

**BID NUMBER: LDPWRI-B/20308** 

APPOINTMENT OF A CONTRACTOR FOR THE DEMOLITIONS OF 13 CLASSROOMS AND 13 PIT TOILETS, RENOVATIONS TO 10 ENVIROLOO TOILETS AND THE CONSTRUCTION OF MEDIUM ADMIN, 12 CLASSROOMS, 2 GRADE R CLASSROOMS, 14 ENVIROLOO TOILET SEATS AND 1 x 5 SEATER WATERBORNE TOILET BLOCK AT RUNNYMEDE PRIMARY SCHOOL IN MOPANI DISTRICT

for

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

#### LIMPOPO PROVINCE

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

#### Issued by:

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

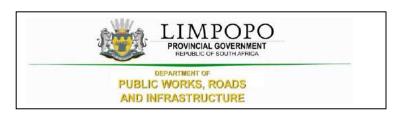
Contact Person: General Queries
Name : Mr NJ Motsopye,
Tel No. : 015 284 7126

Email : motsopyen@dpw.limpopo.gov.za

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

Email : ModjadjiM@dpw.limpopo.gov.za

Name of the Bidder:



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# **PART T1: TENDERING PROCEDURE**

#### 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 THE DEMOLITIONS OF 13 CLASSROOMS AND 13 PIT TOILETS, RENOVATIONS TO 10 ENVIROLOO TOILETS AND THE CONSTRUCTION OF MEDIUM ADMIN, 12 CLASSROOMS, 2 GRADE R CLASSROOMS, 14 ENVIROLOO TOILET SEATS AND 1 x 5 SEATER WATERBORNE TOILET BLOCK AT RUNNYMEDE PRIMARY SCHOOL IN MOPANI DISTRICT FOR LIMPOPO DEPARTMENT OF EDUCATION (LDOE) 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 Indirect Targeting for Enterprise Development through Construction Works Contracts **Gazette Notice No. 36190 of 25 February 2013** will be applicable on this project

	T				
Project Name	APPOINTMENT OF A CONTRACTOR FOR THE DEMOLITIONS OF 13 CLASSROOMS AND 13 PIT TOILETS, RENOVATIONS TO 10 ENVIROLOO TOILETS AND THE CONSTRUCTION OF MEDIUM ADMIN, 12 CLASSROOMS, 2 GRADE R CLASSROOMS, 14 ENVIROLOO TOILET SEATS AND 1 x 5 SEATER WATERBORNE TOILET BLOCK AT RUNNYMEDE PRIMARY SCHOOL FOR LIMPOPO DEPARTMENT OF EDUCATION (LDOE) FOR A PERIOD OF 18				
	MONTHS.	TOT EBOOKHOW (EBOE) FOR ALL ENGBOT 10			
Tender Number	LDPWRI- B/20308				
Tender documents		of Public Works, Roads and Infrastructure website			
availability					
Address for submission	DEPARTMENT OF PU	JBLIC WORKS, ROADS & INFRASTRUCTURE.			
of tenders					
		ner River and Blaauwberg Streets, Ladanna, 0699.			
Closing date of the	As per Tender invite				
tender					
Closing time of the tender	As per Tender invite				
Compulsory briefing	Yes ⊠ No □				
meeting (Tenderers must sign the attendance register in the name of the tendering	As per l'ender invite				
entity. Addenda (if any) will	Data As you Tay Jay in its				
be issued only to those tendering entities appearing	Date As per Tender invite				
on the attendance register)	Time: As per Tender invite				
Evaluation criteria	Compliance with mandatory or compulsory requirements     Risk assessment on current projects     Price				
	4. 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				



## 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

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

Compulsory site briefing
A compulsory briefing meeting will be held as per Tender invite
Tenderers must sign the attendance list in the name of the tendering entity. Addenda (if any) will be issued only to those tendering entities appearing on the attendance list.
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
Alternative tender offer
No alternative tender offer is permitted in this tender.
Replace sub-clause C.2.13.2 with the following; Return all returnable documents to the employer after completing them in their entirety by writing in non-erasable black ink (Black pen)
Parts of each tender offer communicated on paper shall be submitted as an original
The tender shall be signed by a person duly authorized to do so.
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.
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.
The tender offer validity period is 12 weeks or 90 days.
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).
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

CONTR		PWRI-B/20308					
	CIDB Gra	ding Certificate					
		re required to provide proof of registration with the CIDB register of contractors indicating bry of registration, grading as well as the CRS number of the tenderer.					
	Letter of 0	Letter of Good Standing					
		s are required to submit, bound with the tender submission, a letter of good standing from ensation commissioner indicating that the bidder is in good standing.					
C3.2	deemed to	anding any requests for confirmation of receipt of Addenda issued, the tenderer shall be a have received such addenda if the employer can show proof of transmission thereof (or respect thereof) via electronic mail, facsimile or registered post.					
C.3.4.1	Tenders w	rill <b>not</b> be opened immediately after the closing time for tenders.					
C.3.11	The tende (i) (ii) (iii) (iv)	rers will be evaluated in four stages Stage 1: Compliance with mandatory requirements as stated in Part T1.1 Stage 2: Risk assessment on current projects Stage 3: Price Stage 4: Preference					
	evaluation staff and a contractor have simila contractors	of the RFQ. However, the contractors will not be evaluated any further during of the RFQ. However, the contractors will be required to declare the status of their key any administrative compliance. In cases where there are changes in the key staff, the should provide CVs and qualifications of the new staff to LDPWR&I. The new staff should ar skills, qualifications and experience as the staff submitted during tender. Similarly, the s will be expected to provide an update on any changes in their administrative compliances uld submit the required SBD document/forms in such cases.					
	grading an	d will only be issued to contractors with valid Tax Clearance certificates, active CIDB and the contractor who meets all the legislative requirement – this shall be verified by SCM at the departmental SCM Policy.					
		value of current projects for a contractor under consideration cannot exceed twice the value of their relevant CIDB grade. <sup>1</sup>					
	a)	Stage 1: Administrative Compliance: The Compliance or compulsory documents and returnables are detailed in Section T.2.1 of this tender document. Failure to submit, complete or comply with these requirements will lead to automatic disqualification.					
	b)	Stage 2: Risk assessment on current projects					
		The total value of current projects for a contractor under consideration cannot exceed twice the maximum value of their relevant CIDB grade.					

#### Stage 3 and 4:

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

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

a) *N<sub>FO</sub>* is the number of tender evaluation points awarded for the financial offer made. The score for financial offer is calculated using the following formula:

$$P = A * \left(1 - \frac{(P_0 - P_m)}{P_m}\right)$$

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

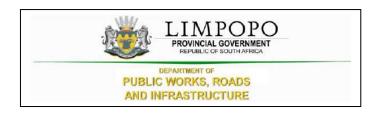
 $P_m$  is the lowest Comparative bid price

 $P_o$  is the comparative price under consideration

b) N<sub>P</sub> is the number of tender evaluation points awarded for preferences claimed in accordance with the Preferencing Schedule in 3.18



# **PART T2: RETURNABLE DOCUMENTS**



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

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

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

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

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

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



## **T 2.2: RETURNABLE SCHEDULE**

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

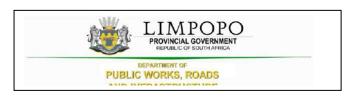
REFURBISHMENT AND ADDITIONS AT RUNNEYMEDE PRIMARY SCHOOL IN MOPANI DISTRICT.

CONTRACT No. LDPWRI-B/20308



# Declaration on the status of administrative compliance

framework tender supporting docum	t. If yes, kindly provide the	e particulars below with any
Signed	 Date	
Name	 Position	
Enterprise		

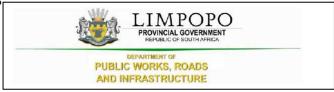


# **Record of Addenda to tender documents**

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

REFURBISHMENT AND ADDITIONS AT RUNNEYMEDE PRIMARY SCHOOL IN MOPANI DISTRICT.

CONTRACT No. LDPWRI-B/20308



### Proposed amendments and qualifications

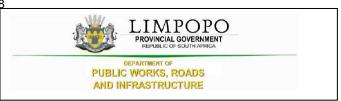
The Tenderer should record any deviations or qualifications he may wish to make to the tender documents in this Returnable Schedule. Alternatively, a tenderer may state such deviations and qualifications in a covering letter to his tender and reference such letter in this schedule.

The Tenderer's attention is drawn to clause 5.8 of SANS 10845-3 regarding the employer's handling of material deviations and qualifications.

Page	Clause or item	Proposal	
Signe	d	Date	
Name		Position	
Tende	erer		

REFURBISHMENT AND ADDITIONS AT RUNNEYMEDE PRIMARY SCHOOL IN MOPANI DISTRICT.

CONTRACT No. LDPWRI-B/20308



# 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/20308		CLOSING D	OATE	As per Tender Advert	CLOSI	NG TIME:	As per Tender Advert
	REFURBISHME	NT AND ADDIT	ONS AT R	UNNEYME		1		
DESCRIPTION BID RESPONSE	DOCUMENTS MAY E	RE DEPOSITED IN	THE BID BOX	SITUATED A	AT (STREET ADD	RESS)		
	T OF PUBLIC WC				,	in (LOO)		
	ess: Corner River							
BIDDING PROCE	EDURE ENQUIRIES I	MAY BE DIRECTED	то					
CONTACT PERS	ON	Mr. NJ Motsopye						
TELEPHONE NU	MBER	0152847126	E-MAIL AI	DDRESS		motsop	yen@dpw.limpop	o.gov.za
CONTACT PERS	ON (TECHNICAL)	Mr. K Modjadji				_		
TELEPHONE NU		083 673 5436	E-MAIL AI	DDRESS		Modjad	jiM@dpw.limpopo	.gov.za
SUPPLIER INFO		I						
NAME OF BIDDE								
POSTAL ADDRE	SS							
STREET ADDRE	SS							_
TELEPHONE NU	MBER	CODE			NUMBER			
CELLPHONE NU	MBER							
E-MAIL ADDRES	S							
VAT REGISTRAT				T	1			
SUPPLIER COMI	PLIANCE STATUS	TAX COMPLIANCE		OR	CENTRAL SUPPLIER			
		SYSTEM PIN:		OK .	DATABASE No	: MAA	<b>A</b> A	
	ACCREDITED				A FOREIGN		□Yes	∏No
REPRESENTA		□Yes	□No		UPPLIER FOR		1es	
SOUTH AFRIC	VICES/WORKS	## \/F0 FNO! 00!		OFFERE	SERVICES /W	UKNO	[IF YES, ANSW	
OFFERED?	VIOLO/WORKO	[IF YES ENCLOS	E PROOF]	OI I LIKE	<i>7</i> i		QUESTIONNAI	KE BELOW ]
QUESTIONNAIR	E TO BIDDING FORE	IGN SUPPLIERS						
IS THE ENTITY A	A RESIDENT OF THE	REPUBLIC OF SO	UTH AFRICA	(RSA)?			YI	ES NO
DOES THE ENTI	TY HAVE A BRANCH	IN THE RSA?						ES NO
DOES THE ENTI	TY HAVE A PERMAN	ENT ESTABLISHM	ENT IN THE I	RSA?				ES NO
DOES THE ENTI	TY HAVE ANY SOUR	CE OF INCOME IN	THE RSA?					ES NO
IS THE ENTITY L	IS THE ENTITY LIABLE IN THE RSA FOR ANY FORM OF TAXATION?			ES NO				
IF THE ANSWER SYSTEM PIN CO	IS "NO" TO ALL OF DE FROM THE SOU	THE ABOVE, THEN TH AFRICAN REVE	N IT IS NOT A ENUE SERVIC	REQUIREME E (SARS) AN	ENT TO REGISTE ND IF NOT REGIS	R FOR A	TAX COMPLIAN PER 2.3 BELOW	ICE STATUS '.

#### PART B: TERMS AND CONDITIONS FOR BIDDING

#### 1. BID SUBMISSION:

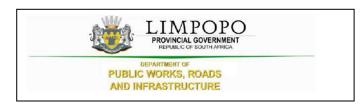
- 1.1. BIDS MUST BE DELIVERED BY THE STIPULATED TIME TO THE CORRECT ADDRESS. LATE BIDS WILL NOT BE ACCEPTED FOR CONSIDERATION.
- 1.2. ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS PROVIDED-(NOT TO BE RE-TYPED) OR IN THE MANNER PRESCRIBED IN THE BID DOCUMENT.
- 1.3. THIS BID IS SUBJECT TO THE PREFERENTIAL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



**SBD 6.1** 

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

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

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

#### 1. GENERAL CONDITIONS

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

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

(delete whichever is not applicable for this tender).

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

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

The maximum points for this tender are allocated as follows:

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

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

#### 2. **DEFINITIONS**

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

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

#### 3.1. POINTS AWARDED FOR PRICE

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

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

80/20 or 90/10

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

Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmin = Price of lowest acceptable tender

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

#### 3.2.1. POINTS AWARDED FOR PRICE

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

$$Ps = 80\left(1 + rac{Pt-P\,max}{P\,max}
ight)$$
 or  $Ps = 90\left(1 + rac{Pt-P\,max}{P\,max}
ight)$ 

Where

4.3.

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmax = Price of highest acceptable tender

#### 4. POINTS AWARDED FOR SPECIFIC GOALS

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

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

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

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

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

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

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

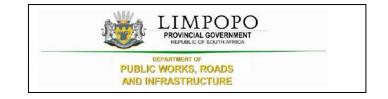
#### **DECLARATION WITH REGARD TO COMPANY/FIRM**

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

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

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

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



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

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

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

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

Misrepresentation of facts will render your bid non-responsive.

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

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

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

Signed	 Date	
Name	 Position	
Enterprise		



# THE CONTRACT



# PART C1: AGREEMENT AND CONTRACT DATA



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

#### Offer

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

#### REFURBISHMENT AND ADDITIONS AT RUNNEYMEDE PRIMARY SCHOOL IN MOPANI 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 of witness

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

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

The terms of the contract, are contained in:

Part C1 Agreements and Contract Data, (which includes this Form of Offer and Acceptance)

Part C2 Pricing Data

Part C3 Scope of Work

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

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

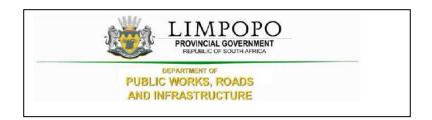
The tenderer shall within two weeks of receiving a completed copy of this agreement, including the Schedule of Deviations (if any), contact the *Employer's* agent (whose details are given in the Contract Data) to arrange the delivery of any securities, bonds, guarantees, proof of insurance and any other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

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

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

# **Schedule of Deviations**

1 Subject	
Details	
-	
Details	
-	
Details	
4 Subject	
-	
Details	
foregoing addenda	uly authorised representatives signing this agreement, the <i>Employer</i> and the Tenderer agree to and accept the schedule of deviations as the only deviations from and amendments to the documents listed in the Tender Data and thereto as listed in the returnable schedules, as well as any confirmation, clarification or changes to the terms of the ed by the Tenderer and the <i>Employer</i> during this process of offer and acceptance.
issue of the	essly agreed that no other matter whether in writing, oral communication or implied during the period between the ne tender documents and the receipt by the tenderer of a completed signed copy of this Agreement shall have any or effect in the contract between the parties arising from this agreement.



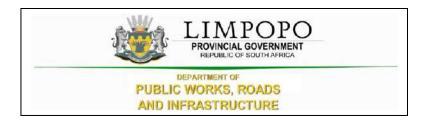
#### **C2.1 CONTRACT DATA**

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**

# DEPARTMENT OF PUBLIC WORKS, ROADS AND INFRASTRUCTURE PROVISIONAL BILLS OF QUANTITIES RUNNYMEDE PRIMARY SCHOOL LDPW-B/20308

Item No			Quantity	Rate	Amount
	<u>SE</u>	CTION NO. 1			
	BIL	<u>_L NO. 1</u>			
	PR	ELIMINARIES			
	<u>NO</u>	<u>TE</u>			
	i)	The agreement is to be the JBCC Series 2000 Principal Building Agreement (Edition 4.1) prepared by the Joint Building Contracts Committee, March 2005			
	ii)	The preliminaries are to be the JBCC Series 2000 Preliminaries prepared by the Joint Building Contracts Committee, March 2005 edition and shall be deemed to be incorporated herein			
	iv)	Where standard clauses or alternatives are not entirely applicable to this contract such modifications, corrections or supplements as will apply are given under each relevant clause heading			
	iii)	Tenderers are referred to the abovementioned documents for the full intent and meaning of each clause thereof (hereinafter referred to by heading and clause number only) for which such allowance must be made as may be considered necessary			
	v)	Where any item is not relevant to this specific contract such item is marked N/A (signifying "not applicable")			
	vi)	If Alternative A as set out in clause B10.3 hereinafter is to be used for the adjustment of the preliminaries each item priced is to be allocated to one or more of the three categories, where "F" denotes a fixed amount (amount not to be varied), "V" denotes an amount variable in proportion to value and "T" denotes an amount in proportion to time			
	PRI Bill	Carried Forward stion No. 1 ELIMINARIES No. 1 ELIMINARIES		R	
		JSTER G			

# DEPARTMENT OF PUBLIC WORKS, ROADS AND INFRASTRUCTURE PROVISIONAL BILLS OF QUANTITIES RUNNYMEDE PRIMARY SCHOOL LDPW-B/20308

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	vii) 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"		
	SECTION A: JBCC PRINCIPAL BUILDING AGREEMENT		
	Definitions (A1)		
1	Definitions and interpretation (clause 1)		
	Clause 1.1 Definition of "Agreement" is amended by replacing it with the following:		
	<b>Agreement</b> means the agreement arising from the signing of the Form of Offer and Acceptance by the parties.		
	Clause 1.1 Definition of "Bills of Quantities" is amended by adding the following:		
	"and the Pricing Instructions contained in the Pricing Data" after the word measuring system.		
	Clause 1.1 Definition of "Contract Documents" is amended by adding the following:		
	"this Agreement and all other documents referenced therein" after the word this document		
	Clause 1.1 Definition of "Contract Drawings" is amended by replacing it with the following:		
	Contract Drawings means the drawings upon which the tender was accepted and used in preparing the bills of quantities and are available for viewing at the offices of the Principal Agent at the time of tender		
	Clause 1.1 Definition of "Contract Sum" is amended by replacing it with the following:		
	Contract Sum means the total of prices in the Form of Offer and Acceptance.		
	Carried Forward	R	
	Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES CLUSTER G		

# DEPARTMENT OF PUBLIC WORKS, ROADS AND INFRASTRUCTURE PROVISIONAL BILLS OF QUANTITIES RUNNYMEDE PRIMARY SCHOOL LDPW-B/20308

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Clause 1.1 Definition of " <b>Schedule"</b> is amended by adding the following:		
"and in the <b>Contract Data"</b> . at the end on the sentence ending with <b>agreement</b>		
Clause 1.1 Definition of "Commencement Date" is added:		
"Commencement date" means the date that the agreement, made in terms of the Form of Offer and Acceptance, comes into effect		
Clause 1.1 Definition of "Construction Guarantee" is amended by replacing it with the following:		
"Construction guarantee" means guarantee at call obtained by the contractor from an institution approved by the employer in terms of the employer's construction guarantee form as selected in the schedule		
Clause 1.1 Definition of "Construction Period" is amended by replacing it with the following:		
"Construction period" means the period commencing on the commencement date and ending on the date of practical completion		
Clause 1.1 Definition of "Corrupt Practice" is added:		
"Corrupt Practice" means the offering , giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution		
Clause 1.1 Definition of "Fraudulent Practice" is added:		
"Fraudulent Practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of any tenderer and includes collusive practice among tenderers (prior to or after the tender submission) designed to establish tender prices at artificial non-competitive levels and to deprive the tenderer of the benefits of free and open		
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Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES CLUSTER G	R	

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	competition.			
	Clause 1.1 Definition of "Interest" is amended by replacing it with the following:			
	"Interest" means the interest rates applicable on this contract, whether specifically indicated in the relevant clauses or not, will be the rate as determined by the Minister of Finance, from time to time, in terms of section 80(1)(b) of the Public Finance Management Act, 1999 (Act No. 1 of 1999).			
	Clause 1.1 Definition of " <b>Principal Agent</b> " is amended by replacing it with the following:			
	"Principal Agent" means the person or entity appointed by the employer and named in the schedule. In the event of a principal agent not being appointed, then all the duties and obligations of a principal agent as detailed in the agreement shall be fulfilled by a representative of the employer as named in the schedule.			
	Clause 1.1 Definition of " <b>Security</b> " is amended by replacing it with the following:			
	<b>Security"</b> means the form of security provided by the <b>employer</b> or <b>contractor</b> , as stated in the <b>schedule</b> , from which the <b>contractor</b> or <b>employer</b> may recover expense or loss			
	1.6 Any notice given may be delivered by hand, sent by prepaid registered post or telefax. Notice shall be presumed to have been duly given when:			
	1.6.4 No clause			
	Fixed	Item		
	Value Related	Item		
	Carried Forward		R	
	Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES CLUSTER G		K	

	Brought Forward		R	
	Time Related	Item		
	Objective and Preparation (A2 - A14)			
2	Offer, acceptance and performance (clause 2)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
3	Documents (clause 3)			
	Clause 3.2.1 is amended by replacing "14.1" with "14.0"			
	Clause 3.7 is amended by the addition of the following:			
	The 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.			
	Clause 3.10 is amended by replacing the second reference to "principal agent" with the word "employer"			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
4	Design responsibility (clause 4)			
	Contractor is permitted to design the prefabricated building to the satisfaction or written approval from the client			
	Fixed	Item		
	Value Related	Item		
	Carried Forward Section No. 1		R	
	PRELIMINARIES Bill No. 1			
	PRELIMINARIES CLUSTER G			
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	Brought Forward		R	
	Time Related	Item		
5	Employer's agents (clause 5)  Fixed	Item		
	Value Related	Item		
	Time Related	Item		
6	Contractor's site representative (clause 6)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
7	Compliance with laws and regulations (clause 7)			
	Note: A separate clause has been included in Section C: Specific Preliminaries of the <b>bills of quantities</b> for the <b>contractor</b> to have the opportunity to price for all the requirements of the Occupational Health and Safety Act, Construction Regulations and Health and Safety Specification			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
8	Works risk (clause 8)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
	Carried Forward  Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES CLUSTER G		R	
	PRELIMINARIES			

	Brought Forward		R	
9	Indemnities (clause 9)			
	Clause 9.0 is amended by adding Clause 9.1.4:  The <b>contractor</b> indemnifies and holds harmless the <b>employer</b> against all liability, losses, claims, damages, penalties, actions, proceedings or judgments (collectively referred to as "Losses") arising from any infringement of letters, patent design, trademark, name, copyright or other protected rights in respect of any machine, plant, work, materials, thing, system or method of using, fixing, working or arrangement used or fixed or supplied by the <b>contractor</b> , but such indemnity shall not cover any use of the equipment of part thereof otherwise than in accordance with the provisions of the specification. All payments and royalties payable in one sum or by installments or otherwise shall be included by the <b>contractor</b> in the price and shall be paid by him to those to whom they may be payable. The <b>contractor</b> shall reimburse the <b>employer</b> for all legal and other costs and expenses, including without limitation attorney's fees on attorney-client scale incurred by the			
	employer in connection with investigation, defending or settling any Losses in connection with pending or threatening litigation in which the employer is a party.  Fixed  Value Related	ltem Item		
	Time Related	Item		
10	Works insurances (clause 10)  Clause 10.0 is amended by the addition of the following clauses  10.5 Damage to the Works  (a) Without in any way limiting the contractor's 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  Carried Forward  Section No. 1  PRELIMINARIES  Bill No. 1  PRELIMINARIES  CLUSTER G		R	

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	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 <b>contractor</b> shall at all times proceed immediately to remove or dispose of any debris arising from damage to or destruction of the <b>works</b> and to rebuild, restore, replace and/or repair the <b>works</b>		
(c)	The <b>employer</b> shall carry the risk of damage to or destruction of the <b>works</b> and material paid for by the <b>employer</b> that is the result of the excepted risks as set out in 10.6		
(d)	Where the <b>employer</b> bears the risk in terms of this contract, the <b>contractor</b> shall, if requested to do so, reinstate any damage or destroyed portions of the <b>works</b> and the costs of such reinstatement shall be measured and valued in terms of 32.0 hereof		
10.6 Ir Prope	njury to Persons or loss of or damage to rties		
(a)	The <b>contractor</b> shall be liable for and hereby indemnifies the <b>employer</b> against any liability, loss, claim or proceeding whether arising in common law or by statute, consequent upon personal injuries to or the death of any person whomsoever arising out of or in the course of or caused by the execution of the <b>works</b> unless due to any act or neglect of any person for whose actions the <b>employer</b> is legally liable		
(b)	The <b>contractor</b> shall be liable for and hereby indemnifies the <b>employer</b> against any liability, loss, claim or proceeding consequent upon loss of or damage to any moveable or immovable or personal property or property contiguous to the <b>site</b> , whether belonging to or under the control of the <b>employer</b> or any other body or person, arising out of or in the course of or by reason of the execution of the <b>works</b> unless due to any		
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	act or neglect of any person for whose actions the <b>employer</b> is legally liable		
с)	The <b>contractor</b> shall, upon receiving a <b>contract instruction</b> from the <b>principal agent</b> , cause the same to be made good in a perfect and workmanlike manner at his own cost and in default thereof the <b>employer</b> shall be entitled to cause it to be made good and to recover the cost thereof from the <b>contractor</b> or to deduct the same from amounts due to the <b>contractor</b>		
(d)	The <b>contractor</b> shall be responsible for the protection and safety of such portions of the premises placed under his control by the <b>employer</b> for the purpose of executing the <b>works</b> until the issue of the <b>certificate of</b> practical completion		
(e)	Where the execution of the <b>works</b> involves the risk of removal of or interference with support to adjoining properties including land or structures or any structures to be altered or added to, the <b>contractor</b> shall ogtain adequate insurance and will remain adequately insured or insured to the specific limit stated in the contract against the death of or injury to persons or damage to such property consequent on such removal or interference with the support until such portion of the <b>works</b> has been completed		
(f)	The <b>contractor</b> shall at all times proceed immediately at his own cost to remove or dispose of any debris and to rebuild, restore, replace and/or repair such property and to execute the <b>works</b>		
10.	.7 High risk insurance		
ge an coi mo	the event of the project being executed in a ological area classified as a "High Risk Area", that is area which is subject to highly unstable subsurface nditions that might result in catastrophic ground overment evident by sinkhole or doline formation the lowing will apply:		
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10.7.1 Damage to the works		
The <b>contractor</b> shall, from the commencement <b>date</b> of the <b>works</b> until the date of the <b>certificate of practical completion</b> bear the full risk of and hereby indemnifies and holds harmless the <b>employer</b> against any damage to and/or destruction of the <b>works</b> consequent upon a catastrophic ground movement as mentioned above. The <b>contractor</b> shall take such precautions and security measures and other steps for the protection of the <b>works</b> 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 <b>contractor</b> shall be liable for and hereby indemnifies and holds harmless the <b>employer</b> against any liability, loss, claim or proceeding arising at any time during the period of the contract whether arising in common law or by statute, consequent upon personal injuries to or the death of any person whomsoever resulting from, arising out of or caused by a catastrophic ground movement as mentioned above		
The <b>contractor</b> shall be liable for and hereby indemnifies the <b>employer</b> against any and all liability, loss, claim or proceeding consequent upon loss of or damage to any moveable or immovable or personal property or property contiguous to the <b>site</b> , whether belonging to or under the control of the <b>employer</b> or any other body or person whomsoever arising out of or caused by a catastrophic ground movement, as mentioned above, which occurred during the period of the contract		
<b>10.7.3</b> It is the responsibility of the <b>contractor</b> to ensure that he has adequate insurance to cover his risk and liability as mentioned in 10.7.1 and 10.7.2. Without limiting the <b>contractor's</b> obligations in terms of the		
Carried Forward  Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES CLUSTER G	R	

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contract, the <b>contractor</b> shall, within twenty-one (21) <b>calendar days</b> of the <b>commencement date</b> but before commencement of the <b>works</b> , submit to the <b>employer</b> proof of such insurance policy, if requested to do so			
10.7.4 The employer shall be entitled to recover any and all losses and/or damages of whatever nature suffered or incurred consequent upon the contractor's default of his obligations as set out in 10.7.1; 10.7.2 and 10.7.3. Such losses or damages may be recovered from the contractor or by deducting the same from any amounts still due under this contract or under any other contract presently or hereafter existing between the employer and the contractor and for this purpose all these contracts shall be considered one indivisible whole			
Fixed	Item		
Value Related	Item		
Time Related	Item		
Liability insurances (clause 11)			
Fixed	Item		
Value Related	Item		
Time Related	Item		
Effecting insurances (clause 12)			
Fixed	Item		
Value Related	Item		
Time Related	Item		
No clause (clause 13)	Item		
Security (clause 14)			
Carried Forward  Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES CLUSTER G		R	
	contract, the contractor shall, within twenty-one (21) calendar days of the commencement date but before commencement of the works, submit to the employer proof of such insurance policy, if requested to do so  10.7.4 The employer shall be entitled to recover any and all losses and/or damages of whatever nature suffered or incurred consequent upon the contractor's default of his obligations as set out in 10.7.1; 10.7.2 and 10.7.3. Such losses or damages may be recovered from the contractor or by deducting the same from any amounts still due under this contract or under any other contract presently or hereafter existing between the employer and the contractor and for this purpose all these contracts shall be considered one indivisible whole  Fixed  Value Related  Time Related  Effecting insurances (clause 11)  Fixed  Value Related  Time Related  Time Related  Time Related  No clause (clause 13)  Security (clause 14)  Carried Forward  Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES	contract, the contractor shall, within twenty-one (21) calendar days of the commencement date but before commencement of the works, submit to the employer proof of such insurance policy, if requested to do so  10.7.4 The employer shall be entitled to recover any and all losses and/or damages of whatever nature suffered or incurred consequent upon the contractor's default of his obligations as set out in 10.7.1; 10.7.2 and 10.7.3. Such losses or damages may be recovered from the contractor or by deducting the same from any amounts still due under this contract or under any other contract presently or hereafter existing between the employer and the contractor and for this purpose all these contracts shall be considered one indivisible whole  Fixed Item  Value Related Item  Liability insurances (clause 11)  Fixed Item  Value Related Item  Time Related Item  Time Related Item  Time Related Item  Time Related Item  Value Related Item  Time Related Item  Value Related Item  Time Related Item  Section (clause 13)  Item  Carried Forward  Section No. 1  PRELIMINARIES Bill No. 1  PRELIMINARIES Bill No. 1  PRELIMINARIES	contract, the contractor shall, within twenty-one (21) calendar days of the commencement date but before commencement of the works, submit to the employer proof of such insurance policy, if requested to do so  10.7.4 The employer shall be entitled to recover any and all losses and/or damages of whatever nature suffered or incurred consequent upon the contractor's default of his obligations as set out in 10.7.1; 10.7.2 and 10.7.3 Such losses or damages may be recovered from the contractor or by deducting the same from any amounts still due under this contract or under any other contract presently or hereafter existing between the employer and the contractor and for this purpose all these contracts shall be considered one indivisible  Walue Related Item  Time Related Item  Liability insurances (clause 11)  Fixed Item  Value Related Item  Time Related Item  Time Related Item  Value Related Item  Time Related Item  Value Related Item  Time Related Item  Value Related Item  Value Related Item  Value Related Item  Value Related Item  Time Related Item  Value Related Item  Value Related Item  Time Related Item  Value Related Item  Prized Item  Value Related Item  Time Related Item  Related Item  Prized Item  Value Related Item  Prized Item  Value Related Item  Prized Item  Value Related Item  Prized Item

