge boards - 200 x 80mm ds with one coat Plascon Multi-Surface Primer	DISCIPLINE SIGNATURE DATE CLIENT
grees pitch. 50 x 76mm SAP purlins at maximum	FIRE CONTROL ENVIRONMENTAL OFFICER
and guarantee for design and erection of trusses as ions in contact with wet trades to be carbolineum ninimum 6 courses. Purlins nailed to trusses must also parts of trusses, purlins, etc. to be sanded smooth,	ROADS / STORMWATER WATER AND SANITATION
). All brackets, etc. to be pre-coated with Globalcoat	ENVIRONMENTAL OFFICER
Sand). All holderbats, brackets, etc. to be pre-coated able flashing with Globalcoat finish (colour Traffic	
7 counter flashing with Globalcoat finish (Colour	REV No DATE : DESCRIPTION :
high, two wall mounted side boards each 1000 x	REVISIONSSIZE ON ORIGINAL DRAWING 100 mm
Shèlco epoxy powdér coated steel brackets. Brackets maximum 600mm c/c. Sand down to a smooth finish, then apply two finishing coats Plascon Woodcare on finish, stop with Polycell Woodfiller, apply one coat on Woodcare Ultra (X44) suede varnish to back plate. <i>In arrow sign above fire extinguisher</i> <i>e reel sign & Union Al5066-06ASE08 aluminium</i> 1. Degrease exposed parts of pipes with Plascon apply two coats Plascon Enamel Doors & trims 508/2AS aluminium red down arrow sign above fire	LIMPOPO PROVINCIAL GOVERNMENT REPUBLIC OF SOUTH AFRICA DEPARTMENT OF EDUCATION
	INSTITUTION MOKHARI SECONDARY SCHOOL INSTITUTION EMIS NUMBER
	906121051 SERVICE
3	NEW BUILDINGS CONTRACT - SECTION
	DOCUMENTATION & PROCUREMENT DISCIPLINE PROJECT STAGE
	ARCHITECTURAL 4 WORK DESCRIPTION - SUB DIVISION
	GUARD HOUSE
	FOUNDATION, SEWER, FIRE AND ROOF
	DESIGN DRAWN SCALE 1:100 CHECKE
	RESPONSIBLE PROFESSIONAL DATE NAME SIGNATURE PR NUMBER
3	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
	CADD AUTO CAD FILE SYSTEM AUTO CAD FILE SIZE DRAWING NUMBER REV2
/	A 1 2020 67-GH-003 A

NOTES

DOOR SCHEDULE: Scale 1:50.		978 32 914 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 (1=LH) (0 = RH) 1,2mm THICK STANDARD STEEL DOUBLE REBATED	1 (0 = LH) (1 = RH) 1.2mm THICK STANDARD STEEL DOUBLE REBATED	_
DOOR-FRAME DESCRIPTION:	DOORFRAME FOR 115MM WALL TO RECEIVE PLASTER ON ONE-SIDE	DOORFRAME FOR 115MM WALL TO RECEIVE PLASTER ON ONE-SIDE	
	1/RED OXIDE PRIMER + 1/COAT UNIVERSAL	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	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	
ш ш			
WINDOW SCHEDULE Scale 1:50.			2185
WINDOW NUMBER:			W:
POSITION:	GUARD ROOM	GUARD ROOM	TOILE
QTY: WINDOW-FRAME DESCRIPTION:	1 STANDARD SS INDUSTRIAL TYPE STEEL WINDOW-FRAME CATALOGUE NUMBER (TBC) COMPLETE WITH FITTINGS AS SUPPLY BY MANUFACTURER	2 STANDARD SS INDUSTRIAL TYPE STEEL WINDOW-FRAME CATALOGUE NUMBER (TBC) COMPLETE WITH FITTINGS AS SUPPLY BY MANUFACTURER	2 STANDA CATALO AS SUPP
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	OUT OF 10mm WIDE FLAT-BARS 1/COAT RED OXIDE PRIMER + 1/COAT UNIVERSAL	OUT OF 1/COAT
	UNDERCOAT + 2/COATS PLASCON GLOSS ENAMEL	UNDERCOAT + 2/COATS PLASCON GLOSS ENAMEL	UNDER PAINT -
GLASS:	4mm THICK CLEAR FLOATED SHEET GLAZING SECURED IN FRAME WITH SABS APPROVED GLAZING PUTTY	4mm THICK CLEAR FLOATED SHEET GLAZING SECURED IN FRAME WITH SABS APPROVED GLAZING PUTTY	5mm TH GLAZIN APPRO
GLASS:	PAINT - COLOUR ACCORDING TO ARCHITECT. 4mm THICK CLEAR FLOATED SHEET GLAZING SECURED IN FRAME WITH SABS	PAINT - COLOUR ACCORDING TO ARCHITECT. 4mm THICK CLEAR FLOATED SHEET GLAZING SECURED IN FRAME WITH SABS	PAINT 5mm GLAZ

CONSTRUCTION NOTES

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

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

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

B2. Surface bed on waikways - concrete mix as described on structural engineer's drawings but minimum committic micron waterproofing membrane with laps sealed with pressure sensitive tape. Surface bed cast in alternative section with polysulfide sealer. Provide 10mm thick bitumen impregnated soft board between all walls and concrete and seal 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 e 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 section with granolithic threshold finish. Finish off edges of screed smooth with edging tool

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

 Skirtings
 C1. 19 x 76mm Meranti skirting plugged to walls at 400mm c/c with 19mm meranti quadrand bead plated on. Sand d Plascon Woodcare Stain (W-range)(colour meranti), apply one coat Plascon Woodcare Ultra Varnish (X44), thinned 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 6th co
 D3. 75 x 75 x 3mm Thick tubular section steel columns with 250mm girth x 4.5mm thick flat section U-shaped fixing bit 10mm thick flat section baseplate, four times holed and welded to bottom. Columns to be fixed to top of brickwork below Degrease with "Plascon Aqualsolv Degreaser (GR1)", remove rust with "Plascon Rust Remover (RR1)", prime with Pl 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 Polycel mineral turgenting (AZH1), apply one coat Plascon Woodcare Supprov (Amber - PNIW22) sugde variash thinged with

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

Placon 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 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 finishes schedule. 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 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 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

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

Boon and surround. They door and surround to be painted to

 G3. Fascia boards - 10 X 300mm Evente 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. 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

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 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

11 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

+ 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 HITECTS APPROVAL.

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

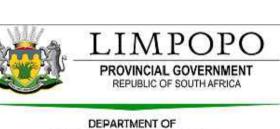
ings. Top of strip footings to be 340mm minimum below N.G.L. on of the Prothor 200 SC or other approved type applied at a rate SANS Code of Practice 0124. Concrete to be casted within 24
ity in layers of maximum 150mm - refer to engineer's drawings for level under floors. All filling to be approved by engineer (imported one test per 125m ² filling area under floors per each layer of 150mm oplied at a rate of not less than 5 litres of solution per m ² by a firm ed within 24 hours of application. Contractor to provide five year
Specification 952 Type C approved USB Green 250 micron maximum 20m ² with saw cut joints with joints filled up with then impregnated soft board between all walls and concrete and es (1 per 15m ³ or 1 per batch) nick on SANS Specification 952 Type C approved USB Green 250 tions of maximum 20m ² with expansion joints with joints filled up eal joint with polysulfide sealer. Provide mesh ref. no. 193 as per
s edges. At all external door openings external surface beds must
ctions in lengths of maximum 3m and to have a 1:100 fall away led ground level
I down to a smooth finish, stop with Polycell Woodfiller, stain with d with 1:3 mineral turpentine (AZH1) and apply two finishing coats
h course. Over openings formed in brickwork as per table below g bracket, 200mm long, twice holed and welded to top, 200 x 200 x below copings with four M10 x 75mm masonry anchor bolts. h Plascon Metal Primer (UC501) and apply two coats Plascon
cell Woodfiller, provide one coat raw linseed oil thinned with 1:3 with 1:3 mineral turpentine (AZH1) and apply two finishing coats
e recessed joints

NOTES

1) Workmanship to comply with Standard Specification of materials and methods to be used - SABS 0400 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 Project Engineers

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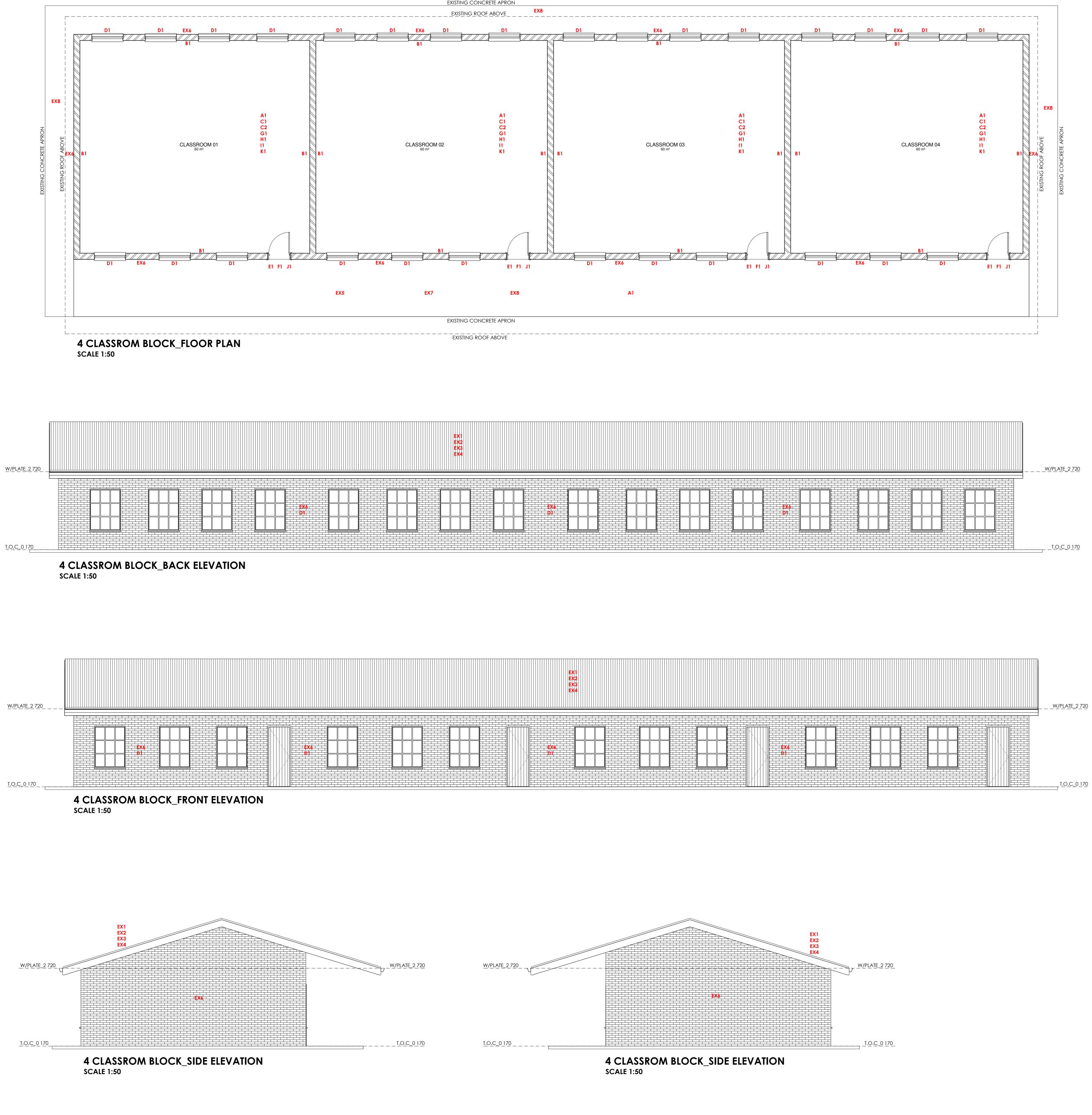
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REFURBISHME

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 • **B1 - WALLS** 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.

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<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>K1 - SANITARY WARE</u>

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 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.

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.