14.0 Replace the entire clause 14.0 with the following:				
The replace the characteristic man the removing.				
14.0 Security				
14.1 In respect of contracts with a <b>contract sum</b> up to R1 million, the <b>security</b> to be provided by the <b>contractor</b> to the <b>employer</b> will be a payment reduction of five per cent (5%) of the value certified in the <b>payment certificate</b> (excluding VAT)				
14.1.1 The payment reduction of the value certified in a <b>payment certificate</b> shall be <i>mutatis mutandi</i> in terms of 31.8(A)				
14.1.2 The <b>employer</b> shall be entitled to recover expense and loss from the payment reduction in terms of 33.0 provided that the <b>employer</b> complies with the provisions of 33.4 in which event the <b>employer's</b> entitlement shall take precedence over his obligations to refund the payment reduction <b>security</b> or portions thereof to the <b>contractor</b>				
14.2 In respect of contracts with a <b>contract sum</b> above R1 million, the <b>contractor</b> shall have the right to select the <b>security</b> to be provided in terms of 14.3, 14.4, 14.5, 14.6, or 14.7 as stated in the <b>schedule</b> . Such <b>security</b> shall be provided to the <b>employer</b> within twenty-one (21) <b>calendar days</b> from <b>commencement date</b> . Should the <b>contractor</b> fail to select the <b>security</b> to be provided or should the <b>contractor</b> fail to provide the <b>employer</b> with the selected <b>security</b> within twenty-one (21) <b>calendar days</b> from <b>commencement date</b> , the <b>security</b> in terms of 14.7 shall be deemed to have been selected.				
14.3 Where the <b>security</b> as a cash deposit of ten per cent (10%) of the <b>contract sum</b> (excluding VAT) has been selected:				
14.3.1 The <b>contractor</b> shall furnish the <b>employer</b> with a cash deposit equal in value to ten per cent (10%) of the <b>contract sum</b> (excluding VAT) within twenty-one (21) <b>calendar days</b> from <b>commencement date</b> .				
14.3.2 Within twenty-one (21) calendar days of the date of practical completion of the works the employer				
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Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES CLUSTER G		. `		
THE THE TAX TO THE TAX	14.1 In respect of contracts with a contract sum up to R1 million, the security to be provided by the contractor to the employer will be a payment reduction of five per cent (5%) of the value certified in the payment certificate (excluding VAT)  14.1.1 The payment reduction of the value certified in a payment certificate shall be mutatis mutandi in terms of 31.8(A)  14.1.2 The employer shall be entitled to recover expense and loss from the payment reduction in terms of 33.0 provided that the employer complies with the provisions of 33.4 in which event the employer's entitlement shall take precedence over his obligations to refund the payment reduction security or portions thereof to the contractor  14.2 In respect of contracts with a contract sum above R1 million, the contractor shall have the right to select the security to be provided in terms of 14.3, 14.4, 14.5, 14.6, or 14.7 as stated in the schedule. Such security shall be provided to the employer within twenty-one (21) calendar days from commencement date. Should the contractor fail to select the security to be provided or should the contractor fail to provide the employer with the selected security within twenty-one (21) calendar days from commencement date, the security in terms of 14.7 shall be deemed to have been selected.  14.3 Where the 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 to 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  Carried Forward  Section No. 1  PRELIMINARIES  Bill No. 1  PRELIMINARIES  Bill No. 1  PRELIMINARIES	14.1 In respect of contracts with a contract sum up to R1 million, the security to be provided by the contractor to the employer will be a payment reduction of five per cent (5%) of the value certified in the payment certificate (excluding VAT)  14.1.1 The payment reduction of the value certified in a payment certificate shall be mutatis mutandi in terms of 31.8(A)  14.1.2 The employer shall be entitled to recover expense and loss from the payment reduction in terms of 33.0 provided that the employer complies with the provisions of 33.4 in which event the employer's entitlement shall take precedence over his obligations to refund the payment reduction security or portions thereof to the contractor  14.2 In respect of contracts with a contract sum above R1 million, the contractor shall have the right to select the security to be provided in terms of 14.3, 14.4, 14.5, 14.6, or 14.7 as stated in the schedule. Such security shall be provided to the employer within twenty-one (21) calendar days from commencement date. Should the contractor fail to select the security to be provided or should the contractor fail to provide the employer with the selected security within twenty-one (21) calendar days from commencement date. Should the contractor fail to provide the employer with the selected security within twenty-one (21) calendar days from commencement date, the security in terms of 14.7 shall be deemed to have been selected.  14.3 Where the 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 to 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	14.1 In respect of contracts with a contract sum up to R1 million, the security to be provided by the contractor to the employer will be a payment reduction of five per cent (5%) of the value certified in the payment certificate (excluding VAT)  14.1.1 The payment reduction of the value certified in a payment certificate shall be mutatis mutandi in terms of 31.8(A)  14.1.2 The employer shall be entitled to recover expense and loss from the payment reduction in terms of 33.0 provided that the employer complies with the provisions of 33.4 in which event the employer's entitlement shall take precedence over his obligations to refund the payment reduction security or portions thereof to the contractor shall have the right to select the security to be provided in terms of 14.3, 14.4, 14.5, 14.6, or 14.7 as stated in the schedule. Such security shall be provided to the employer within twenty-one (21) calendar days from commencement date. Should the contractor fail to select the security to be provided or should the contractor fail to provide the employer with the selected security within twenty-one (21) calendar days from commencement date, the security in terms of 14.7 shall be deemed to have been selected:  14.3 Where the 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 to 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  Carried Forward  R PRELIMINARIES	14.1 In respect of contracts with a contract sum up to R1 million, the security to be provided by the contractor to the employer will be a payment reduction of five per cent (5%) of the value certified in the payment certificate (excluding VAT)  14.1.1 The payment reduction of the value certified in a payment certificate shall be mutatis mutandi in terms of 31.8(A)  14.1.2 The employer shall be entitled to recover expense and loss from the payment reduction in terms of 33.0 provided that the employer complies with the provisions of 33.4 in which event the employer's entitlement shall take precedence over his obligations to refund the payment reduction security or portions thereof to the contractor  14.2 In respect of contracts with a contract sum above R1 million, the contractor shall have the right to select the security to be provided in terms of 14.3, 14.4, 14.5, 14.6, or 14.7 as stated in the schedule. Such security shall be provided to the employer within twenty-one (21) calendar days from commencement date. Should the contractor fail to select the security to be provided or should the contractor fail to provide the employer with he selected security within twenty-one (21) calendar days from commencement date, the security in terms of 14.7 shall be deemed to have been selected.  14.3 Where the 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 to 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 for commencement date.  14.3.2 Within twenty-one (21) calendar days of the date of practical completion of the works the employer

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shall reduce the cash deposit to an amount equal to three per cent (3%) of the <b>contract value</b> (excluding VAT), and refund the balance to the <b>contractor</b> .		
14.3.3 Within twenty-one (21) <b>calendar days</b> of the date of <b>final completion</b> of the <b>works</b> the <b>employer</b> shall reduce the cash deposit to an amount equal to one per cent (1%) of the <b>contract value</b> (excluding VAT) and refund the balance to the <b>contractor</b> .		
14.3.4 On the date of payment of the amount in the final payment certificate, the employer shall refund the remainder of the cash deposit to the contractor.		
14.3.5 The <b>employer</b> shall be entitled to recover expense and loss from the cash deposit in terms of 33.0 provided that the <b>employer</b> complies with the provisions of 33.4 in which event the <b>employer's</b> entitlement shall take precedence over his obligations to refund the cash deposit <b>security</b> or portions thereof to the <b>contractor</b> .		
14.3.6 The parties expressly agree that neither the <b>employer</b> nor the <b>contractor</b> shall be entitled to cede the rights to the deposit to any third party.		
14.4 Where <b>security</b> as a variable <b>construction guarantee</b> of ten percent (10%) of the <b>contract sum</b> (excluding VAT) has been selected:		
14.4.1 The <b>contractor</b> shall furnish the <b>employer</b> with an acceptable variable <b>construction guarantee</b> equal in value to ten per cent (10%) of the <b>contract sum</b> (excluding VAT) within twenty-one (21) <b>calendar days</b> from <b>commencement date</b>		
14.4.2 The variable <b>construction guarantee</b> shall reduce and expire in terms of the Variable <b>Construction Guarantee</b> form included in the invitation to tender		
14.4.3 The <b>employer</b> shall return the variable <b>construction guarantee</b> to the <b>contractor</b> within fourteen (14) <b>calendar days</b> of it expiring		
14.4.4 Where the <b>employer</b> has a right of recovery against the <b>contractor</b> in terms of 33.0, the <b>employer</b>		
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shall issue a written demand in terms of the variable construction guarantee		
14.5 Where <b>security</b> as a fixed <b>construction guarantee</b> of five per cent (5%) of the <b>contract sum</b> (excluding VAT) and a five per cent (5%) payment reduction of the value certified in the <b>payment certificate</b> (excluding VAT) has been selected:		
14.5.1 The <b>contractor</b> shall furnish a fixed <b>construction guarantee</b> to the <b>employer</b> equal in value to five per cent (5%) of the <b>contract sum</b> (excluding VAT)		
14.5.2 The fixed <b>construction guarantee</b> shall come into force on the date of issue and shall expire on the date of the last certificate of <b>practical completion</b>		
14.5.3 The <b>employer</b> shall return the fixed <b>construction guarantee</b> to the <b>contractor</b> within fourteen (14) <b>calendar days</b> of it expiring		
14.5.4 The payment reduction of the value certified in a payment certificate shall be in terms of 31.8(A) and 34.8		
14.5.5 Where the <b>employer</b> has a right of recovery against the <b>contractor</b> in terms of 33.0, the <b>employer</b> shall be entitled to issue a written demand in terms of the fixed <b>construction guarantee</b> or may recover from the payment reduction or may do both		
14.6 Where <b>security</b> as a cash deposit of five per cent (5%) of the <b>contract sum</b> (excluding VAT) and a payment reduction of five per cent (5%) of the value certified in the <b>payment certificate</b> (excluding VAT) has been selected:		
14.6.1 The <b>contractor</b> shall furnish the <b>employer</b> with a cash deposit equal in value to five per cent (5%) of the <b>contract sum</b> (excluding VAT) within twenty-one (21) <b>calendar days</b> from <b>commencement date</b>		
14.6.2 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		
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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 <b>employer</b> has a right of recovery against the <b>contractor</b> in terms of 33.0, the <b>employer</b> may issue a written notice in terms of 33.4 or may recover from the payment reduction or may do both			
14.7 Where <b>security</b> as a payment reduction of ten per cent (10%) of the value certified in the <b>payment certificate</b> (excluding VAT) has been selected:			
14.7.1 The payment reduction of the value certified in a <b>payment certificate</b> shall be <i>mutatis mutandi</i> in terms of 31.8(B)			
14.7.2 The <b>employer</b> shall be entitled to recover expense and loss from the payment reduction in terms of 33.0 provided that the <b>employer</b> complies with the provisions of 33.4 in which event the <b>employer's</b> entitlement shall take precedence over his obligations to refund the payment reduction or portions thereof to the <b>contractor</b>			
14.8 Payments made by the guarantor to the <b>employer</b> in terms of the fixed or variable <b>construction guarantee</b> shall not prejudice the rights of the <b>employer</b> or <b>contractor</b> in terms of this <b>agreement</b>			
14.9 Should the <b>contractor</b> fail to furnish the <b>security</b> in terms of 14.2 the <b>employer</b> , in his sole discretion, and without notification to the <b>contractor</b> , is entitled to change the <b>contractor's</b> selected form of <b>security</b> to that of a ten per cent (10%) payment reduction of the value certified in the <b>payment certificate</b> (excluding VAT), where after 14.7 shall be applicable			
Fixed	Item		
Value Related	Item		
Time Related	Item		
Carried Forward  Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES CLUSTER G		R	

	Brought Forward		R	
l	Execution (A15 - A23)			
15	Preparation for and execution of the works (clause 15)			
	Clause 15.1.1 is amended by replacing it with:			
	No clause			
	Clause 15.1.2 is amended by replacing it with:			
	The <b>security</b> selected in terms of 14.0			
	Clause 15.1 is amended by the addition of the following clause:			
	15.1.4 An acceptable health and safety plan, required in terms of the Occupational Health and Safety Act, 1993 (Act 85 of 1993) or latest edition, revision and ammendments, within twenty-one (21) calendar days of commencement date			
	Clause 15.2.1 is amended by replacing it with the following clause:			
	Give the <b>contractor</b> possession of the <b>site</b> within ten (10) <b>working days</b> of the <b>contractor</b> complying with the terms of 15.1.			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
16	Access to the works (clause 16)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
	Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES CLUSTER G		R	

	Brought Forward		R	
17	Contract instructions (clause 17)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
18	Setting out of the works (clause 18)			
	The contractor shall notify the principal agent if any encroachments of adjoining foundations, buildings, structures, pavements, boundaries, etc. exist in order that the necessary arrangements may be made for the rectification of any such encroachments			
	The contractor shall perform tolerance control checks regularly throughout the contract period and report on this at regular interval to the Principal Agent in the approved format. Should the contractor fail to comply with this requirement to the satisfaction of the the Principal Agent, progressively as the structure is being constructed, the Employer will commission a Registered Land Surveyor to do so on the Contractor's behalf and at the Contractor's Expense.			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
19	Assignment (clause 19)	Item		
	Value Related	Item		
	Time Related	Item		
	Carried Forward  Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES CLUSTER G		R	_

	Brought Forward		R	
20	Nominated sub-contractors (clause 20)		•	
	Clause 20.0			
	Clause 20.1.3 is amended by replacing it with the following:			
	No Clause			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
21	Selected sub-contractors (clause 21)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
22	Employer's direct contractors (clause 22)			
	The Contractor shall allow the direct contractors and employers agents access to the work, allocate reasonable space in the building for storage of their materials, tools and equipment, all to the satisfaction of the Principal Agent. The contractor shall also allow the direct contractors, etc. free of charge, use of their ablution facilities and water and power supply to the and shall in no way hinder or prevent the execution of their works. Attendance may be priced against the relevant specified items in the bills of quantities.			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
	Carried Forward  Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES CLUSTER G		R	

	Brought Forward		R	
23	Contractor's domestic sub-contractors (Clause 23)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
	COMPLETION			
	Completion (A24-A30)			
24	Practical completion (clause 24)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
25	Works completion (clause 25)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
26	Final completion (clause 26)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
27	Latent defects liability period (clause 27)			
	Fixed	Item		
	Value Related	Item		
	Carried Forward		R	
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	Brought Forward		R
	Time Related	Item	
Sectional	al completion (clause 28)		
	Fixed	Item	
	Value Related	Item	
	Time Related	Item	
Revision	n of date of practical completion (clause 29)		
	29.1.1 shall be deemed to be omitted and I by the following:		
excess of each cal recorded	nt weather shall be defined as weather in of the average rainfall (volume and period) for lender month over the past ten (10) years as d by the nearest commonly recognised weather n the region of the project		
allowed expense	be deemed that the contractor has adequately in his programme and tendered rates for es which might result from delays due to average a rainfall as described above		
Д	dd Clause 29.9 as follows:		
s C	Revision to the date for <b>practical completion</b> hall only be considered when work on the ritical path of the agreed programme for the vorks is delayed."		
Add Cla	ause 29.10 as follows:		
Clause	29.10 - Acceleration		
lr rı e <b>p</b> n	clause 29.10.1 respective of whether or not the <b>principal agent</b> ules that the <b>contractor</b> is entitled to an xtension of time or a revision of the date for <b>iractical completion</b> , the <b>principal agent</b> shall evertheless, at any time, be entitled to instruct the <b>contractor</b> in writing to accelerate the		
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	progress of the remaining <b>works</b> to ensure that the <b>works</b> are completed by the original date for <b>practical completion</b> or revised date as the case may be.			
	Clause 29.10.2 Upon receipt of such instruction, the <b>contractor</b> shall take all necessary steps to ensure that the <b>works</b> are completed timeously including the provision by him of additional resources, plant, manpower, etc and the working overtime or additional overtime beyond that contemplated at the time of tender (at all times adhering to the regulations and requirements of all authorities) and by all other adequate and proper means and methods. The <b>contractor</b> shall prove that such steps are being taken if called upon to do so.			
	Clause 29.10.3 The <b>contractor's</b> entitlement to compensation arising out of or in respect of any revision to the date for <b>practical completion</b> that may have been granted by the <b>principal agent</b> or alternatively where the <b>principal agent</b> has instructed the <b>contractor</b> to accelerate, shall be adjudicated strictly in terms of clause 32.			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
30	Penalty for non-completion (clause 30)			
	Clause 30 is amended by replacing reference to 36.3 at end of sentence with 36.0			
	The penalty per calender day shall be calculated at 0.05% of contract sum excluding contingency allowance and CPAP			
	Fixed	Item		
	Value Related	Item		
	Carried Forward  Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES CLUSTER G		R	

	Brought Forward		R	
	Time Related	Item		
	Payment (A31 - A35)			
31	31.5.2 Security adjustments in terms of 14.0 or 31.8			
	31.8 Amend as follows:			
	31.8(A) Where a <b>security</b> is selected in terms of 14.1; 14.5 or 14.6, the value of the <b>works</b> in terms of 31.4.1 and of the <b>materials and goods</b> in terms of 31.4.2 shall be certified in full. The value certified shall be subject to the following percentage adjustments:			
	31.8(A).1 Ninety-five per cent (95%) of such value in interim <b>payment certificates</b> issued up to the date of <b>practical completion</b>			
	31.8.(A).2 Ninety-seven per cent (97%) of such value in interim <b>payment certificates</b> issued on the date of <b>practical completion</b> and up to but excluding the date of <b>final completion</b>			
	31.8(A).3 Ninety-nine per cent (99%) of such value in interim <b>payment certificates</b> issued on the date of <b>final completion</b> and up to but excluding the final <b>payment certificate</b> in terms of 34.6			
	31.8(A).4 One hundred per cent (100%) of such value in the final <b>payment certificate</b> in terms of 34.6 except where the amount certified is in favour of the <b>employer</b> . In such an event the payment reduction shall remain at the adjustment level applicable to the final <b>payment certificate</b> .			
	31.8(B) Where security is a payment reduction in term of 14.7 has been selected the value of the <b>works</b> in terms of 31.4.1 and <b>materials and goods</b> in terms of 31.4.2 shall be certified in full. The value certified shall be subject to the following percentage adjustments:			
	31.8(B).1 Ninety per cent (90%) of such value in interim <b>payment certificates</b> issued up to the date of <b>practical completion</b>			
	Carried Forward		R	
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	Brought Forward		R	
	31.8(B).2 Ninety-seven per cent (97%) of such value in interim <b>payment certificates</b> issued on the date of <b>practical completion</b> and up to but excluding the date of <b>final completion</b>			
	31.8(B).3 Ninety-nine per cent (99%) of such value in interim <b>payment certificates</b> issued on the date of <b>final completion</b> and up to but excluding the final <b>payment certificate</b> in terms of 34.6			
	31.8(B).4 One hundred per cent (100%) of such value in the final <b>payment certificate</b> in terms of 34.6 except were the amount certified is in favour of the <b>employer</b> . In such an event the payment reduction shall remain at the adjustment level applicable to the final <b>payment certificate</b>			
	Clause 31.9 is amended by replacing "seven (7) calender days" with "thirty (30) calender days" and by deleting the words "subject to the contractor giving the employer a tax invoice for the amount due			
	31.12 Delete the following: "Payment shall be subject to the <b>employer</b> giving the <b>contractor</b> a tax invoice for the amount due."			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
32	Adjustment to the contract value (clause 32)			
	Clause 32.0			
	Clauses 32.5.1, 32.5.4 and 32.5.7 are amended by the addition of the following at the end of the sentence:			
	"due to no fault of the <b>contractor</b> "			
	Fixed	Item		
	Carried Forward		R	
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	Brought Forward		R	
	Value Related	Item		
	Time Related	Item		
33	Recovery of expense and loss (clause 33)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
34	Final account and final payment (clause 34)			
	Clause 34.0			
	Clause 34.2 is amended by inserting # next to 34.2			
	Clause 34.8 is amended by replacing with "The principal agent shall certify one hundred per cent (100%) of the amount of the final account in the final payment certificate.			
	Clause 34.13 is amended by replacing "seven (7) calendar days" with "thirty (30) calendar days" and deleting the words "subject to the employer giving the contractor a tax invoice for the amount due"			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
35	Payment to other parties (clause 35)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
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Cancellation (A36-A39)			
<u> </u>			
Cancellation by employer - contractor's default (clause 36)			
Clause 36.1 is amended by the additions of the following clauses:			
36.1.3 refuses or neglects to comply strictly with any of the conditions of contract			
36.1.4 estate being sequestrated, liquidated or surrendered in terms of the insolvency laws in force within the Republic of South Africa			
36.1.5 in the judgement of the <b>employer</b> , has engaged in <b>corrupt</b> or <b>fraudulent practices</b> in competing for or in executing the contract			
Clause 36.3 is amended by removing the reference to "No clause" and replacing the words "principal agent" with "employer"			
Clause 36.0 is amended by the addition of the following clause:			
Clause 36.7 Notwithstanding any clause to the contrary, on cancellation of this <b>agreement</b> either by the <b>employer</b> or the <b>contractor</b> ; or for any reason whatsoever, the <b>contractor</b> shall on written instruction, discontinue with the <b>works</b> on a date stated and withdraw himself from the <b>site</b> . The <b>contractor</b> shall not be entitled to refuse to withdraw from the <b>works</b> on the grounds of any lien or right of retention or on the grounds of any other right whatsoever			
Fixed	Item		
Value Related	Item		
Time Related	Item		
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	Clause 36.1 is amended by the additions of the following clauses:  36.1.3 refuses or neglects to comply strictly with any of the conditions of contract  36.1.4 estate being sequestrated, liquidated or surrendered in terms of the insolvency laws in force within the Republic of South Africa  36.1.5 in the judgement of the employer, has engaged in corrupt or fraudulent practices in competing for or in executing the contract  Clause 36.3 is amended by removing the reference to "No clause" and replacing the words "principal agent" with "employer"  Clause 36.7 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  Carried Forward  Section No. 1  PRELIMINARIES  Bill No. 1  PRELIMINARIES  Bill No. 1  PRELIMINARIES	Clause 36.1 is amended by the additions of the following clauses:  36.1.3 refuses or neglects to comply strictly with any of the conditions of contract  36.1.4 estate being sequestrated, liquidated or surrendered in terms of the insolvency laws in force within the Republic of South Africa  36.1.5 in the judgement of the employer, has engaged in corrupt or fraudulent practices in competing for or in executing the contract  Clause 36.3 is amended by removing the reference to "No clause" and replacing the words "principal agent" with "employer"  Clause 36.0 is amended by the addition of the following clause:  Clause 36.7 Notwithstanding any clause to the contrary, on cancellation of this agreement either by the employer or 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	Clause 36.1 is amended by the additions of the following clauses:  36.1.3 refuses or neglects to comply strictly with any of the conditions of contract  36.1.4 estate being sequestrated, liquidated or surrendered in terms of the insolvency laws in force within the Republic of South Africa  36.1.5 in the judgement of the employer, has engaged in corrupt or fraudulent practices in competing for or in executing the contract  Clause 36.3 is amended by removing the reference to "No clause" and replacing the words "principal agent" with "employer"  Clause 36.0 is amended by the addition of the following clause:  Clause 36.7 Notwithstanding any clause to the contrary, on cancellation of this agreement either by the employer or the contractor; or for any reason whatsoever, the contractor shall on written instruction, discontinue with the works on a date stated and withdraw himself from the site. The contractor shall not be entitled to refuse to withdraw from the works on the grounds of any lien or right of retention or on the grounds of any other right whatsoever  Fixed Item  Value Related Item  Time Related Item  Time Related Item  Time Related Item  PRELIMINARIES

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37	Cancellation by employer - loss and damage (clause 37)			
	Clause 37.3.5 is amended by replacing "ninety (90)" with "one-hundred and twenty (120)"			
	Clause 37.0 is amended by the addition of the following clause:			
	37.5 Notwithstanding any clause to the contrary, on cancellation of this <b>agreement</b> either by the <b>employer</b> or the <b>contractor</b> ; or for any reason whatsoever, the <b>contractor</b> shall on written instruction, discontinue with the <b>works</b> on a date stated and withdraw himself from the <b>site</b> . The <b>contractor</b> shall not be entitled to refuse to withdraw from the <b>works</b> on the grounds of any lien or right of retention or on the grounds of any other right whatsoever			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
38	Cancellation by contractor - employer's default (clause 38)			
	Clause 38.5.4 is amended by replacing "ninety (90) with "one-hundred and twenty (120)"			
	Clause 38.0 is amended by the addition of the following clause:			
	Clause 38.7 Notwithstanding any clause to the contrary, on cancellation of this <b>agreement</b> either by the <b>employer</b> or the <b>contractor</b> ; or for any reason whatsoever, the <b>contractor</b> shall on written instruction, discontinue with the <b>works</b> on a date stated and withdraw himself from the <b>site</b> . The <b>contractor</b> shall not be entitled to refuse to withdraw from the <b>works</b> on the grounds of any lien or right of retention or on the grounds of any other right whatsoever			
	Fixed	Item		
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	Brought Forward		R	
	Value Related	Item		
	Time Related	Item		
39	Cancellation - cessation of the works (clause 39)			
	Clause 39.3.5 is amended by the addition of the following at the end of the sentence: "within one-hundred and twenty (120) <b>working days</b> of completion of such report"			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
	Dispute Settlement (A40)			
40	Disputes Settlement (clause 40)			
	Clause 40.2.2 is amended by replacing "one (1) year" with "three (3) years"			
	Clause 40.6 is amended by removing the reference to:			
	No clause			
	Clause 40.7.1 is amended by replacing "(10)" with "(15)" and by the addition of the following:			
	Whether or not mediation resolves the dispute, the parties shall bear their own cost concerning the mediation and equally share the costs of the mediator and related costs.			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
	State Provision (A41)			
41	State Substitutions (clause 41)			
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Delete in the Substitute Provisions (41.0 State Clauses) clauses 40.2.1, 40.2.2, 40.3, 40.4, 40.5 and 40.6 and replace with the following:	
40.1 Should any dispute between the <b>employer</b> , his <b>agents</b> or <b>principal agent</b> on the one hand and the contractors on the other arise out of this <b>agreement</b> , such dispute shall be referred to adjudication.	
40.2 Adjudication shall be conducted in accordance with the edition of the JBCC Rules for Adjudication current at the time when the dispute is declared. The party, which raises the dispute, shall select three adjudicators from the panel of adjudicators published by the South African Institution of Civil Engineering or Association of Arbitrators (Southern Africa), determine their hourly fees and confirm that these adjudicators are available to adjudicate the dispute in question. The other party shall then select within 7 days one of the three nominated adjudicators, failing which the chairman for the time being of the Association of Arbitrators (Southern Africa) shall nominate an adjudicator. The adjudicator shall be appointed in terms of the Adjudicators Agreement set out in C1.4.	
40.3 If provided in the <b>schedule</b> , a dispute shall be finally settled by a single Arbitrator to be agreed on between the parties or, failing such agreement within 28 days after referring the dispute to Arbitration, an Arbitrator nominated by the chairman for the time being of the Association of Arbitrators (Southern Africa). Any such reference shall be deemed to be a submission to the arbitration of a single arbitrator in terms of the Arbitration Act (Act No 42 of 1965, as amended), or any legislation passed in substitution therefore. In the absence of any other agreed procedure, the arbitration shall take place in accordance with the Rules for the Conduct of Arbitrations issued	
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	by the Association of Arbitrators (Southern Africa) which are current at the time of the referral to arbitration. The Arbitrator shall, in his award, set out the facts and the provisions of the contract on which his award is based.			
	40.4 If the <b>schedule</b> provides for court proceedings to finally resolve disputes, disputes shall be determined by court proceedings.			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
	Contract Variables (A41)			
42	The Schedule (clause 42)			
	Tenderers are referred to the Contract Data and Notes to Tenderes for variable pertaining to this contract			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
	SECTION B: PRELIMINARIES			
	Definition and interpretation (B1)			
43	Definition and interpretation			
	See also clause A1.0 of Section A for additional and/or amended definitions which shall apply equally to this Section			
	Fixed	Item		
	Value Related	Item		
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	Time Related	Item		
	Documents (B2)			
44	Checking of documents (B2.1)			
	These bills of quantities:			
	(1) contain pages and annexes as indexed, and;			
	(2) are in multiple procurement format, i.e. all trades are fully measured with minor budgetary allowances			
	Items in these bills of quantities are to be read and priced in conjunction with and the descriptions regarded as amplified by the Model Preambles for Trades, 2008 edition, as recommended and published by the Association of South African Quantity Surveyors and no claim arising from brevity of description of items fully described in the said Model Preambles for Trades will be entertained			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
45	Provisional bills of quantities (B2.2) Yes			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
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46	Availability of construction documentation (B2.3)			
	The minor budgetary allowances included in this document will be separately procured, based on multiple procurement of selected sub-contractors during the construction period			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
47	Interests of agents (B2.4)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
48	Priced documents (B2.5)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
49	Tender submission (B2.6)			
	Notwithstanding anything contained in this clause tenders shall be valid for a period of ninety (90) days from the closing date of tenders			
	Clause 2.6 is amended by replacing "JBCC Form of Tender" with "Form of Offer and Acceptance C1.1"			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
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	The site (B3)			
50	Defined works area (B3.1)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
51	Geotechnical investigation (B3.2)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
52	Inspection of the site (B3.3)			
	Tenderers are instructed to familiarise themself before submission of their tender with regard to the relevant local site conditions, site accessibility, the nature of operations required, availability of labour and any conditions pertaining thereto, together with conditions relating to unloading, carting and storage of materials, equipment and tools required for the works.			
	No claims for extras arising from the contractor having failed to comply with this clause will be entertained			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
	Existing premises occupied (B3.4)			
53	I .			
53	Fixed	Item		
53	Fixed	Item		

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	Value Related	Item		
	Time Related	Item		
54	Previous work - dimensional accuracy (B3.5)			
	Work executed under a previous contract and the extent thereof will be pointed out to the contractor by the principal agent on handing over of the site			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
55	Previous work - defects (B3.6)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
56	Services - known (B3.7)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
57	Services - unknown (B3.8)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
58	Protection of trees, etc (B3.9)			
	Fixed	Item		
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	Value Related	Item		
	Time Related	Item		
59	Articles of value (B3.10)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
60	Inspection of adjoining properties, etc (B3.11)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
	Management of contract (B4)			
61	Management of the works (B4.1)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
62	Programming for the works (B4.2)			
	Clause B4.2 is hereby amended by the addition of the following:			
	Programme:			
	The contractor and the principal agent shall agree to a Contract Programme for the control of the Works.			
	The contractor shall submit a draft of the Contract Programme and method statement to the principal agent for approval together with the tender.			
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•	The contractor shall ensure that the contract programme:		
	Shall be prepared and drawn up to comply in all respects with the requirements of this		
	Agreement.  2. shall be drawn up using logic developed during the tender period and complies with the		
	planning requirements of the Client.  3. shall be in accordance with the dates given herein for possession and practical completion;		
	4. shall be in sufficient and approved detail to ensure effective control of the work, including all items necessary to enable calculations to be		
	made for the distribution of finance during the cashflow analysis.  5. shall be accompanied by a full written method statement		
	The principal agent shall examine and comment on the contract programme and method statement within two weeks of its submission.		
	Following on these comments the contractor shall amend the contract programme and method statement as may be necessary and submit the final contract programme and method statement to the principal agent for approval within a further two weeks thereafter.		
	The contract programme shall be processed by computer and be presented to the principal agent in the form of logic charts and bar charts in such a way as to determine the critical path and the float on non-critical activities. All supporting printouts must be available to the principal agent on demand.		
	The acceptance by the principal agent of the contract programme, or any revision thereof, does not necessarily sanction the accuracy of validity of the network logic, the correctness of individual activities in terms of description or duration, the comprehensiveness of networks or the discrepancies between drawings and any other documents presented by the contractor, and in no way relieves the responsibility of the contractor to comply with the requirements of the Agreement.		
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No policy decisions other than the planning requirements, procedures and policies provided, will be enforced on the contractor regarding construction of the project and the contractor shall be responsible at all times for ensuring the accuracy, validity and reasonableness of programming information.		
Documentation will not be available in complete detail at the date of award of the contract. Non-availability of information will not be deemed an excuse for non-presentation of programmes. In the event of inadequate information, the contractor shall estimate the predicted time applications on available information and quality the submission accordingly.		
Development of the contract programme and method statement		
Within two weeks of award of the contract, the contractor shall submit an updated contract programme and written method statement which shall include the latest information in sufficient detail to permit comprehensive monitoring.		
Progress of the works will be monitored by the principal agent. The contractor shall liaise with the principal agent in order to provide whatever information is required to facilitate such monitoring.		
Revisions to the contract programme		
Revisions to the contract programme may be introduced periodically by the contractor subject to compliance with the contract completion and handover dates.		
Providing the required consultation between the relevant parties has highlighted the implications of the required changes, the programming strategy on the project may be changed and the changes noted and specified on logic charts delivered to the principal agent. The changes to the programme will be recorded as firm and binding once the principal agent has sanctioned the said changes.		
A revision to the programme will not invalidate the contractual completion dates and applications for		
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extensions of time will be processed by the principal agent in accordance with the conditions of contract.			
Should the contractor fail to submit a request for revision to the construction programme, progress monitoring shall be based on the latest revised programme sanctioned by the principal agent.			
The contractor shall make all his necessary revisions on the approved network sheets clearly marking, inter-alia, the logic changes and duration changes. These will then be processed by the necessary parties and then approved in the normal manner.			
Progress Monitoring			
The contractor shall provide regular progress reports showing actual and expected progress against the latest contract programme. Progress reports shall be submitted at each site progress meeting and shall outline the progress against key target dates and deviation which has occurred against the most recently updated control programme due to the progress reflected in the as-built construction programme.			
The status of each activity must also be reported as follows:			
Target - If the activity is not complete, the latest predicted completion date shall be supplied.			
Start - If the activity has commenced, the actual date shall be supplied.			
Finish - If the activity is complete, the actual completion date shall be supplied.			
Problems which may occur during execution of the contract must be specifically identified in progress reports under a separate section of the contractor's report.			
Should problems occur during the execution of the contract or the scope of work be increased or decreased, the contractor may be requested to increase			
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the extent or the detail of the programme.		
The principal agent may recommend action to be taken by the contractor, including the revision of resource levels, but this information will not be binding on the contractor unless the recommendations are enforced in terms of the conditions of contract by the principal agent and will in no way relieve the contractor's responsibility to comply with the requirements of the Agreement.		
Extension of time		
Any extension of time which is granted by the principal agent will be annotated to affect selected activities in the programme and the associated activities will be incorporated by revisions to the programme by the contractor. Should the additional activities or the extension of time on existing activities fall on a non-critical area of the programme, extension will be limited to the activities affected by the said additional activities or extensions and the contract dates shall not be affected. If, however, the additional activities fall on the critical path, the principal agent shall take this into account when granting any extension of time in terms of the conditions of contract.		
The contractor agrees that the contract completion date (i.e. the date for practical completion) has been stipulated in the contract for the benefit of the employer, so that, without derogating from the generality of the aforegoing principle it is provide that:		
The contractor shall not be entitled to deliver the site and the works to the employer prior to the contract completion date and		
2. Should there for any reason be any float period indicated in the contract programme prior to the contractual completion date then this float period shall be utilized to absorb any delays or extensions of time without affecting the contract completion date.		
The contractor shall, at all times, ensure that, notwithstanding the approval or sanctioning, reviewing or inspection of a programme or any		
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	revision of a programme by the principal agent in the aforegoing terms, practical completion and completion of the works shall take place strictly in accordance with this Agreement.			
	A defective or faulty programme, even if so sanctioned, approved, reviewed or inspected by the principal agent, shall therefore not constitute a cause for granting an extension of time for completion of the works or for entitling the contractor to the payment by the employer in terms of the contract of any loss, compensation or damage whatsoever.			
	The contractor acknowledges that the principal agent's aforegoing participation in the approval of development of, revisions to and updating of the Contract Programme shall take place in consultation with the principal agent. The contractor shall therefore provide the principal agent with such co-operation and/or information and/or access as they may reasonably require for such purposes.			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
63	Progress meetings (B4.3)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
64	Technical meetings (B4.4)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
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65	Labour and plant records (B4.5)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
	Samples, shop drawings and manufacturer's instructions (B5)			
66	Samples of materials (B5.1)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
67	Workmanship samples (B5.2)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
68	Shop drawings (B5.3)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
69	Compliance with manufacturer's instructions (B5.4)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
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	Temporary works and plant (B6)			
70	Deposits and fees (B6.1)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
71	Enclosure of the works (B6.2)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
72	Advertising (B6.3)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
73	Plant, equipment, sheds and offices (B6.4)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
74	Main notice board (B6.5)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
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75	Subcontractors notice board (B6.6)			
	Fixed	d Item		
	Value Related	d Item		
	Time Related	d Item		
	Temporary services (B7)			
76	Location (B7.1)			
	Fixed	d Item		
	Value Related	d Item		
	Time Related	d Item		
77	Water (B7.2)			
	Fixed	d Item		
	Value Related	d Item		
	Time Related	d Item		
78	Electricity (B7.3)			
	Fixed	d Item		
	Value Related	d Item		
	Time Related	d Item		
79	Telecommunication facilities (B7.4)			
	Fixed	d Item		
	Value Related	d Item		
	Time Related	d Item		
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80	Ablution facilities (B7.5)			
	Fixed	Item		
	Value Related	Item		
81	Time Related	Item		
	Prime cost amounts (B8)			
82	Responsibility for prime cost amounts (B8.1)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
	Attendance on nominated and selected subcontractors (B9)			
83	General attendance (B9.1)			
	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	Item		
	Value Related	Item		
	Time Related	Item		
84	Special attendance (B9.2)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
85	Commissioning - Fuel, water and electricity (B9.3)			
	Fixed	Item		
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	Value Related	Item		
	Time Related	Item		
	Financial aspects (B10)			
86	Statutory taxes, duties and levies (B10.1)			
	Provision is made in the summary of these bills of quantities for the inclusion of Value Added Tax (VAT)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
87	Payment of preliminaries (B10.2)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
88	Adjustment of preliminaries (B10.3)			
	Clauses B10.3.1 and B10.3.2 are amended by replacing "within fifteen (15) <b>working days</b> of taking possession of the <b>site</b> " with "when submitting his priced <b>bills of quantities</b> "			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
89	Payment certificate cash flow (B10.4)			
	Fixed	Item		
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	Value Related	Item	
	Time Related	Item	
	General (B11)		
90	Protection of works (B11.1)		
	Fixed	Item	
	Value Related	Item	
	Time Related	Item	
91	Protection/isolation of existing/sectionally occupied works(B11.2)		
	Fixed	Item	
	Value Related	Item	
	Time Related	Item	
92	Site security (B11.3)		
	Fixed	Item	
	Value Related	Item	
	Time Related	Item	
93	Notice before covering work (B11.4)		
	Fixed	Item	
	Value Related	Item	
	Time Related	Item	
94	Disturbance (B11.5)		
	Fixed	Item	
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	Value Related	Item		
	Time Related	Item		
95	Enviromental disturbance (B11.6)			
	Fixed	Item		
	Time Related	Item		
	Value Related	Item		
96	Works cleaning and clearing (B11.7)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
97	Vermin (B11.8)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
98	Overhand work (B11.9)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
99	Instruction manuals and guarantees (B11.10)			
	Fixed	Item		
	Value Related	Item		
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	Time Related	Item		
100	As built information (B11.11)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
101	Tenant installations (B11.12)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
	Schedule of variables (B12)			
102	Pre-tender information (B12.1)			
	This <b>schedule</b> 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 <b>Preliminaries</b> .			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
	12.1.1 Provisional bills of quantities (B12.1.1)			
	The quantities are provisional:  Yes			
	Carried Forward  Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES CLUSTER G		R	_