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 :

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>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 filler 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.

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>J1 - DOOR STOPPER</u> DDS-NP-018 nickel plated door stop.

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.

New wheelchair access ramp to be installed where needed.

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

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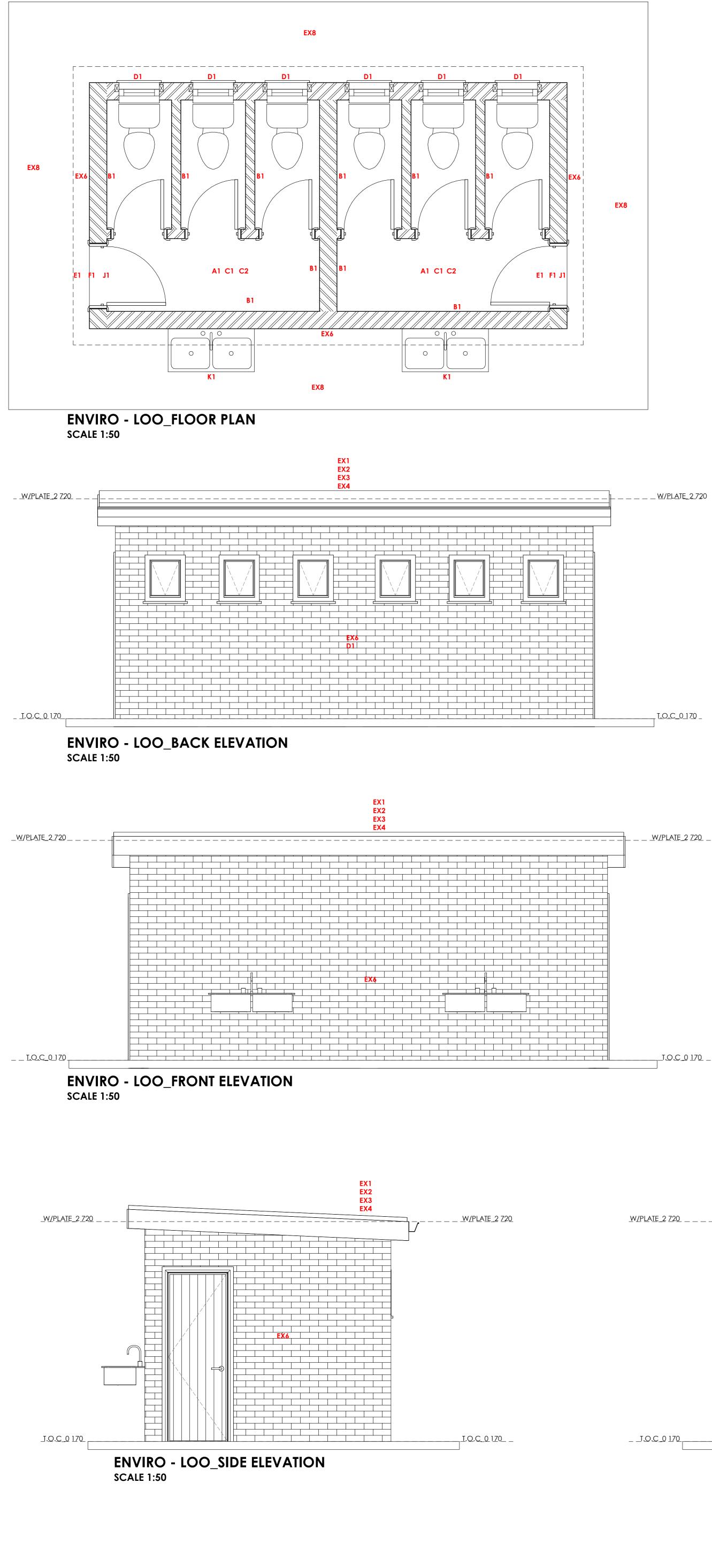
8) TRUSSES TO BE DESIGNED IN ACCORDANCE WITH SABS 0400 &

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> EX2 EX3 EX4 W/PLATE_2 720 ______ <u>W/PLATE_2720</u> EX6 ENVIRO - LOO_SIDE ELEVATION SCALE 1:50

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REFURBISHM

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<u>EXTERNA</u>

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• **B1 - WALLS** 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'

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

<u>K1 - SANITARY WARE</u>

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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.

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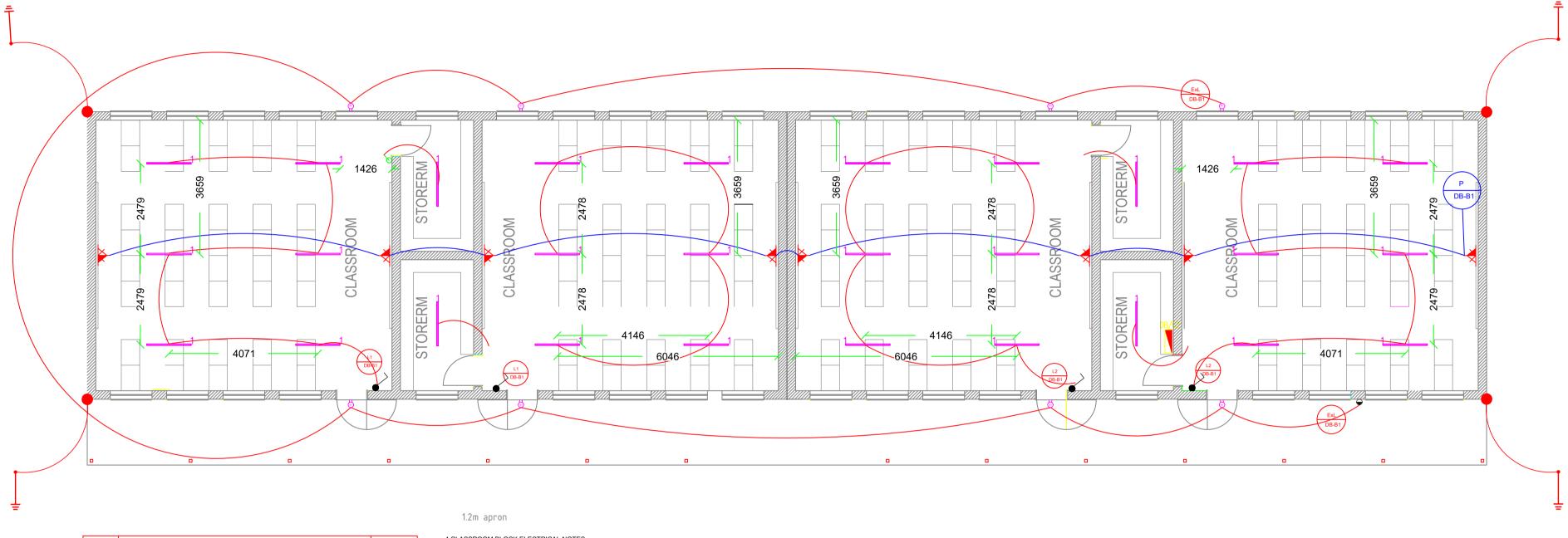
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REVISIONS

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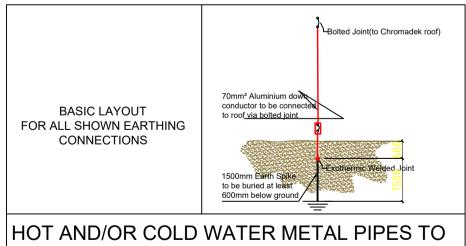


SYMBOL	LIGHTING LEGEND.	QUANTITY
	TYPE 1 - 1200mm x 350mm 35W Surface LED channel complete with electronic ballast. Fittings to be equivalent to REGENT LIGHTING NANO CR180 fittings.	28
B1	TYPE B1 - IP65 Wall mounted 280mm diameter bulkhead complete with 2 x 18W CFL.Fittings shall be equivalent to the BEKA series 31. Fittings to me mounted at 2200mm After Finished Floor Level.	9
Ŷ	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

- 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.

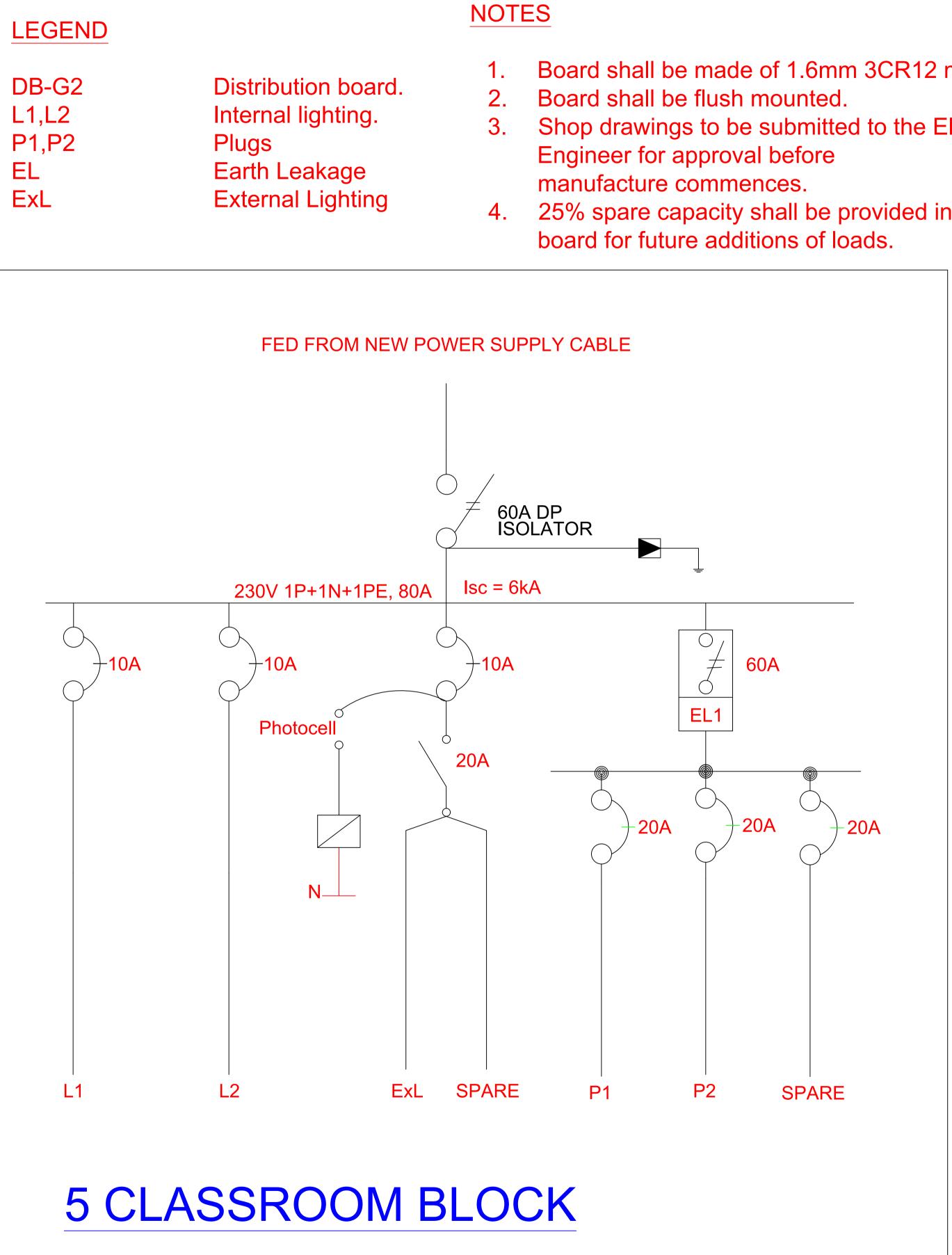
Symbol Description

1500mm earth spike



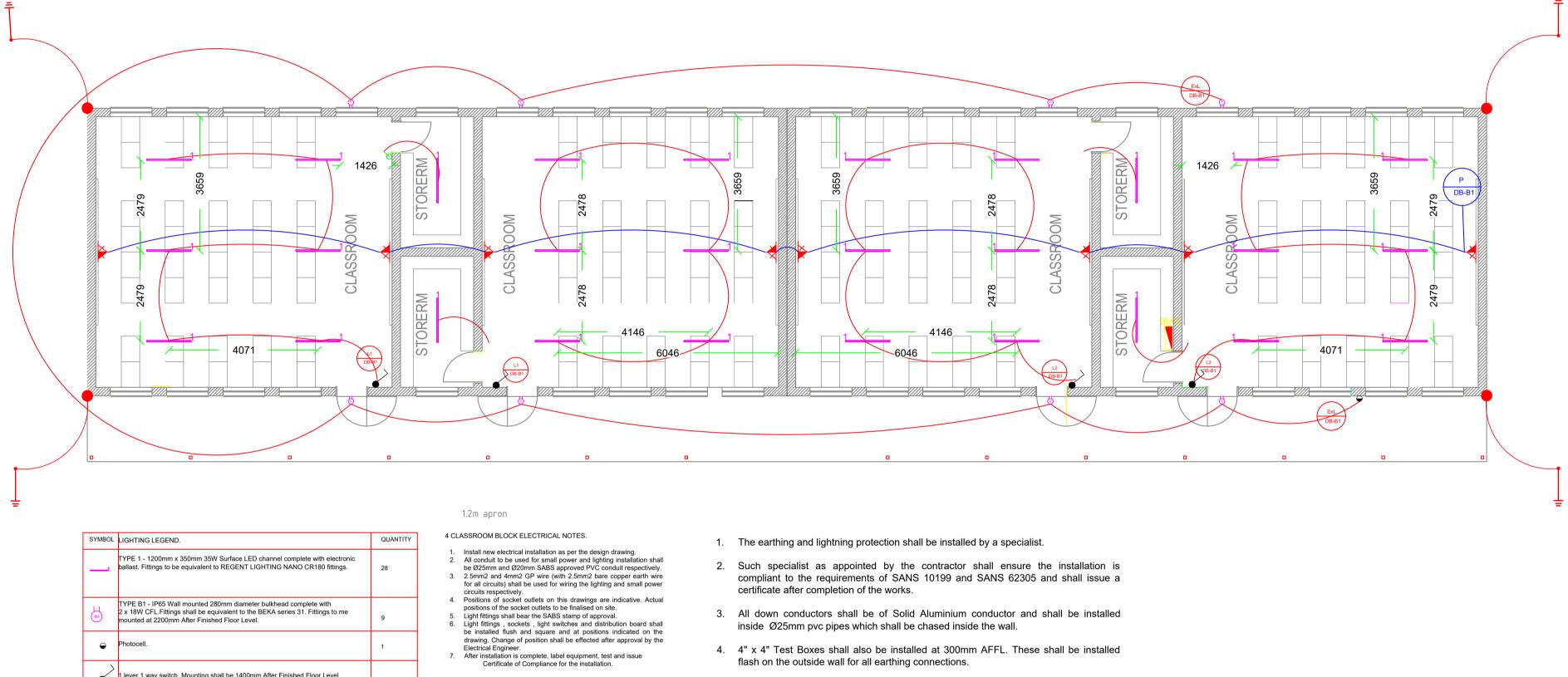
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ibution board. nal lighting.	1. 2.	Board shall be made of 1.6mm 3CR12 material. Board shall be flush mounted.
narngnung. s n Leakage	3.	Shop drawings to be submitted to the Electrical Engineer for approval before
rnal Lighting	4.	manufacture commences. 25% spare capacity shall be provided in the

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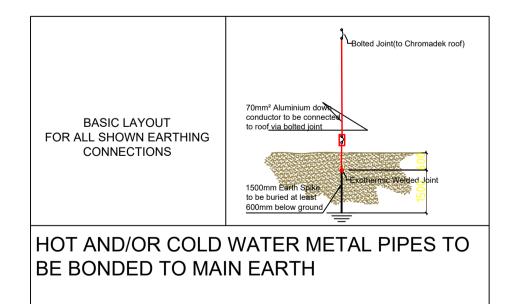


	TYPE 1 - 1200mm x 350mm 35W Surface LED channel complete with electronic ballast. Fittings to be equivalent to REGENT LIGHTING NANO CR180 fittings.	28
H B1	TYPE B1 - IP65 Wall mounted 280mm diameter bulkhead complete with 2 x 18W CFL.Fittings shall be equivalent to the BEKA series 31. Fittings to me mounted at 2200mm After Finished Floor Level.	9
÷	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

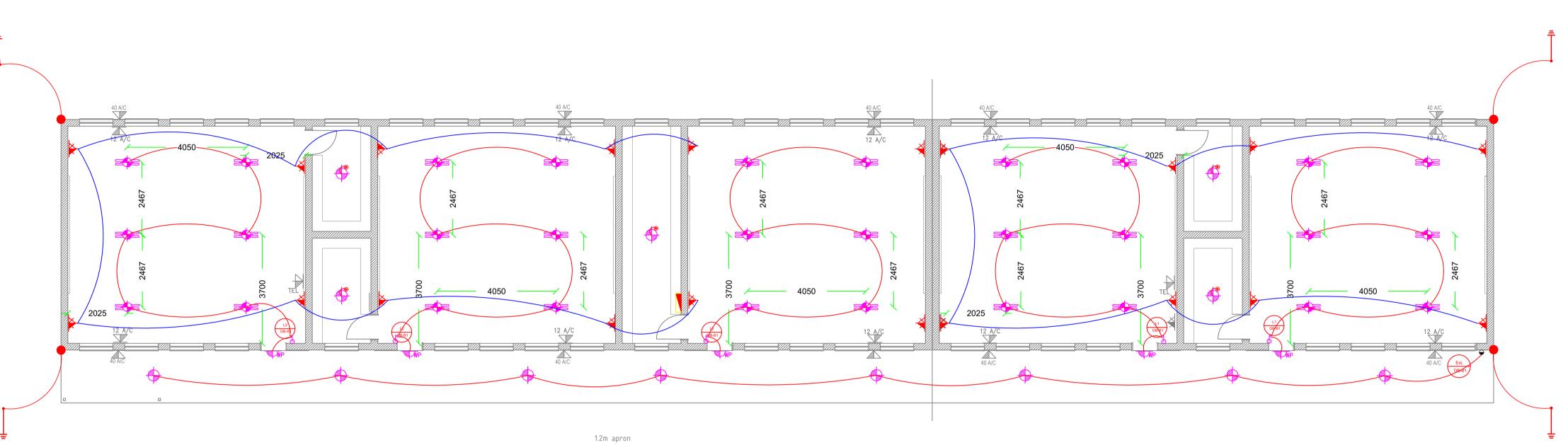
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- 6. The layout shown for electrode installation is a guide and should there be any need to drive the rods deeper into the ground or add more rods to lower the ground resistance the specialist shall inform the Electrical Engineer.

Symbol Description

1500mm earth spike



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SYMBOL	LIGHTING LEGEND.	QUANTITY
-	TYPE 1 - 1200mm x 350mm 35W Surface LED channel complete with electronic ballast. Fittings to be equivalent to REGENT LIGHTING NANO CR180 fittings.	30
WP	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.	5
	TYPE B1 - IP65 ceiling 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.	13
÷	Photocell.	1
9	1 lever 2 way switch. Mounting shall be 1400mm After Finished Floor Level.	5
*	16A Flush mounted double socket outlet. Mounting at 300mm AFFL.	15
	Flush Mounted Distribution Board	1
۲	Occupancy sensor	5

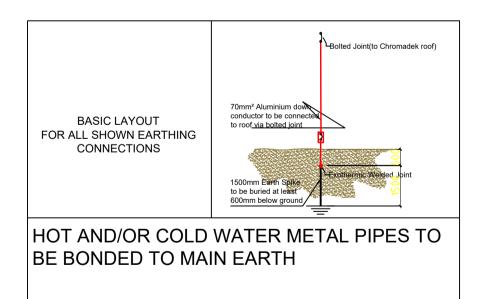
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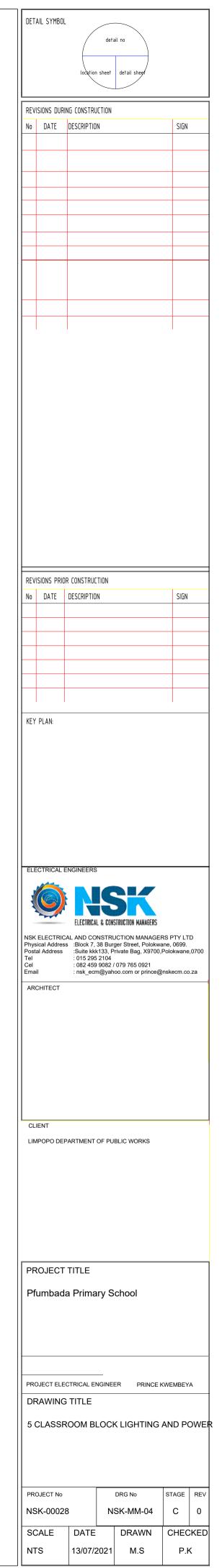
circuits respectively. Positions of socket outlets on this drawings are indicative. Actual positions of socket outlets to be finalised on site.
 Light fittings shall bear the SABS stamp of approval.
 Light fittings, sockets, light switches and distribution board shall be installed flush and square and 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.

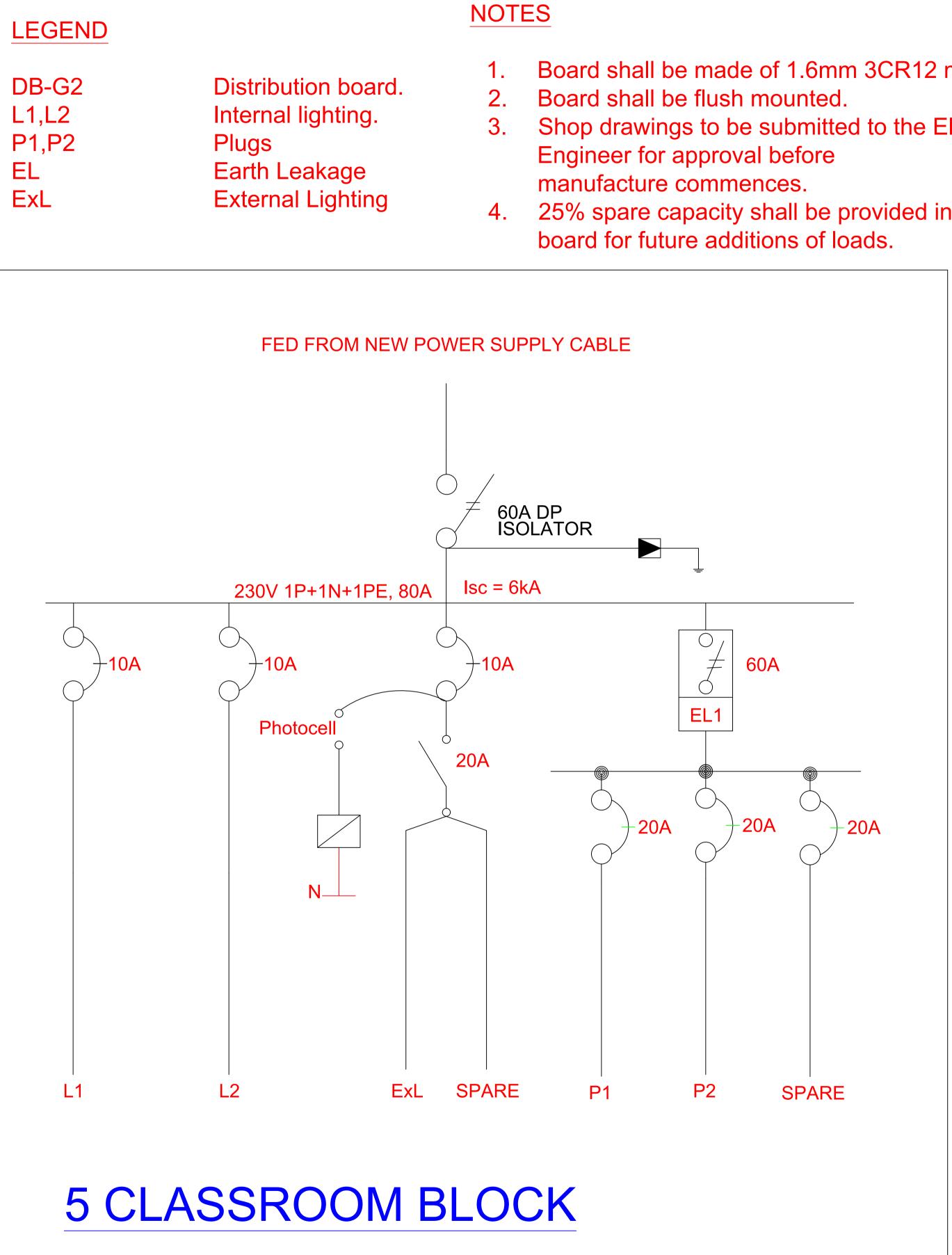
- 1. The earthing and lightning protection shall be installed by a specialist.
- Such specialist as appointed by the contractor shall ensure the installation is compliant to the requirements of SANS 10199 and SANS 62305 and shall issue a certificate after completion of the works.
- 3. All down conductors shall be of Solid Aluminium conductor and shall be installed inside Ø25mm pvc pipes which shall be chased inside the wall.
- 4. 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.