	Brought Forward	R	
12.1.2	Availability of construction documentation (B12.1.2)		
	Construction documentation is complete: Yes		
12.1.3	Interest of agents (B12.1.3)		
12.1.4	Defined works area (B12.1.4)		
	The area of the works to be occupied by the contractor, any restriction on the area and the limit of access or exit will be pointed out to the contractor by the principal agent on handing over of the site		
12.1.5	Geotechnical investigation (B12.1.5)		
	otechnical report is available for viewing at the of the Principal Agent		
Unices	No		
12.1.6	Existing premises occupied (B12.1.6)		
[3.4] little	Specific requirements: The contractor shall execute the works with as noise and disturbance as possible		
12.1.6	Existing premises occupied		
[3.4] little	Specific requirements: The contractor shall execute the works with as noise and disturbance as possible		
12.1.7 <i>[</i> 3. <i>5]</i>	Previous work - Dimensional accuracy (B12.1.7) Details: No additional details		
	No		
Bill No.	MINARIES 1 MINARIES	R	

	Brought Forward	R	
12.1.8	Previous work - defects		
[3.6}	Details: No additional details		
12.1.9	Services - known (B12.1.9)		
	Existing services and points of connection are shown on the site plan and/or will be pointed out on site by the principal agent		
12.1.10	Protection of trees		
[3.9]	Specific requirements: No trees to be damaged or removed except		
those	specifically designated in writing by the Architect		
12.1.11	Inspection of adjoining properties		
[3.11]	Specific requirements: None		
12.1.12	Enclosure of the works		
[6.2} times b	Specific requirements: Areas where work is taking place shall at all e blocked off by appropriate means		
12.1.13	Offices		
[6.4.3]	Specific requirements: The contractor shall provide, maintain and remove on completion of the works an office for the exclusive use of the principal agent, minimum size 4 x 3 x 3m high internally, suitably insulated and ventilated, provided with electric lighting and fitted with boarded floor, desk, chair, drawing stool, drawing board and lock-up drawers for drawings. The office shall be kept clean and fit for use at all times.		
Bill No.	MINARIES  1 MINARIES	R	_

	Brought Forward	R	
12.1.14	4 Main notice board		
[6.5]	Specific requirements: The contractor shall provide, erect where directed, maintain and remove on completion of the works a notice board size 3 x 3m constructed of suitable boarding with flat smooth surface and with edging bead 19mm thick round outer edges and projecting 12mm from face of boarding and rounded on front edge. The board shall be securely fixed to hoarding, where hoarding is provided, or fixed to and including a suitable supporting structure of timber or tubular posts and braces. The board is to be painted ivory white and the bead and 12mm wide dividing lines dark green. All wording shall be inscribed in dark green as per the coat of arms for SA. All wording shall be inscribed in dark green painted sans serif lettering.		
12.1.1	5 Subcontractors' notice board		
[6.6] NO	A notice board is required (yes/no)		
	Specific requirements:		
12.1.10	6 Water		
[7.2] YES	Option A (by <b>contractor</b> ) (yes/no)		
12.1.1	7 Electricity		
[7.3] YES	Option A (by <b>contractor</b> ) (yes/no)		
Bill No.	MINARIES 1 MINARIES	R	

		<b>Brought Forward</b>	R
12.1.18	Telecommunications		
<i>[7.4]</i> YES	Telephone	(yes/no)	
YES	Facsimile	(yes/no)	
YES	E-mail	(yes/no)	
12.1.19	Ablution facilities		
[7.5} YES	Option A (by contractor)	(yes/no)	
NO	Option B (by <b>employer</b> )	(yes/no)	
12.1.20 <b>works</b>	Protection of existing/sec	ctionally occupied	
[11.2] YES	Protection is required	(yes/no)	
12.1.21	Special attendance		
allowan	The contractor must obtain subcontractors at tender st attendance that might be rece for each and every special attendance	age regarding special equired and make subcontract that	
[9.2]	Subcontractor (1) Details:		
	Subcontractor (2) Details:		
	Subcontractor (3) Details:		
Bill No.	IINARIES 1 IINARIES	Carried Forward	R

			Brought Forward		R	
	12.1.22	Protection of the wo	rks			
			protection during lately protected up to the <b>contractor</b>			
	12.1.23	Disturbance				
		etc well watered during dust and shall provide completion of the worl	eep the site, structures, goperations to prevent and erect and remove on a sall necessary sall to the satisfaction of			
	12.1.24	Environmental distur	bance			
		Specific requirements: None				
103	Post-ten	nder information (B12.2	)			
		t-tender information f ined once tender is av	or this section will be varded			
			Fixed	Item		
			Value Related	Item		
			Time Related	Item		
	12.2.1	Payment of prelimina	ries			
	[10.2] YES	Option A (prorated)	(yes/no)			
	NO	Option B (calculated)	(yes/no)			
	Bill No.	IINARIES 1 IINARIES	Carried Forward		R	

		В	rought Forward		R	
	12.2.2 [10.3] YES	Adjustment of preliminaries Option A (three categories)	(yes/no)			
	NO	Option B (detailed breakdown)	(yes/no)			
	12.2.3	Additional agreed preliminaries	items			
		Details: None				
104	Other p	oost tender infornation (B12.3)				
		st-tender information for this sec ined once tender is awarded	tion will be			
			Fixed	Item		
			Value Related	Item		
			Time Related	Item		
	SECTI	ON C: SPECIFIC PRELIMINA	RIES			
	apply to	n C contains specific preliminary ite o this contract except where N/A (N s against an item				
105	Clause	C1 - Contract drawings				
	compris tenderi work to nature	awings issued with the tender docuse the complete set but serve as any purposes and for indicating the enable the tenderer to acquaint his and extent of the works and the me to be executed	guide only for scope of the mself with the			
	unders submitt	any part of the drawings not be clotood by the the tenderer he shall, be ing his tender, obtain clarification incipal agent	efore			
			Fixed	Item		
			Carried Forward		R	
	Bill No.	MINARIES 1 MINARIES				

	Brought Forward		R	
	Value Related	Item		
	Time Related	Item		
106	Clause C2 - General Preambles			
	The "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the trades is deemed to be included herein and shall be read in conjuction with the bills of quantities and be referred to for the full decriptions of work to be done and materials to be used.			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
107	Clause C3 - Site instructions			
	All site instructions issued on site shall be recorded in writing within seven (7) calendar days in site instruction book (A4 size and triplicate carbon format), which is to be provided and maintained by the contractor. The said site instruction book shall be kept on site at all times for the exclusive use of recording site instructions only			
	Site instructions may be issued by the architect or any of the consultants only. Copies of the site instructions are to be submitted to the architect and quantity surveyor within seven (7) calendar days of such recording in the site instruction book			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
	Carried Forward		R	_
	Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES CLUSTER G			

	Brought Forward		R	
108	Clause C4 - Trade Names			
	Wherever a trade name for any product has been described in the <b>bills of quantities</b> , the tenderer's attention is drawn to the fact that any other product of equal quality may be used subject to the written approval of the <b>principal agent</b> being obtained prior to the closing date for submission of tenders			
	If prior written approval for an alternative product is not obtained, the product described shall be deemed to have been tendered for			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
109	Clause C5 - Overtime			
	Should overtime be required to be worked for any reason whatsoever, the costs of such overtime are to be borne by the contractor unless the principal agent has specifically authorized and indicated in writing, prior to the execution thereof, that costs for such overtime will to be borne by the employer			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
110	Clause C6 - As-built drawings			
	The position of construction breaks and the extent of individual concrete pours are to be recorded by the contractor on the structural engineer's drawings and are to be submitted to the principal agent and the structural engineer for their records			
	Fixed	Item		
	Carried Forward  Section No. 1 PRELIMINARIES Bill No. 1		R	
	PRELIMINARIES CLUSTER G			

	Brought Forward		R	1
	Value Related	Item		
	Time Related	Item		
111	Clause C5 - Labour record			
	At the end of each week the contractor shall provide the principal agent with a written record, in schedule form, reflecting the number and description of tradesmen and labourers employed by him and all subcontractors on the works each day			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
112	Clause C6 - Plant record			
	At the end of each calendar week the contractor shall provide the principal agent with a written record, in schedule form, reflecting the number, type and capacity of all plant, excluding hand tools, currently used on the works			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
113	Clause C7 - Cession of monies			
	The contractor may cede his rights or claims to any monies due or to become due to him under this contract with written approval from the employer			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
	Carried Forward		R	
	Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES CLUSTER G			

Brought Forward	R		
Clause C8 - Occupational Health and Safety Act			
The <b>contractor</b> shall comply with all the requirements set out in the Construction Regulations, 2003 issued under the Occupational Health and Safety Act, 1993 (Act No 85 of 1993), as well as all new occupational health and safety acts requirement regarding the compliance of Covid 19			
It is required of the <b>contractor</b> to thoroughly study the <b>latest</b> Health and Safety Specification that must be read together with and is deemed to be incorporated under this Section of the <b>bills of quantities / lump sum document</b> .			
The <b>contractor</b> must take note that compliance with the Occupational Health and Safety Act, Construction Regulations and Health and Safety Specification is compulsory. In the event of partial or total noncompliance, the <b>principal agent</b> , notwithstanding the provisions of clause A31.0 of Section A or any other clause to the contrary, reserves the right to delay issuing any progress <b>payment certificate</b> until the <b>contractor</b> provides satisfactory proof of compliance. The <b>contractor</b> shall not be entitled to any compensation of whatsoever nature, including interest, due to such delay of payment.			
Provision for pricing of the Occupational Health and Safety Act, Construction Regulations and Health and Safety Specification is made under this clause and it is explicitly pointed out that all requirements of the aforementioned are deemed to be priced hereunder and no additional claims in this regard shall be entertained.			
PART A-OHS ACT COMPLIANCE-IMPLEMENTATION OF THE HEALTH AND SAFETY - Construction health & safety documentation			
Carried Forward  Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES CLUSTER G	R		

	Brought Forward		R	
114	Clause C8.1.1 - Prepare and compile H&S plan as per site specification Health and safety			
	Specifications (Section C3, Scope of Work), OHS Act & Regulations			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
115	Clause C8.1.2 - Allow for the preparation and compilation of the site specific health and safety file, and a health and safety working file			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
116	Clause C8.1.3 - Appointment of a Registered Construction health and safety officer for the duration of the Contract as per Section 8(5) of the Construction Regulations 2014			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
	PART B-OHS ACT COMPLIANCE-IMPLEMENTATION OF THE HEALTH AND SAFETY - Personal Protective Clothing & Equipment			
117	Clause C8.2.1 - Foot protection (steel toe cap, gum boots, etc)			
	Fixed	Item		
	Value Related	Item		
			_	
	Section No. 1 PRELIMINARIES BIII No. 1 PRELIMINARIES CLUSTER G		R	

	Brought Forward		R	
	Time Related	Item		
118	Clause C8.2.2 - Clothing (Overalls Depicting Contractors Company name/identification)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
119	Clause C8.2.3 - Glove (leather, PVC, Acid Resistant, etc) Item			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
120	Clause C8.2.4 - Head Protection: Hardhats with air vents Colour Coded - Supervisory (Red) Labour (Green)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
121	Clause C8.2.5 - Ear protection (earmuffs with 30% protective value) Item			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
122	Clause C8.2.6 - Eye Protection (Face Shield, Goggles, Spectacles, etc)			
	Fixed	Item		
	Carried Forward		R	
	Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES CLUSTER G			

	Brought Forward		R	
	Value Related	Item		
	Time Related	Item		
123	Clause C8.2.7 - Visibility (luminous high visibility safety vests/ jackets/ bibs/ etc)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
124	Clause C8.2.8 - Harness(double stranded safety harness with pylon hooks)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
125	Clause C8.2.9 - Portable ladders A-frame, extendable, length, material, etc.			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
126	Clause C8.2.9 - Portable ladders A-frame, extendable, length, material, etc.			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
	Carried Forward  Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES		R	
	CLUSTER G			

	Brought Forward		R	
127	Clause C8.2.10 - Barricading/ Demarcation (Supply, Install & Removal) Demarcation perimeter (fence, shade netting, corrugated iron, shutter board, hard Barricade etc)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
	Carried Forward Section No. 1		R	
	PRELIMINARIES Bill No. 1			
	PRELIMINARIES			
	CLUSTER G			

	Brought Forward		R	
	PART C-OHS ACT COMPLIANCE-IMPLEMENTATION OF THE HEALTH AND SAFETY - Occupational medical surveillance			
128	Clause C8.3.1 - Entry Medical Examinations by a SASOHN registered Occupational Health Nurse or a SASOM registered Occupational Medical Practitioner			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
129	Clause C8.3.2 - Exit Medical Examination			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
130	Clause C8.3.3 -Provision of a first aid kit			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
131	Clause C8.3.4 - Provision of a fire-fighting measures			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
	Carried Forward		R	
	Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES CLUSTER G			

	Brought Forward		R	
	PART D-OHS ACT COMPLIANCE-IMPLEMENTATION OF THE HEALTH AND SAFETY Education, training, signage			
132	Clause C8.4.1 - Health and safety induction site access cards			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
133	Clause C8.4.2 - Basic First Aid training level one			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
134	Clause C8.4.3 - Health and Safety representative			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
135	Clause C8.4.4 - Construction (firefighting. General information, prohibitory, mandatory, warning, hazchem, photo luminescent, etc)			
	Fixed	Item		
	Value Related	Item		
	Carried Forward		R	
	Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES CLUSTER G			

	Brought Forward		R	
	Time Related	Item		
136	Clause C8.4.5 - Health and Safety information display board in site office (emergency evacuation flow diagram, emergency contact numbers, electrical, general, etc)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
137	Clause C8.4.6 -Health and safety charts (OHS Act, Basic Conditions of Employment Act)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
	PART E - OHS AC COMPLIANCE - IMPLEMENTATION OF THE HEALTH AND SAFETY Covid-19 Compliance management			
138	Clause C8.5.1 - Covid - 19 related signage and posters			
	Fired	Itam		
	Fixed Value Related	Item Item		
	Time Related	Item		
	Time Related	Itom		
	Carried Forward  Section No. 1 PRELIMINARIES BIII No. 1 PRELIMINARIES CLUSTER G		R	

	Brought Forward		R	
139	Clause C8.5.2- 2 x 3ply cloth masks			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
140	Clause C8.5.2- hand sanitizers with 70% alcohol content			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
141	Clause C8.5.3 Decontamination agent / surface sanitizers			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
142	Clause C8.5.4 Surgical Gloves (for security and cleaning team)			
	Fixed	Item		
	Fixed	item		
	Carried Forward		R	
	Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES CLUSTER G			
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	Brought Forward		R	
	Value Related	Item		
	Time Related	Item		
143	Clause C8.5.5 Non-contact thermometers			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
144	Clause C8.5.6 Physical barriers to ensure social distancing (Compliance to Section 22 of the Covid-19 OHS Directive)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
145	Clause C9 - Viewing of the school areas			
	The <b>site</b> is situated in a school area and the tenderer must arrange with the responsible school staff to obtain permission to enter the <b>site</b> for tendering purposes			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
	Carried Forward  Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES CLUSTER G		R	

	Brought Forward		R	
146	Clause C10 - Commencement of Works in School Areas			
	As the works falls within a school area the contractor must give the responsible staff member 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 contractor's account			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
147	Clause C11 - Entrance Permits to School Areas			
	As the <b>works</b> falls within a school area the <b>contractor</b> shall obtain entrance permits for his personnel and workmen entering the area and shall comply with all regulations and instructions which may be issued from time to time regarding the protection of persons and property under the control of the Principal, or chief security officer			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
	Carried Forward  Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES CLUSTER G		R	-

	Brought Forward		R	
148	Clause C12 - Security Check of Personnel			
	The <b>principal agent</b> may require the <b>contractor</b> to have his personnel and workmen, or a certain number of them, security classified			
	In the event of the <b>principal agent</b> requesting the removal of a person or persons from the <b>works</b> for security reasons, the <b>contractor</b> shall do so forthwith and shall thereafter ensure that such person or persons are denied access to the <b>works</b> and the <b>site</b> and/or to any document or information relating to the <b>works</b>			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
			5	
	Carried Forward Section No. 1 PRELIMINARIES		R	
	Bill No. 1 PRELIMINARIES			
	CLUSTER G			

	Brought Forward		R	
149	Clause C13 - HIV/Aids Awareness			
	It is required of the <b>contractor</b> to thoroughly study the HIV/AIDS Specification (PW 1544) of the Department that must be read together with and is deemed to be incorporated under this Section of the <b>bills of quantities</b> . Provision for pricing of HIV/AIDS awareness is made under items C10.1 to C10.5 hereafter and it is explicitly pointed out that all requirements of the aforementioned specification are deemed to be priced hereunder, as the said items represent the only method of measurement and no additional items or extras to the contract in this regard shall be entertained			
	The <b>contractor</b> must take note that compliance with the HIV/AIDS Specification is compulsory. In the event of partial or total non-compliance, the <b>principal agent</b> , notwithstanding the provisions of Clause A 31.0 of Section A or any other clause to the contrary, reserves the right to delay issuing any progress <b>payment certificate</b> until the <b>contractor</b> provides satisfactory proof of compliance. The <b>contractor</b> shall not be entitled to any compensation of whatsoever nature, including interest, due to such delay of payment			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
150	Clause C13.1 - Awareness Champion			
	Selection, appointment, briefing and making available of an Awareness Champion including provision of all relevant services, all in accordance with the HIV/AIDS Specification			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
				_
	Carried Forward Section No. 1		R	
	PRELIMINARIES Bill No. 1			
	PRELIMINARIES CLUSTER G			

	Brought Forward		R	
151	Clause C13.2 - Awareness Workshop			
	Selection and appointment of a competent Service Provider approved by the <b>principal agent</b> , provision of a Service Provider Workshop Plan and a suitable venue, conducting of awareness workshops by means of traditional and/or modern multi-media techniques, including follow-up courses, making available all tuition material and performing assessment procedures, all in accordance with the HIV/AIDS Specification			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
152	Clause C13.3 - Posters, booklets, videos, etc.			
	Provision, displaying, maintaining and replacing when necessary of four plastic laminated posters, booklets and educational videos, etc. for the duration of the <b>construction period</b> , all in accordance with the HIV/AIDS Specification			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
153	Clause C13.4 - Access to Condoms			
	Provision and maintenance of condom dispensers fixed in position, including male and female condoms, replenishing male and female condoms on a daily basis as required for the duration of the <b>construction period</b> , all in accordance with the HIV/AIDS Specification			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
	Carried Forward		R	
	Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES CLUSTER G			

	Brought Forward		R	
154	Clause C13.5- Monitoring			
	Monitoring HIV/AIDS awareness of workers, providing the <b>principal agent</b> with access to information including making available all reports, thoroughly completed and reflecting the correct information, for the duration of the <b>construction period</b> and close out, all in accordance with the HIV/AIDS Specification			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
	Carried to Final Summary		R	
	Section No. 1 PRELIMINARIES BIII No. 1 PRELIMINARIES CLUSTER G			_
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Item No		Quantity	Rate	Amount
	SECTION 2			
	BUILDING WORK			
	BILL NO 1			
	<u>DEMOLITIONS</u>			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades as well as Engineering Specifications attached to these documents.			
	SUPPLEMENTARY PREAMBLES			
	<u>User note</u>			
	Note:			
	All usable material from the demolitions should be kept safety and handed over to the Principal Agent who shall sign for all material received.			
	<u>View site</u>			
	Demolishing and removing			
	Before submitting his tender the tenderer shall visit the site and satisfy himself as to the nature and extent of the work to be done and the value of the materials contained in the buildings or portions of the buildings to be demolished. No claim for any variations of the contract sum in respect of the nature and extent of the work or of inferior or damaged materials will be entertained			
	Carried Forward  Section No. 2 DEMOLITIONS OF 13 CLASSROMMS AND 13 PIT TOIL Bill No. 1 Demolitions CLUSTER G		R	

	Brought Forward	1		R	
	<u>Explosives</u>				
	No explosives whatsoever may be used for demolition purposes unless otherwise stated				
	General				
	Water supply pipes and other piping in ground that may be encountered and found necessary to disconnect or cut, shall be effectually stopped off or grubbed up and removed, and any new connections that may be necessary shall be made with proper fittings to the satisfaction of the principal agent				
	Unless otherwise described all materials are to become the property of the contractor and are to be removed from the site				
1	Single storey existing ablution structure with approximate 22m2 with mono pitched roof comprising, concrete surface bed, one brick external walls, one brick and half brick internal walls and corrugated roof covering on prefabricated timber trusses (hand over				
	usable items to school)	No	1		
2	Single storey existing ablution structure with approximate 48m2 with mono pitched roof comprising, concrete surface bed, one brick external walls, one brick and half brick internal walls and corrugated roof covering on prefabricated timber trusses (hand over usable items to school)	No	1		
3	Single storey existing one classroom structure with approximate 60m2 with double pitched roof comprising, concrete surface bed, one brick external walls, one brick and half brick internal walls and corrugated roof covering on prefabricated timber trusses (hand over usable items to school)	No	1		
	Carried Forward			R	
	Section No. 2 DEMOLITIONS OF 13 CLASSROMMS AND 13 PIT TOIL Bill No. 1 Demolitions CLUSTER G				

	Brought Forward			R	
4	Single storey existing two classroom structure with approximate 60m2 with double pitched roof comprising, concrete surface bed, one brick external walls, one brick and half brick internal walls and corrugated roof covering on prefabricated timber trusses (hand over usable items to school)	No	1		
5	Single storey existing five classroom structure with approximate 380m2 with double pitched roof comprising, concrete surface bed, one brick external walls, one brick and half brick internal walls and corrugated roof covering on prefabricated timber trusses (hand over usable items to school)	No	2		
	Carried to Final Summary Section No. 2			R	
	DEMOLITIONS OF 13 CLASSROMMS AND 13 PIT TOIL Bill No. 1 Demolitions CLUSTER G				

Item No		Quantity	Rate	Amount
	SECTION NO.3			
	BILL NO. 1			
	ALTERATIONS			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades			
	REMOVAL OF EXISTING WORK:			
	NATURE OF WORK: Tenderers are advised to visit the site and to satisfy themselves as to the nature and extent of the work to be done and provide in their tenders any items not specifically mentioned which they may deem necessary for the proper completion of the work.			
	DIMENSIONS The Contractor is advised to take all dimensions affecting the existing buildings on the site, as he will be held solely responsible for all new work being of the correct size.			
	PIPES, ETC Special care is to be taken not to interfere unnecessary with any supply pipes or other piping that may be met with and found necessary to disconnect or cut, are to be effectively stopped off and any new connections that may be necessary are to be made with proper fittings and to the satisfaction of the Principal Agent to whom due notice must be given of any alterations to the existing services.			
	PROTECTION In taking down and removing existing work the utmost care is to be observed to avoid any structural or other damage to the remaining portions of the buildings. The Contractor must also protect all work not removed such as walls, floors, doors, windows or other joinery,loose and fixed fittings and electrical appliances, etc. from damage during the progress of the work and provide all necessary materilas for doing so. The Contractor will be held solely responsible for any damage to persons or property and for the safety of the structure throughout the whole of this Contract and must			
	Carried Forward		R	
	Section No. 3 RENOVATIONS OF 10 ENVIROLOO TOILETS Bill No. 1 Alterations CLUSTER G			

	Brought Forward			R	
	make good at his own expense any damage that may occur.				
	OLD USABLE MATERIALS from the alterations/demolitions are to become the property of the Client. Old materials for re-use are to be carefully removed, stored and protected from injury including making good any damaged or defective parts as required before fixing. Old reusable materials are to be handed over to the Client are to be carefully removed and neatly stacked on site where directed. The remainder of the old materials and all rubbish to be immediately carted away and the site left clean and unencumbered. The Contractor should allow for removing of rubble from site on daily basis, failing which the client might stop the construction until the site has been cleaned. None of the old stock bricks from the pulling down are to be re-used for any new work. Materials to be handed over to the Client should be kept safely and handed over to the School Governing Body or the school principal who shall sign for all materials received.				
	MATERIALS, ETC The materials to be used and work to be done to be similar in all respects to that described for new work insofar as they concur. All work in making good is to be properly jointed to the existing.				
	Unless otherwise stated, all usable material from the demolitions should be kept safely and handed over to the school governing body or the school principal who shall sign for all material received.				
	Breaking down and removing brickwork etc				
1	Half brick wall in beamfilling	m2	42		
	Taking out and removing ironmongery				
2	Locksets, etc.	No	28		
	Carried Forward Section No. 3 RENOVATIONS OF 10 ENVIROLOO TOILETS Bill No. 1 Alterations CLUSTER G			R	

	Brought Forward			R	
	<u>Taking out and removing doors, windows, etc from</u> <u>brickwork to be demolished</u>				
3	Timber single door and frame 813 x 2032mm high	No	42		
	<u>Taking down and removing roofs, floors, panelling, ceilings, partitions, etc</u>				
4	Corrugated iron roof covering including timber purlins	m2	204		
5	Roof trusses size approximately 7500 x 1500mm high complete.	No	7		
6	Fibre cement fascias, barge boards, etc.	m	107		
	SERVICING OF DOORS AND WINDOWS				
7	Replace window stays, handles and pegs	No	42		
8	Replace door striker plate	No	42		
9	Cleaning existing sewer system using recommended chemicals and removing all objects in the sewer system, this should be executed without damaging the existing sewer system  Cleaning the existing eniroloo system  MAKING GOOD OF FINISHES ETC	No	26		
	Making good screed				
10	Floors in patches	m2	25		
	Carried to Final Summary Section No. 3 RENOVATIONS OF 10 ENVIROLOO TOILETS Bill No. 1 Alterations CLUSTER G			R	

Item No		Quantity	Rate	Amount
	SECTION NO.3			
	BUILDING WORK			
	BILL NO.1			
	FOUNDATIONS			
	<u>EARTHWORKS</u>			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.			
	SUPPLEMENTARY PREAMBLES			
	Nature of ground			
	The nature of the ground is assumed to be sandy weathered granite, therefore "earth", but possibly interspersed with "hard rock"			
	Excavation for working space in rock			
	Notwithstanding clause 11 page 8 of the Standard System of Measuring Building Work, excavation for working space in rock will be measured in cubic metres to the extent executed and given as "extra over" bulk excavation or trench and hole excavation as the case may be			
	Carting away of excavated material			
	Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site			
	Carried Forward  Section No. 4  MEDIUM ADMIN BLOCK  Bill No. 1		R	
	Foundations CLUSTER G			

	Brought Forward			R	
	Filling				
	Notwithstanding the reference to prescribed multiple handling in clause 1 page 6 of the Standard System of Measuring Building Work, prices for filling and backfilling shall include for all selection and any multiple handling of material				
	Soil poisoning				
	Ant and weed poisoning will be applied in accordance to SABS specifications by Registered and Approved Specialists who will issue a five (5) year guarantee. The contractor will only be paid for this items once they have produced the said certificate to the Principal Agent				
	SITE CLEARANCE, ETC.				
	Site clearance				
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc.	m2	562		
	REMOVAL TREES, ETC.				
	Taking out and removing, grubbing up roots and filling holes.				
2	Tree stump exceeding 200mm and not exceeding 500mm girth.	No	4		
	EXCAVATION, FILLING, ETC				
	Excavation in earth not exceeding 2m deep				
3	Trenches	m3	233		
	Extra over trench and hole excavations in earth for excavation in				
4	Soft rock	m3	54		
	Carried Forward  Section No. 4  MEDIUM ADMIN BLOCK  Bill No. 1  Foundations  CLUSTER G			R	_

	Brought Forward			R
5	Hard rock	m3	50	
	Extra over all excavations for carting away			
6	Surplus material from excavations on site to a dumping site to be located by the contractor	m3	76	
	Risk of collapse of excavations			
7	Sides of trench and hole excavations not exceeding 1,5m deep	m2	361	
	Keeping excavations free of water			
8	Keeping excavations free of all water other than subterranean water		Item	
	Earth filling obtained from the excavations and /or prescribed stock piles on site including compacted to 93% Mod AASHTO density			
9	Under floors, steps, paving, etc	m3	97	
	Approved G6 filling supplied and carted by the contractor and compacted in layers not exceeding 150mm to 95% Mod AASHTO density			
10	Backfilling to trenches, holes, etc	m3	157	
11	Under floors, steps, paving etc.	m3	56	
	Compaction of surfaces			
12	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 93% Mod AASHTO density	m2	354	
	Prescribed density tests on filling			
	SOIL POISONING			
	Carried Forward  Section No. 4  MEDIUM ADMIN BLOCK  Bill No. 1  Foundations  CLUSTER G			R

	Brought Forward			R		
	Soil insecticide	•				
13	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m2	354			
14	To bottoms and sides of trenches etc	m2	512			
	CONCRETE, FORMWORK AND REINFORCEMENT					
	UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES					
	25MPa/19mm concrete					
15	Strip footings	m3	26			
	TEST CUBES					
16	Allow for preparing a set of three concrete strength test cubes, each size $150 \times 150 \times 150$ mm, sending them to an approved Testing Laboratory for testing and paying all charges in connection therewith.	Sets	5.0			
	BRICKWORK					
	Brickwork of NFP bricks in class II mortar					
17	Half brick walls	m2	92			
18	One brick walls	m2	171			
	BRICKWORK SUNDRIES					
	Joint forming material in movement joints:					
	Brickwork reinforcement					
19	75mm wide reinforcement built in horizontally.	m	506			
20	150mm Wide reinforcement built in horizontally	m	528			
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	Carried Forward Section No. 4 MEDIUM ADMIN BLOCK Bill No. 1 Foundations CLUSTER G			R		

	Brought Forward			R	
	FACE BRICKWORK				
	Face bricks (Purchase price of R 4 000,00/1000 VAT excl. delivered to site) pointed with recessed horizontal and vertical joints				
21	Extra over brickwork for face brickwork	m2	128		
	Brick-on-edge header course copings, sills, etc of face bricks (Purchase price R 4 000,00/1000 VAT excl. delivered to site) pointed with recessed joints on all exposed faces				
22	Coping on top of one brick wall	m	9		
	Carried Forward to Summary of Section No. 4 Section No. 4 MEDIUM ADMIN BLOCK Bill No. 1 Foundations CLUSTER G			R	

Item No		Quantity	Rate	Amount
	SECTION NO.3			
	BUILDING WORK			
	BILL NO.2			
	CONCRETE, FORMWORK AND REINFORCEMENT			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.			
	SUPPLEMENTARY PREAMBLES			
	Cost of tests			
	The costs of making, storing and testing of concrete test cubes as required under clause 7 "Tests" of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the architect. The testing shall be undertaken by an independent firm or institution nominated by the contractor and to the approval of the architect. (Test cubes are measured separately)			
	Breeze concrete shall consist of twelve parts clean dry furnace ash, free from coal or other foreign matter, to one part cement (12:1), the ash graded up to particles which will pass a 16,5mm ring from a minimum which fails to pass a 4,75mm mesh. The finer materials from the screening are to be first mixed with the cement into a mortar and the ash added afterwards and thoroughly incorporated			
	Carried Forward  Section No. 4  MEDIUM ADMIN BLOCK  Bill No. 2  Concrete, Formwork and Reinforcement		R	
	CLUSTER G			

	Brought Forward			R	
	<u>Formwork</u>				
	Description of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before reuse				
	The vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without damage and shall remain in position until the newly constructed work is able to support itself				
	Formworks to soffits of solid slabs etc shall be deemed to be slabs not exceeding 250mm thick unless otherwise described				
	Formwork to soffits of slabs, beams, etc shall be deemed to be propped up exceeding 1,5m and not exceeding 3,5m high unless otherwise described				
	Formwork to sides of bases, pile caps, ground beams, etc will only be measured where it is prescribed by the engineer for design reasons. Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in "Earthworks"				
	UNREINFORCED CONCRETE				
	20MPa/19mm concrete				
1	Surface beds	m3	2		
2	Surface beds cast in panels on waterproofing.	m3	51		
3	Aprons cast in panels to falls	m3	12		
	Carried Forward  Section No. 4  MEDIUM ADMIN BLOCK  Bill No. 2  Concrete, Formwork and Reinforcement			R	
	CLUSTER G				

	Brought Forward			R	
4	Ramps	m3	1		
5	Extra over concrete for thickening size 150mm deep 200mm top and tapering to 100mm at bottom including all excavation to 100mm backfilling etc.	m	102		
	REINFORCED CONCRETE				
	25MPa/19mm concrete				
6	Slabs including beams and inverted beams	m3	6		
	CONCRETE SUNDRIES				
	Finishing top surfaces of concrete smooth with a steel trowel				
7	Surface beds, slabs, etc	m2	354		
8	Ramp to falls	m2	6		
	Finishing top surfaces of concrete smooth with a wood float				
9	Aprons to falls	m2	122		
	FORMWORK				
	ROUGH FORMWORK (DEGREE OF ACCURACY II)				
	Rough formwork to sides				
10	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	89		
	SMOOTH FORMWORK (DEGREE OF ACCURACY II)				
	Section No. 4 MEDIUM ADMIN BLOCK Bill No. 2 Concrete, Formwork and Reinforcement CLUSTER G			R	

	Brought Forward			R	
	Smooth formwork to soffits				
11	Slabs	m2	6		
	Permanent formwork to soffits				
	TEST CUBES				
12	Allow for preparing a set of three concrete strength test cubes, each size 150 x 150 x 150mm, sending them to an approved Testing Laboratory for testing and paying all charges in connection therewith.	Sets	10.0		
	MOVEMENT JOINTS ETC				
	Expansion joints with bitumen impregnated softboard between vertical concrete and brick surfaces				
	Saw cut joints				
13	Saw cut joints in top of concrete	m	5		
	REINFORCEMENT				
	High tensile steel reinforcement to structural concrete work				
14	12mm Diameter	t	1.20		
15	10mm Diameter bars	t	1.80		
	REINFORCEMENT (PROVISIONAL)				
	Fabric reinforcement				
16	Steeledale Mesh standard square fabric mesh, nominal mass 1,93 kg/m² with nominal 5,6mm thick wires and 200 x 200mm pitch (code 193), complying with SANS 1024/2006 requirements, in sheets 2,4 x 6m long.	m2	354		
	Carried Forward to Summary of Section No. 4 Section No. 4 MEDIUM ADMIN BLOCK Bill No. 2 Concrete, Formwork and Reinforcement CLUSTER G			R	

Item No		Quantity	Rate	Amount
	SECTION NO.3			
	BUILDING WORK			
	BILL NO. 3			
	MASONRY			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.			
	SUPPLEMENTARY PREAMBLES			
	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			
	Linings to concrete			
	Descriptions of linings to concrete, unless otherwise described, shall be deemed to include wire ties			
	Hollow walls etc			
	Descriptions of hollow walls shall be deemed to include wire ties and leaving every fifth perpend of the bottom course of the external skin open as a weep hole			
	Reinforced brick lintels			
	Lintels shall bear at least 160mm onto adjacent walling. Where such bearing cannot be obtained due to the proximity of adjacent openings the lintel shall be continuous			
	Carried Forward		R	
	Section No. 4 MEDIUM ADMIN BLOCK Bill No. 3 Masonry CLUSTER G			

	Brought Forward			R	
	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				
	SUPERSTRUCTURE				
	Brickwork of NFP bricks in class II mortar				
1	Piers	m3	3		
2	L-shaped piers	m3	0.5		
3	Half brick walls	m2	265		
4	Half brick walls in beamfilling.	m2	27		
5	One brick walls	m2	409		
	Joint forming material in movement joints:				
	Brickwork reinforcement				
6	75mm Wide reinforcement built in horizontally	m	853		
7	150mm Wide reinforcement built in horizontally	m	1,282		
	Turning pieces				
8	230mm Wide turning piece to lintels etc	m	69		
	"Allied Concrete" prestressed fabricated lintels				
9	110 x 75mm Lintels in lengths not exceeding 3m	m	15		
	Carried Forward Section No. 4 MEDIUM ADMIN BLOCK Bill No. 3 Masonry CLUSTER G			R	

	Brought Forward	d		R	
	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	No	56		
	FACE BRICKWORK				
	Face bricks (Purchase price of R4 700,00/1000 VAT excl. delivered to site) pointed with recessed horizontal and vertical joints				
11	Extra over brickwork for face brickwork	m2	355		
12	Extra over for facing in piers, including bonding and pointed with recesses joints on all exposed faces	m2	6		
13	Extra over for facings in beamfilling for face brickwork	m2	75		
	Brick-on-edge header course copings, sills, etc of face bricks (Purchase price R4 700,00 / 1000 VAT excl. delivered to site) pointed with recessed joints on all exposed faces				
14	Extra over brickwork for brick-on-edge header course lintel	m	28		
	Brick-on-edge header course copings, sills, etc of face bricks(Purchase price of R4 700,00/1000 VAT excl. delivered to site) pointed with recessed joints on all exposed faces				
15	220mm Wide sill set sloping and slightly protecting outside	m	19		
16	Coping on top of one brick wall	m	8		
	NUTEC-CEMENT/FIBRE-CEMENT WINDOW SILLS				
	Carried Forward Section No. 4 MEDIUM ADMIN BLOCK Bill No. 3 Masonry CLUSTER G	d		R	

	Brought Forward			R	
	Nutec window internal sill, size 150mm x 15mm thick, manufactured in accordance with SANS 803:2005 and installed below window with window sill lug screwed to underside of sill at 400mm centres, minimum of 75mm from end of window sill and bedded in Class II mortar with plastic slip joints at end of sills at plaster reveals and projecting from the finished face of wall, all in accordance with the manufacturer's recommendations.				
17	15mm x 150mm Wide sills set flat and slightly projecting	m	45		
	Carried Forward to Summary of Section No. 4 Section No. 4 MEDIUM ADMIN BLOCK Bill No. 3 Masonry CLUSTER G			R	

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	Brought Forward		R	
	Silicone sealing compound including backing cord, bond breaker, primer, etc			
3	6 x 10mm In expansion joints including raking out of expansion joint filler as necessary	233		
	Carried Forward to Summary of Section No. 4 Section No. 4 MEDIUM ADMIN BLOCK		R	
	Bill No. 4 Waterproofing CLUSTER G			

Item No		Quantity	Rate	Amount	
	SECTION NO.3				
	BUILDING WORK				
	BILL NO.5				
	ROOF COVERINGS ETC				
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.				
	SUPPLEMENTARY PREAMBLES				
	<u>General</u>				
	All roof coverings, etc., to be with a covering of Z275 galvanising. All holes to be drilled and not punched				
	Where described as with "Chromadek" finish, all sheets, flashings, etc., shall be with "Chromadek" silicone polyester paint for exterior use				
	<u>Sizes</u>				
	All items are measured net unless otherwise described				
	Flashings, trimming plates, etc.				
	Prices to include for all cutting and waste and relevant fixing material, unless otherwise described				
	All rates for flashings, trimmings, etc., to include for forming drips and closed ends to troughs of sheet steel roof covering where applicable				
	All items are unless otherwise described measured net				
	Carried Forward Section No. 4		R		-
	MEDIUM ADMIN BLOCK Bill No. 5				
	Roof Coveringss, etc CLUSTER G				

	Brought Forward			R
	PROFILED METAL SHEETING AND ACCESSORIES			
	0,5mm "Brownbuilt Klip-Lok Light Industrial" galvanised troughed sheeting steel with "Chromadek - Traffic Green" finish on one side, in single lengths fixed to steel purlins or rails and 0,6mm galvanised steel accessories with "Chromadek" finish on one side, fixed to roof members by a firm of Specialists who will give a five (5) year guarantee, all in accordance with the manufacturer's instructions			
1	Roof covering with pitch not exceeding 50 degrees	m2	354	
2	Ridge capping 550mm girth	m	38	
3	Hip capping 550mm girth	m	42	
4	Gable trim 550mm girth	m	24	
	STEEL LOUVRES			
	"NTY Steelworks" or similar approved			
5	Triangular steel louvre size 3000x 500mm high fixed to timber purlins including watertight heading joints, necessary sealing strips, fixing accessories, etc	No	4	
	Carried Forward to Summary of Section No. 4 Section No. 4 MEDIUM ADMIN BLOCK Bill No. 5 Roof Coveringss, etc			R
	CLUSTER G			

Item No		Quantity	Rate	Amount
	SECTION NO.3			
	BUILDING WORK			
	BILL NO.6			
	CARPENTRY AND JOINERY			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.			
	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, transomes, mullions, rails, etc			
	Descriptions of hardwood joinery shall be deemed to include pelleting of bolt holes			
	<u>Fixing</u>			
	Items described as "nailed" shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete			
	Carried Forward Section No. 4		R	
	MEDIUM ADMIN BLOCK Bill No. 6 Capentry and Joinery CLUSTER G			

Brought Forward	R		İ
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			
Pre-fabricated metal connected timber roof trusses			
All trusses shall be fabricated by an approved truss manufacturer who holds a current Certificate of Competence awarded by the Institute for Timber Construction			
<u>Timber</u>			
Timber for trusses to be South African softwood and shall be in accordance with the grades as defined in SABS Specification No 563 or as defined in SABS Specification No 1460			
<u>Bolts</u>			
Bolts shall be in accordance with BS 4190 or SABS 135			
Shear plates, tooth connectors and split rings			
Shear plates, tooth connectors and split rings shall be in accordance with BSS 1759: 1960 and installed in accordance with the CSIR Publication HOUT 468, "The Design, Manufacturing and Erection of Timber Trusses"			
<u>Washers</u>			
Square or round washers of the following dimensions shall be used with all bolts:			
Bolts up to 8mm diameter:     Washers shall be minimum 25mm wide of minimum 2,50mm thickness			
Carried Forward	R		
Section No. 4 MEDIUM ADMIN BLOCK			
Bill No. 6 Capentry and Joinery CLUSTER G			
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Brought Forward	R	
Bolts up to 12mm diameter:     Washers shall be minimum 36mm wide of minimum 4,00mm thickness		
3 Bolts up to 20mm diameter: Washers shall be minimum 60mm wide of minimum 5,00mm thickness		
Metal connector plates		
Metal connector plates shall be fabricated out of not less than 1mm thick drawn quality galvanised steel		
The steel shall have a minimum yield strength of 228MPa and a minimum ultimate tensile strength of 330MPa. The corrosion resisting coating shall be not less than 275g/m2 commercial class hot dipped galvanising as per SABS 934 before stamping		
All connector plates shall have been tested by the CSIR and be of a size capable of transmitting the forces between members of a truss without exceeding the design values published in the CSIR report		
Truss construction		
Trusses shall be constructed in jigs specially designed to unsure the correct profile, overhangs and cambers		
Where metal connector plates are used all joints are to be close fitted butt joints made by precision pressing of the metal connector plates into each side of the joint		
<u>Truss design</u>		
All trusses shall be designed by a registered Professional Engineer in accordance with SABS 0163 ("Design of Timber Structures") and Code 0160 ("Loadings")		
<u>Truss spacing</u>		
The truss centres shall be less than or equal to that as described in this bill for each respective truss		
Carried Forward	R	_
Section No. 4 MEDIUM ADMIN BLOCK Bill No. 6 Capentry and Joinery CLUSTER G	K	

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<u>Truss pitch</u>		
The truss pitch shall be as described in this bill for each respective truss type		
<u>Truss loading</u>		
Trusses shall be designed for a live load of 0,50kN/m2 and dead load as specified under the sub-heading "Specific load specifications for roof trusses"		
Shop drawings, design and erection guarantee certificates		
It will be expected from the Contractor to timeously prepare, submit and obtain the necessary approvals from the Representative/Agent in respect of the required shop drawings, design and erection guarantee certificates as specified		
<u>Dimensions</u>		
All dimensions given in the descriptions of the trusses are nominal and actual measurements are to be obtained by actual measurements taken on the site before design or fabrication commences		
<u>Erection</u>		
All trusses are to be hoisted and erected strictly in accordance with the procedures and recommendations of the manual "The Erection and Bracing of Timber roof Trusses" as published by the Institute for Timber Construction and the CSIR, or the SABS Code of Practice "The Design, Manufacture and Erection of Timber Roof Trusses", or as designed and detailed by the designer		
<u>Design system</u>		
The design system as documented in this bill is based on the "MiTek" system and all references given in the descriptions are related to specific type of trusses based on this design system		
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Carried Forward  Section No. 4 MEDIUM ADMIN BLOCK Bill No. 6 Capentry and Joinery CLUSTER G	R	

	Brought Forward		R	
	However, Contractors are to note that any design system of similar quality may be used subject to the prior written approval of the Representative/Agent			
	Specific specifications for roof trusses			
	Unless otherwise described, the following specifications will apply:			
	1 All trusses to be with a 10° pitch			
	The dead load consists of corrugated roof sheeting and purlins at approximately 1200mm centres			
	ROOFS			
	The following in plate nailed timber roof truss construction			
	The following is applicable in respect of roof trusses			
	The references given in the descriptions are to the respective types of trusses detailed on the architect's drawings annexed to these bills of quantities/accompanying these bills of quantities for tender purposes			
	Prices for rafters and trusses to include all "Hurricane" clips, steel M-runners and "Permfix" plates, screws, nails, wires, sundry material, etc (bracing, wallplates, purlins and gangboarding are measured seperately)			
	Allow for the preparation and submission of the following documents in respect of all buildings			
1	Detailed shop drawings indicating truss sizes, truss positions, bracings, details, etc. to be submitted for approval prior the commencement of any fabrication	ltem		
2	Design certificate indicating the licensed programme used, SANS specifications adhered to, general procedures and loadings adopted, sizes and grading of			
	timber components, details, etc.	Item		
	Carried Forward		R	—
	Section No. 4			
	MEDIUM ADMIN BLOCK Bill No. 6			
	Capentry and Joinery CLUSTER G			
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	Brought Forward			R	
3	Erection guarantee certificate after the whole completed roof truss structure have been inspected, all defective work have been taken out and made good, etc. to the full satisfaction of the Principal Agent		Item		
	Sawn softwood				
4	Roof construction to double pitched roof supplied and erected complete in position with bracing, gangboarding, purlins, eaves purlins, hipped end, rafters etc. for adminstration block approximately 355m2 on plan (Refer to architect's drawings attached to these bills of quantities)	No	1		
	Sawn softwood grade 4				
5	38 x 114mm Wall plates	m	88		
	Sundries				
6	Two coats creosote on sawn timbers	m2	24		
	EAVES, VERGES, ETC				
	"Everite FC77" pressed fibre-cement				
7	15 x 250mm Fascias and barge boards including galvanised steel H-profile jointing strips	m	86		
	SKIRTINGS				
	Wrought meranti				
8	19 x 76mm Skirting including 19mm quadrant bead nailed	m	325		
	DOORS, ETC				
					_
	Section No. 4 MEDIUM ADMIN BLOCK Bill No. 6 Capentry and Joinery CLUSTER G			R	

	Brought Forward			R	
I.	Wrought meranti doors hung to steel frames				
9	44mm Framed and ledged batten door 813 x 2032mm high of 44 x 100mm top rail and stiles, 22 x 100mm middle and bottom rails, covered on both sides with 6mm plywood with veneer (D3)	No	2		
	Solid core flush doors with concealed hardwood edges and 4mm thick masonite covering on both sides hung to steel frame				
10	40mm Door 813 x 2032mm high	No	10		
	<u>FITTINGS</u>				
	The following in four wrot Meranti slatted benches in waiting area:				
11	32 x 69 mm Twice chamfered slat screwed from underside to steel supports with and including steel brackets.	m	44		
	Joinery Fittings, etc.				
12	Provide the amount of R595 000.00 (Five Hundred and Ninety Five Thousand Rand) for the supply and installation of Joinery Fittings by Specialists				
			Item		595,000.00
13	Allow for giving every facility to Specialists as described		Item		
14	Allow for profit on above if required		Item		
	Admin Furniture, etc.				
15	Provide the amount of R350 000.00 (Three Hundred Fifty Thousand Rand) for the supply and installation of				
	admin furniture by Specialists		Item		350,000.00
16	Allow for giving every facility to Specialists as described		Item		
17	Allow for profit on above if required		Item		
	Carried Forward to Summary of Section No. 4			R	
	Section No. 4 MEDIUM ADMIN BLOCK Bill No. 6				
	Capentry and Joinery CLUSTER G				

Item No			Quantity	Rate	Amount	
	SECTION NO.3					
	BUILDING WORK					
	BILL NO.7					
	CEILING, ETC.					
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.					
	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 elsewhere					
	CEILING CONSTRUCTION, CORNICES, ETC.					
	<u>Insulation</u>					
1	100mm glass fibre insulation blanket to manufacturer's specification, laid on ceiling.	m2	354			
	Sawn softwood					
2	38 x 114mm Ceiling joists (Provisional)	m	85			
						_
	Carried Forward			R		
	Section No. 4 MEDIUM ADMIN BLOCK					
	Bill No. 7 Ceilings, Partitions and Access Flooring CLUSTER G					

	Brought Forward			R	
	"Rhino" gypsum plasterboard cornices				
3	75mm Coved cornices	m	325		
	NAILED UP AND SCREWED UP CEILINGS				
	6mm "Everite Nutec" fibre-cement boards with H-profile primed steel jointing cover strips over joints				
4	Ceilings including 38 x 38mm brandering at 90deg to trusses at maximum centres of 400mm by 32mm long galvanised nails.				
	9	m2	354		
5	Extra over ceiling for opening for 610 x 610mm trap door of 50 x 76mm wrought softwood rebated framing with one 38 x 38mm sawn softwood cross brander covered with ceiling board and fitted flush in opening	No	8		
	Carried Forward to Summary of Section No. 4			R	
	Section No. 4 MEDIUM ADMIN BLOCK				
	Bill No. 7 Ceilings, Partitions and Access Flooring				
	CLUSTER G				

Item No		Quantity	Rate	Amount
	SECTION NO.3			
	BUILDING WORK			
	BILL NO.8			
	IRONMONGERY			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.			
	SUPPLEMENTARY PREAMBLES			
	<u>Descriptions</u>			
	Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs			
	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 SD Sanded			
	CATCHES, CABIN HOOKS, ETC			
	"Solid"			
	LOCKS			
	Carried Forward Section No. 4 MEDIUM ADMIN BLOCK		R	
	Bill No. 8 Ironmongery CLUSTER G			

	Brought Forward			R	
	"Solid"or similar approved	ļ			
1	"Code 630" padlock	No	2		
2	"Code 460/313" Blesbok four lever lockset	No	12		
	DOOR CLOSERS AND FLOOR SPRINGS				
	"Dorma" or similar approved				
3	Dorma TS91/EN3 slide channel door closer - Non hold open (Silver)	No	4		
4	Dorma DPH301C 150 x 19mm stainless steel "D" shaped straight bolt-through pull handle (St/Steel)	No	4		
	SUNDRIES				
	"Solid" or similar approved				
5	Dorma "Code 255" door stop plugged	No	16		
	PINNING BOARDS, WRITING BOARDS, PROJECTION SCREENS, ETC				
	"Vitrex" or similar approved				
6	Pinning boards 2400 x 1200mm high fixed to brickwork	No	2		
7	Pinning boards 3000 x 1200mm high fixed to brickwork	No	4		
	LETTERS, NAMEPLATES, ETC				
	"Union" or similar approved				
8	150 x 150mm Stainless steel plate engraved with "female" sign (St/Steel)	No	1		
9	150 x 150mm Stainless steel plate engraved with "male" sign (St/Steel)	No	1		
	Carried Forward  Section No. 4  MEDIUM ADMIN BLOCK  Bill No. 8  Ironmongery  CLUSTER G			R	

	Brought Forward			R	Ī
10	150 x 150mm Stainless steel plate engraved with electrical symbol (St/Steel)	No	2		
11	150 x 150mm Stainless steel plate engraved with "running man RH" sign (St/Steel)	No	4		
12	150 x 150mm Stainless steel plate engraved with a "Fire Hose Reel" sign (St/Steel)	No	1		
13	150 x 150mm Stainless steel plate engraved with "Fire Extinguisher" sign (St/Steel)	No	6		
14	150 x 150mm Stainless steel plate engraved with a "Arrow sign" sign (St/Steel)	No	11		
15	300 x 75 x 3mm Thick perspex plate with 40mm high engraved and paint letters to read "KITCHEN"	No	1		
16	300 x 75 x 3mm Thick perspex plate with 40mm high engraved and paint letters to read "STAFF ROOM"	No	1		
17	300 x 75 x 3mm Thick perspex plate with 40mm high engraved and paint letters to read "STATIONERY STORE"	No	1		
18	300 x 75 x 3mm Thick perspex plate with 40mm high engraved and paint letters to read "RECEPTION"	No	1		
19	300 x 75 x 3mm Thick perspex plate with 40mm high engraved and paint letters to read "SICK ROOM"	No	1		
20	300 x 75 x 3mm Thick perspex plate with 40mm high engraved and paint letters to read "PRINCIPAL"	No	1		
21	300 x 75 x 3mm Thick perspex plate with 40mm high engraved and paint letters to read "PRINT ROOM"	No	1		
22	300 x 75 x 3mm Thick perspex plate with 40mm high engraved and paint letters to read "VICE PRINCIPAL"	No	1		
23	300 x 75 x 3mm Thick perspex plate with 40mm high engraved and paint letters to read "GENERAL OFFICE"	No	1		
	Carried Forward Section No. 4 MEDIUM ADMIN BLOCK Bill No. 8 Ironmongery CLUSTER G			R	

	Brought Forward			R	
24	300 x 75 x 3mm Thick perspex plate with 40mm high engraved and paint letters to read "WAITING AREA"	No	1		
25	300 x 75 x 3mm Thick perspex plate with 40mm high engraved and paint letters to read "STRONG ROOM"	No	1		
	BATHROOM FITTINGS				
	"Buchel" or similar approved				
26	19mm Diameter chromium plated towel rail 600mm long including end brackets	No	2		
	"Kimberly-Clark" or similar approved				
27	Kimberly-Clark® Professional MR2 Satin finish Stainless Steel toilet tissue dispenser (code: SA426130), overall size 130 x 135 x 256mm high, installed by a Kimberly Clark® installation team.	No	2		
28	Kimberly-Clark® Professional Reflex® MK2 Stainless Steel hand towel dispenser (code: SA426125), overall size 310 x 280 x 400mm high, installed by a Kimberly Clark® installation team.	No	2		
29	Kimberly-Clark® Professional Foam soap dispenser colour stainless steel, overall size 134 x 120 x 250mm high, installed by a Kimberly Clark® installation team.	No	2		
	"Nampak" or similar approved				
30	Vandal resistant 2 roll holder complete fitments or similar approved	No	2		
	VERTICAL BLINDS				
	"Luxaflex" or similar approved				
31	Vertical blind system, not exceeding 2000mm high, consisting of 70mm wide vanes, powder coated aluminium headrail 44.8 x 26.5mm high, fitted with wheeled runners, connected by grey acetal spacer links with and including all necessary components to manufacturer's specifications	m	56		
	Carried Forward to Summary of Section No. 4			R	
	Section No. 4 MEDIUM ADMIN BLOCK Bill No. 8 Ironmongery CLUSTER G				

Item No		Quantity	Rate	Amount
	SECTION NO.3			
	BUILDING WORK			
	BILL NO. 9			
	METALWORK			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.			
	<u>Descriptions</u>			
	Descriptions of bolts shall be deemed to include nuts and washers Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete Metalwork described as "holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described			
	<u>Drawings</u>			
	Tenderers are referred to architect's drawings annexed to this document for full details of the windows, doors, etc			
	WELDED SCREENS, GATES, ETC			
	Gates to external doors			
	PRESSED STEEL DOOR FRAMES			
	1,2mm Double rebated frames suitable for one brick walls			
1	Frame for door 813 x 2032mm high and fixed fanlight No	10		
	Carried Forward		R	
	Section No. 4 MEDIUM ADMIN BLOCK Bill No. 9 Metalwork CLUSTER G			

STEEL WINDOWS, DOORS, ETC  'Nty" or similar approved steel residential windows with burglar bars to all sashes  Window type SWE 418, size 1511 x 1264mm high  Window type SWE 37S, size 1022 x 949mm high  Window type SWE 31S, size 533 x 949mm high  Window type SWE 47, size 2000 x 1264mm high  STEEL STRONGROOM DOORS, VENTILATORS, ETC	No No No	14 3 5		
Window type SWE 418, size 1511 x 1264mm high Window type SWE 37S, size 1022 x 949mm high Window type SWE 31S, size 533 x 949mm high Window type SWE 47, size 2000 x 1264mm high STEEL STRONGROOM DOORS, VENTILATORS,	No No	3		
Window type SWE 37S, size 1022 x 949mm high Window type SWE 31S, size 533 x 949mm high Window type SWE 47, size 2000 x 1264mm high STEEL STRONGROOM DOORS, VENTILATORS,	No No	3		
Window type SWE 31S, size 533 x 949mm high Window type SWE 47, size 2000 x 1264mm high STEEL STRONGROOM DOORS, VENTILATORS,	No			
Window type SWE 47, size 2000 x 1264mm high  STEEL STRONGROOM DOORS, VENTILATORS,		5		
STEEL STRONGROOM DOORS, VENTILATORS,	No			
		1		
'Gunnebo SA" or similar approved strongroom doors etc. suitable for 230mm walls fixed to brickwork or concrete				
Mutual Austen Safes DS50/2/HD SABS Category 2 (Heavy Duty) left hand strongroom with 2 x 7-lever security keylock, overall size 850 x 1860mm high with and including powder coated finish	No	1		
Double ended strongroom ventilator	No	1		
STEEL ROLLER SHUTTERS ETC				
'Wispeco" or similar approved roller shutters fixed to prickwork or concrete				
ALUMINIUM WINDOWS, DOORS, ETC				
Doors, windows, etc to be manufactured by an approved firm of specialists, to be of the best quality and design truly squared and unless otherwise described, prepared to receive galzing beads from the outside. All opening portions must fit perfectly on all faces and be so hung as to open and close freely without binding at any point.  Wherever possible, all angles and intersections to be welded by electric welding, argon or arc welding. A sample window is to be submitted to the Architect for approval before the work is put in hand.				
			R	
Carried Forward	l l			
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	ortions must fit perfectly on all faces and be so hung as open and close freely without binding at any point.  Therever possible, all angles and intersections to be relded by electric welding, argon or arc welding. A sample window is to be submitted to the Architect for approval before the work is put in hand.  Carried Forward	ortions must fit perfectly on all faces and be so hung as open and close freely without binding at any point.  //herever possible, all angles and intersections to be selded by electric welding, argon or arc welding. A sample window is to be submitted to the Architect for approval before the work is put in hand.	ortions must fit perfectly on all faces and be so hung as open and close freely without binding at any point.  //herever possible, all angles and intersections to be relded by electric welding, argon or arc welding. A ample window is to be submitted to the Architect for approval before the work is put in hand.  Carried Forward ection No. 4	ortions must fit perfectly on all faces and be so hung as open and close freely without binding at any point.  //herever possible, all angles and intersections to be relded by electric welding, argon or arc welding. A sample window is to be submitted to the Architect for approval before the work is put in hand.  Carried Forward  R

Brought Forward	R R	
The frames generally are to be suitable for brickwork, blockwork, or concrete reveals. They are to be fitted with fixing lugs of 2,8mm aluminium 13mm wide x 100mm long welded to framing, one near each corner and intermediately not more than 300mm apart to sides top and bottom. Where concrete reveals, etc the frames are to be countersunk holed for and fitted with the necessary screws at the centres as for the lugs above.		
Immediately after the windows, doors, etc, have been delivered on to site, they are to be thouroughly overhauled, and all necessary adjustment or repairs made before they are fixed in position. Where they come into contact with brickwork, blockwork, concrete, steel, etc, the framing is to be treated with bituminuos paint in an approved manner. The windows, doors, etc, are to be placed in their positions for building in and adjusted to open and close properly and are to be securely structured to prevent distortation whilst the brickwork and lintols, are being built.		
On completion of all other work the windows, doors, are to be adjusted as necessary and rendered in a complete and satisfactory state of repair and in working order.  General. All rates for doors, windows, shopfronts etc.		
should include for all galzing as specified.  Glazing beads: All door, etc to be fitted with galzing beads, unless otherwise described, mitred at angles and screwed on.		
Glass and Glazing: All functional glass must be delivered to site cut to size and ready for installation and must be classified to indicate grade and thickness.  Labels must remain on each piece of glass until it is glazed, inspected and officially accepted in writing by the employer, thereafter an insurance letter will follow absolving the contractor of responsibilty.		
Carried Forward  Section No. 4	R	
MEDIUM ADMIN BLOCK Bill No. 9 Metalwork CLUSTER G		

Brought Forward	R	
AAAMSA guide		1
All windows, doors, etc shall comply with and meet the minimum recommended performance requirements as set out in the General Specification for Architectural Aluminium and Glass Products (Third Edition) as published by the Association of Architectural Aluminium Manufacturers of South Africa (AAAMSA)		
The following specifications are to be complied with:		
Aluminium alloy extrusion: BS 1474 Aluminium alloy sheets: SANS 903 Anodising: SANS 999 Neoprene performed seals and gaskets: SATM C542 Powder coat finishing: SANS 1274		
<u>Finish</u>		
The windows, doors, etc shall be natural anodised to a thickness of 25 micron and shall comply with SABS 999 and 1407		
Glass		
Glazing to be with patent rubber gaskets with glazing beads and comply with BS 952. Thickness of glass shall be in accordance with table 1 (Part N : Glazing ). Safety glass shall comply with SABS 1263. The National Building Regulations shall be observed with regard to the specification of safety glass		
<u>Design indemnity</u>		l
The contractor is to submit with his tender the "Form of Indemnity", annexed to this document, fully completed and signed		
<u>Drawings</u>		
Tenderers are referred to architect's drawings annexed to these bills of quantities for full details of windows, doors, etc		
Carried Forward  Section No. 4  MEDIUM ADMIN BLOCK  Bill No. 9  Metalwork	R	
CLUSTER G		
		ı

	Brought Forward			R	
	Pricing.				
	All window prices should include alluminium louvres as shown				
	<u>General</u>				
	Workshop drawings to be approved by the architect before manufacture				
	Ironmongery				
	Prices for windows shall allow for two standard stainless steel side/top hung friction hinges and one bronze anodised aluminium handle per opening sash. Prices for doors shall allow for two pairs of standard flush bolts to double doors and one-and-a-half pairs of standard hinges per door leaf.				
	Natural annodised series 340 aluminium windows, doors, etc including sub-frames, fixing, silicone sealant all round, ironmongery and glazed with 6,38mm clear laminated safetyglass unless otherwise stated				
8	Purpose made aluminium viewing panel size 2000 x 1110mm high in two equal fixed panes	No	1		
9	Purpose made sliding viewing panel size 2000 x 1110mm high in three equal leafs (W6 & W5)	No	2		
10	Purpose made aluminium double door in two equal leafs size 1575 x 2100mm high overall (D1)	No	2		
	Carried Forward to Summary of Section No. 4 Section No. 4 MEDIUM ADMIN BLOCK Bill No. 9 Metalwork CLUSTER G			R	

Item No		Quantity	Rate	Amount
1	SECTION NO.3			
	BUILDING WORK			
	BILL NO. 10			
	PLASTERING			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.			
	GRANOLITHIC			
	Untinted granolithic on concrete			
1	25mm Thick on floors and landings m.	2 68		
	SCREEDS			
	Screeds on concrete			
2	30mm Thick on floors m.	310		
	INTERNAL PLASTER			
	Cement plaster on brickwork			
3	On walls m.	821		
4	On narrow widths m.	2 35		
	CORNER PROTECTORS, DIVIDING STRIPS, ETC			
	Carried Forward			
	Section No. 4 MEDIUM ADMIN BLOCK Bill No. 10 Plastering CLUSTER G		R	

	Brought Forward		R	
	<u>Brass</u>			
5	3 x 32mm Flat section brass dividing strips between different floor finishes m	13		
	Carried Forward to Summary of Section No. 4		R	_ 
	Section No. 4 MEDIUM ADMIN BLOCK Bill No. 10 Plastering CLUSTER G			

Item No			Quantity	Rate	Amount
1	SECTION NO.3				
	BUILDING WORK				
	BILL NO.11				
	<u>TILING</u>				
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.				
	SUPPLEMENTARY PREAMBLES				
	<u>Descriptions</u>				
	Unless described as "fixed with adhesive to plaster (plaster elsewhere)" descriptions of tiling on brick or concrete walls, columns, etc shall be deemed to include 1:4 cement plaster backing and descriptions of tiling on concrete floors etc shall be deemed to include 1:3 plaster bedding				
	WALL TILING				
	Glazed ceramic wall tiles (PC R110,00/m2 VAT excl.) fixed with adhesive to plaster (plaster elsewhere)				
1	On walls	m2	122		
2	On narrow widths	m2	5		
	FLOOR TILING				
	Section No. 4 MEDIUM ADMIN BLOCK Bill No. 11 Tiling CLUSTER G			R	

	Brought Forward	ı		R	
	300 x 300 x 11,5mm Ceramic floor tiles (PC R120.00/m2 VAT excl.) fixed with adhesive to plaster (plaster elsewhere) and flush pointed with tinted waterproof jointing compound				
3	On floors and landings	m2	354		
4	Skirting formed of ceramic tile cut to 300 x 75mm high	m	26		
	Carried Forward to Summary of Section No. 4	ı		R	
	Section No. 4 MEDIUM ADMIN BLOCK Bill No. 11 Tiling CLUSTER G				