Description Symbol

1500mm earth spike

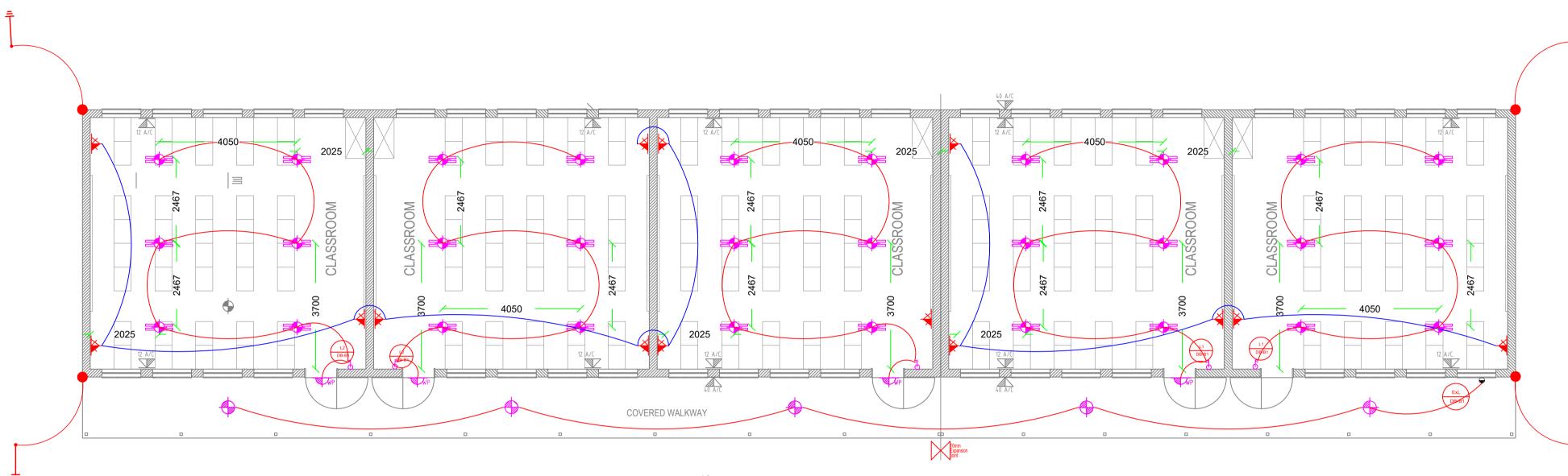






ibution board. nal lighting.	1. 2.	Board shall be made of 1.6mm 3CR12 material. Board shall be flush mounted.
narngnung. s n Leakage	3.	Shop drawings to be submitted to the Electrical Engineer for approval before
rnal Lighting	4.	manufacture commences. 25% spare capacity shall be provided in the

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SYMBOL	LIGHTING LEGEND.	QUANTITY
=	TYPE 1 - 1200mm x 350mm 35W Surface LED channel complete with electronic ballast. Fittings to be equivalent to REGENT LIGHTING NANO CR180 fittings.	30
WP	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.	5
	TYPE B1 - IP65 ceiling 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.	5
$\widehat{}$	Photocell.	1
6	1 lever 2 way switch. Mounting shall be 1400mm After Finished Floor Level.	5
*	16A Flush mounted double socket outlet. Mounting at 300mm AFFL.	15
	Flush Mounted Distribution Board	1

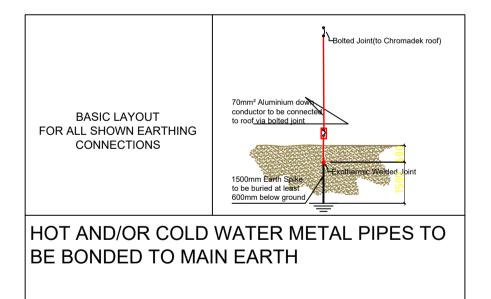
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Symbol Description

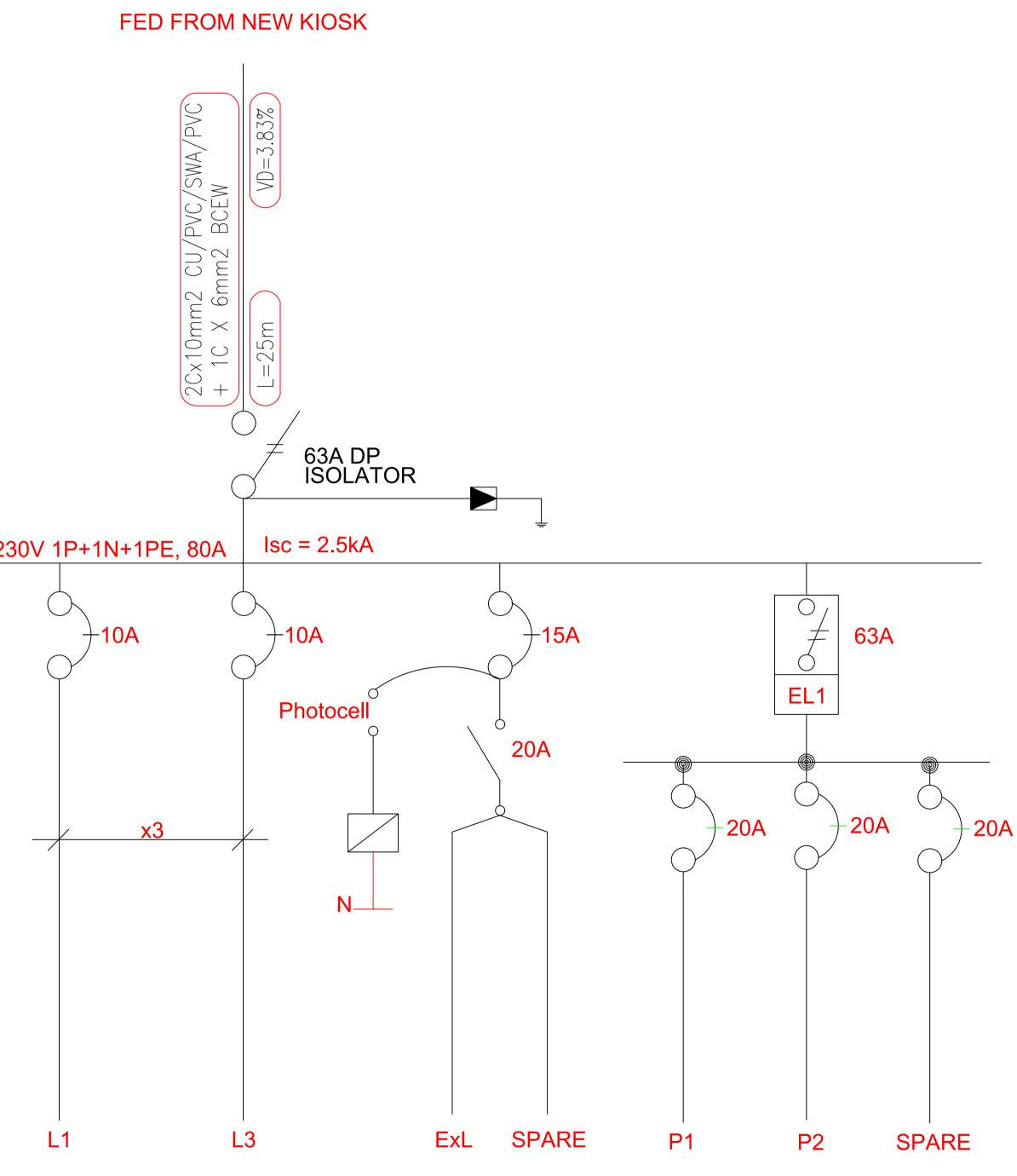
1500mm earth spike



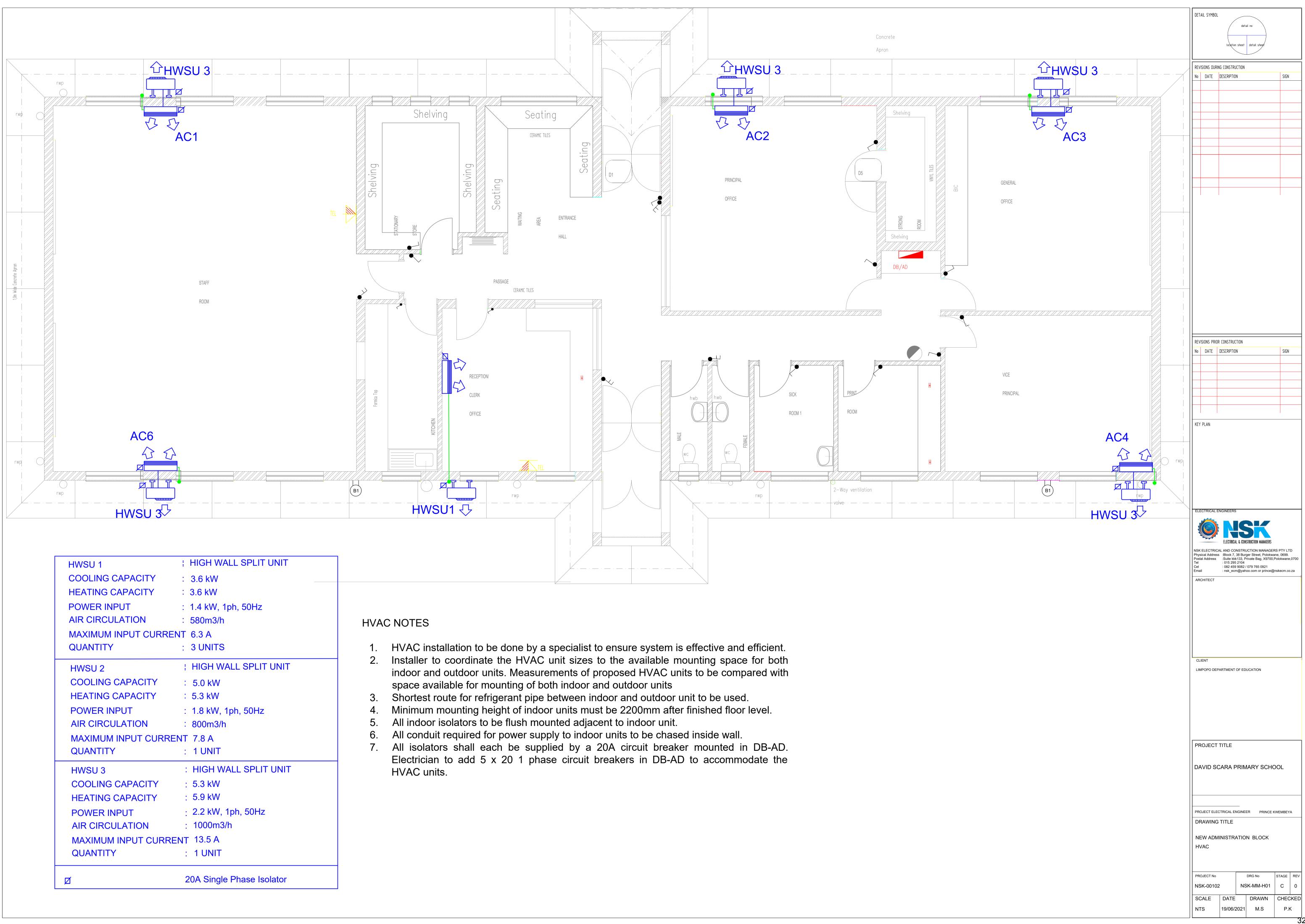
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NOTES LEGEND Distribution board. DB-AD 2. Board shall be flush mounted. L1,L2,L3 Internal lighting. 3. P1,P2 Plugs Engineer for approval before EL Earth Leakage manufacture commences. ExL External Lighting 4. FED FROM NEW KIOSK 2Cx10mm2 CU/PVC/SWA/PVC + 1C X 6mm2 BCEW VD=3.83% :25m 63A DP ISOLATOR lsc = 2.5kA 230V 1P+1N+1PE, 80A +30A -15A +30A**+10A** +10A Photoce 20A **x3** N AC1 AC2 L1 L3 SPARE ExL **P1 DB-MEDIUM ADMIN BLOCK**

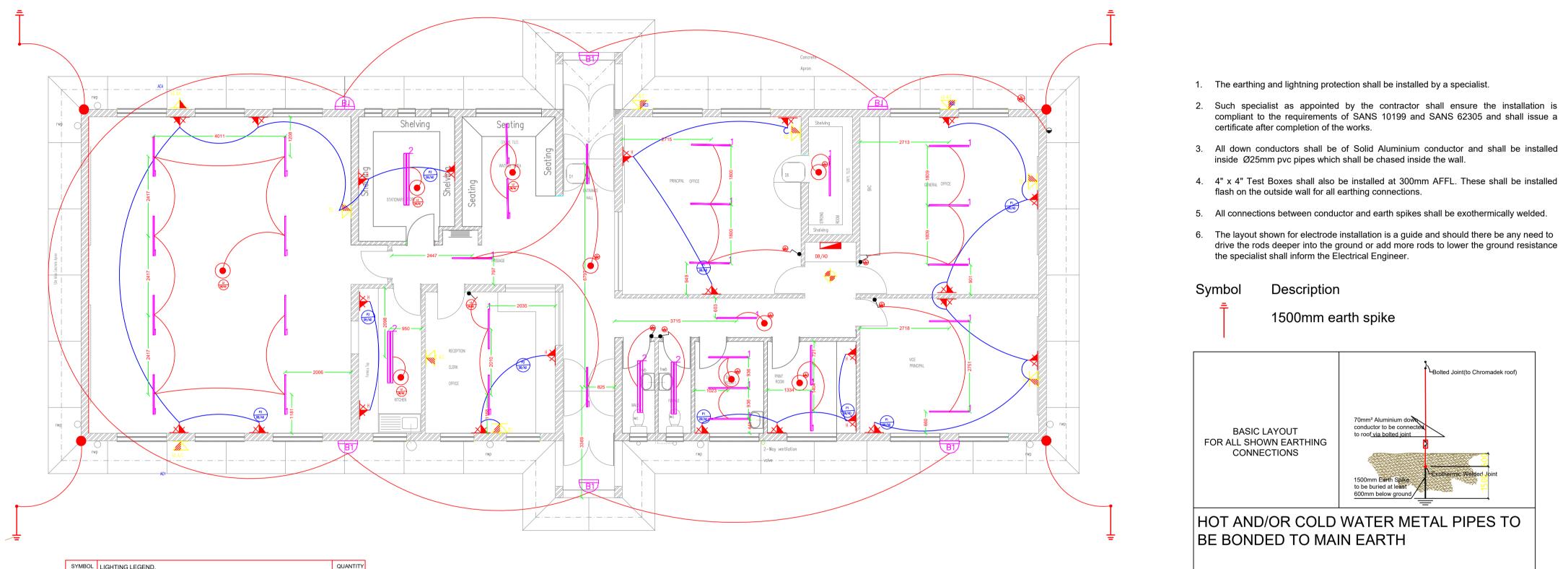
- Board shall be made of 1.6mm 3CR12 material.
- Shop drawings to be submitted to the Electrical
- 25% spare capacity shall be provided in the board for future additions of loads.



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HWSU 1	E HIGH WALL SPLIT UNIT
COOLING CAPACITY	: 3.6 kW
HEATING CAPACITY	: 3.6 kW
POWER INPUT	: 1.4 kW, 1ph, 50Hz
AIR CIRCULATION	: 580m3/h
MAXIMUM INPUT CURR	ENT 6.3 A
QUANTITY	: 3 UNITS
HWSU 2	E HIGH WALL SPLIT UNIT
COOLING CAPACITY	: 5.0 kW
HEATING CAPACITY	: 5.3 kW
POWER INPUT	: 1.8 kW, 1ph, 50Hz
AIR CIRCULATION	: 800m3/h
MAXIMUM INPUT CURR	ENT 7.8 A
QUANTITY	: 1 UNIT
HWSU 3	: HIGH WALL SPLIT UNIT
COOLING CAPACITY	: 5.3 kW
HEATING CAPACITY	: 5.9 kW
POWER INPUT	: 2.2 kW, 1ph, 50Hz
AIR CIRCULATION	: 1000m3/h
MAXIMUM INPUT CURF	RENT 13.5 A
QUANTITY	: 1 UNIT
Ø	20A Single Phase Isolator



SYMBOL	LIGHTING LEGEND.	QUANTITY
	TYPE 1 - 1200mm x 350mm 35W Surface LED channel complete with electronic ballast. Fittings to be equivalent to REGENT LIGHTING NANO CR180 fittings.	28
I	TYPE 2 - IP65, vapour proof, open channel with 2 x 58W T8 flourescent tubes complete with electronic ballast.	4
B	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 be mounted at 2200mm After Finished Floor Level.	6
U# DB/AD	Light circuit indicator. This reflects a lighting circuit connected to a 10A CB in the DB	2
P# DB/AD	Power circuit indicator. This reflects a power circuit connected to a 20A CB in the DB	2
÷	Photocell.	1
•>	1 lever 1 way switch. Mounting shall be 1200mm After Finished Floor Level.	8
	Dual Technology Occupancy sensor	9
	16A Flush mounted double socket outlet. Mounting at 300mm AFFL.	24
DB/AD	Distribution Boad mounted at 1600mm After finished floor level. Shop drawings to be submitted to the Engineer for approval before manufacture and supply in order to approve the board dimensions and detail.	1
5	Lightning protection equipment	4

ADMINISTRATION BLOCK ELECTRICAL NOTES.

- Instantiew electrical instantation for the few Administration blocks 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.
- 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.
 Distribution board positions shall be finalized on site.
 After installation is complete, label equipment, test and issue Certificate of Compliance for the installation.

1. Install new electrical installation for the new Administration Blocks as

2	Bolted Joint(to Chromadek roof)
um dowy connected d joint	
Spike east pround	Exothermic Welded Joint
MET H	AL PIPES TO

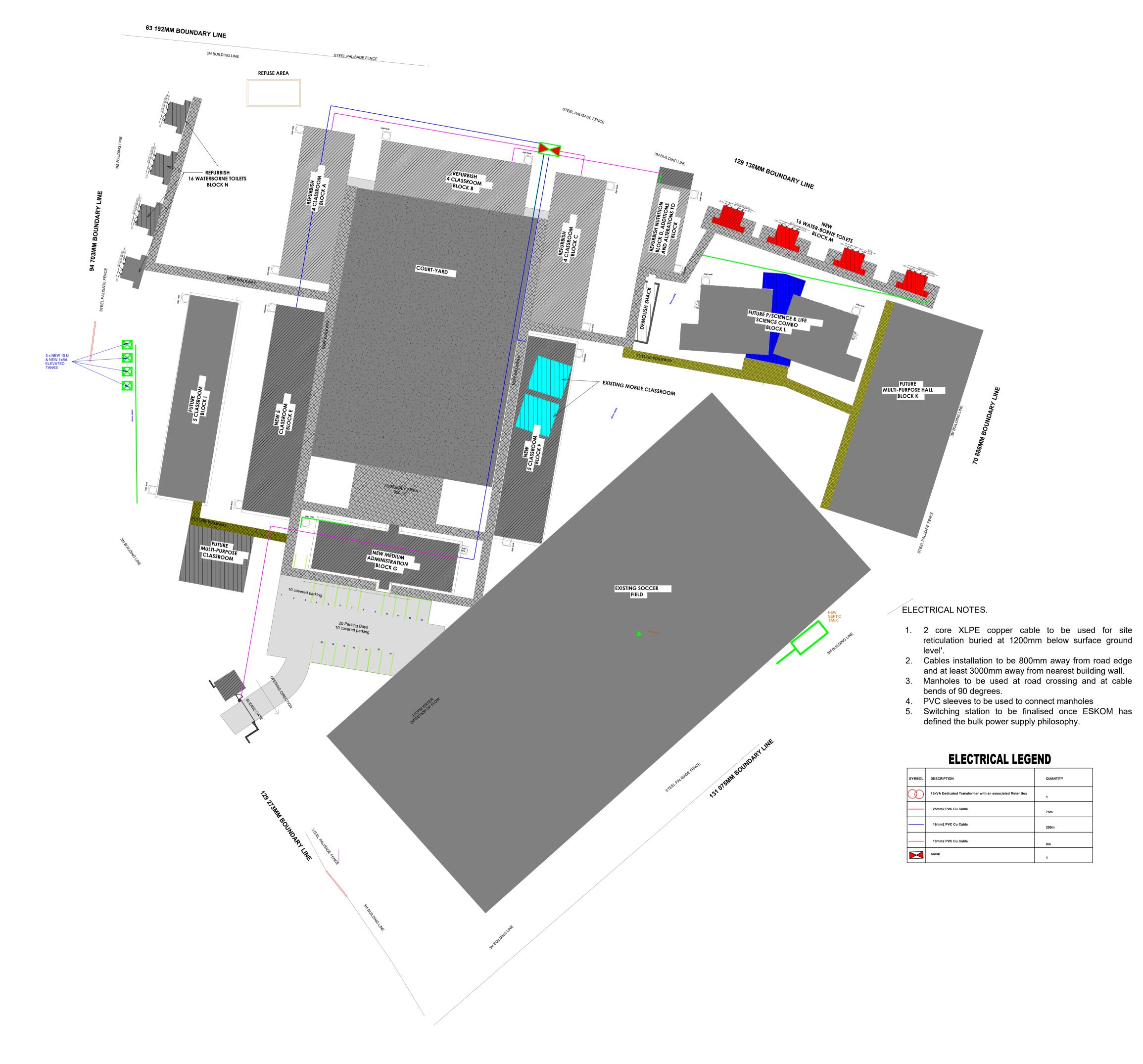
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	sical Addres al Address	s :Block 7, :Suite kkł : 015 295	38 Burger Street, Poloky <133, Private Bag, X970 5 2104	wane, 0699. 0,Polokwane	e,0700
Cel Ema	il	: 082 459	9082 / 079 765 0921 n@yahoo.com or prince	@nskecm.co	o.za
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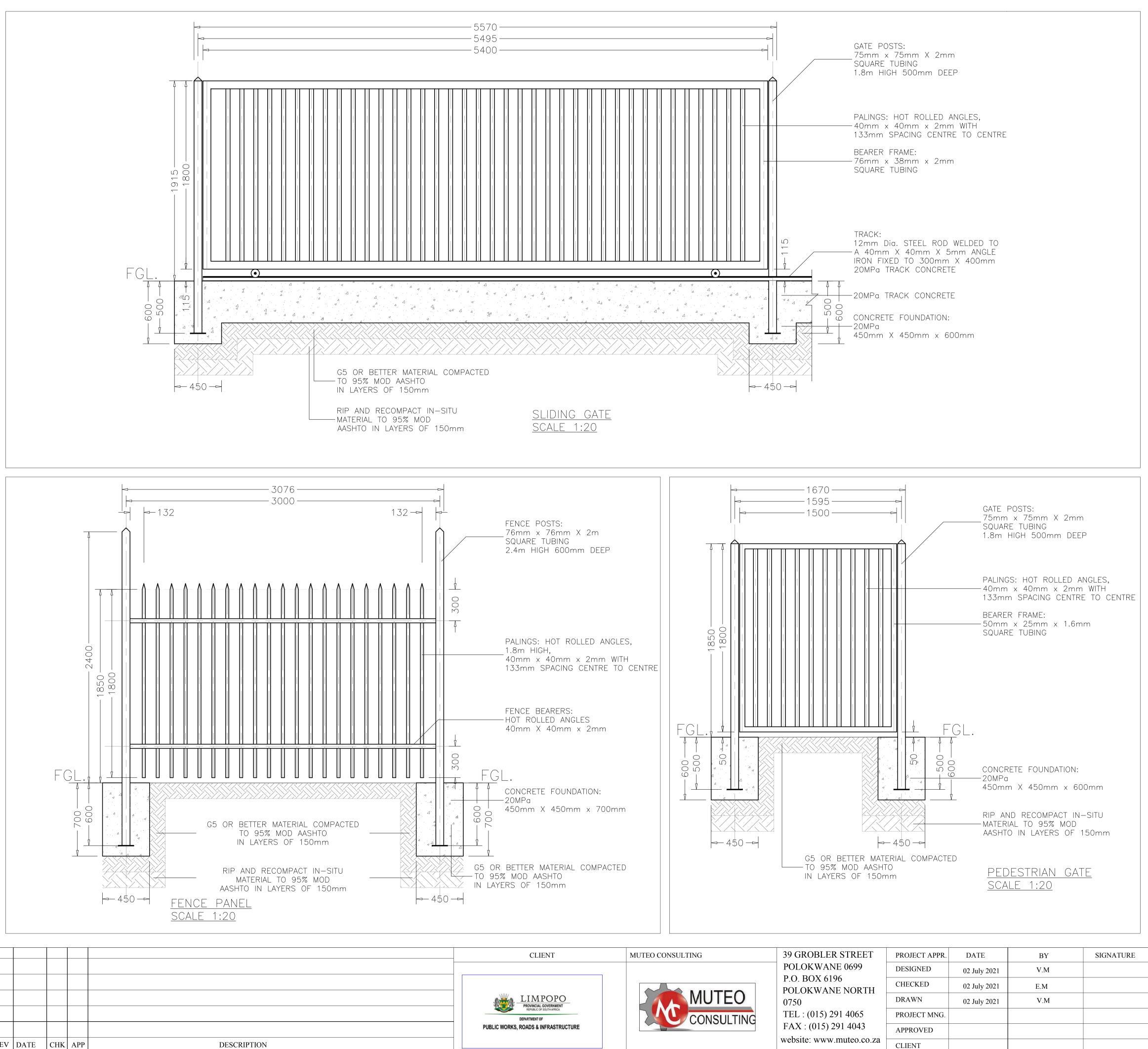