Item No		Quantity	Rate	Amount
	SECTION NO.3			
	BUILDING WORK			
	BILL NO.12			
	PLUMBING AND DRAINAGE			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.			
	SUPPLEMENTARY PREAMBLES			
	"Polycop" polypropylene pipes:			
	Polypropylene pipes 54mm diameter and under shall be seamless copper coloured class 16 pipes jointed with "Fast-fuse" heat welded thermoplastic or brass compression fittings as designed for use with copper pipes as stated			
	Pipes shall be firmly fixed to walls etc with coloured nylon snap-in pipe clips with provision for accommodating thermal movement and jointed and fixed strictly in accordance with the manufacturer's instructions			
	All pipe diameters are nominal external			
	"Polylink" polypropylene pipes:			
	Polypropylene pipes 63mm diameter and over shall be class 12 pipes jointed with cast iron "Supraclamp" running joints			
	Fusion welded bends, once or twice mitred as necessary, and tees shall be factory manufactured			
	Carried Forward		R	
	Section No. 4 MEDIUM ADMIN BLOCK Bill No. 12 Plumbing and Drainage CLUSTER G			

Brought Forward	R	
Fusion welded bends and tees shall include jointing to pipes with PVC rubber ring double Z joint couplers		
Branch tees shall include flanged and bolted joints to "Polycop" branch pipes in addition and for brass compression male iron to copper straight couplers		
Reducers shall include jointing to pipes with PVC rubber ring double Z joint couplers and reducers shall be of sufficient overall length to accommodate same		
All pipes shall be jointed and fixed strictly in accordance with the manufacturer's instructions		
All pipe diameters are nominal external		
Concrete pipes:		
Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rings		
Vitrified clay pipes:		
Pipes shall rest on solid ground and, where necessary, pockets of sufficient size shall be cut around joints to enable the jointing to be properly performed or, alternatively, pipes shall be bedded full length on and including unreinforced concrete laid in a semi-dry state immediately before pipes are laid		
Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings		
uPVC pipes and fittings:		
Soil, waste and vent pipes and fittings shall be solvent weld jointed		
uPVC pressure pipes and fittings:		
Pipes for water supply shall be of the class stated		
Carried Forward  Section No. 4  MEDIUM ADMIN BLOCK  Bill No. 12  Plumbing and Prainage	R	
Plumbing and Drainage CLUSTER G		

ĺ	Brought Forward	R	
	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 fixing to walls etc, casting in, building in or suspending not exceeding 1m below suspension level		
	Lead pipes and fittings		
	All soldered joints shall be wiped and brass unions shall be used for jointing lead to steel		
	Carried Forward  Section No. 4 MEDIUM ADMIN BLOCK Bill No. 12 Plumbing and Drainage CLUSTER G	R	

	Brought Forward	R	
Re	educing fittings		
de dia bro otl the er ex	There fittings have reducing ends or branches they are escribed as "reducing". In the case of pipes with ameters not exceeding 60mm only the largest end or anch size is given. Should the contractor wish to use her fittings and bushes or reducers he may do so on e understanding that no claim in this regard will be ntertained. In the case of pipes with diameters acceeding 60mm all sizes are given and no claim for the case, reducers, etc will be entertained.		
<u>w</u>	ire gratings		
	escriptions of gutter outlets etc shall be deemed to clude wire balloon gratings		
<u>Se</u>	eptic tanks		
ex joi	escriptions of septic tanks shall be deemed to include acavation, bedding and jointing, concrete base slabs, inting to drains and backfilling, compaction, etc all in accordance with the manufacturer's instructions		
E	xposed concrete surfaces		
co	exposed surfaces of concrete stormwater channels, byer slabs, inspection eye marker slabs, gulley tops, eaning eye tops, catchpits, inspection chambers, etchall be finished smooth with plaster		
E	cavations		
the	o claim for rock excavation will be entertained unless e contractor has timeously notified the quantity reveyor thereof prior to backfilling		
	oft rock" and "hard rock" shall be as defined in arthworks"		
MI Bil Pli	Carried Forward ection No. 4 EDIUM ADMIN BLOCK II No. 12 umbing and Drainage LUSTER G	R	_

Brought Forward	R	
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 clauses 3, 5.5, 5.6, 5.7 and 7 of SABS 1200 DB: Earthworks (Pipe trenches) Pipes shall be bedded in accordance with clauses 3.1 to 3.4.1, 5.1 to 5.3 and 7 of SABS 1200 LB: Bedding (Pipes). Unless otherwise described bedding of rigid pipes shall be class B bedding		
Flush pans		
Flush pans shall have straight or side outlets and "P" or "S" traps as necessary		
Stainless steelbasins, 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		
Steel sectional water tanks		
Tanks shall comply with SABS CKS 114		
"Densyl" petrolatum anti-corrosion tape as manufactured by Denso SA (Pty) Ltd.		
Pipes to be taped shall be coated with the appropriate primer and the tape shall be applied with minimum 15mm lap per spiral unless otherwise described		
Carried Forward Section No. 4 MEDIUM ADMIN BLOCK	R	
Bill No. 12 Plumbing and Drainage CLUSTER G		

	Brought Forward	ı		R	
	Couplings and fittings to pipes shall be taped in strict accordance with the manufacturer's instructions including all mastic, tape, "Layflat" sheeting, securing of same, etc				
	RAINWATER DISPOSAL				
	0,6mm Galvanised sheet iron with "Chromadek" finish on one side				
1	100 x 125mm Eaves gutters with beaded front edge	m	66		
2	Extra over eaves gutter for angle	No	8		
3	Extra over eaves gutter for stopped end	No	2		
4	Extra over eaves gutter for outlet for 100mm diameter pipe	No	8		
5	100mm Diameter rainwater pipes	m	25		
6	Extra over rainwater pipe for eaves or plinth offset 450mm projection	No	8		
7	Extra over rainwater pipe for shoe	No	8		
	RAINWATER HARVEST ETC				
8	Provide the sum of R 100,000-00 for the supply and installation of Rainwater Harvest		Item		100,000.00
8			Item Item		100,000.00
	installation of Rainwater Harvest				100,000.00
9	installation of Rainwater Harvest  Allow for profit.		Item		100,000.00
9	Allow for profit.  Allow for attendance on sub-contractor		Item		100,000.00
9	installation of Rainwater Harvest  Allow for profit.  Allow for attendance on sub-contractor  STORMWATER CHANNELS		Item		100,000.00
9	Allow for profit.  Allow for attendance on sub-contractor  STORMWATER CHANNELS  15 MPa/20 mm concrete		Item		100,000.00
9	Allow for profit.  Allow for attendance on sub-contractor  STORMWATER CHANNELS  15 MPa/20 mm concrete		Item		100,000.00
9	Allow for profit.  Allow for attendance on sub-contractor  STORMWATER CHANNELS  15 MPa/20 mm concrete		Item	R	100,000.00
9	Allow for profit.  Allow for attendance on sub-contractor  STORMWATER CHANNELS  15 MPa/20 mm concrete  SOIL DRAINAGE	•	Item	R	100,000.00

	Brought Forward			R	
	uPVC pipes				
11	110mm Pipes vertically or ramped to cleaning eye etc (no excavation)	m	6		
12	110mm Pipes laid in and including trenches not exceeding 1m deep	m	150		
	Extra over uPVC pipes for fittings				
13	110mm Access bend	No	4		
14	110mm Access junction	No	3		
15	110mm Bend	No	3		
16	110mm Junction	No	3		
17	110mm uPVC rodding eye cover in end of pipe	No	2		
	Pre-cast concrete gulleys				
18	110mm Dished gulley not exceeding 1m deep with 150mm steel grate and standard concrete gulley surround	No	1		
	Concrete pipes:				
	Inspection chambers (covers elsewhere)				
19	Inspection chamber 450 x 600mm x exceeding 750mm and not exceeding 1000mm deep internally	No	1		
	Covers, etc				
20	450 x 600mm x 74kg Type 8A cast iron double seal manhole cover and frame	No	1		
	Sundries				
21	100mm Cast iron "ABC" cleaning eye	No	3		
	Carried Forward  Section No. 4  MEDIUM ADMIN BLOCK Bill No. 12  Plumbing and Drainage  CLUSTER G			R	

	Brought Forward	ĺ		R		
22	Precast concrete inspection eye marker slab set in ground	No	4			
23	110mm Rodding eye	No	3			
24	Extra over excavation in earth for pipe trenches, chambers, etc for excavation in soft rock	m3	2			
25	Extra over excavation in earth for pipe trenches, chambers, etc for excavation in hard rock	m3	2			
	SANITARY FITTINGS					
	"Vaal" or similar approved					
26	Vaal Sanitaryware 510 x 405mm Hibiscus White vitreous china lavatory basin (Code: 7023) with two tapholes including integrated overflow and chainstay hole, bolted to wall with two 10mm bolts (product code 8448Z0).	No	3			
27	Vaal Sanitaryware Hibiscus White vitreous china close coupled washdown suite comprising 90° outlet open rim pan (product code 772600) and matching 6/3 litre front dual flush cistern (product code 710539) including "PARKER AVANT" toilet seat	No	2			
	WASTE UNIONS ETC					
	"Cobra Watertech" or similar approved					
28	38mm "Cobra 316" unslotted waste and plug with chain	No	3			
	TRAPS ETC					
	"Marley" or similar approved					
29	40mm Flexi butyl rubber trap with reseal "P" trap	No	1			
	Chromium plated					
30	32 x 40mm Bottle trap	No	3			
	Carried Forward Section No. 4 MEDIUM ADMIN BLOCK Bill No. 12 Plumbing and Drainage CLUSTER G			R		
					1	

	Brought Forward			R	
	CATCH PITS ETC				
	The following in stormwater catchpits, junction boxes and inlet manholes				
	TAPS, VALVES, ETC				
	"Cobra Watertech" or similar approved				
31	Cobra Ref. 166/041 wall type "Star" sink mixer with overarm swivel outlet	No	1		
32	Cobra Watertech 15mm chrome plated hi-waste elbow action pillartap with blue indicator for cold water (Code: 504-21B), manufactured in accordance with SANS	N			
	226:2004 Type 2 (BS 5412).	No	6		
33	Cobra Watertech 15mm compression type angle regulating valve with 10mm bendable copper outlet tube service connection (Code: 232/350).	No	8		
	SANITARY PLUMBING				
	uPVC pipes				
34	50mm Pipes	m	9		
35	50mm Pipes laid in and including trenches not exceeding 1m deep	m	16		
36	110mm Pipes	m	65		
	Extra over uPVC pipes for fittings				
37	50mm Bend	No	6		
38	50mm Access bend	No	4		
39	50mm BSP adaptor	No	2		
40	50mm "GI Two-way" vent valve	No	1		
	Carried Forward  Section No. 4  MEDIUM ADMIN BLOCK  Bill No. 12  Plumbing and Drainage  CLUSTER G			R	

	Brought Forwar	d	1	R	
41	110mm Bend	No	4		
42	110mm Access bend	No	2		
43	110mm Pan Connector	No	2		
44	110mm "Gl Two-way" vent valve	No	1		
	<u>Sundries</u>				
	WATER SUPPLIES				
	Class 16 uPVC pressure pipes with solvent welded joints				
45	32mm Pipes laid in and including trenches not exceeding 1m deep	m	30		
46	50mm Pipes laid in and including trenches not exceeding 1m deep	m	25		
	Extra over class 16 uPVC pressure pipes for fittings with solvent welded joints				
47	32mm Bend	No	3		
48	32mm Reducer	No	2		
49	32mm Tee	No	4		
50	50mm Bend	No	3		
51	50mm Tee	No	2		
52	35 x 50 x 35mm Junction	No	1		
	Class 0 copper pipes				
53	15mm Pipes	m	85		
54	22mm Pipes	m	65		
	Carried Forwar Section No. 4 MEDIUM ADMIN BLOCK Bill No. 12 Plumbing and Drainage CLUSTER G	d		R	

	Brought Forward			R		
	Extra over class 0 copper pipes for capillary fittings					
55	15mm Fittings	No	44			
56	22mm Fittings	No	37			
	<u>Brass</u>					
57	15mm Fullway gate valve	No	1			
58	22mm Fullway gate valve	No	1			
	Rainwater Tanks					
59	Provide a sum of R125 000,00 (One Hundred and Twenty Five Thousand Rand) for the supply and installation of Rainwater tanks complete by Specialists		ltem		125,000.	00
60	Allow for giving every facility to Specialists as described		Item			
61	Allow for profit on above if required		Item			
	<u>Sundries</u>					
	ELECTRIC WATER HEATERS					
	Carried Forward  Section No. 4  MEDIUM ADMIN BLOCK Bill No. 12  Plumbing and Drainage  CLUSTER G			R		_

	Brought Forward			R	
	"Kwikot" or similar approved				
62	Kwikot 150 Litre Slimline 600 Dual electric water heater (Code: ESG-100) complying with SABS 151-2002, overall size 990 x 480mm high, operating at 400kPa with temperature and pressure safety relief valve including 20mm female draincock with inlet compression. Geyser to be installed horizontally in roof space with 1160 x 560mm wide polyethylene drip tray with union and back nut connected to 20mm PVC overflow pipe taken out at eaves (Code: GSTP-1200) and 15mm pipe work including two 15mm vacuum breakers (Code: KHN4.150CX) installed on hot and cold water supply. Installation to include a 15mm 400kPa Kwikot Mono control and expansion relief valve (Code: KHN3.104), all in accordance with SANS 10254, connected to single phase electrical power supply with isolator 1m away from connection on geyser.	No	1		
	FIRE APPLIANCES ETC				
	'Chubb' or similar approved				
63	9kg Dry chemical powder fire extinguisher, including standard hard wood backing plugged and backing finished with one coat dark stain and two coats clear suede polyurethane varnish	No	6		
64	"Everyway" hose reel complete with 30m plastic hose, chromium plated stopcock, shut-off nozzle and wall bracket	No	1		
	Carried Forward to Summary of Section No. 4 Section No. 4 MEDIUM ADMIN BLOCK Bill No. 12 Plumbing and Drainage CLUSTER G			R	

Item No		Quantity	Rate	Amount
	SECTION NO.3			
	BUILDING WORK			
	BILL NO. 13			
	<u>GLAZING</u>			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.			
	GLAZING TO STEEL WITH PUTTY			
	4mm Clear float glass			
1	Panes exceeding 0,1m2 and not exceeding 0,5m2 m2	3		
2	Panes exceeding 0,5m2 and not exceeding 2m2 m2	22		
	4mm Rough cast glass			
3	Panes exceeding 0,5m2 and not exceeding 2m2 m2	4		
	TOPS, SHELVES, DOORS, MIRRORS, ETC			
	4 mm Silvered float glass copper backed mirrors with 10 mm bevelled and polished edges holed for and fixed with chromium plated dome capped mirror screws with rubber buffers to plugs in brickwork or concrete			
4	Mirror 400 x 600mm high with four (4) screws	3		
	Carried Forward to Summary of Section No. 4		R	
	Section No. 4 MEDIUM ADMIN BLOCK Bill No. 13 Glazing			
	CLUSTER G			

Item No		Quantity	Rate	Amount	
	SECTION NO.3				
	BUILDING WORK				
	BILL NO. 14				
	<u>PAINTWORK</u>				
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.				
	SUPPLEMENTARY PREAMBLES				
	DESCRIPTIONS				
	Descriptions of paintwork shall be deemed to include for all cutting in				
	PAINT SPECIFICATIONS				
	All painting shall be done in accordance with "Plascon- Evans" specifications				
	PAINTWORK ETC TO NEW WORK  ON FLOATED PLASTER				
	Carried Forward  Section No. 4 MEDIUM ADMIN BLOCK Bill No. 14 Paintwork CLUSTER G		R		_

	Brought Forward			R	
	Plascon Polvin Super Acrylic to interior new cement plaster (NW 205). Surface to be dry, sound and clean and cured for a minimum of 14 days, with a moisture content measured with a Doser Hygrometer (or equivalent), of BD 2 scale - 8% or less. Prime with one coat of Plascon Plaster Primer (UC 56) with an overcoating time of 16 hours and finish with two coats of Polvin Super Acrylic (EPL) with 1 hour drying time between coats, for a maintenance cycle of 5 years in a C1 - inland environment.				
1	On internal walls	m2	699		
	ON SMOOTH CONCRETE  Prepare surfaces and remove all loose material, and rinse. Apply flexible crackfiller to holes and cracks, one coat plaster primer and two coats Plascon Professional Copolymer Acrylic paint				
2	On ceilings, beams, walls and columns	m2	12		
	ON FIBRE-CEMENT				
	One coat primer, one coat universal undercoat and two coats super acrylic PVA paint				
3	On ceilings and cornices	m2	354		
	Plascon Sure Coat Gloss Enamel to exterior new fibre cement (NW 174).Surface to be dry, sound and clean, with a moisture content, measured with a Doser Hygrometer (or equivalent), of BD 2 scale - 8% or less. Prime with one coat of Plascon Plaster Primer (UC 56) with an overcoating time of 16 hours and finish with two coats of Sure Coat Gloss Enamel (SGE) with 16 hours drying time between coats, for a maintenance cycle of 2 years in a C1 - inland environment.				
4	On fascias and barge boards	m2	53		
	Carried Forward Section No. 4 MEDIUM ADMIN BLOCK Bill No. 14 Paintwork CLUSTER G			R	_

	Brought Forward			R	
3	Plascon Sure Coat Gloss Enamel to interior new fibre cement (NW 274). Surface to be dry, sound and clean, with a moisture content, measured with a Doser Hygrometer (or equivalent), of BD 2 scale - 8% or less. Prime with one coat of Plascon Plaster Primer (UC 56) with an overcoating time of 16 hours and finish with two coats of Sure Coat Gloss Enamel (SGE) with 16 hours drying time between coats, for a maintenance cycle of 4 years in a C1 - inland environment.				
5	On window sills not exceeding 300 mm girth	m	99		
	ON METAL				
	Plascon Velvaglo Satin to exterior new mild steel (NW 683).Surface to be clean and dry. Remove surface contaminants using Plascon Aquasolv Degreaser (GR 1) with bristle brush or Brillo pads. Rinse thoroughly with tap water until surface is water break-free. Remove rust and millscale by abrasive blasting to ISO 8501 - 01:1988 - Sa2½ or by hand/mechanical wire brushing to St3of the same standard. Allow to dry completely and prime within 4 hours of cleaning. Prime with one coat of Metal Primer (UC 501) with an overcoating time of 16 hours and finish with two coats of Velvaglo Satin (VLO) with 16 hours drying time between coats, for a maintenance cycle of 3 years in a C1 - inland environment.				
6	On door frames	m2	23		
7	On strong room doors	m2	5		
8	On windows with burglar bars	m2	69		
9	On gates, grilles, burglar screens, balustrading, etc (both sides measured over the full flat area )	m2	28		
10	On outside of eaves gutters and rainwater pipes before fixing not exceeding 300mm high	m	99		
	ON WOOD				
	Carried Forward  Section No. 4  MEDIUM ADMIN BLOCK  Bill No. 14  Paintwork  CLUSTER G			R	

	Brought Forward	1		R∥	1
	Plascon Velvaglo Satin to interior new wood (NW 571).Surface to be dry, sound and clean. Wash knots and resinous areas with Lacquer Thinners (ILS 1) and coat with Woodcare Knot Seal (PK 2) and apply one coat of Plascon Woodcare Pretreatment (WWP 1), overcoated within 48 hours with a moisture content, measured with a Doser Hygrometer (or equivalent), of BD 2 scale (A1-A5) < 14% or less. Prime with one coat of Wood Primer (UC 2) with an overcoating time of 16 hours and finish with two coats of Velvaglo Satin (VLO) with 16 hours drying time between coats, for a maintenance cycle of 7 years in a C1 - inland environment.				
11	On doors	m2	35		
	Three coats matt varnish				
12	On doors	m2	11		
13	On skirtings, rails, cornices etc not exceeding 300 mm girth	m	325		
	Carried Forward to Summary of Section No. 4 Section No. 4 MEDIUM ADMIN BLOCK Bill No. 14 Paintwork CLUSTER G			R	

	Section No. 4			
	MEDIUM ADMIN BLOCK			
	SECTION SUMMARY - MEDIUM ADMIN BLOCK			
Bill No		Page No		Amount
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3	Masonry	90		
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5	Roof Coveringss, etc	94		
6	Capentry and Joinery	101		
7	Ceilings, Partitions and Access Flooring	103		
8	Ironmongery	107		
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11	Tiling	116		
12	Plumbing and Drainage	128		
13	Glazing	129		
14	Paintwork	133		
	Carried to Final Summary		R	
	Section No. 4 MEDIUM ADMIN BLOCK			
	CLUSTER G			
		1	l	

Item No		Quantity	Rate	Amount	
	SECTION NO.3				
	BUILDING WORK				
	BILL NO.1				
	<u>FOUNDATIONS</u>				
	<u>EARTHWORKS</u>				
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.				
	SUPPLEMENTARY PREAMBLES				
	Nature of ground				
	The nature of the ground is assumed to be sandy weathered granite, therefore "earth", but possibly interspersed with "hard rock"				
	Excavation for working space in rock				
	Notwithstanding clause 11 page 8 of the Standard System of Measuring Building Work, excavation for working space in rock will be measured in cubic metres to the extent executed and given as "extra over" bulk excavation or trench and hole excavation as the case may be				
	Carting away of excavated material				
	Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site				
	Carried Forward		R		_
	Section No. 5 1 X 2 GRADE R CLASSROOM BLOCKS Bill No. 1 Foundations CLUSTER G				

	Brought Forward			R	İ
	<u>Filling</u>				ı
	Notwithstanding the reference to prescribed multiple handling in clause 1 page 6 of the Standard System of Measuring Building Work, prices for filling and backfilling shall include for all selection and any multiple handling of material				
	Soil poisoning				1
	Ant and weed poisoning will be applied in accordance to SABS specifications by Registered and Approved Specialists who will issue a five (5) year guarantee. The contractor will only be paid for this items once they have produced the said certificate to the Principal Agent				
	SITE CLEARANCE, ETC.				l
	Site clearance				l
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc.	m2	172		
	REMOVAL TREES, ETC.				l
	Taking out and removing, grubbing up roots and filling holes.				l
2	Tree stump exceeding 200mm and not exceeding 500mm girth.	No	21		
	EXCAVATION, FILLING, ETC				l
	Excavation in earth not exceeding 2m deep				l
3	Trenches	m3	59		l
	Extra over trench and hole excavations in earth for excavation in				l
4	Soft rock	m3	18		l
					l
	Carried Forward  Section No. 5 1 X 2 GRADE R CLASSROOM BLOCKS Bill No. 1 Foundations CLUSTER G			R	

	Brought Forward			R	
5	Hard rock	m3	18		
	Extra over all excavations for carting away				
6	Surplus material from excavations on site to a dumping site to be located by the contractor	m3	28		
	Risk of collapse of excavations				
7	Sides of trench and hole excavations not exceeding 1,5m deep	m2	156		
	Keeping excavations free of water				
8	Keeping excavations free of all water other than subterranean water		Item		
9	Under floors, steps, paving, etc	m3	25		
	Approved G6 filling supplied and carted by the contractor and compacted in layers not exceeding 150mm to 95% Mod AASHTO density				
10	Backfilling to trenches, holes, etc	m3	31		
11	Under floors, steps, paving etc.	m3	24		
	Compaction of surfaces				
12	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 93% Mod AASHTO				
	density	m2	163		
	Prescribed density tests on filling				
13	"Modified AASHTO Density" test	No	5		
	SOIL POISONING				
	Carried Forward Section No. 5 1 X 2 GRADE R CLASSROOM BLOCKS			R	
	Bill No. 1 Foundations CLUSTER G				

	Brought Forward			R	
	Soil insecticide				
14	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m2	163		
15	To bottoms and sides of trenches etc	m2	59		
	CONCRETE, FORMWORK AND REINFORCEMENT				
	UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES				
	25MPa/19mm concrete				
16	Strip footings	m3	15		
	TEST CUBES				
17	Allow for preparing a set of three concrete strength test cubes, each size 150 x 150 x 150mm, sending them to an approved Testing Laboratory for testing and paying all charges in connection therewith.	Sets	5.0		
	BRICKWORK				
	Brickwork of NFP bricks in class II mortar				
18	One brick walls	m2	59		
	BRICKWORK SUNDRIES				
	Joint forming material in movement joints:				
19	12mm Fibre board built in vertically between brick skins.	m2	59		
	Brickwork reinforcement				
20	150mm Wide reinforcement built in horizontally	m	322		
	FACE BRICKWORK				
	Carried Forward  Section No. 5 1 X 2 GRADE R CLASSROOM BLOCKS Bill No. 1 Foundations CLUSTER G			R	

	Dunnahi Francos	1	ĺ	R∥	ſ
	Face bricks (Purchase price of R 4 000,00/1000 VAT excl. delivered to site) pointed with recessed horizontal and vertical joints				
21	Extra over brickwork for face brickwork  Brick-on-edge header course copings, sills, etc of face bricks (Purchase price R 4 000,00/1000 VAT excl. delivered to site) pointed with recessed joints on all exposed faces	m2	59		
22	Coping on top of one brick wall	m	19		
	Carried Forward to Summary of Section No. 5 Section No. 5 1 X 2 GRADE R CLASSROOM BLOCKS Bill No. 1 Foundations CLUSTER G			R	

Item No		Quantity	Rate	Amount
	SECTION NO.3			
	BUILDING WORK			
	BILL NO.2			
	CONCRETE, FORMWORK AND REINFORCEMENT			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.			
	SUPPLEMENTARY PREAMBLES			
	Cost of tests			
	The costs of making, storing and testing of concrete test cubes as required under clause 7 "Tests" of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the architect. The testing shall be undertaken by an independent firm or institution nominated by the contractor and to the approval of the architect. (Test cubes are measured separately)			
	Breeze concrete shall consist of twelve parts clean dry furnace ash, free from coal or other foreign matter, to one part cement (12:1), the ash graded up to particles which will pass a 16,5mm ring from a minimum which fails to pass a 4,75mm mesh. The finer materials from the screening are to be first mixed with the cement into a mortar and the ash added afterwards and thoroughly incorporated			
	Carried Forward Section No. 5		R	
	1 X 2 GRADE R CLASSROOM BLOCKS Bill No. 2 Concrete, Formwork and Reinforcement CLUSTER G			

	Brought Forward			R		
	<u>Formwork</u>					
	Description of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before reuse					
	The vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without damage and shall remain in position until the newly constructed work is able to support itself					
	Formworks to soffits of solid slabs etc shall be deemed to be slabs not exceeding 250mm thick unless otherwise described					
	Formwork to soffits of slabs, beams, etc shall be deemed to be propped up exceeding 1,5m and not exceeding 3,5m high unless otherwise described					
	Formwork to sides of bases, pile caps, ground beams, etc will only be measured where it is prescribed by the engineer for design reasons. Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in "Earthworks"					
	UNREINFORCED CONCRETE					
	20MPa/19mm concrete					
1	Surface beds	m3	5			
2	Surface beds cast in panels on waterproofing.	m3	24			
3	Aprons cast in panels to falls	m3	5			
						_
	Carried Forward Section No. 5 1 X 2 GRADE R CLASSROOM BLOCKS Bill No. 2 Concrete, Formwork and Reinforcement CLUSTER G			R		

	Brought Forward			R	
4	Ramps	m3	1		
5	Extra over concrete for thickening size 150mm deep 200mm top and tapering to 100mm at bottom including all excavation to 100mm backfilling etc.	m	47		
	CONCRETE SUNDRIES				
	Finishing top surfaces of concrete smooth with a steel trowel				
6	Surface beds, slabs, etc	m2	163		
7	Ramp to falls	m2	4		
	Finishing top surfaces of concrete smooth with a wood float				
8	Surface beds, slabs, etc	m2	34		
9	Aprons to falls	m2	56		
	<u>FORMWORK</u>				
	ROUGH FORMWORK (DEGREE OF ACCURACY II)				
	Rough formwork to sides				
10	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	22		
	TEST CUBES				
11	Allow for preparing a set of three concrete strength test cubes, each size 150 x 150 x 150mm, sending them to an approved Testing Laboratory for testing and paying all charges in connection therewith.	Sets	5.0		
	MOVEMENT JOINTS ETC				
	Carried Forward Section No. 5			R	
	1 X 2 GRADE R CLASSROOM BLOCKS Bill No. 2 Concrete, Formwork and Reinforcement CLUSTER G				

	Brought Forward			R	
	Expansion joints with bitumen impregnated softboard between vertical concrete and brick surfaces				
12	15mm Joints exceeding 300mm high	m	14		
	Saw cut joints				
13	Saw cut joints in top of concrete	m	37		
	DIVIDING STRIPS, ETC.				
14	6 x 38mm Angle iron step guard cast into concrete with 3 x 6mm anchors	m	2		
	REINFORCEMENT				
	High tensile steel reinforcement to structural concrete work				
	Mild steel reinforcement to structural concrete work				
	REINFORCEMENT (PROVISIONAL)				
	Fabric reinforcement				
15	Steeledale Mesh standard square fabric mesh, nominal mass 1,93 kg/m² with nominal 5,6mm thick wires and 200 x 200mm pitch (code 193), complying with SANS 1024/2006 requirements, in sheets 2,4 x 6m long.	2	462		
		m2	163		
					_
	Carried Forward to Summary of Section No. 5			R	_
	Section No. 5 1 X 2 GRADE R CLASSROOM BLOCKS Bill No. 2				
	Concrete, Formwork and Reinforcement CLUSTER G				

Item No		Quantity	Rate	Amount
	SECTION NO.3			
	BUILDING WORK			
	BILL NO. 3			
	MASONRY			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.			
	SUPPLEMENTARY PREAMBLES			
	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			
	Linings to concrete			
	Descriptions of linings to concrete, unless otherwise described, shall be deemed to include wire ties			
	Hollow walls etc			
	Descriptions of hollow walls shall be deemed to include wire ties and leaving every fifth perpend of the bottom course of the external skin open as a weep hole			
	Reinforced brick lintels			
	Lintels shall bear at least 160mm onto adjacent walling. Where such bearing cannot be obtained due to the proximity of adjacent openings the lintel shall be continuous			
	Carried Forward		R	
	Section No. 5 1 X 2 GRADE R CLASSROOM BLOCKS Bill No. 3 Masonry CLUSTER G			

	Brought Forward			R	
	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				
	SUPERSTRUCTURE				
	Brickwork of NFP bricks in class II mortar				
1	L-shaped piers	m3	2		
2	One brick walls	m2	265		
	Joint forming material in movement joints:				
3	12mm Bitumen impregnated fibre board built in vertically between brick skins not exceeding 300mm wide.	m2	15		
	Brickwork reinforcement				
4	75mm Wide reinforcement built in horizontally	m	56		
5	150mm Wide reinforcement built in horizontally	m	781		
	Turning pieces				
6	230mm Wide turning piece to lintels etc	m	20		
	"Allied Concrete" prestressed fabricated lintels				
7	110 x 75mm Lintels in lengths not exceeding 3m	m	2		
	Galvanised wire ties etc				
8	4mm Diameter roof tie 2m girth bent double with one end fixed to timber and other end built into brickwork	No	30		
	Carried Forward  Section No. 5 1 X 2 GRADE R CLASSROOM BLOCKS Bill No. 3 Masonry CLUSTER G			R	

ĺ	Brought Forward			R	
	FACE BRICKWORK				
	Face bricks (Purchase price of R4 700,00/1000 VAT excl. delivered to site) pointed with recessed horizontal and vertical joints				
9	Extra over brickwork for face brickwork	m2	234		
10	Extra over for facing in piers, including bonding and pointed with recesses joints on all exposed faces	m2	6		
11	Extra over for facings in beamfilling for face brickwork	m2	27		
	Brick-on-edge header course copings, sills, etc of face bricks (Purchase price R4 700,00 / 1000 VAT excl. delivered to site) pointed with recessed joints on all exposed faces				
12	Extra over brickwork for brick-on-edge header course lintel	m	22		
	Brick-on-edge header course copings, sills, etc of face bricks(Purchase price of R4 700,00/1000 VAT excl. delivered to site) pointed with recessed joints on all exposed faces				
13	220mm Wide sill set sloping and slightly protecting outside	m	22		
14	Coping on top of one brick wall	m	19		
	NUTEC-CEMENT/FIBRE-CEMENT WINDOW SILLS				
	Nutec window internal sill, size 150mm x 15mm thick, manufactured in accordance with SANS 803:2005 and installed below window with window sill lug screwed to underside of sill at 400mm centres, minimum of 75mm from end of window sill and bedded in Class II mortar with plastic slip joints at end of sills at plaster reveals and projecting from the finished face of wall, all in accordance with the manufacturer's recommendations.				
15	15mm x 150mm Wide sills set flat and slightly projecting	m	22		
	Carried Forward to Summary of Section No. 5 Section No. 5 1 X 2 GRADE R CLASSROOM BLOCKS Bill No. 3 Masonry CLUSTER G			R	

Item No			Quantity	Rate	Amount
	SECTION NO.3				
	BUILDING WORK				
	BILL NO.4				
	WATERPROOFING				
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.				
	SUPPLEMENTARY PREAMBLES				
	Waterproofing				
	Waterproofing of roofs, basements, etc shall be laid under a ten year guarantee by an approved applicator. Waterproofing to roofs shall be laid to even falls to outlets etc with necessary ridges, hips and valleys. Descriptions of sheet or membrane waterproofing shall be deemed to include additional labour to turn-ups and turn-downs				
	DAMP-PROOFING OF WALLS AND FLOORS				
	One layer of 375 micron Consol Plastic Brikgrip DPC" embossed damp proof course				
1	In walls	m2	23		
	One layer of 250 micron "Consol Plastic USB Green" waterproof sheeting sealed at laps with "Gunplas Pressure Sensitive Tape"				
2	Under surface beds	m2	163		
	JOINT SEALANTS ETC				
	Carried Forward Section No. 5 1 X 2 GRADE R CLASSROOM BLOCKS			R	
	Bill No. 4 Waterproofing CLUSTER G				

	Brought Forward			R	
	Silicone sealing compound including backing cord, bond breaker, primer, etc				
3	6 x 10mm In expansion joints including raking out of expansion joint filler as necessary	m	37		
	Carried Forward to Summary of Section No. 5 Section No. 5 1 X 2 GRADE R CLASSROOM BLOCKS Bill No. 4			R	
	Waterproofing CLUSTER G				

Item No		Quantity	Rate	Amount
	SECTION NO.3			
	BUILDING WORK			
	BILL NO.5			
	ROOF COVERINGS ETC			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.			
	SUPPLEMENTARY PREAMBLES			
	<u>General</u>			
	All roof coverings, etc., to be with a covering of Z275 galvanising. All holes to be drilled and not punched			
	Where described as with "Chromadek" finish, all sheets, flashings, etc., shall be with "Chromadek" silicone polyester paint for exterior use			
	<u>Sizes</u>			
	All items are measured net unless otherwise described			
	Flashings, trimming plates, etc.			
	Prices to include for all cutting and waste and relevant fixing material, unless otherwise described			
	All rates for flashings, trimmings, etc., to include for forming drips and closed ends to troughs of sheet steel roof covering where applicable			
	All items are unless otherwise described measured net			
	Carried Forward		R	
	Section No. 5 1 X 2 GRADE R CLASSROOM BLOCKS Bill No. 5 Roof Coveringss, etc CLUSTER G			