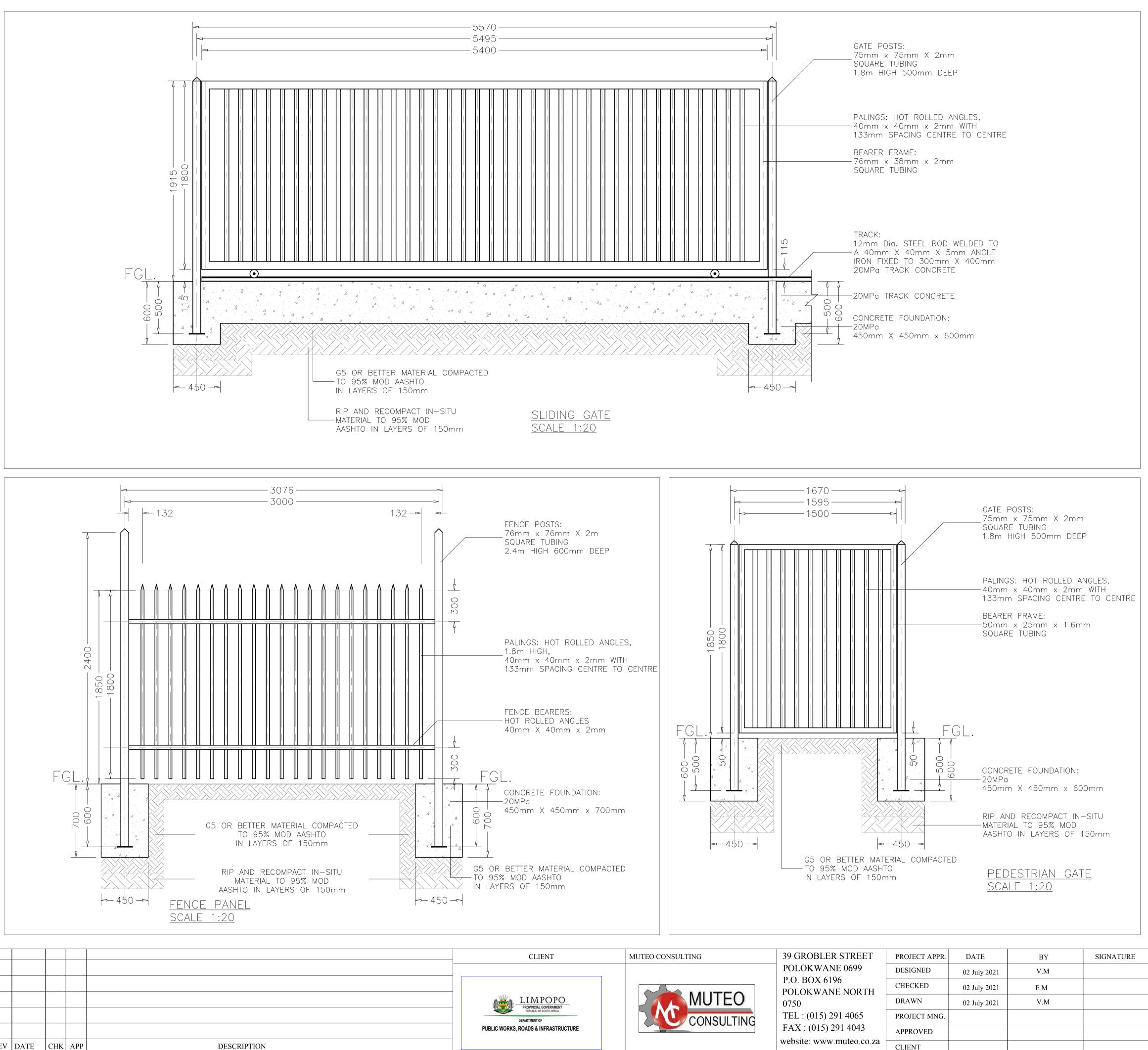
- 1. 2 core XLPE copper cable to be used for site reticulation buried at 1200mm below surface ground

ELECTRICAL LEGEND

SYMBOL	DESCRIPTION	QUANTITY
\bigcirc	16kVA Dedicated Transformer with an associated Meter Box	1
	25mm2 PVC Cu Cable	75m
	16mm2 PVC Cu Cable	200m
	10mm2 PVC Cu Cable	0m
	Kiosk	1

DET	AIL SYMBOL				<u></u>		
			det	ail no			
			location sheet	detail sh	eet		
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KEY	PLAN:						
ELE	ECTRICAL E	ENGI	NEERS				
		E	LECTRICAL & CON	STRUCTION M	IANAGERS		
Phys		s :B	ND CONSTRU lock 7, 38 Bur suite kkk133, P	ger Street	, Polokwa	ane,	0699.
Tel Cel Ema		: (: (015 295 2104 082 459 9082 0sk_ecm@yah	079 765	0921		
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		PART	MENT OF PU	BLIC WO	RKS		
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					PROVINCIAL GOVERNMENT REPUBLIC OF SOUTH AFRICA
					DEPARTMENT OF
					PUBLIC WORKS, ROADS & INFRASTRU
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<u>NOTES.</u>

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

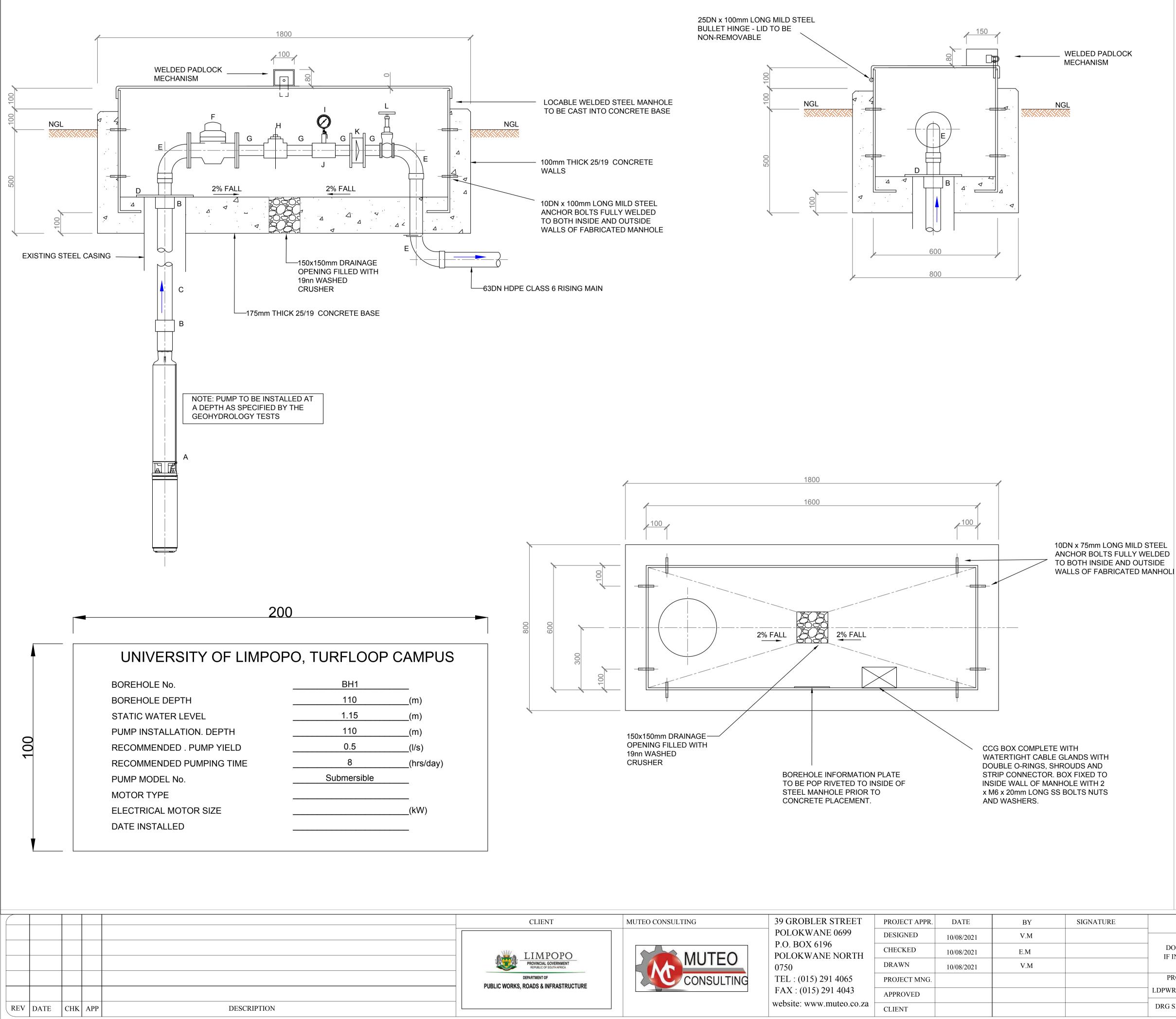
- 1. Fence bearers:
- \cdot 40 x 40 x 2mm angle iron. These are to be placed 300mm from top of paling and 300mm from bottom of paling. (350mm from ground level).
- These are to be welded flash with the back of the post.
- 2. Palings "Devil fork"
- \cdot 21 palings per panel.
- \cdot 30 x 30 x 2mm steel 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	
		TITLE	
 DO NOT IF IN DOU		LDPWRI STORM DAMAGED SCHOO	
PROJECT No.		STEEL PALISADE FENCE DETAIL	.S
LDPWRI-PROF/16003B			
 DRG SIZE	A1	DRAWING No. LDPWRI SCHOOLS/B&C/01	REV 0