	Brought Forward			R	
	PROFILED METAL SHEETING AND ACCESSORIES				
	0,5mm "Brownbuilt Klip-Lok Light Industrial" galvanised troughed sheeting steel with "Chromadek - Traffic Green" finish on one side, in single lengths fixed to steel purlins or rails and 0,6mm galvanised steel accessories with "Chromadek" finish on one side, fixed to roof members by a firm of Specialists who will give a five (5) year guarantee, all in accordance with the manufacturer's instructions				
1	Roof covering with pitch not exceeding 50 degrees	m2	164		
2	Ridge capping 550mm girth	m	17		
3	Hip capping 550mm girth	m	16		
4	Gable trim 550mm girth	m	8		
	STEEL LOUVRES				
	"NTY Steelworks" or similar approved				
5	Triangular steel louvre size 3000x 500mm high fixed to timber purlins including watertight heading joints, necessary sealing strips, fixing accessories, etc	No	1		
	Carried Forward to Summary of Section No. 5 Section No. 5 1 X 2 GRADE R CLASSROOM BLOCKS Bill No. 5 Roof Coveringss, etc CLUSTER G			R	

Item No		Quantity	Rate	Amount	
	SECTION NO.3				
	BUILDING WORK				
	BILL NO.6				
	CARPENTRY AND JOINERY				
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.				
	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, transomes, mullions, rails, etc				
	Descriptions of hardwood joinery shall be deemed to include pelleting of bolt holes				
	<u>Fixing</u>				
	Items described as "nailed" shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete				
					_
	Carried Forward Section No. 5		R		
	1 X 2 GRADE R CLASSROOM BLOCKS Bill No. 6 Capentry and Joinery				
	CLUSTER G				

Brought Forward	R	
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		
Pre-fabricated metal connected timber roof trusses		
All trusses shall be fabricated by an approved truss manufacturer who holds a current Certificate of Competence awarded by the Institute for Timber Construction		
<u>Timber</u>		
Timber for trusses to be South African softwood and shall be in accordance with the grades as defined in SABS Specification No 563 or as defined in SABS Specification No 1460		
<u>Bolts</u>		
Bolts shall be in accordance with BS 4190 or SABS 135		
Shear plates, tooth connectors and split rings		
Shear plates, tooth connectors and split rings shall be in accordance with BSS 1759: 1960 and installed in accordance with the CSIR Publication HOUT 468, "The Design, Manufacturing and Erection of Timber Trusses"		
<u>Washers</u>		
Square or round washers of the following dimensions shall be used with all bolts:		
Bolts up to 8mm diameter:     Washers shall be minimum 25mm wide of minimum     thickness		
		_
Carried Forward  Section No. 5 1 X 2 GRADE R CLASSROOM BLOCKS Bill No. 6 Capentry and Joinery CLUSTER G	R	

	Brought Forward	R	
	to 12mm diameter: s shall be minimum 36mm wide of minimum thickness		
	to 20mm diameter: s shall be minimum 60mm wide of minimum thickness		
Metal conn	ector plates		
	ector plates shall be fabricated out of not less thick drawn quality galvanised steel		
228MPa ar 330MPa. T less than 2	hall have a minimum yield strength of nd a minimum ultimate tensile strength of he corrosion resisting coating shall be not 75g/m2 commercial class hot dipped as per SABS 934 before stamping		
and be of a between m	or plates shall have been tested by the CSIR is size capable of transmitting the forces embers of a truss without exceeding the les published in the CSIR report		
Truss cons	truction		
	all be constructed in jigs specially designed ne correct profile, overhangs and cambers		
be close fit	al connector plates are used all joints are to ted butt joints made by precision pressing of onnector plates into each side of the joint		
Truss design	<u>gn</u>		
Profession	shall be designed by a registered al Engineer in accordance with SABS 0163 Timber Structures") and Code 0160 ')		
Truss space	ing		
	entres shall be less than or equal to that as n this bill for each respective truss		
	Carried Forward	R	
Section No 1 X 2 GRA Bill No. 6 Capentry a CLUSTER	. 5 DE R CLASSROOM BLOCKS nd Joinery	K	

Brought Forward	R	
<u>Truss pitch</u>		
The truss pitch shall be as described in this bill for each respective truss type		
Truss loading		
Trusses shall be designed for a live load of 0,50kN/m2 and dead load as specified under the sub-heading "Specific load specifications for roof trusses"		
Shop drawings, design and erection guarantee certificates		
It will be expected from the Contractor to timeously prepare, submit and obtain the necessary approvals from the Representative/Agent in respect of the required shop drawings, design and erection guarantee certificates as specified		
<u>Dimensions</u>		
All dimensions given in the descriptions of the trusses are nominal and actual measurements are to be obtained by actual measurements taken on the site before design or fabrication commences		
<u>Erection</u>		
All trusses are to be hoisted and erected strictly in accordance with the procedures and recommendations of the manual "The Erection and Bracing of Timber roof Trusses" as published by the Institute for Timber Construction and the CSIR, or the SABS Code of Practice "The Design, Manufacture and Erection of Timber Roof Trusses", or as designed and detailed by the designer		
<u>Design system</u>		
The design system as documented in this bill is based on the "MiTek" system and all references given in the descriptions are related to specific type of trusses based on this design system		
Carried Forward Section No. 5 1 X 2 GRADE R CLASSROOM BLOCKS Bill No. 6 Capentry and Joinery CLUSTER G	R	

	Brought Forward		R	
	However, Contractors are to note that any design system of similar quality may be used subject to the prior written approval of the Representative/Agent			
	Specific specifications for roof trusses			
	Unless otherwise described, the following specifications will apply:			
	1 All trusses to be with a 10° pitch			
	The dead load consists of corrugated roof sheeting and purlins at approximately 1200mm centres			
	ROOFS			
	The following in plate nailed timber roof truss construction			
	The following is applicable in respect of roof trusses			
	The references given in the descriptions are to the respective types of trusses detailed on the architect's drawings annexed to these bills of quantities/accompanying these bills of quantities for tender purposes			
	Prices for rafters and trusses to include all "Hurricane" clips, steel M-runners and "Permfix" plates, screws, nails, wires, sundry material, etc (bracing, wallplates, purlins and gangboarding are measured seperately)			
	Allow for the preparation and submission of the following documents in respect of all buildings			
1	Detailed shop drawings indicating truss sizes, truss positions, bracings, details, etc. to be submitted for approval prior the commencement of any fabrication	Item		
2	Design certificate indicating the licensed programme used, SANS specifications adhered to, general procedures and loadings adopted, sizes and grading of			
	timber components, details, etc.	Item		
	0			_
	Section No. 5 1 X 2 GRADE R CLASSROOM BLOCKS Bill No. 6 Capentry and Joinery CLUSTER G		R	

	Brought Forward			R	
3	Erection guarantee certificate after the whole completed roof truss structure have been inspected, all defective work have been taken out and made good, etc. to the full satisfaction of the Principal Agent		Item		
	Sawn softwood				
4	Roof construction to double pitched roof supplied and erected complete in position with bracing, gangboarding, purlins, eaves purlins, hipped end, rafters etc. for 2 classroom approximately 184m2 on plan (Refer to architect's drawings attached to these bills of quantities)	No	1		
	Sawn softwood grade 4				
5	38 x 114mm Wall plates	m	47		
6	50 x 220mm Timber Beam	m	17		
	<u>Sundries</u>				
7	Two coats creosote on sawn timbers	m2	15		
	EAVES, VERGES, ETC				
	"Everite FC77" pressed fibre-cement				
8	15 x 250mm Fascias and barge boards including galvanised steel H-profile jointing strips	m	51		
	SKIRTINGS				
	Wrought meranti				
9	19 x 76mm Skirting including 19mm quadrant bead nailed	m	66		
	DOORS, ETC				
	Carried Forward			R	
	Section No. 5 1 X 2 GRADE R CLASSROOM BLOCKS Bill No. 6 Capentry and Joinery CLUSTER G				

	Brought Forward			R	
	Wrought meranti doors hung to steel frames				
10	44mm Framed and ledged batten door 813 x 2032mm high of 44 x 100mm top rail and stiles, 22 x 100mm middle and bottom rails, covered on both sides with 6mm plywood with veneer (D3)	No	2		
	Solid core flush doors with concealed hardwood edges and 4mm thick masonite covering on both sides hung to steel frame				
11	Door 813 x 2100mm high	No	10		
	<u>FITTINGS</u>				
	Classroom School Furnitures, etc				
12	Provide a sum of R150 000,00 (One Hundred Fifty Thousand Rand) for supply and installation of joinery works by the specialist which was not clearly defined at the time of tender		ltem		150,000.00
13	Allow for giving every facility to Specialists as described		Item		
14	Allow for profit on above if required		Item		
	Money Provision:				
	Out doors toys				
15	Provide a sum of R200 000,00 (Two Hundred Fifty Thousand Rand) for supply and installation of out doors toys supplied by the specialist which was not clearly defined at the time of tender		Item		250,000.00
	Carried Forward to Summary of Section No. 5 Section No. 5 1 X 2 GRADE R CLASSROOM BLOCKS Bill No. 6 Capentry and Joinery CLUSTER G			R	

Item No			Quantity	Rate	Amount	
	SECTION NO.3					
	BUILDING WORK					
	BILL NO.7					
	CEILING, ETC.					
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.					
	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 elsewhere					
	CEILING CONSTRUCTION, CORNICES, ETC.					
	<u>Insulation</u>					
1	100mm glass fibre insulation blanket to manufacturer's specification, laid on ceiling.	m2	163			
	Sawn softwood					
2	38 x 114mm Ceiling joists (Provisional)	m	17			
						_
	Carried Forward Section No. 5			R		
	1 X 2 GRADE R CLASSROOM BLOCKS Bill No. 7					
	Ceilings, Partitions and Access Flooring CLUSTER G					

	Brought Forward			R	Ī
	"Rhino" gypsum plasterboard cornices				
3	75mm Coved cornices	m	66		
	NAILED UP AND SCREWED UP CEILINGS				
	6mm "Everite Nutec" fibre-cement boards with H-profile primed steel jointing cover strips over joints				
4	Ceilings including 38 x 38mm brandering at 90deg to trusses at maximum centres of 400mm by 32mm long galvanised nails.				
		m2	163		
5	Sloping ceilings including 38 x 38mm sawn softwood brandering at 450mm centres	m2	34		
6	Extra over ceiling for opening for 610 x 610mm trap door of 50 x 76mm wrought softwood rebated framing with one 38 x 38mm sawn softwood cross brander covered with ceiling board and fitted flush in opening	No	2		
	covered with ceiling board and fitted flush in opening	NO	2		
	Carried Forward to Summary of Section No. 5			R	
	Section No. 5 1 X 2 GRADE R CLASSROOM BLOCKS				
	Bill No. 7 Ceilings, Partitions and Access Flooring CLUSTER G				

Item No		Quantity	Rate	Amount	
	SECTION NO.3				
	BUILDING WORK				
	BILL NO.8				
	IRONMONGERY				
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.				
	SUPPLEMENTARY PREAMBLES				
	<u>Descriptions</u>				
	Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs				
	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 SD Sanded				
	CATCHES, CABIN HOOKS, ETC				
	"Solid"				
1	100mm Cabin hook and eye including 70 x 70 x 20mm chamfered hardwood block twice oiled and plugged No	2			
	LOCKS				
	Carried Forward  Section No. 5 1 X 2 GRADE R CLASSROOM BLOCKS Bill No. 8 Ironmongery		R		
	CLUSTER G				

	Brought Forward			R	
	"Solid"or similar approved				
2	"Code 630" padlock	No	2		
3	"Code 2252-76SC" three lever upright lockset	No	3		
4	"Code 460/313" Blesbok four lever lockset	No	2		
	DOOR CLOSERS AND FLOOR SPRINGS				
	"Dorma" or similar approved				
	SUNDRIES				
	"Solid" or similar approved				
5	Dorma "Code 255" door stop plugged	No	2		
6	Chromium plated toilet roll holder plugged to brickwork	No	5		
	STEEL CUPBOARDS				
	Aproved steel lockers with standard baked enamel finish				
7	G10 Double door steel cupboard 914 x 457 x 1828mm high with five shelves bolted to brickwork	No	2		
	PINNING BOARDS, WRITING BOARDS, PROJECTION SCREENS, ETC				
	"Vitrex" or similar approved				
8	Pinning boards 4000 x 1200mm high fixed to brickwork	No	2		
9	2000 x 1300 mm White Porcelain magnetic marker board				
	board	No	2		
	LETTERS, NAMEPLATES, ETC				
	Carried Forward			R	
	Section No. 5 1 X 2 GRADE R CLASSROOM BLOCKS Bill No. 8 Ironmongery CLUSTER G				

	Brought Forward	1	- 1	R	
	"Union" or similar approved				
10	150 x 150mm Stainless steel plate engraved with "female" sign (St/Steel)	No	1		
11	150 x 150mm Stainless steel plate engraved with "male" sign (St/Steel)	No	1		
12	150 x 150mm Stainless steel plate engraved with a "Fire Hose Reel" sign (St/Steel)	No	1		
13	150 x 150mm Stainless steel plate engraved with "Fire Extinguisher" sign (St/Steel)	No	2		
14	150 x 150mm Stainless steel plate engraved with a "Arrow sign" sign (St/Steel)	No	2		
	Carried Forward to Summary of Section No. 5 Section No. 5			R	
	1 X 2 GRADE R CLASSROOM BLOCKS Bill No. 8 Ironmongery CLUSTER G				

Item No		Quantity	Rate	Amount
	SECTION NO.3	1		
	BUILDING WORK			
	BILL NO. 9			
	<u>METALWORK</u>			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.			
	<u>Descriptions</u>			
	Descriptions of bolts shall be deemed to include nuts and washers Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete Metalwork described as "holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described			
	<u>Drawings</u>			
	Tenderers are referred to architect's drawings annexed to this document for full details of the windows, doors, etc			
	SUNDRY METALWORK			
	The following in identical steel support columns			
1	Bolts, complete with nuts and two washers each kg	9		
2	76 x 76 x 3mm Tubular section columns 3050mm high No	7		
	Carried Forward		R	
	Section No. 5 1 X 2 GRADE R CLASSROOM BLOCKS Bill No. 9 Metalwork CLUSTER G			

	Brought Forward			R	
3	75 x 6mm Flat section fixing plate 120mm, twice holed for bolt and welded to top end of tubular section column (Provisional)				
	(FTOVISIONAL)	No	7		
4	200 x 200 x 5mm Thick Base plate, with four holes for bolts and welded to bottom end of tubular section column	No	7		
5	12mm Diameter x 75mm long sleeved masonry anchor	No	7		
	WELDED SCREENS, GATES, ETC				
	Gates to external doors				
6	Gate and frame 900 x 2100mm high complete (G1)				
		No	1		
	PRESSED STEEL DOOR FRAMES				
	1,2mm Double rebated frames suitable for one brick walls				
7	Frame for door 813 x 2032mm high	No	1		
	STEEL WINDOWS, DOORS, ETC				
	"Nty" or similar approved steel residential windows with burglar bars to all sashes				
8	NTY Standard School type window "Code 5/2" size 1143 x 1332mm high (W1)	No	18		
	Carried Forward to Summary of Section No. 5 Section No. 5			R	
	1 X 2 GRADE R CLASSROOM BLOCKS Bill No. 9 Metalwork				
	CLUSTER G				

Item No		Ī	Quantity	Rate	Amount	
	SECTION NO.3	ļ				
	BUILDING WORK					
	BILL NO. 10					
	PLASTERING					
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.					
	GRANOLITHIC					
	Untinted granolithic on concrete					
	SCREEDS					
	Screeds on concrete					
1	30mm Thick on floors	n2	163			
	INTERNAL PLASTER					
	Cement plaster on brickwork					
2	On walls	n2	156			
3	On narrow widths	n2	22			
						_
	Carried Forward to Summary of Section No. 5			R		_
	Section No. 5 1 X 2 GRADE R CLASSROOM BLOCKS Bill No. 10 Plastering CLUSTER G					

Item No		Quantity	Rate	Amount	
	SECTION NO.3				
	BUILDING WORK				
	BILL NO.11				
	TILING				
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.				
	SUPPLEMENTARY PREAMBLES				
	<u>Descriptions</u>				
	Unless described as "fixed with adhesive to plaster (plaster elsewhere)" descriptions of tiling on brick or concrete walls, columns, etc shall be deemed to include 1:4 cement plaster backing and descriptions of tiling on concrete floors etc shall be deemed to include 1:3 plaster bedding				
	WALL TILING				
	Glazed ceramic wall tiles (PC R110,00/m2 VAT excl.) fixed with adhesive to plaster (plaster elsewhere)				
1	On walls m	2 122			
	FLOOR TILING				
	300 x 300 x 11,5mm Ceramic floor tiles (PC R120.00/m2 VAT excl.) fixed with adhesive to plaster (plaster elsewhere) and flush pointed with tinted waterproof jointing compound				
2	On floors and landings m	2 163			
	·				_
	Carried Forward		R		
	Section No. 5 1 X 2 GRADE R CLASSROOM BLOCKS Bill No. 11 Tiling CLUSTER G				

	Brought Forward		R	
3	Skirting formed of ceramic tile cut to 300 x 75mm high m	67		
				_
	Carried Forward to Summary of Section No. 5 Section No. 5		R	_
	1 X 2 GRADE R CLASSROOM BLOCKS Bill No. 11			
	Tiling CLUSTER G			

Item No			Quantity	Rate	Amount
	SECTION NO.3				
	BUILDING WORK				
	BILL NO.12				
	PLUMBING AND DRAINAGE				
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.				
	SUPPLEMENTARY PREAMBLES				
	"Polycop" polypropylene pipes:				
	Polypropylene pipes 54mm diameter and under shall be seamless copper coloured class 16 pipes jointed with "Fast-fuse" heat welded thermoplastic or brass compression fittings as designed for use with copper pipes as stated				
	Pipes shall be firmly fixed to walls etc with coloured nylon snap-in pipe clips with provision for accommodating thermal movement and jointed and fixed strictly in accordance with the manufacturer's instructions				
	All pipe diameters are nominal external				
	RAINWATER DISPOSAL				
	0,6mm Galvanised sheet iron with "Chromadek" finish on one side				
1	100 x 125mm Eaves gutters with beaded front edge	m	51		
2	Extra over eaves gutter for angle	No	4		
	Carried Forward			R	
	Section No. 5 1 X 2 GRADE R CLASSROOM BLOCKS Bill No. 12 Plumbing and Drainage CLUSTER G				

	Brought Forward			R	
3	Extra over eaves gutter for stopped end	No	1		
4	Extra over eaves gutter for outlet for 100mm diameter pipe	No	4		
5	100mm Diameter rainwater pipes	m	16		
6	Extra over rainwater pipe for eaves or plinth offset 450mm projection	No	4		
7	Extra over rainwater pipe for shoe	No	4		
	SANITARY FITTINGS				
	White Vitreous China				
8	Vaal Sanitaryware 580 x 510mm concorde vanity ceramic fireclay drop-in-vanity basin colour white with two taphole including integrated overflow and chainstay hole, fitted into opening in vanity top. Sealed silicone sealant where basin rim meets vanity top.	No	2		
9	Vaal Sanitaryware 635 x 485mm Hibiscus White vitreous china vanity basin with universal half pedistal (code 715222) including two semi punched taphole and integrated overflow and chainstay hole, bolted to wall with two 10mm bolts	No	8		
10	Vaal Sanitaryware White vitreous china low level washdown suite comprising 90° outlet pan with enlarged pedestal and matching 9 litre cistern complete with lid, flushpipe and fitments	No	1		
11	Vaal Sanitaryware Protea Paraplegic white vitreous china floor mounted paraplegic washdown suite (product code 7300SC) comprising 90° outlet pan and matching 9 litre cistern, including DPE heavy duty thermoplastic A1 deluxe double flap seat, lid, fitments and purposemade chromium plated side flush lever.	No	1		
	Carried Forward  Section No. 5 1 X 2 GRADE R CLASSROOM BLOCKS Bill No. 12 Plumbing and Drainage CLUSTER G			R	

	Brought Forward			R		ļ
	"Citimetal or Similar and approved" stainless steel					
12	Franke Nouveau Model Nvn611 Grade 304 18/10 polished stainless steel single end bowl inset sink, size 800 x 460mm wide with one 340 x 370 x 149mm deep bowl, fitted onto cupboard (elsewhere specified) including 90mm waste fitting (Code: 300651) and PVC traps (traps elsewhere specified). Sink guaranteed for 25 years against corrosion and supplied with protective plastic coating for transport and handling and to be removed once sink is made operational.	No	1			
		110	'			
	WASTE UNIONS ETC					
	"Cobra Watertech or Similar and approved"					
13	38mm "Cobra 301" basin chrome platted unslotted waste and plug with chain	No	8			
14	38mm "Cobra 316" unslotted waste and plug with chain	No	8			
	TRAPS, ETC					
	"Cobra Watertech or Similar and approved"					
15	40mm Chrome plated deep seal Bottle trap with outlet of 50mm PVC pipe (Code 340)	No	8			
	"Marley or Similar and approved"					
16	40mm Deep seal "P" or "S" trap	No	8			
	TAPS, VALVES, ETC					
	"Cobra Watertech or Similar and approved"					
17	"Cobra Ref. 231/350" Angle regulating valve	No	1			
18	Cobra Ref 1111-15 CP "Stella" pillar tap	No	1			
19	Cobra Watertech Ref. 266/041/10 sink mixer with aerated swivel spout and conceled connection	No	2			
	Carried Forward			R		
	Section No. 5 1 X 2 GRADE R CLASSROOM BLOCKS Bill No. 12 Plumbing and Drainage CLUSTER G					
						1

	Brought Forward			R	
	<u>Brass</u>				
20	22mm Stopcock	No	1		
21	22mm Fullway gate valve	No	1		
22	22mm Non-return valve	No	1		
23	15mm 1050RB in-line strainer	No	1		
24	PA3.132 "Masterflo 1" pressure control valve with vacuum breaker	No	1		
	WATER SUPPLIES				
	Class 0 copper pipes				
25	15mm Pipes	m	18		
26	22mm Pipes	m	11		
27	28mm Pipes	m	11		
	Extra over class 0 copper pipes for capillary fittings				
28	15mm Fittings	No	3		
29	22mm Fittings	No	8		
30	28mm Fittings	No	11		
	PVC gulley				
31	110mm Gulley trap with O, P, Q or S outlet, plain gulley head and grating, jointed to 110mm PVC pipe, including excavated for, bedding on and encasing in concrete 15 MPa / 19mm, not exceeding 0.75m deep to invert	No	1		
	<u>Sundries</u>				
32	300 x 300 x 50mm Precast concrete inspection eye marker slab set in ground	No	1		
	Carried Forward Section No. 5 1 X 2 GRADE R CLASSROOM BLOCKS Bill No. 12 Plumbing and Drainage			R	
	CLUSTER G				

	Brought Forward			R	
33	100mm Cast iron "ABC" cleaning eye	No	1		
34	Type 3B cast iron valve box	No	1		
	TESTING				
35	Testing water pipe system		Item		
	FIRE APPLIANCES ETC				
	'Chubb' or similar approved				
36	9kg Dry chemical powder fire extinguisher, including standard hard wood backing plugged and backing finished with one coat dark stain and two coats clear suede polyurethane varnish	No	2		
37	"Everyway" hose reel complete with 30m plastic hose,				
0.	chromium plated stopcock, shut-off nozzle and wall bracket	No	1		
	Carried Forward to Summary of Section No. 5 Section No. 5			R	<u> </u>
	1 X 2 GRADE R CLASSROOM BLOCKS Bill No. 12 Plumbing and Drainage CLUSTER G				

Item No		Quantity	Rate	Amount
	SECTION NO.3			
	BUILDING WORK			
	BILL NO. 13			
	GLAZING			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.			
	GLAZING TO STEEL WITH PUTTY			
	4mm Clear float glass			
1	Panes exceeding 0,5m2 and not exceeding 2m2 m2	29		
	4mm Rough cast glass			
2	Panes exceeding 0,1m2 and not exceeding 0,5m2 m2	11		
	Carried Forward to Summary of Section No. 5 Section No. 5		R	
	1 X 2 GRADE R CLASSROOM BLOCKS Bill No. 13 Glazing CLUSTER G			

Item No		Quantity	Rate	Amount
	SECTION NO.3			
	BUILDING WORK			
	BILL NO. 14			
	PAINTWORK			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.			
	SUPPLEMENTARY PREAMBLES			
	DESCRIPTIONS			
	Descriptions of paintwork shall be deemed to include for all cutting in			
	PAINT SPECIFICATIONS			
	All painting shall be done in accordance with "Plascon- Evans" specifications			
	PAINTWORK ETC TO NEW WORK  ON FLOATED PLASTER			
	Carried Forward  Section No. 5 1 X 2 GRADE R CLASSROOM BLOCKS Bill No. 14 Paintwork CLUSTER G		R	

	Brought Forward			R	
3	Plascon Polvin Super Acrylic to interior new cement plaster (NW 205).Surface to be dry, sound and clean and cured for a minimum of 14 days, with a moisture content measured with a Doser Hygrometer (or equivalent), of BD 2 scale - 8% or less. Prime with one coat of Plascon Plaster Primer (UC 56) with an overcoating time of 16 hours and finish with two coats of Polvin Super Acrylic (EPL) with 1 hour drying time between coats, for a maintenance cycle of 5 years in a C1 - inland environment.				
1	On internal walls	m2	156		
	ON SMOOTH CONCRETE  Prepare surfaces and remove all loose material, and rinse. Apply flexible crackfiller to holes and cracks, one coat plaster primer and two coats Plascon Professional Copolymer Acrylic paint				
	ON FIBRE-CEMENT				
	One coat primer, one coat universal undercoat and two coats super acrylic PVA paint				
2	On ceilings and cornices	m2	163		
	Plascon Sure Coat Gloss Enamel to exterior new fibre cement (NW 174).Surface to be dry, sound and clean, with a moisture content, measured with a Doser Hygrometer (or equivalent), of BD 2 scale - 8% or less. Prime with one coat of Plascon Plaster Primer (UC 56) with an overcoating time of 16 hours and finish with two coats of Sure Coat Gloss Enamel (SGE) with 16 hours drying time between coats, for a maintenance cycle of 2 years in a C1 - inland environment.				
3	On fascias and barge boards	m2	26		
	Carried Forward Section No. 5 1 X 2 GRADE R CLASSROOM BLOCKS Bill No. 14 Paintwork CLUSTER G			R	

	Brought Forward			R	
3	Plascon Sure Coat Gloss Enamel to interior new fibre cement (NW 274). Surface to be dry, sound and clean, with a moisture content, measured with a Doser Hygrometer (or equivalent), of BD 2 scale - 8% or less. Prime with one coat of Plascon Plaster Primer (UC 56) with an overcoating time of 16 hours and finish with two coats of Sure Coat Gloss Enamel (SGE) with 16 hours drying time between coats, for a maintenance cycle of 4 years in a C1 - inland environment.				
4	On window sills not exceeding 300 mm girth	m	22		
	ON METAL				
	Plascon Velvaglo Satin to exterior new mild steel (NW 683).Surface to be clean and dry. Remove surface contaminants using Plascon Aquasolv Degreaser (GR 1) with bristle brush or Brillo pads. Rinse thoroughly with tap water until surface is water break-free. Remove rust and millscale by abrasive blasting to ISO 8501 - 01:1988 - Sa2½ or by hand/mechanical wire brushing to St3of the same standard. Allow to dry completely and prime within 4 hours of cleaning. Prime with one coat of Metal Primer (UC 501) with an overcoating time of 16 hours and finish with two coats of Velvaglo Satin (VLO) with 16 hours drying time between coats, for a maintenance cycle of 3 years in a C1 - inland environment.				
5	On door frames	m2	2		
6	On windows with burglar bars	m2	57		
7	On gates, grilles, burglar screens, balustrading, etc (both sides measured over the full flat area )	m2	8		
8	On outside of eaves gutters and rainwater pipes before fixing not exceeding 300mm high	m	102		
	ON WOOD				
	Three coats matt varnish				
9	On doors	m2	8		
	Carried Forward  Section No. 5 1 X 2 GRADE R CLASSROOM BLOCKS Bill No. 14 Paintwork CLUSTER G			R	

	Brought Forward		R	
10	On skirtings, rails, cornices etc not exceeding 300 mm girth m	67		
	Carried Forward to Summary of Section No. 5		R	—
	Section No. 5 1 X 2 GRADE R CLASSROOM BLOCKS Bill No. 14 Paintwork CLUSTER G			<del>-</del>

	Section No. 5			
	1 X 2 GRADE R CLASSROOM BLOCKS			
	SECTION SUMMARY - 1 X 2 GRADE R CLASSROOM BLOCKS			
Bill No		Page No		Amount
1	Foundations	139		
2	Concrete, Formwork and Reinforcement	143		
3	Masonry	146		
4	Waterproofing	148		
5	Roof Coveringss, etc	150		
6	Capentry and Joinery	157		
7	Ceilings, Partitions and Access Flooring	159		
8	Ironmongery	162		
9	Metalwork	164		
10	Plastering	165		
11	Tiling	167		
12	Plumbing and Drainage	172		
13	Glazing	173		
14	Paintwork	177		
	Carried to Final Summary Section No. 5		R	
	1 X 2 GRADE R CLASSROOM BLOCKS  CLUSTER G			

Item No		Quantity	Rate	Amount	
	SECTION NO.3				
	BUILDING WORK				
	BILL NO.1				
	<u>FOUNDATIONS</u>				
	EARTHWORKS				
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.				
	SUPPLEMENTARY PREAMBLES				
	Nature of ground				
	The nature of the ground is assumed to be sandy weathered granite, therefore "earth", but possibly interspersed with "hard rock"				
	Excavation for working space in rock				
	Notwithstanding clause 11 page 8 of the Standard System of Measuring Building Work, excavation for working space in rock will be measured in cubic metres to the extent executed and given as "extra over" bulk excavation or trench and hole excavation as the case may be				
	Carting away of excavated material				
	Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site				
	Carried Forward Section No. 6		R		
	3 X 4 CLASSROOM BLOCK Bill No. 1 Foundations CLUSTER G				

	Brought Forward			R	
	Filling				
	Notwithstanding the reference to prescribed multiple handling in clause 1 page 6 of the Standard System of Measuring Building Work, prices for filling and backfilling shall include for all selection and any multiple handling of material				
	Soil poisoning				
	Ant and weed poisoning will be applied in accordance to SABS specifications by Registered and Approved Specialists who will issue a five (5) year guarantee. The contractor will only be paid for this items once they have produced the said cerfificate to the Principal Agent				
	SITE CLEARANCE, ETC.				
	Site clearance				
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc.	m2	1,080		
	REMOVAL TREES, ETC.				
	Taking out and removing, grubbing up roots and filling holes.				
2	Tree stump exceeding 200mm and not exceeding 500mm girth.	No	12		
	EXCAVATION, FILLING, ETC				
	Excavation in earth not exceeding 2m deep				
3	Trenches	m3	266		
	Extra over trench and hole excavations in earth for excavation in				
4	Soft rock	m3	53		
	Section No. 6 3 X 4 CLASSROOM BLOCK Bill No. 1 Foundations CLUSTER G			R	

	m3	53		
all excavations for carting away				
	m3	138		
apse of excavations				
nch and hole excavations not exceeding	m2	708		
cavations free of water				
		Item		
stock piles on site including compacted to				
s, steps, paving, etc	m3	162		
and compacted in layers not exceeding				
o trenches, holes, etc	m3	266		
s, steps, paving etc.	m3	162		
n of surfaces				
or a depth of 150mm, breaking down aterial, adding suitable material where				
	m2	1,080		
density tests on filling				
ASHTO Density" test	No	30		
SROOM BLOCK			R	
	all excavations for carting away  atterial from excavations on site to a dumping ocated by the contractor  apse of excavations  anch and hole excavations not exceeding  accavations free of water  accavations free of all water other than an water  a obtained from the excavations and /or stock piles on site including compacted to ASHTO density  as, steps, paving, etc  and compacted in layers not exceeding as who and an exceeding as who and an exceeding as who and an exceeding as who and a surface set of set of surfaces  and of ground surface under floors etc including or a depth of 150mm, breaking down aterial, adding suitable material where and compacting to 93% Mod AASHTO  density tests on filling  ASHTO Density" test  Carried Forward  6 SSROOM BLOCK  S G	terial from excavations on site to a dumping coated by the contractor m3  apse of excavations  ench and hole excavations not exceeding m2  coavations free of water  coavations free of all water other than an water  cobtained from the excavations and /or stock piles on site including compacted to AASHTO density  as, steps, paving, etc m3  66 filling supplied and carted by the and compacted in layers not exceeding 95% Mod AASHTO density  to trenches, holes, etc m3  an of surfaces  of ground surface under floors etc including or a depth of 150mm, breaking down aterial, adding suitable material where and compacting to 93% Mod AASHTO  m2  density tests on filling  ASHTO Density" test  Carried Forward  6  SEROOM BLOCK	teterial from excavations on site to a dumping ocated by the contractor m3 apse of excavations ench and hole excavations not exceeding m2 708 accavations free of water cavations free of all water other than an water ltem obtained from the excavations and /or stock piles on site including compacted to AASHTO density s, steps, paving, etc m3 162 and compacted in layers not exceeding above m3 162 and compacted in layers not exceeding above m3 162 and compacted in layers not exceeding above m3 162 and compacted in layers not exceeding above m3 162 and compacted in layers not exceeding above m3 162 and compacted in layers not exceeding above m3 162 and compacted in layers not exceeding above m3 162 and compacted in layers not exceeding above m3 163 and compacted in layers not exceeding above m3 163 and compacting above m3 164 and compacting above m3 165 and compacting to 93% Mod AASHTO m3 1,080 and compacting to 93% Mod AASHTO m2 1,080 and compacting to 93% Mod AASHTO m3 1,080 and compa	teterial from excavations on site to a dumping page of excavations on site to a dumping page of excavations appeared by the contractor m2 m2 m3 m3 m3 m3 m3 m3 m3 m3 m3 m3 m3 m3 m3

	Brought Forward	1		R	
	SOIL POISONING				
	Soil insecticide				
14	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m2	1,080		
15	To bottoms and sides of trenches etc	m2	974		
	CONCRETE, FORMWORK AND REINFORCEMENT				
	UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES				
	25MPa/19mm concrete				
16	Strip footings	m3	66		
	TEST CUBES				
17	Allow for preparing a set of three concrete strength test cubes, each size 150 x 150 x 150mm, sending them to an approved Testing Laboratory for testing and paying all charges in connection therewith.	Sets	30.0		
	BRICKWORK				
	Brickwork of NFP bricks in class II mortar				
18	One brick walls	m2	354		
	BRICKWORK SUNDRIES				
	Joint forming material in movement joints:				
19	12mm Fibre board built in vertically between brick skins.	m2	30		
	Brickwork reinforcement				
20	150mm Wide reinforcement built in horizontally	m	1,041		
	Carried Forward Section No. 6 3 X 4 CLASSROOM BLOCK Bill No. 1 Foundations			R	
	CLUSTER G				

	Brought Forward			R	
	FACE BRICKWORK				
	Face bricks (Purchase price of R 4 000,00/1000 VAT excl. delivered to site) pointed with recessed horizontal and vertical joints				
21	Extra over brickwork for face brickwork	m2	266		
	Brick-on-edge header course copings, sills, etc of face bricks (Purchase price R 4 000,00/1000 VAT excl. delivered to site) pointed with recessed joints on all exposed faces				
22	Coping on top of one brick wall	m	87		
	Carried Forward to Summary of Section No. 6 Section No. 6 3 X 4 CLASSROOM BLOCK Bill No. 1 Foundations CLUSTER G			R	

Item No		Quantity	Rate	Amount
	SECTION NO.3			
	BUILDING WORK			
	BILL NO.2			
	CONCRETE, FORMWORK AND REINFORCEMENT			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.			
	SUPPLEMENTARY PREAMBLES			
	Cost of tests			
	The costs of making, storing and testing of concrete test cubes as required under clause 7 "Tests" of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the architect. The testing shall be undertaken by an independent firm or institution nominated by the contractor and to the approval of the architect. (Test cubes are measured separately)			
	Breeze concrete shall consist of twelve parts clean dry furnace ash, free from coal or other foreign matter, to one part cement (12:1), the ash graded up to particles which will pass a 16,5mm ring from a minimum which fails to pass a 4,75mm mesh. The finer materials from the screening are to be first mixed with the cement into a mortar and the ash added afterwards and thoroughly incorporated			
	Carried Forward  Section No. 6 3 X 4 CLASSROOM BLOCK Bill No. 2 Concrete, Formwork and Reinforcement		R	
	CLUSTER G			

	Brought Forward			R	
	<u>Formwork</u>				
	Description of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before reuse				
	The vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without damage and shall remain in position until the newly constructed work is able to support itself				
	Formworks to soffits of solid slabs etc shall be deemed to be slabs not exceeding 250mm thick unless otherwise described				
	Formwork to soffits of slabs, beams, etc shall be deemed to be propped up exceeding 1,5m and not exceeding 3,5m high unless otherwise described				
	Formwork to sides of bases, pile caps, ground beams, etc will only be measured where it is prescribed by the engineer for design reasons. Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in "Earthworks"				
	UNREINFORCED CONCRETE				
	20MPa/19mm concrete				
1	Surface beds	m3	14		
2	Surface beds cast in panels on waterproofing.	m3	162		
3	Aprons cast in panels to falls	m3	13		
	Carried Forward  Section No. 6 3 X 4 CLASSROOM BLOCK Bill No. 2 Concrete, Formwork and Reinforcement			R	
	CLUSTER G				

	Brought Forward			R	
4	Ramps	m3	9		
5	Extra over concrete for thickening size 150mm deep 200mm top and tapering to 100mm at bottom including all excavation to 100mm backfilling etc.	m	228		
	REINFORCED CONCRETE				
	25MPa/19mm concrete				
	CONCRETE SUNDRIES				
	Finishing top surfaces of concrete smooth with a steel trowel				
6	Surface beds, slabs, etc	m2	1,080		•
7	Ramp to falls	m2	25		
	Finishing top surfaces of concrete smooth with a wood float				
8	Surface beds, slabs, etc	m2	156		
9	Aprons to falls	m2	274		
	FORMWORK				
	ROUGH FORMWORK (DEGREE OF ACCURACY II)				
	Rough formwork to sides				
10	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	90		
	Carried Forward			R	
	Section No. 6 3 X 4 CLASSROOM BLOCK Bill No. 2 Concrete, Formwork and Reinforcement				
	CLUSTER G				

	Brought Forward			R	
	TEST CUBES				
11	Allow for preparing a set of three concrete strength test cubes, each size 150 x 150 x 150mm, sending them to an approved Testing Laboratory for testing and paying all charges in connection therewith.	Sets	30.0		
	MOVEMENT JOINTS ETC				
	Expansion joints with bitumen impregnated softboard between vertical concrete and brick surfaces				
12	15mm Joints exceeding 300mm high	m	30		
	Saw cut joints				
13	Saw cut joints in top of concrete	m	186		
	REINFORCEMENT (PROVISIONAL)				
	High tensile steel reinforcement to structural concrete work				
14	12mm Diameter	t	6.00		
15	10mm Diameter bars	t	4.77		
	Fabric reinforcement				
16	Steeledale Mesh standard square fabric mesh, nominal mass 1,93 kg/m² with nominal 5,6mm thick wires and 200 x 200mm pitch (code 193), complying with SANS 1024/2006 requirements, in sheets 2,4 x 6m long.	m2	1,080		
	Carried Forward to Summary of Section No. 6 Section No. 6 3 X 4 CLASSROOM BLOCK Bill No. 2 Concrete, Formwork and Reinforcement CLUSTER G			R	

Item No		Quantity	Rate	Amount
	SECTION NO.3			
	BUILDING WORK			
	BILL NO. 3			
	MASONRY			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.			
	SUPPLEMENTARY PREAMBLES			
	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			
	Linings to concrete			
	Descriptions of linings to concrete, unless otherwise described, shall be deemed to include wire ties			
	Hollow walls etc			
	Descriptions of hollow walls shall be deemed to include wire ties and leaving every fifth perpend of the bottom course of the external skin open as a weep hole			
	Reinforced brick lintels			
	Lintels shall bear at least 160mm onto adjacent walling. Where such bearing cannot be obtained due to the proximity of adjacent openings the lintel shall be continuous			
	Carried Forward		R	
	Section No. 6 3 X 4 CLASSROOM BLOCK Bill No. 3 Masonry CLUSTER G			

	Brought Forward			R	
	Face bricks	l			
	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				
	SUPERSTRUCTURE				
	Brickwork of NFP bricks in class II mortar				
1	L-shaped piers	m3	5		
2	One brick walls	m2	1,204		
	Joint forming material in movement joints:				
3	12mm Bitumen impregnated fibre board built in vertically between brick skins not exceeding 300mm wide.	m2	245		
	Brickwork reinforcement				
4	150mm Wide reinforcement built in horizontally	m	3,539		
	<u>Turning pieces</u>				
5	230mm Wide turning piece to lintels etc	m	97		
	"Allied Concrete" prestressed fabricated lintels				
6	110 x 75mm Lintels in lengths not exceeding 3m	m	9		
	Galvanised wire ties etc				
7	4mm Diameter roof tie 2m girth bent double with one end fixed to timber and other end built into brickwork	No	138		
	FACE BRICKWORK				
	Carried Forward Section No. 6 3 X 4 CLASSROOM BLOCK Bill No. 3 Masonry			R	
	CLUSTER G				

	Brought Forward			R	
	Face bricks (Purchase price of R4 700,00/1000 VAT excl. delivered to site) pointed with recessed horizontal and vertical joints				
8	Extra over brickwork for face brickwork	m2	1,062		
9	Extra over for facing in piers, including bonding and pointed with recesses joints on all exposed faces	m2	37		
10	Extra over for facings in beamfilling for face brickwork	m2	120		
	Brick-on-edge header course copings, sills, etc of face bricks ( Purchase price R4 700,00 / 1000 VAT excl. delivered to site) pointed with recessed joints on all exposed faces				
11	Extra over brickwork for brick-on-edge header course lintel	m	97		
	Brick-on-edge header course copings, sills, etc of face bricks(Purchase price of R4 700,00/1000 VAT excl. delivered to site) pointed with recessed joints on all exposed faces				
12	220mm Wide sill set sloping and slightly protecting outside	m	97		
13	Coping on top of one brick wall	m	87		
14	Nutec window internal sill, size 150mm x 15mm thick, manufactured in accordance with SANS 803:2005 and installed below window with window sill lug screwed to underside of sill at 400mm centres, minimum of 75mm from end of window sill and bedded in Class II mortar with plastic slip joints at end of sills at plaster reveals and projecting from the finished face of wall, all in accordance with the manufacturer's recommendations.  15mm x 150mm Wide sills set flat and slightly projecting	m	97		
	Carried Forward to Summary of Section No. 6 Section No. 6 3 X 4 CLASSROOM BLOCK Bill No. 3 Masonry CLUSTER G			R	

Item No			Quantity	Rate	Amount	
1	SECTION NO.3					
	BUILDING WORK					
	BILL NO.4					
	WATERPROOFING					
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.					
	SUPPLEMENTARY PREAMBLES					
	Waterproofing					
	Waterproofing of roofs, basements, etc shall be laid under a ten year guarantee by an approved applicator. Waterproofing to roofs shall be laid to even falls to outlets etc with necessary ridges, hips and valleys. Descriptions of sheet or membrane waterproofing shall be deemed to include additional labour to turn-ups and turn-downs					
	DAMP-PROOFING OF WALLS AND FLOORS					
	One layer of 375 micron Consol Plastic Brikgrip DPC" embossed damp proof course					
1	In walls	m2	104			
	One layer of 250 micron "Consol Plastic USB Green" waterproof sheeting sealed at laps with "Gunplas Pressure Sensitive Tape"					
2	Under surface beds	m2	1,080			
	JOINT SEALANTS ETC					
	Carried Forward  Section No. 6 3 X 4 CLASSROOM BLOCK Bill No. 4 Waterproofing CLUSTER G			R		_

	Brought Forward		R	
	Silicone sealing compound including backing cord, bond breaker, primer, etc			
3	6 x 10mm In expansion joints including raking out of expansion joint filler as necessary	186		
	Carried Forward to Summary of Section No. 6		R	_
	Section No. 6 3 X 4 CLASSROOM BLOCK Bill No. 4			-
	Waterproofing CLUSTER G			

Item No		Quantity	Rate	Amount
	SECTION NO.3			
	BUILDING WORK			
	BILL NO.5			
	ROOF COVERINGS ETC			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.			
	SUPPLEMENTARY PREAMBLES			
	<u>General</u>			
	All roof coverings, etc., to be with a covering of Z275 galvanising. All holes to be drilled and not punched			
	Where described as with "Chromadek" finish, all sheets, flashings, etc., shall be with "Chromadek" silicone polyester paint for exterior use			
	<u>Sizes</u>			
	All items are measured net unless otherwise described			
	Flashings, trimming plates, etc.			
	Prices to include for all cutting and waste and relevant fixing material, unless otherwise described			
	All rates for flashings, trimmings, etc., to include for forming drips and closed ends to troughs of sheet steel roof covering where applicable			
	All items are unless otherwise described measured net			
	Carried Forward		R	
	Section No. 6 3 X 4 CLASSROOM BLOCK Bill No. 5 Roof Coveringss, etc CLUSTER G			

	Brought Forward			R
	PROFILED METAL SHEETING AND ACCESSORIES			
	0,5mm "Brownbuilt Klip-Lok Light Industrial" galvanised troughed sheeting steel with "Chromadek - Traffic Green" finish on one side, in single lengths fixed to steel purlins or rails and 0,6mm galvanised steel accessories with "Chromadek" finish on one side, fixed to roof members by a firm of Specialists who will give a five (5) year guarantee, all in accordance with the manufacturer's instructions			
1	Roof covering with pitch not exceeding 50 degrees	m2	1,785	
2	Ridge capping 550mm girth	m	78	
3	Hip capping 550mm girth	m	96	
4	Gable trim 550mm girth	m	24	
	STEEL LOUVRES			
	"NTY Steelworks" or similar approved			
5	Triangular steel louvre size 3000x 500mm high fixed to timber purlins including watertight heading joints, necessary sealing strips, fixing accessories, etc	No	6	
	Carried Forward to Summary of Section No. 6 Section No. 6 3 X 4 CLASSROOM BLOCK Bill No. 5 Roof Coveringss, etc CLUSTER G			R

Item No		Quantity	Rate	Amount
	SECTION NO.3			
	BUILDING WORK			
	BILL NO.6			
	CARPENTRY AND JOINERY			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.			
	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, transomes, mullions, rails, etc			
	Descriptions of hardwood joinery shall be deemed to include pelleting of bolt holes			
	<u>Fixing</u>			
	Items described as "nailed" shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete			
	Carried Forward		R	
	Section No. 6 3 X 4 CLASSROOM BLOCK Bill No. 6 Capentry and Joinery CLUSTER G			

Brought Forward	R	
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		
Pre-fabricated metal connected timber roof trusses		
All trusses shall be fabricated by an approved truss manufacturer who holds a current Certificate of Competence awarded by the Institute for Timber Construction		
<u>Timber</u>		
Timber for trusses to be South African softwood and shall be in accordance with the grades as defined in SABS Specification No 563 or as defined in SABS Specification No 1460		
<u>Bolts</u>		
Bolts shall be in accordance with BS 4190 or SABS 135		
Shear plates, tooth connectors and split rings		
Shear plates, tooth connectors and split rings shall be in accordance with BSS 1759: 1960 and installed in accordance with the CSIR Publication HOUT 468, "The Design, Manufacturing and Erection of Timber Trusses"		
<u>Washers</u>		
Square or round washers of the following dimensions shall be used with all bolts:		
Bolts up to 8mm diameter:     Washers shall be minimum 25mm wide of minimum     thickness		
Carried Forward  Section No. 6 3 X 4 CLASSROOM BLOCK Bill No. 6 Capentry and Joinery CLUSTER G	R	

Brought Forward	R	
2 Bolts up to 12mm diameter: Washers shall be minimum 36mm wide of minimum 4,00mm thickness		
3 Bolts up to 20mm diameter: Washers shall be minimum 60mm wide of minimum 5,00mm thickness		
Metal connector plates		
Metal connector plates shall be fabricated out of not less than 1mm thick drawn quality galvanised steel		
The steel shall have a minimum yield strength of 228MPa and a minimum ultimate tensile strength of 330MPa. The corrosion resisting coating shall be not less than 275g/m2 commercial class hot dipped galvanising as per SABS 934 before stamping		
All connector plates shall have been tested by the CSIR and be of a size capable of transmitting the forces between members of a truss without exceeding the design values published in the CSIR report		
<u>Truss construction</u>		
Trusses shall be constructed in jigs specially designed to unsure the correct profile, overhangs and cambers		
Where metal connector plates are used all joints are to be close fitted butt joints made by precision pressing of the metal connector plates into each side of the joint		
<u>Truss design</u>		
All trusses shall be designed by a registered Professional Engineer in accordance with SABS 0163 ("Design of Timber Structures") and Code 0160 ("Loadings")		
<u>Truss spacing</u>		
The truss centres shall be less than or equal to that as described in this bill for each respective truss		
Carried Forward	R	_
Section No. 6 3 X 4 CLASSROOM BLOCK Bill No. 6 Capentry and Joinery CLUSTER G		

Brought Forward	R	
Truss pitch		
The truss pitch shall be as described in this bill for each respective truss type		
Truss loading		
Trusses shall be designed for a live load of 0,50kN/m2 and dead load as specified under the sub-heading "Specific load specifications for roof trusses"		
Shop drawings, design and erection guarantee certificates		
It will be expected from the Contractor to timeously prepare, submit and obtain the necessary approvals from the Representative/Agent in respect of the required shop drawings, design and erection guarantee certificates as specified		
<u>Dimensions</u>		
All dimensions given in the descriptions of the trusses are nominal and actual measurements are to be obtained by actual measurements taken on the site before design or fabrication commences		
<u>Erection</u>		
All trusses are to be hoisted and erected strictly in accordance with the procedures and recommendations of the manual "The Erection and Bracing of Timber roof Trusses" as published by the Institute for Timber Construction and the CSIR, or the SABS Code of Practice "The Design, Manufacture and Erection of Timber Roof Trusses", or as designed and detailed by the designer		
<u>Design system</u>		
The design system as documented in this bill is based on the "MiTek" system and all references given in the descriptions are related to specific type of trusses based on this design system		
Section No. 6 3 X 4 CLASSROOM BLOCK Bill No. 6 Capentry and Joinery CLUSTER G	R	

	Brought Forward		R	
	However, Contractors are to note that any design system of similar quality may be used subject to the prior written approval of the Representative/Agent			
	Specific specifications for roof trusses			
	Unless otherwise described, the following specifications will apply:			
	1 All trusses to be with a 10° pitch			
	2 The dead load consists of corrugated roof sheeting and purlins at approximately 1200mm centres			
	ROOFS			
	The following in plate nailed timber roof truss construction			
	The following is applicable in respect of roof trusses			
	The references given in the descriptions are to the respective types of trusses detailed on the architect's drawings annexed to these bills of quantities/accompanying these bills of quantities for tender purposes			
	Prices for rafters and trusses to include all "Hurricane" clips, steel M-runners and "Permfix" plates, screws, nails, wires, sundry material, etc (bracing, wallplates, purlins and gangboarding are measured seperately)			
	Allow for the preparation and submission of the following documents in respect of all buildings			
1	Detailed shop drawings indicating truss sizes, truss positions, bracings, details, etc. to be submitted for approval prior the commencement of any fabrication	Item		
2	Design certificate indicating the licensed programme used, SANS specifications adhered to, general procedures and loadings adopted, sizes and grading of			
	timber components, details, etc.	Item		
	Carried Forward		R	_
	Section No. 6 3 X 4 CLASSROOM BLOCK Bill No. 6 Capentry and Joinery CLUSTER G		, , ,	

	Brought Forward			R	
3	Erection guarantee certificate after the whole completed roof truss structure have been inspected, all defective work have been taken out and made good, etc. to the full satisfaction of the Principal Agent		Item		
	Sawn softwood				
4	Roof construction to double pitched roof supplied and erected complete in position with bracing, gangboarding, purlins, eaves purlins, hipped end, rafters etc. for 4 classroom block 370m2 on plan (Refer to architect's drawings attached to these bills of quantities)	No	0.3		
	Sawn softwood grade 4				
5	38 x 114mm Wall plates	m	228		
6	50 x 220mm Timber Beam	m	78		
	<u>Sundries</u>				
7	Two coats creosote on sawn timbers	m2	69		
	EAVES, VERGES, ETC				
	"Everite FC77" pressed fibre-cement				
8	15 x 250mm Fascias and barge boards including galvanised steel H-profile jointing strips	m	228		
	<u>SKIRTINGS</u>				
	Wrought meranti				
9	19 x 76mm Skirting including 19mm quadrant bead nailed	m	336		
	DOORS, ETC				
	Carried Forward			R	
	Section No. 6 3 X 4 CLASSROOM BLOCK Bill No. 6 Capentry and Joinery CLUSTER G				

Ī	Brought Forward			R	
	Wrought meranti doors hung to steel frames				
10	44mm Framed and ledged batten door 813 x 2032mm high of 44 x 100mm top rail and stiles, 22 x 100mm middle and bottom rails, covered on both sides with 6mm plywood with veneer (D3)	No	9		
	<u>FITTINGS</u>				
	Classroom School Furnitures, etc				
11	Provide the sum of R400 000,00 (Four Hundred Thousand Rands) for classroom school furniture by Specialists		Item		400,000.00
12	Allow for giving every facility to Specialists as described		Item		
13	Allow for profit on above if required		Item		
	Carried Forward to Summary of Section No. 6			R	
	Section No. 6 3 X 4 CLASSROOM BLOCK Bill No. 6 Capentry and Joinery CLUSTER G				

Item No		Quantity	Rate	Amount	
	SECTION NO.3				
	BUILDING WORK				
	BILL NO.7				
	CEILING, ETC.				
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.				
	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 elsewhere				
	CEILING CONSTRUCTION, CORNICES, ETC.				
	<u>Insulation</u>				
1	100mm glass fibre insulation blanket to manufacturer's specification, laid on ceiling.	1,080			
	Sawn softwood				
2	38 x 114mm Ceiling joists (Provisional)	m 78			
	Carried Forward		R		
	Section No. 6 3 X 4 CLASSROOM BLOCK Bill No. 7 Ceilings, Partitions and Access Flooring CLUSTER G				

	Brought Forward			R	
	"Rhino" gypsum plasterboard cornices				
3	75mm Coved cornices	m	336		
	NAILED UP AND SCREWED UP CEILINGS				
	6mm "Everite Nutec" fibre-cement boards with H-profile primed steel jointing cover strips over joints				
4	Ceilings including 38 x 38mm brandering at 90deg to trusses at maximum centres of 400mm by 32mm long galvanised nails.				
	<b>9</b>	m2	1,080		
5	Sloping ceilings including 38 x 38mm sawn softwood brandering at 450mm centres	m2	150		
6	Extra over ceiling for opening for 610 x 610mm trap door of 50 x 76mm wrought softwood rebated framing with one 38 x 38mm sawn softwood cross brander covered with ceiling board and fitted flush in opening	No	9		
	covered with ceiling board and littled litter in opening	140			
	Carried Forward to Summary of Section No. 6			R	
	Section No. 6 3 X 4 CLASSROOM BLOCK				
	Bill No. 7 Ceilings, Partitions and Access Flooring				
	CLUSTER G				

Item No		Quantity	Rate	Amount
	SECTION NO.3			
	BUILDING WORK			
	BILL NO.8			
	IRONMONGERY			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.			
	SUPPLEMENTARY PREAMBLES			
	<u>Descriptions</u>			
	Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs			
	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 SD Sanded			
	CATCHES,CABIN HOOKS, ETC			
	"Solid"			
1	100mm Cabin hook and eye including 70 x 70 x 20mm chamfered hardwood block twice oiled and plugged No	9		
	LOCKS			
	Carried Forward  Section No. 6 3 X 4 CLASSROOM BLOCK Bill No. 8 Ironmongery CLUSTER G		R	

	Brought Forward			R	
	"Solid"or similar approved				
2	"Code 630" padlock	No	9		
3	"Code 460/313" Blesbok four lever lockset	No	9		
	DOOR CLOSERS AND FLOOR SPRINGS				
	"Dorma" or similar approved				
	SUNDRIES				
	"Solid" or similar approved				
4	Dorma "Code 255" door stop plugged	No	9		
	STEEL CUPBOARDS				
	Aproved steel lockers with standard baked enamel finish				
5	G10 Double door steel cupboard 914 x 457 x 1828mm high with five shelves bolted to brickwork	No	9		
	PINNING BOARDS, WRITING BOARDS, PROJECTION SCREENS, ETC				
	"Vitrex" or similar approved				
6	Pinning boards 4000 x 1200mm high fixed to brickwork	No	9		
7	2000 x 1300 mm White Porcelain magnetic marker board				
	board	No	9		
	LETTERS, NAMEPLATES, ETC				
	"Union" or similar approved				
8	150 x 150mm Stainless steel plate engraved with a "Fire Hose Reel" sign (St/Steel)	No	3		
	Carried Forward			R	
	Section No. 6 3 X 4 CLASSROOM BLOCK Bill No. 8 Ironmongery CLUSTER G				

	Brought Forward		1	R	
9	150 x 150mm Stainless steel plate engraved with "Fire Extinguisher" sign (St/Steel)	No	9		
10	150 x 150mm Stainless steel plate engraved with a "Arrow sign" sign (St/Steel)	No	9		
	Carried Forward to Summary of Section No. 6 Section No. 6 3 X 4 CLASSROOM BLOCK			R	
	Bill No. 8 Ironmongery CLUSTER G				

Item No		Quantity	Rate	Amount
	SECTION NO.3			
	BUILDING WORK			
	BILL NO. 9			
	METALWORK			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.			
	<u>Descriptions</u>			
	Descriptions of bolts shall be deemed to include nuts and washers Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete Metalwork described as "holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described			
	<u>Drawings</u>			
	Tenderers are referred to architect's drawings annexed to this document for full details of the windows, doors, etc			
	SUNDRY METALWORK			
	The following in identical steel support columns			
1	Bolts, complete with nuts and two washers each kg	42		
2	76 x 76 x 3mm Tubular section columns 3050mm high No	33		
	Carried Forward Section No. 6 3 X 4 CLASSROOM BLOCK		R	
	Bill No. 9 Metalwork			
	CLUSTER G			
		I		

	Brought Forward			R	
3	75 x 6mm Flat section fixing plate 120mm, twice holed for bolt and welded to top end of tubular section column (Provisional)				
	(Flovisional)	No	33		
4	200 x 200 x 5mm Thick Base plate, with four holes for bolts and welded to bottom end of tubular section column	No	33		
5	12mm Diameter x 75mm long sleeved masonry anchor	No	33		
	WELDED SCREENS, GATES, ETC				
	Gates to external doors				
6	Gate and frame 900 x 2100mm high complete (G1)				
		No	9		
	PRESSED STEEL DOOR FRAMES				
	1,2mm Double rebated frames suitable for one brick walls				
7	Frame for door 813 x 2032mm high	No	9		
	STEEL WINDOWS, DOORS, ETC				
	"Nty" or similar approved steel residential windows with burglar bars to all sashes				
8	NTY Standard School type window "Code 5/2" size 1143 x 1332mm high (W1)	No	81		
	Carried Forward to Summary of Section No. 6 Section No. 6			R	
	3 X 4 CLASSROOM BLOCK Bill No. 9 Metalwork				
	CLUSTER G				

Item No			Quantity	Rate	Amount	
1	SECTION NO.3					
	BUILDING WORK					
	BILL NO. 10					
	PLASTERING					
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.					
	GRANOLITHIC					
	Untinted granolithic on concrete					
	SCREEDS					
	Screeds on concrete					
1	30mm Thick on floors	m2	1,080			
	INTERNAL PLASTER					
	Cement plaster on brickwork					
2	On walls	m2	1,416			
3	On narrow widths	m2	30			
						_
	Carried Forward to Summary of Section No. 6			R		_
	Section No. 6 3 X 4 CLASSROOM BLOCK Bill No. 10 Plastering CLUSTER G					

Item No		Quantity	Rate	Amount	
	SECTION NO.3				
	BUILDING WORK				
	BILL NO.11				
	<u>TILING</u>				
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.				
	SUPPLEMENTARY PREAMBLES				
	Descriptions				
	Unless described as "fixed with adhesive to plaster (plaster elsewhere)" descriptions of tiling on brick or concrete walls, columns, etc shall be deemed to include 1:4 cement plaster backing and descriptions of tiling on concrete floors etc shall be deemed to include 1:3 plaster bedding				
	FLOOR TILING				
	300 x 300 x 11,5mm Ceramic floor tiles (PC R120.00/m2 VAT excl.) fixed with adhesive to plaster (plaster elsewhere) and flush pointed with tinted waterproof jointing compound				
1	On floors and landings	2 1,080			
2		n 336			
	Carried Forward to Summary of Section No. 6		R		_
	Section No. 6 3 X 4 CLASSROOM BLOCK Bill No. 11 Tiling CLUSTER G				=

Item No		Quantity	Rate	Amount
	SECTION NO.3			
	BUILDING WORK			
	BILL NO. 13			
	<u>GLAZING</u>			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.			
	GLAZING TO STEEL WITH PUTTY			
	4mm Clear float glass			
1	Panes exceeding 0,5m2 and not exceeding 2m2 m2	129		
	4mm Rough cast glass			
2	Panes exceeding 0,1m2 and not exceeding 0,5m2 m2	49		
	Carried Forward to Summary of Section No. 6		R	
	Section No. 6 3 X 4 CLASSROOM BLOCK Bill No. 12 Glazing CLUSTER G			

Item No		Quantity	Rate	Amount
	SECTION NO.3			
	BUILDING WORK			
	BILL NO.12			
	PLUMBING AND DRAINAGE			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.			
	SUPPLEMENTARY PREAMBLES			
	"Polycop" polypropylene pipes:			
	Polypropylene pipes 54mm diameter and under shall be seamless copper coloured class 16 pipes jointed with "Fast-fuse" heat welded thermoplastic or brass compression fittings as designed for use with copper pipes as stated			
	Pipes shall be firmly fixed to walls etc with coloured nylon snap-in pipe clips with provision for accommodating thermal movement and jointed and fixed strictly in accordance with the manufacturer's instructions			
	All pipe diameters are nominal external			
	RAINWATER DISPOSAL			
	0,6mm Galvanised sheet iron with "Chromadek" finish on one side			
1	100 x 125mm Eaves gutters with beaded front edge	m 228	3	
2	Extra over eaves gutter for angle	No 18	3	
	Carried Forward Section No. 6 3 X 4 CLASSROOM BLOCK		R	
	Bill No. 13 Plumbing and Drainage CLUSTER G			

	Brought Forward	ı		R	
3	Extra over eaves gutter for stopped end	No	6		
4	Extra over eaves gutter for outlet for 100mm diameter pipe	No	18		
5	100mm Diameter rainwater pipes	m	72		
6	Extra over rainwater pipe for eaves or plinth offset 450mm projection	No	18		
7	Extra over rainwater pipe for shoe	No	18		
	STORMWATER CHANNELS				
	15 MPa/20 mm concrete				
8	Stormwater channel cast in panels	m3	45		
	FIRE APPLIANCES ETC				
	'Chubb' or similar approved				
9	9kg Dry chemical powder fire extinguisher, including standard hard wood backing plugged and backing finished with one coat dark stain and two coats clear suede polyurethane varnish	No	12		
10	"Everyway" hose reel complete with 30m plastic hose, chromium plated stopcock, shut-off nozzle and wall bracket	No	3		
	Carried Forward to Summary of Section No. 6 Section No. 6 3 X 4 CLASSROOM BLOCK Bill No. 13 Plumbing and Drainage CLUSTER G			R	

Item No		Quantity	Rate	Amount	
	SECTION NO.3				
	BUILDING WORK				
	BILL NO. 14				
	<u>PAINTWORK</u>				
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.				
	SUPPLEMENTARY PREAMBLES				
	DESCRIPTIONS				
	Descriptions of paintwork shall be deemed to include for all cutting in				
	PAINT SPECIFICATIONS				
	All painting shall be done in accordance with "Plascon- Evans" specifications				
	PAINTWORK ETC TO NEW WORK  ON FLOATED PLASTER				
	Carried Forward  Section No. 6 3 X 4 CLASSROOM BLOCK Bill No. 14 Paintwork CLUSTER G		R		_

	Brought Forward			R	
3	Plascon Polvin Super Acrylic to interior new cement plaster (NW 205).Surface to be dry, sound and clean and cured for a minimum of 14 days, with a moisture content measured with a Doser Hygrometer (or equivalent), of BD 2 scale - 8% or less. Prime with one coat of Plascon Plaster Primer (UC 56) with an overcoating time of 16 hours and finish with two coats of Polvin Super Acrylic (EPL) with 1 hour drying time between coats, for a maintenance cycle of 5 years in a C1 - inland environment.				
1	On internal walls	m2	1,416		
	ON FIBRE-CEMENT				
	One coat primer, one coat universal undercoat and two coats super acrylic PVA paint				
2	On ceilings and cornices	m2	1,080		
	Plascon Sure Coat Gloss Enamel to exterior new fibre cement (NW 174). Surface to be dry, sound and clean, with a moisture content, measured with a Doser Hygrometer (or equivalent), of BD 2 scale - 8% or less. Prime with one coat of Plascon Plaster Primer (UC 56) with an overcoating time of 16 hours and finish with two coats of Sure Coat Gloss Enamel (SGE) with 16 hours drying time between coats, for a maintenance cycle of 2 years in a C1 - inland environment.				
3	On fascias and barge boards	m2	114		
	Plascon Sure Coat Gloss Enamel to interior new fibre cement (NW 274). Surface to be dry, sound and clean, with a moisture content, measured with a Doser Hygrometer (or equivalent), of BD 2 scale - 8% or less. Prime with one coat of Plascon Plaster Primer (UC 56) with an overcoating time of 16 hours and finish with two coats of Sure Coat Gloss Enamel (SGE) with 16 hours drying time between coats, for a maintenance cycle of 4 years in a C1 - inland environment.				
4	On window sills not exceeding 300 mm girth	m	97		
	Carried Forward  Section No. 6 3 X 4 CLASSROOM BLOCK Bill No. 14 Paintwork CLUSTER G			R	

	Brought Forward			R	
	ON METAL				
	Plascon Velvaglo Satin to exterior new mild steel (NW 683). Surface to be clean and dry. Remove surface contaminants using Plascon Aquasolv Degreaser (GR 1) with bristle brush or Brillo pads. Rinse thoroughly with tap water until surface is water break-free. Remove rust and millscale by abrasive blasting to ISO 8501 - 01:1988 - Sa2½ or by hand/mechanical wire brushing to St3of the same standard. Allow to dry completely and prime within 4 hours of cleaning. Prime with one coat of Metal Primer (UC 501) with an overcoating time of 16 hours and finish with two coats of Velvaglo Satin (VLO) with 16 hours drying time between coats, for a maintenance cycle of 3 years in a C1 - inland environment.				
5	On door frames	m2	17		
6	On windows with burglar bars	m2	259		
7	On gates, grilles, burglar screens, balustrading, etc (both sides measured over the full flat area )	m2	34		
8	On outside of eaves gutters and rainwater pipes before fixing not exceeding 300mm high	m	456		
	ON WOOD				
	Plascon Velvaglo Satin to interior new wood (NW 571). Surface to be dry, sound and clean. Wash knots and resinous areas with Lacquer Thinners (ILS 1) and coat with Woodcare Knot Seal (PK 2) and apply one coat of Plascon Woodcare Pretreatment (WWP 1), overcoated within 48 hours with a moisture content, measured with a Doser Hygrometer (or equivalent), of BD 2 scale (A1-A5) < 14% or less. Prime with one coat of Wood Primer (UC 2) with an overcoating time of 16 hours and finish with two coats of Velvaglo Satin (VLO) with 16 hours drying time between coats, for a maintenance cycle of 7 years in a C1 - inland environment.				
9	On doors	m2	16		
	Carried Forward  Section No. 6 3 X 4 CLASSROOM BLOCK Bill No. 14 Paintwork CLUSTER G			R	-