330



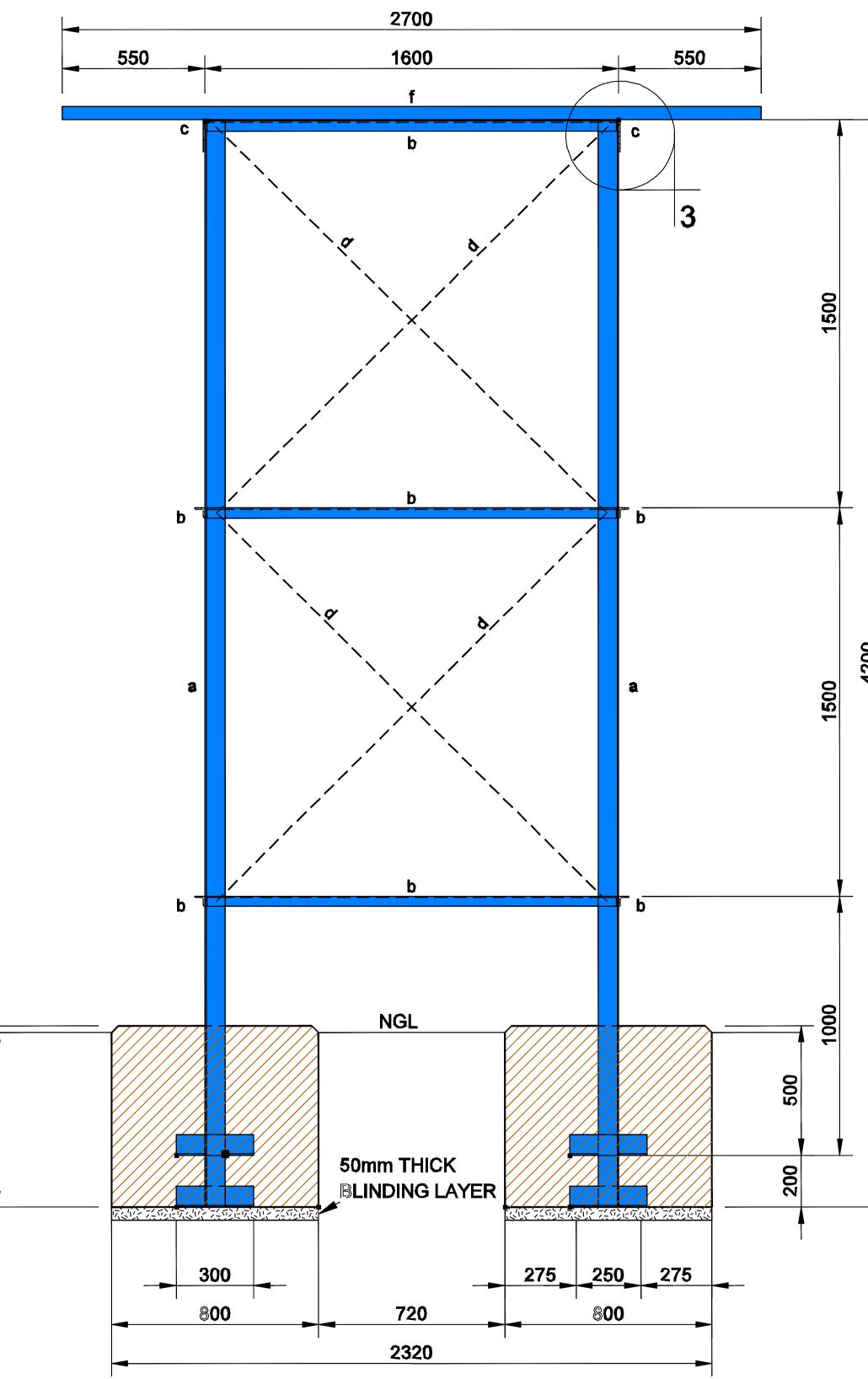
GENERAL NOTES

- 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

SCAI	LE	ALL DIMENSION IN mm UNLESS SPECIFIED OTHERWISE			
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1110120					
LDPWRI-PRO)F/16003B				
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STRUCTURAL STEEL MEMBERS

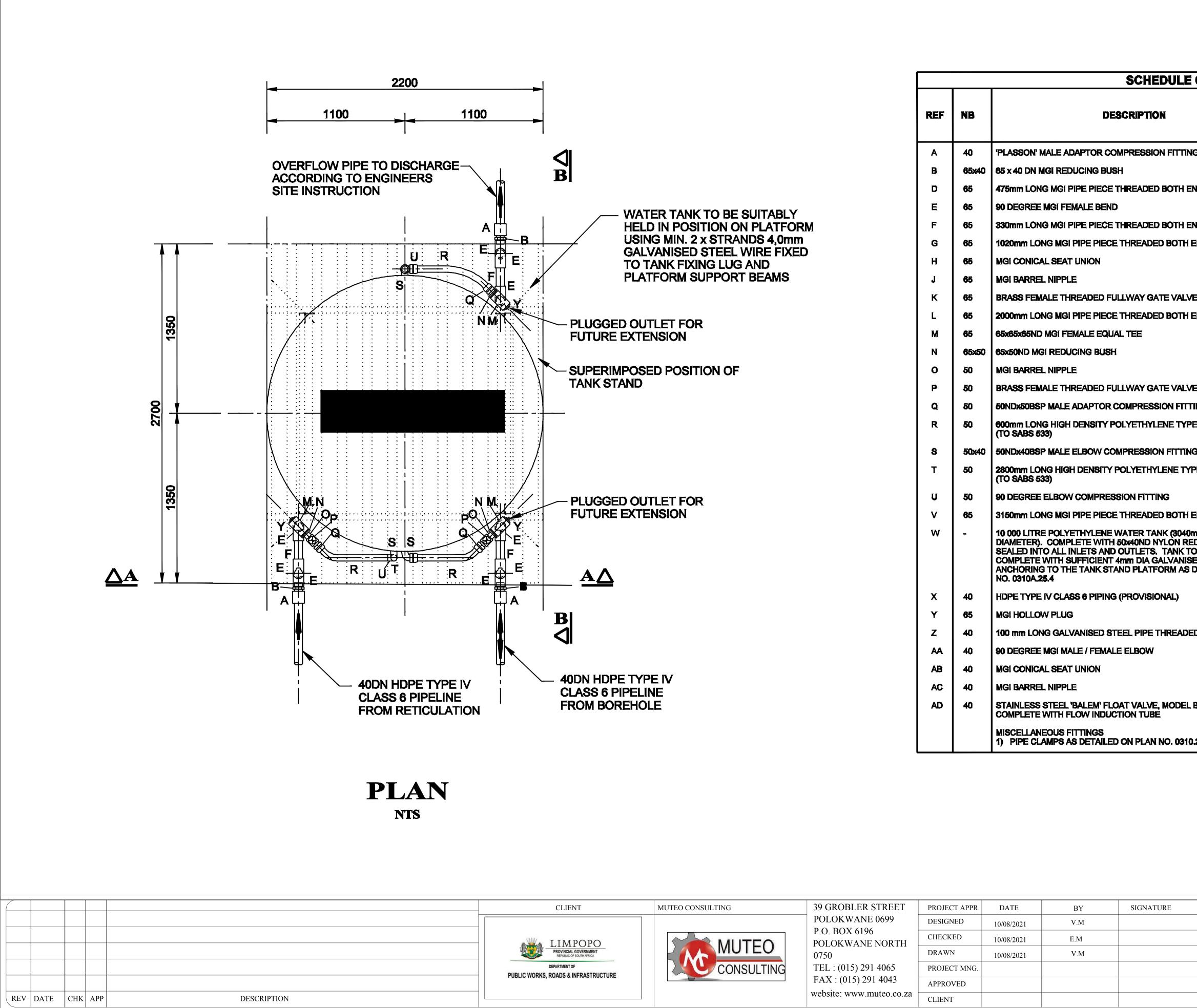
- a Column legs 60x60x5 angle made from commercial steel.
- b Horizontal brace 40x40x5 angle made from commercial steel.
- c Top platform main support beam 150x75x10 angle made from EN10025-2-
- d S355JR steel.
- Cross brace 30×5 flat bar made f - from commercial steel.

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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DO NOT SCALE IF IN DOUBT ASK.			LDPWRI STORM DAMAGED SCHOOLS PVC TANK STAND DETAILS	
PROJECT No.		No.	I VO TANK STAND DETAILS	
LDPWRI-PROF/16003B		F/16003B		
	DRG SIZE	A1	DRAWING No. LDPWRI SCHOOLS/B&C/03A	REV 0

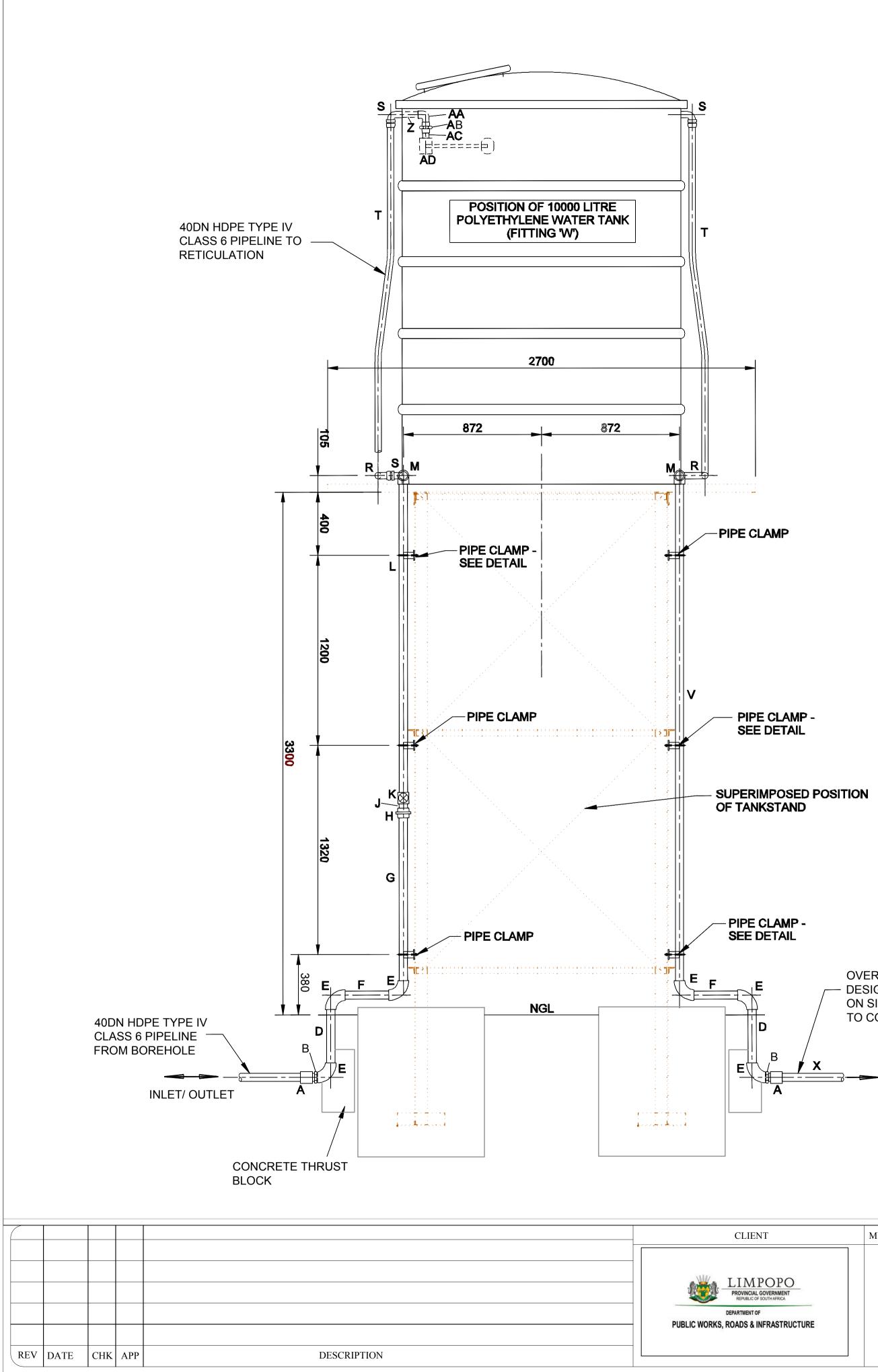


SCHEDULE OF FITTINGS							
	0			TREA		ŀ	
SCRIPTION		WALL Ƴ mm	FLANGE DRILLING	GALVA NISED	EDOXY	QTY	
DMPRESSION FITTING						3no	ĺ
SH				٠		3no	
THREADED BOTH ENDS	4.5			*		3no	
D				*		9no	
THREADED BOTH ENDS	4.5			*		3no	
E THREADED BOTH ENDS	4.5			*		2no	
				*		2no	
				*		2no	
ULLWAY GATE VALVE						2no	
E THREADED BOTH ENDS	4.5			*		2no	
AL TEE				*		3no	
4				*		3no	
				*		2no	
ULLWAY GATE VALVE						2no	
COMPRESSION FITTING						3no	
POLYETHYLENE TYPE IV CLASS 6 PIPE	Ξ					3no	
MPRESSION FITTING						3no	
POLYETHYLENE TYPE IV CLASS 6 PIP	Æ					2no	
SSION FITTING						2no	
E THREADED BOTH ENDS	4.5			٠		1no	
WATER TANK (3040mm HIGH x 2200m) I 50x40ND NYLON REDUCING BUSHES O OUTLETS, TANK TO BE SUPPLIED 4mm DIA GALVANISED STEEL WIRE F AND PLATFORM AS DETAILED ON PLA	OR						
						1 set	
3 (PROVISIONAL)						12m	
				*		3no	
TEEL PIPE THREADED BOTH ENDS	4.5			*		1 no	
LE ELBOW				#		1 no	
				#		1 no	
				#		1no	
OAT VALVE, MODEL BLBS 040 CTION TUBE						1 set	
D ON PLAN NO, 0310,25,3						9no	

WATER TANK TO BE SUITABLY HELD IN POSITION ON PLATFORM USING MIN. 2 x STRANDS 4,0mm GALVANISED STEEL WIRE FIXED TO TANK FIXING LUG AND PLATFORM SUPPORT BEAMS	
PLUGGED OUTLET FOR FUTURE EXTENSION	
SUPERIMPOSED POSITION OF TANK STAND	
	,
PLUGGED OUTLET FOR FUTURE EXTENSION	
A∆	
DN HDPE TYPE IV ASS 6 PIPELINE ROM BOREHOLE	
	1

		SCHEDULE OF FITTINGS					
			WALL		TREA	TMENT	QTY 3no 3no 3no 3no 2no 2no 2no 2no 2no 2no 3no 2no 3no 3no 2no 3no 2no 10 3no 10 3no 10 3no
REF	NB	DESCRIPTION	ť	FLANGE DRILLING	galva Ni\$ed	EPOXY RESIN PAINT	QTY
A	40	'PLASSON' MALE ADAPTOR COMPRESSION FITTING					3no
В	65x40	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 END\$ 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	6 5	BRASS FEMALE THREADED FULLWAY GATE VALVE					2no
L	6 5	2000mm LONG MGI PIPE PIECE THREADED BOTH ENDS 4.5			*		2no
М	6 5	65x65x65ND MGI FEMALE EQUAL TEE			*		3no
N	65x50	65x50ND MGI REDUCING BUSH			*		3no
0	50	MGI BARREL NIPPLE			*		2no
Р	50	BRASS FEMALE THREADED FULLWAY GATE VALVE					2no
٩	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	50	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					1set
		MISCELLANEOUS FITTINGS 1) PIPE CLAMPS AS DETAILED ON PLAN NO. 0310.25.3					9no

SCALE		ALL DIMENSION IN mm UNLESS SPECIFIED OTHERWISE			
		TITLE			
DO NOT SCALE IF IN DOUBT ASK.		LDPWRI STORM DAMAGED SCHOOLS			
		PVC TANK PIPE FITTINGS			
PROJECT No.					
 LDPWRI-PRC	DF/16003B				
 DRG SIZE	A1	DRAWING No. LDPWRI SCHOOLS/B&C/03B			
			333		



		SCHEDULE OF FITTINGS					
			WALL		TREA	TMENT	
REF	NB	DESCRIPTION		FLANGE DRILLING	galva Niŝed	EPOXY RESIN PAINT	QTY
Α	40	'PLASSON' MALE ADAPTOR COMPRESSION FITTING					3no
в	65x40	65 x 40 DN MGI REDUCING BUSH			*		3no
D	65	475mm LONG MGI PIPE PIECE THREADED BOTH ENDS 4.3			*		3no
E	65	90 DEGREE MGI FEMALE BEND			*		9no
F	65	330mm LONG MGI PIPE PIECE THREADED BOTH ENDS 4.3	;		*		3no
G	65	1020mm LONG MGI PIPE PIECE THREADED BOTH ENDS 4.4	5		٠		2no
н	65	MGI CONICAL SEAT UNION			*		2no
L	65	MGI BARREL NIPPLE			*		2no
К	65	BRASS FEMALE THREADED FULLWAY GATE VALVE					2no
L	65	2000mm LONG MGI PIPE PIECE THREADED BOTH ENDS 4.3	;		*		2no
М	65	65x65x65ND MGI FEMALE EQUAL TEE			*		3no
Ν	65x50	65x50ND MGI REDUCING BUSH			*		3no
0	50	MGI BARREL NIPPLE			*		2no
P	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	50	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 4.8	;		٠		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 FOI ANCHORING TO THE TANK STAND PLATFORM AS DETAILED ON PLAN NO. 0310A.25.4	R				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 4.3	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	BY
		POLOKWANE 0699	DESIGNED	10/08/2021	V.M
LIMPOPO	MUTEO	P.O. BOX 6196 POLOKWANE NORTH	CHECKED	10/08/2021	E.M
EIMPOPO PROVINCIAL GOVERNMENT REPUBLIC OF SOUTH AFRICA		0750	DRAWN	10/08/2021	V.M
DEPARTMENT OF WORKS, ROADS & INFRASTRUCTURE	CONSULTING	TEL : (015) 291 4065	PROJECT MNG.		
		FAX : (015) 291 4043	APPROVED		
		website: www.muteo.co.za	CLIENT		

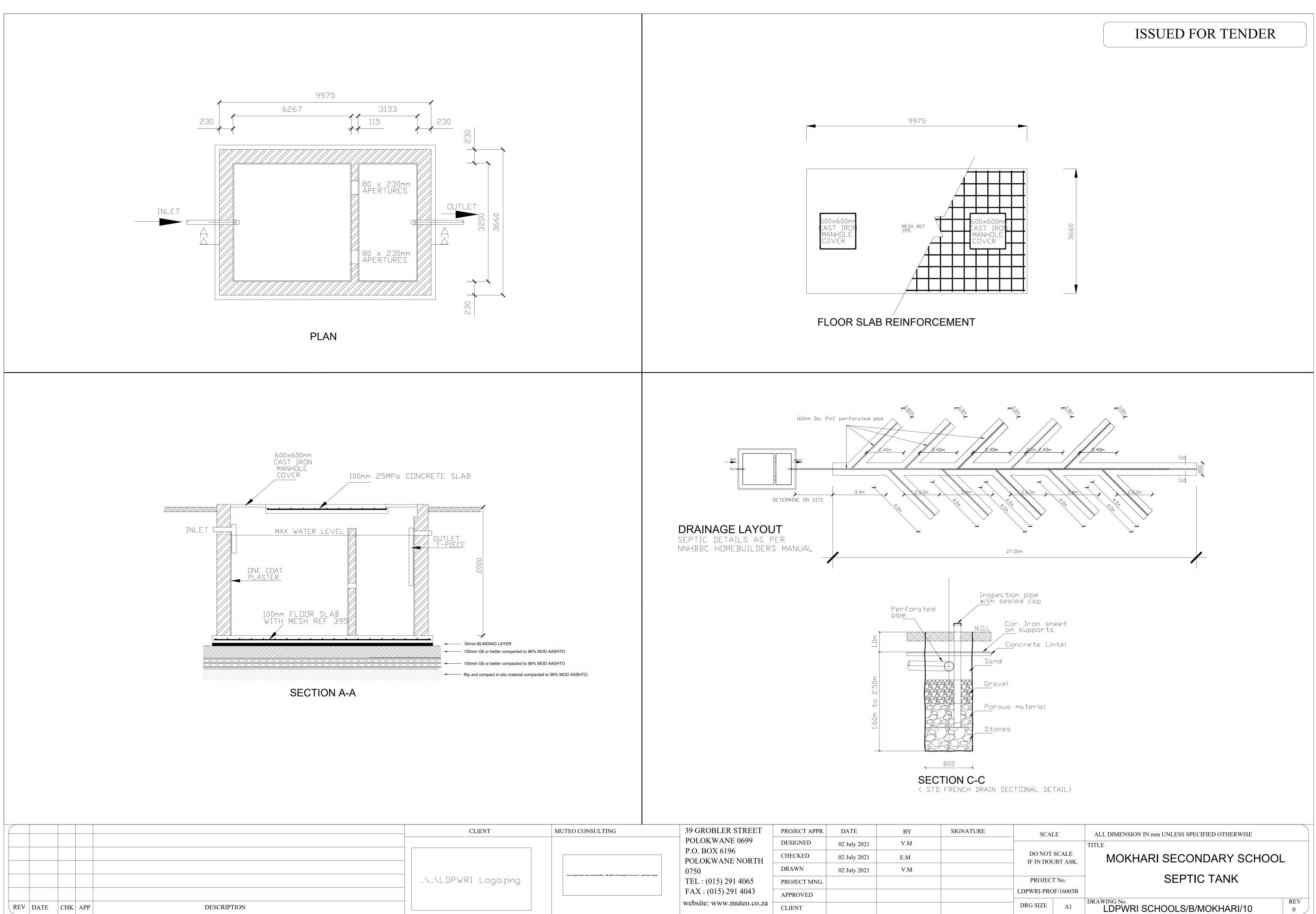
OVERFLOW PIPE TO

DESIGNATED AREA
 ON SITE - ENGINEER
 TO CONFIRM ON SITE

SIGNATURE

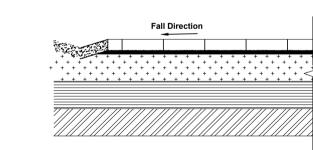
ISSUED FOR TENDER

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



PAVING DETAILS FOR ACCESS AND PARKING

Concrete V-drain



60mm INTERLOCKING BLOCKS TYPE SA HERINGBONE

- 20mm SAND LAYER UNDERLAIN WITH 250mm GREEN MICRON PLASTIC LAYER
- ------ 150mm C3 GRAVEL LAYER COMPACTED TO 95% MOD AASHTO
- → 150mm G5 SOIL STABILISED WITH 2% LIME COMPACTED TO 93% MOD AASHTO
- ------ 150mm G5 ROADBED COMPACTED TO 90% MOD AASHTO

NOTES: 1. Precast concrete beams to be placed every 15-20m in the paved

- area to prevent the paving blocks from sliding
- All free edges to be fitted with precast concrete edge beams
 All edges in the flow ditection to be fitted with 600mm wide 15MPa Concrete V-drains

					CLIENT
					DEPARTMENT OF
					PUBLIC WORKS, ROADS & INFRAS
REV 1	DATE	CHK	APP	DESCRIPTION	