	Brought Forward			R	
	Three coats matt varnish				
10	On doors	m2	34		
11	On skirtings, rails, cornices etc not exceeding 300 mm girth	m	336		
	Carried Forward to Summary of Section No. 6			R	_
	Section No. 6 3 X 4 CLASSROOM BLOCK Bill No. 14 Paintwork CLUSTER G				=

	Section No. 6			
	3 X 4 CLASSROOM BLOCK			
	SECTION SUMMARY - 3 X 4 CLASSROOM BLOCK			
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	Carried to Final Summary		R	
	Section No. 6 3 X 4 CLASSROOM BLOCK			
	CLUSTER G			

Item No		Quantity	Rate	Amount	
	SECTION NO.7				
	BUILDING WORK				
	BILL NO.1				
	<u>FOUNDATIONS</u>				
	<u>EARTHWORKS</u>				
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.				
	SUPPLEMENTARY PREAMBLES				
	Nature of ground				
	The nature of the ground is assumed to be sandy weathered granite, therefore "earth", but possibly interspersed with "hard rock"				
	Excavation for working space in rock				
	Notwithstanding clause 11 page 8 of the Standard System of Measuring Building Work, excavation for working space in rock will be measured in cubic metres to the extent executed and given as "extra over" bulk excavation or trench and hole excavation as the case may be				
	Carting away of excavated material				
	Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site				
	Carried Forward		R		_
	Section No. 7 1 x 5 WATERBORNE TOILET BLOCK Bill No. 1 Foundations CLUSTER G				

	Brought Forward			R	
	<u>Filling</u>				
	Notwithstanding the reference to prescribed multiple handling in clause 1 page 6 of the Standard System of Measuring Building Work, prices for filling and backfilling shall include for all selection and any multiple handling of material				
	Soil poisoning				
	Ant and weed poisoning will be applied in accordance to SABS specifications by Registered and Approved Specialists who will issue a five (5) year guarantee. The contractor will only be paid for this items once they have produced the said certificate to the Principal Agent				
	SITE CLEARANCE, ETC.				
	Site clearance				
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc.	m2	73		
	REMOVAL TREES, ETC.				
	Taking out and removing, grubbing up roots and filling holes.				
2	Tree stump exceeding 200mm and not exceeding 500mm girth.	No	3		
	EXCAVATION, FILLING, ETC				
	Excavation in earth not exceeding 2m deep				
3	Trenches	m3	7		
	Extra over trench and hole excavations in earth for excavation in				
4	Soft rock	m3	1		
	Carried Forward  Section No. 7 1 x 5 WATERBORNE TOILET BLOCK Bill No. 1 Foundations CLUSTER G			R	

	Brought Forward			R	
5	Hard rock	m3	0.4		
	Extra over all excavations for carting away				
6	Surplus material from excavations on site to a dumping site to be located by the contractor	m3	7		
	Risk of collapse of excavations				
7	Sides of trench and hole excavations not exceeding 1,5m deep	m2	39		
	Keeping excavations free of water				
8	Keeping excavations free of all water other than subterranean water		Item		
	Earth filling obtained from the excavations and /or prescribed stock piles on site including compacted to 93% Mod AASHTO density				
9	Under floors, steps, paving, etc	m3	11		
	Approved G6 filling supplied and carted by the contractor and compacted in layers not exceeding 150mm to 95% Mod AASHTO density				
10	Backfilling to trenches, holes, etc	m3	35		
11	Under floors, steps, paving etc.	m3	11		
	Compaction of surfaces				
12	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 93% Mod AASHTO density				
	density	m2	73		
	Prescribed density tests on filling				
13	"Modified AASHTO Density" test	No	6		
	Carried Forward			R	
	Section No. 7 1 x 5 WATERBORNE TOILET BLOCK Bill No. 1 Foundations CLUSTER G				

	Brought Forward			R	
	SOIL POISONING				
	Soil insecticide				
14	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m2	73		
15	To bottoms and sides of trenches etc	m2	52		
	CONCRETE, FORMWORK AND REINFORCEMENT				
	UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES				
	15MPa/19mm concrete				
16	Blinding	m3	2		
	REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES				
	25MPa/19mm concrete				
17	Foundation beams	m3	7		
18	Surface beds on waterproofing	m3	3		
	CONCRETE SUNDRIES				
	Finishing top surfaces of concrete smooth with a steel trowel				
19	Surface beds, slabs, etc	m2	27		
	ROUGH FORMWORK (DEGREE OF ACCURACY II)				
	Carried Forward  Section No. 7 1 x 5 WATERBORNE TOILET BLOCK Bill No. 1 Foundations CLUSTER G			R	

	Brought Forward			R	
	Rough formwork to sides				
20	Edges, risers, ends and reveals exceeding 300mm not exceeding 700mm high or wide	m	23		
	REINFORCEMENT				
	High tensile steel reinforcement to structural concrete work				
21	10mm Diameter bars	t	0.11		
22	12mm Diameter bars	t	0.09		
23	20mm Diameter bars	t	0.27		
	TEST CUBES				
24	Allow for preparing a set of three concrete strength test cubes, each size 150 x 150 x 150mm, sending them to an approved Testing Laboratory for testing and paying all charges in connection therewith.	Sets	12.5		
	BRICKWORK				
	Brickwork of NFP bricks in class II mortar				
25	Half brick walls	m2	12		
	BRICKWORK SUNDRIES				
	Brickwork reinforcement				
26	75mm Wide reinforcement built in horizontally	m	46		
	FACE BRICKWORK				
	Face bricks (Purchase price of R 4 000,00/1000 VAT excl. delivered to site) pointed with recessed horizontal and vertical joints				
27	Extra over brickwork for face brickwork	m2	13		
	Carried Forward to Summary of Section No. 7			R	
	Section No. 7 1 x 5 WATERBORNE TOILET BLOCK Bill No. 1 Foundations CLUSTER G				

Item No		Quantity	Rate	Amount
	SECTION NO7			
	BUILDING WORK			
	BILL NO.2			
	CONCRETE, FORMWORK AND REINFORCEMENT			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.			
	SUPPLEMENTARY PREAMBLES			
	Cost of tests			
	The costs of making, storing and testing of concrete test cubes as required under clause 7 "Tests" of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the architect. The testing shall be undertaken by an independent firm or institution nominated by the contractor and to the approval of the architect. (Test cubes are measured separately)			
	Breeze concrete shall consist of twelve parts clean dry furnace ash, free from coal or other foreign matter, to one part cement (12:1), the ash graded up to particles which will pass a 16,5mm ring from a minimum which fails to pass a 4,75mm mesh. The finer materials from the screening are to be first mixed with the cement into a mortar and the ash added afterwards and thoroughly incorporated			
	Carried Forward  Section No. 7 1 x 5 WATERBORNE TOILET BLOCK Bill No. 2 Concrete, Formwork and Reinforcement CLUSTER G		R	

	Brought Forward			R	
	<u>Formwork</u>				
	Description of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before reuse				
	The vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without damage and shall remain in position until the newly constructed work is able to support itself				
	Formworks to soffits of solid slabs etc shall be deemed to be slabs not exceeding 250mm thick unless otherwise described				
	Formwork to soffits of slabs, beams, etc shall be deemed to be propped up exceeding 1,5m and not exceeding 3,5m high unless otherwise described				
	Formwork to sides of bases, pile caps, ground beams, etc will only be measured where it is prescribed by the engineer for design reasons. Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in "Earthworks"				
	UNREINFORCED CONCRETE				
	20MPa/19mm concrete				
1	Aprons cast in panels to falls	m3	4		
2	Ramps	m3	1		
3	Extra over concrete for thickening size 150mm deep 200mm top and tapering to 100mm at bottom including all excavation to 100mm backfilling etc.	m	35		
	Carried Forward			R	
	Section No. 7 1 x 5 WATERBORNE TOILET BLOCK Bill No. 2 Concrete, Formwork and Reinforcement CLUSTER G				

	Brought Forward			R	
	CONCRETE SUNDRIES				
	Finishing top surfaces of concrete smooth with a steel trowel				
4	Surface beds, slabs, etc	m2	56		
5	Ramp to falls	m2	4		
	Finishing top surfaces of concrete smooth with a wood float				
3	Aprons to falls	m2	44		
	<u>FORMWORK</u>				
	ROUGH FORMWORK (DEGREE OF ACCURACY II)				
	Rough formwork to sides				
7	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	39		
	TEST CUBES				
}	Allow for preparing a set of three concrete strength test cubes, each size $150 \times 150 \times 150$ mm, sending them to an approved Testing Laboratory for testing and paying all charges in connection therewith.	Sets	6.3		
	MOVEMENT JOINTS ETC				
	Expansion joints with bitumen impregnated softboard between vertical concrete and brick surfaces				
	Saw cut joints				
	Saw cut joints in top of concrete	m	18		
	REINFORCEMENT				
	Carried Forward			R	
	Section No. 7 1 x 5 WATERBORNE TOILET BLOCK Bill No. 2 Concrete, Formwork and Reinforcement CLUSTER G				

	Brought Forward			R	
	REINFORCEMENT (PROVISIONAL)				
	<u>Fabric reinforcement</u>				
10	Steeledale Mesh standard square fabric mesh, nominal mass 1,93 kg/m² with nominal 5,6mm thick wires and 200 x 200mm pitch (code 193), complying with SANS 1024/2006 requirements, in sheets 2,4 x 6m long.	m2	56		
	Carried Forward to Summary of Section No. 7 Section No. 7 1 x 5 WATERBORNE TOILET BLOCK Bill No. 2 Concrete, Formwork and Reinforcement CLUSTER G			R	

Item No		Quantity	Rate	Amount
	SECTION NO.7			
	BUILDING WORK			
	BILL NO. 3			
	MASONRY			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.			
	SUPPLEMENTARY PREAMBLES			
	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			
	Linings to concrete			
	Descriptions of linings to concrete, unless otherwise described, shall be deemed to include wire ties			
	Hollow walls etc			
	Descriptions of hollow walls shall be deemed to include wire ties and leaving every fifth perpend of the bottom course of the external skin open as a weep hole			
	Reinforced brick lintels			
	Lintels shall bear at least 160mm onto adjacent walling. Where such bearing cannot be obtained due to the proximity of adjacent openings the lintel shall be continuous			
	Carried Forward		R	
	Section No. 7 1 x 5 WATERBORNE TOILET BLOCK Bill No. 3 Mansory CLUSTER G			

	Brought Forward			R	
	Face bricks		ı		
	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				
	SUPERSTRUCTURE				
	Brickwork of NFP bricks in class II mortar				
1	Half brick walls	m2	57		
2	One brick walls	m2	96		
	Brickwork reinforcement				
3	75mm Wide reinforcement built in horizontally	m	167		
4	150mm Wide reinforcement built in horizontally	m	283		
	Turning pieces				
5	230mm Wide turning piece to lintels etc	m	3		
	"Allied Concrete" prestressed fabricated lintels				
6	110 x 75mm Lintels in lengths not exceeding 3m	m	3		
	Galvanised wire ties etc				
7	4mm Diameter roof tie 2m girth bent double with one end fixed to timber and other end built into brickwork	No	15		
	FACE BRICKWORK				
	Carried Forward Section No. 7			R	_
	1 x 5 WATERBORNE TOILET BLOCK Bill No. 3 Mansory CLUSTER G				

	Brought Forward			R	
	Face bricks (Purchase price of R4 700,00/1000 VAT excl. delivered to site) pointed with recessed horizontal and vertical joints				
8	Extra over brickwork for face brickwork	m2	96		
9	Extra over for facings in beamfilling for face brickwork	m2	9		
	Brick-on-edge header course copings, sills, etc of face bricks (Purchase price R4 700,00 / 1000 VAT excl. delivered to site) pointed with recessed joints on all exposed faces				
10	Extra over brickwork for brick-on-edge header course lintel	m	3		
11	Fair cutting and fitting around pipe not exceeding 100mm diameter	No	10		
	Brick-on-edge header course copings, sills, etc of face bricks(Purchase price of R4 700,00/1000 VAT excl. delivered to site) pointed with recessed joints on all exposed faces				
12	220mm Wide sill set sloping and slightly protecting outside	m	3		
13	Coping on top of one brick wall	m	5		
	NUTEC-CEMENT/FIBRE-CEMENT WINDOW SILLS				
	Nutec window internal sill, size 150mm x 15mm thick, manufactured in accordance with SANS 803:2005 and installed below window with window sill lug screwed to underside of sill at 400mm centres, minimum of 75mm from end of window sill and bedded in Class II mortar with plastic slip joints at end of sills at plaster reveals and projecting from the finished face of wall, all in accordance with the manufacturer's recommendations.				
14	15mm x 150mm Wide sills set flat and slightly projecting	m	3		
	Carried Forward to Summary of Section No. 7 Section No. 7 1 x 5 WATERBORNE TOILET BLOCK Bill No. 3 Mansory CLUSTER G			R	

Item No			Quantity	Rate	Amount	
	SECTION NO.7					
	BUILDING WORK					
	BILL NO.4					
	WATERPROOFING					
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.					
	SUPPLEMENTARY PREAMBLES					
	Waterproofing					
	Waterproofing of roofs, basements, etc shall be laid under a ten year guarantee by an approved applicator. Waterproofing to roofs shall be laid to even falls to outlets etc with necessary ridges, hips and valleys. Descriptions of sheet or membrane waterproofing shall be deemed to include additional labour to turn-ups and turn-downs					
	DAMP-PROOFING OF WALLS AND FLOORS					
	One layer of 375 micron Consol Plastic Brikgrip DPC" embossed damp proof course					
1	In walls	m2	8			
	One layer of 250 micron "Consol Plastic USB Green" waterproof sheeting sealed at laps with "Gunplas Pressure Sensitive Tape"					
2	Under surface beds	m2	53			
	Carried Forward to Summary of Section No. 7			R		_
	Section No. 7 1 x 5 WATERBORNE TOILET BLOCK Bill No. 4 Waterproofing CLUSTER G					
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Item No		Quantity	Rate	Amount	
	SECTION NO.7				
	BUILDING WORK				
	BILL NO.5				
	ROOF COVERINGS ETC				
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.				
	SUPPLEMENTARY PREAMBLES				
	<u>General</u>				
	All roof coverings, etc., to be with a covering of Z275 galvanising. All holes to be drilled and not punched				
	Where described as with "Chromadek" finish, all sheets, flashings, etc., shall be with "Chromadek" silicone polyester paint for exterior use				
	<u>Sizes</u>				
	All items are measured net unless otherwise described				
	Flashings, trimming plates, etc.				
	Prices to include for all cutting and waste and relevant fixing material, unless otherwise described				
	All rates for flashings, trimmings, etc., to include for forming drips and closed ends to troughs of sheet steel roof covering where applicable				
	All items are unless otherwise described measured net				
	Carried Forward		R		
	Section No. 7 1 x 5 WATERBORNE TOILET BLOCK Bill No. 5 Roof Covering, etc CLUSTER G				

	Brought Forward			R	
	PROFILED METAL SHEETING AND ACCESSORIES				
	0,5mm "Brownbuilt Klip-Lok Light Industrial" galvanised troughed sheeting steel with "Chromadek - Traffic Green" finish on one side, in single lengths fixed to steel purlins or rails and 0,6mm galvanised steel accessories with "Chromadek" finish on one side, fixed to roof members by a firm of Specialists who will give a five (5) year guarantee, all in accordance with the manufacturer's instructions				
1	Roof covering with pitch not exceeding 50 degrees	m2	70		
	STEEL LOUVRES				
	"NTY Steelworks" or similar approved				
2	Triangular steel louvre size 1500x 500mm high fixed to timber purlins including watertight heading joints, necessary sealing strips, fixing accessories, etc	No	3		
	Carried Forward to Summary of Section No. 7			R	
	Section No. 7 1 x 5 WATERBORNE TOILET BLOCK Bill No. 5				
	Roof Covering, etc CLUSTER G				

Item No		Quantity	Rate	Amount
	SECTION NO.7			
	BUILDING WORK			
	BILL NO.6			
	CARPENTRY AND JOINERY			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.			
	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, transomes, mullions, rails, etc			
	Descriptions of hardwood joinery shall be deemed to include pelleting of bolt holes			
	<u>Fixing</u>			
	Items described as "nailed" shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete			
	Carried Forward		R	
	Section No. 7 1 x 5 WATERBORNE TOILET BLOCK Bill No. 6 Capentry and Joinery			
	CLUSTER G			

Ī	Brought Forward	R	
	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		
	Pre-fabricated metal connected timber roof trusses		
	All trusses shall be fabricated by an approved truss manufacturer who holds a current Certificate of Competence awarded by the Institute for Timber Construction		
	<u>Timber</u>		
	Timber for trusses to be South African softwood and shall be in accordance with the grades as defined in SABS Specification No 563 or as defined in SABS Specification No 1460		
	<u>Bolts</u>		
	Bolts shall be in accordance with BS 4190 or SABS 135		
	Shear plates, tooth connectors and split rings		
	Shear plates, tooth connectors and split rings shall be in accordance with BSS 1759 : 1960 and installed in accordance with the CSIR Publication HOUT 468, "The Design, Manufacturing and Erection of Timber Trusses"		
	<u>Washers</u>		
	Square or round washers of the following dimensions shall be used with all bolts:		
	Bolts up to 8mm diameter:     Washers shall be minimum 25mm wide of minimum     thickness		
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	Carried Forward Section No. 7	R	
	1 x 5 WATERBORNE TOILET BLOCK Bill No. 6		
	Capentry and Joinery CLUSTER G		

Brought Forward	R	
2 Bolts up to 12mm diameter: Washers shall be minimum 36mm wide of minimum 4,00mm thickness		
3 Bolts up to 20mm diameter: Washers shall be minimum 60mm wide of minimum 5,00mm thickness		
Metal connector plates		
Metal connector plates shall be fabricated out of not less than 1mm thick drawn quality galvanised steel		
The steel shall have a minimum yield strength of 228MPa and a minimum ultimate tensile strength of 330MPa. The corrosion resisting coating shall be not less than 275g/m2 commercial class hot dipped galvanising as per SABS 934 before stamping		
All connector plates shall have been tested by the CSIR and be of a size capable of transmitting the forces between members of a truss without exceeding the design values published in the CSIR report		
<u>Truss construction</u>		
Trusses shall be constructed in jigs specially designed to unsure the correct profile, overhangs and cambers		
Where metal connector plates are used all joints are to be close fitted butt joints made by precision pressing of the metal connector plates into each side of the joint		
<u>Truss design</u>		
All trusses shall be designed by a registered Professional Engineer in accordance with SABS 0163 ("Design of Timber Structures") and Code 0160 ("Loadings")		
<u>Truss spacing</u>		
The truss centres shall be less than or equal to that as described in this bill for each respective truss		
Carried Forward	R	
Section No. 7 1 x 5 WATERBORNE TOILET BLOCK Bill No. 6 Capentry and Joinery CLUSTER G		

Brought Forward	R	
<u>Truss pitch</u>		
The truss pitch shall be as described in this bill for each respective truss type		
Truss loading		
Trusses shall be designed for a live load of 0,50kN/m2 and dead load as specified under the sub-heading "Specific load specifications for roof trusses"		
Shop drawings, design and erection guarantee certificates		
It will be expected from the Contractor to timeously prepare, submit and obtain the necessary approvals from the Representative/Agent in respect of the required shop drawings, design and erection guarantee certificates as specified		
<u>Dimensions</u>		
All dimensions given in the descriptions of the trusses are nominal and actual measurements are to be obtained by actual measurements taken on the site before design or fabrication commences		
<u>Erection</u>		
All trusses are to be hoisted and erected strictly in accordance with the procedures and recommendations of the manual "The Erection and Bracing of Timber roof Trusses" as published by the Institute for Timber Construction and the CSIR, or the SABS Code of Practice "The Design, Manufacture and Erection of Timber Roof Trusses", or as designed and detailed by the designer		
<u>Design system</u>		
The design system as documented in this bill is based on the "MiTek" system and all references given in the descriptions are related to specific type of trusses based on this design system		
Section No. 7 1 x 5 WATERBORNE TOILET BLOCK Bill No. 6 Capentry and Joinery CLUSTER G	R	

	Brought Forward		R	
	However, Contractors are to note that any design system of similar quality may be used subject to the prior written approval of the Representative/Agent			
	Specific specifications for roof trusses			
	Unless otherwise described, the following specifications will apply:			
	1 All trusses to be with a 10° pitch			
	2 The dead load consists of corrugated roof sheeting and purlins at approximately 1200mm centres			
	ROOFS			
	The following in plate nailed timber roof truss construction			
	The following is applicable in respect of roof trusses			
	The references given in the descriptions are to the respective types of trusses detailed on the architect's drawings annexed to these bills of quantities/accompanying these bills of quantities for tender purposes			
	Prices for rafters and trusses to include all "Hurricane" clips, steel M-runners and "Permfix" plates, screws, nails, wires, sundry material, etc (bracing, wallplates, purlins and gangboarding are measured seperately)			
	Allow for the preparation and submission of the following documents in respect of all buildings			
1	Detailed shop drawings indicating truss sizes, truss positions, bracings, details, etc. to be submitted for approval prior the commencement of any fabrication	ltem		
2	Design certificate indicating the licensed programme used, SANS specifications adhered to, general procedures and loadings adopted, sizes and grading of			
	timber components, details, etc.	Item		
	Section No. 7 1 x 5 WATERBORNE TOILET BLOCK Bill No. 6 Capentry and Joinery CLUSTER G		R	

	Brought Forward			R	
3	Erection guarantee certificate after the whole completed roof truss structure have been inspected, all defective work have been taken out and made good, etc. to the full satisfaction of the Principal Agent		Item		
	Sawn softwood				
4	Roof construction to double pitched roof supplied and erected complete in position with bracing, gangboarding, purlins, eaves purlins, hipped end, rafters etc. for waterborne toilet block approximately 22m2 on plan (Refer to architect's drawings attached to these bills of quantities)	No	1		
	Sawn softwood grade 4				
5	38 x 114mm Wall plates	m	35		
	Sundries				
6	Two coats creosote on sawn timbers	m2	8		
	EAVES, VERGES, ETC				
	"Everite FC77" pressed fibre-cement				
7	15 x 250mm Fascias and barge boards including galvanised steel H-profile jointing strips	m	35		
	DOORS, ETC				
	Wrought meranti doors hung to steel frames				
8	44mm Framed and ledged batten door 813 x 2032mm high of 44 x 100mm top rail and stiles, 22 x 100mm middle and bottom rails, covered on both sides with 6mm plywood with veneer (D3)	No	5		
	Couried Forward to Common of Coetion No. 7			D	
	Carried Forward to Summary of Section No. 7 Section No. 7 1 x 5 WATERBORNE TOILET BLOCK Bill No. 6 Capentry and Joinery CLUSTER G			R	

Item No		Quantity	Rate	Amount
	SECTION NO.7			
	BUILDING WORK			
	BILL NO.7			
	CEILING, ETC.			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.			
	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 elsewhere			
	CEILING CONSTRUCTION, CORNICES, ETC.			
	<u>Insulation</u>			
1	100mm glass fibre insulation blanket to manufacturer's specification, laid on ceiling.	2 56		
	Sawn softwood			
2	38 x 114mm Ceiling joists (Provisional)	m 9		
	Carried Forward		R	
	Section No. 7 1 x 5 WATERBORNE TOILET BLOCK Bill No. 7 Ceiling, Partitions and Access Flooring CLUSTER G			

	Brought Forward			R	
	"Rhino" gypsum plasterboard cornices				
3	75mm Coved cornices	m	35		
	NAILED UP AND SCREWED UP CEILINGS				
	6mm "Everite Nutec" fibre-cement boards with H-profile primed steel jointing cover strips over joints				
4	Ceilings including 38 x 38mm brandering at 90deg to trusses at maximum centres of 400mm by 32mm long galvanised nails.				
		m2	56		
5	Extra over ceiling for opening for 610 x 610mm trap door of 50 x 76mm wrought softwood rebated framing with one 38 x 38mm sawn softwood cross brander covered with ceiling board and fitted flush in opening	No	1		
	Carried Forward to Summary of Section No. 7			R	
	Section No. 7 1 x 5 WATERBORNE TOILET BLOCK Bill No. 7				
	Ceiling, Partitions and Access Flooring CLUSTER G				

Item No		Quantity	Rate	Amount
	SECTION NO.7			
	BUILDING WORK			
	BILL NO.8			
	IRONMONGERY			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.			
	SUPPLEMENTARY PREAMBLES			
	<u>Descriptions</u>			
	Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs			
	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 SD Sanded			
	CATCHES,CABIN HOOKS, ETC			
	"Solid"			
1	100mm Cabin hook and eye including 70 x 70 x 20mm chamfered hardwood block twice oiled and plugged No	5		
	LOCKS			
	Carried Forward		R	
	Section No. 7 1 x 5 WATERBORNE TOILET BLOCK Bill No. 8 Ironmongery CLUSTER G			

	Brought Forward			R	
	"Solid"or similar approved		ľ		
2	"Code 630" padlock	No	2		
3	"Code 460/313" Blesbok four lever lockset	No	5		
4	293/E41 WC indicator bolt with keep fixed to metal	No	5		
	LETTERS, NAMEPLATES, ETC				
	"Union" or similar approved				
5	150 x 150mm Stainless steel plate engraved with "female" sign (St/Steel)	No	6		
6	150 x 150mm Stainless steel plate engraved with "male" sign (St/Steel)	No	1		
	BATHROOM FITTINGS				
	"Nampak" or similar approved				
7	Vandal resistant 2 roll holder complete fitments or similar approved	No	5		
	Carried Forward to Summary of Section No. 7 Section No. 7 1 x 5 WATERBORNE TOILET BLOCK Bill No. 8 Ironmongery CLUSTER G			R	

Item No		Quantity	Rate	Amount
-	SECTION NO.7			
	BUILDING WORK			
	BILL NO. 9			
	<u>METALWORK</u>			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.			
	<u>Descriptions</u>			
	Descriptions of bolts shall be deemed to include nuts and washers Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete Metalwork described as "holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described			
	<u>Drawings</u>			
	Tenderers are referred to architect's drawings annexed to this document for full details of the windows, doors, etc			
	WELDED SCREENS, GATES, ETC			
	Gates to external doors			
1	Gate and frame 900 x 2100mm high complete (G1)			
	No	2		
	PRESSED STEEL DOOR FRAMES			
	Section No. 7 1 x 5 WATERBORNE TOILET BLOCK Bill No. 9 Metalwork CLUSTER G		R	

	Brought Forward			R	
	1,2mm Double rebated frames suitable for half brick walls				
2	Frame for door 813 x 2032mm high	No	5		
	1,2mm Double rebated frames suitable for one brick walls				
3	Frame for door 813 x 2032mm high	No	5		
	STEEL WINDOWS, DOORS, ETC				
	"Nty" or similar approved steel residential windows with burglar bars to all sashes				
4	Window type NC 1, size 533 x 949mm high	No	5		
	Carried Forward to Summary of Section No. 7 Section No. 7			R	<del></del>
	1 x 5 WATERBORNE TOILET BLOCK Bill No. 9				
	Metalwork CLUSTER G				
	OLOGIEK O				

Item No			Quantity	Rate	Amount	
	SECTION NO.7					
	BUILDING WORK					
	BILL NO. 10					
	PLASTERING					
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.					
	GRANOLITHIC					
	Untinted granolithic on concrete					
	SCREEDS					
	Screeds on concrete					
1	30mm Thick on floors	n2	56			
	INTERNAL PLASTER					
	Cement plaster on brickwork					
2	On walls	n2	263			
						_
	Carried Forward to Summary of Section No. 7			R		=
	Section No. 7 1 x 5 WATERBORNE TOILET BLOCK Bill No. 10 Plastering CLUSTER G					

Item No		Quantity	Rate	Amount
	SECTION NO.7			
	BUILDING WORK			
	BILL NO.11			
	<u>TILING</u>			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.			
	SUPPLEMENTARY PREAMBLES			
	Descriptions			
	Unless described as "fixed with adhesive to plaster (plaster elsewhere)" descriptions of tiling on brick or concrete walls, columns, etc shall be deemed to include 1:4 cement plaster backing and descriptions of tiling on concrete floors etc shall be deemed to include 1:3 plaster bedding			
	FLOOR TILING			
	300 x 300 x 11,5mm Ceramic floor tiles (PC R120.00/m2 VAT excl.) fixed with adhesive to plaster (plaster elsewhere) and flush pointed with tinted waterproof jointing compound			
1	On floors and landings m.	2 56		
2	Skirting formed of ceramic tile cut to 300 x 75mm high r			
_	Citi ang lenned en ceranne the ear to eee x renim riigh			
	Carried Forward to Summary of Section No. 7		R	
	Section No. 7 1 x 5 WATERBORNE TOILET BLOCK Bill No. 11 Tiling CLUSTER G			

Item No		Quantity	Rate	Amount	
	SECTION NO.7				
	BUILDING WORK				
	BILL NO.12				
	PLUMBING AND DRAINAGE				
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.				
	SUPPLEMENTARY PREAMBLES				
	"Polycop" polypropylene pipes:				
	Polypropylene pipes 54mm diameter and under shall be seamless copper coloured class 16 pipes jointed with "Fast-fuse" heat welded thermoplastic or brass compression fittings as designed for use with copper pipes as stated				
	Pipes shall be firmly fixed to walls etc with coloured nylon snap-in pipe clips with provision for accommodating thermal movement and jointed and fixed strictly in accordance with the manufacturer's instructions				
	All pipe diameters are nominal external				
	"Polylink" polypropylene pipes:				
	Polypropylene pipes 63mm diameter and over shall be class 12 pipes jointed with cast iron "Supraclamp" running joints				
	Fusion welded bends, once or twice mitred as necessary, and tees shall be factory manufactured				
	Carried Forward		R		_
	Section No. 7 1 x 5 WATERBORNE TOILET BLOCK Bill No. 12 Plumbing and Drainage CLUSTER G				

Brought Forward	R	
Fusion welded bends and tees shall include jointing to pipes with PVC rubber ring double Z joint couplers		
Branch tees shall include flanged and bolted joints to "Polycop" branch pipes in addition and for brass compression male iron to copper straight couplers		
Reducers shall include jointing to pipes with PVC rubber ring double Z joint couplers and reducers shall be of sufficient overall length to accommodate same		
All pipes shall be jointed and fixed strictly in accordance with the manufacturer's instructions		
All pipe diameters are nominal external		
Concrete pipes:		
Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rings		
Vitrified clay pipes:		
Pipes shall rest on solid ground and, where necessary, pockets of sufficient size shall be cut around joints to enable the jointing to be properly performed or, alternatively, pipes shall be bedded full length on and including unreinforced concrete laid in a semi-dry state immediately before pipes are laid		
Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings		
uPVC pipes and fittings:		
Soil, waste and vent pipes and fittings shall be solvent weld jointed		
uPVC pressure pipes and fittings:		
Pipes for water supply shall be of the class stated		
Carried Forward  Section No. 7 1 x 5 WATERBORNE TOILET BLOCK Bill No. 12 Plumbing and Drainage CLUSTER G	R	

Brought Forward	R		
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 fixing to walls etc, casting in, building in or suspending not exceeding 1m below suspension level			
Lead pipes and fittings			
All soldered joints shall be wiped and brass unions shall be used for jointing lead to steel			
Carried Forward  Section No. 7 1 x 5 WATERBORNE TOILET BLOCK Bill No. 12 Plumbing and Drainage CLUSTER G	R		

İ	Brought Forward	R	
	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"		
	Section No. 7 1 x 5 WATERBORNE TOILET BLOCK Bill No. 12 Plumbing and Drainage CLUSTER G	R	

Brought Forward	R	
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 clauses 3, 5.5, 5.6, 5.7 and 7 of SABS 1200 DB: Earthworks (Pipe trenches) Pipes shall be bedded in accordance with clauses 3.1 to 3.4.1, 5.1 to 5.3 and 7 of SABS 1200 LB: Bedding (Pipes). Unless otherwise described bedding of rigid pipes shall be class B bedding		
Flush pans		
Flush pans shall have straight or side outlets and "P" or "S" traps as necessary		
Stainless steelbasins, 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		
Steel sectional water tanks		
Tanks shall comply with SABS CKS 114		
"Densyl" petrolatum anti-corrosion tape as manufactured by Denso SA (Pty) Ltd.		
Pipes to be taped shall be coated with the appropriate primer and the tape shall be applied with minimum 15mm lap per spiral unless otherwise described		
Carried Forward  Section No. 7 1 x 5 WATERBORNE TOILET BLOCK Bill No. 12 Plumbing and Drainage	R	
CLUSTER G		

	Brought Forward	ı		R	
i	Couplings and fittings to pipes shall be taped in strict accordance with the manufacturer's instructions including all mastic, tape, "Layflat" sheeting, securing of same, etc				
	RAINWATER DISPOSAL				
	0,6mm Galvanised sheet iron with "Chromadek" finish on one side				
1	100 x 125mm Eaves gutters with beaded front edge	m	35		
2	Extra over eaves gutter for angle	No	5		
3	Extra over eaves gutter for stopped end	No	3		
4	Extra over eaves gutter for outlet for 100mm diameter pipe	No	5		
5	100mm Diameter rainwater pipes	m	20		
6	Extra over rainwater pipe for eaves or plinth offset 450mm projection	No	5		
7	Extra over rainwater pipe for shoe	No	5		
	SOIL DRAINAGE				
	uPVC pipes				
8	110mm Pipes vertically or ramped to cleaning eye etc (no excavation)	m	13		
9	110mm Pipes laid in and including trenches not exceeding 1m deep	m	88		
	Extra over uPVC pipes for fittings				
10	110mm Access bend	No	5		
11	110mm Access junction	No	5		
	Carried Forward Section No. 7	ı		R	
	1 x 5 WATERBORNE TOILET BLOCK Bill No. 12 Plumbing and Drainage CLUSTER G				

	Brought Forward			R	
12	110mm Bend	No	10		
13	110mm Junction	No	3		
14	110mm uPVC rodding eye cover in end of pipe	No	5		
	Sundries				
15	100mm Cast iron "ABC" cleaning eye	No	1		
16	Precast concrete inspection eye marker slab set in ground	No	1		
17	110mm Rodding eye	No	1		
18	Extra over excavation in earth for pipe trenches, chambers, etc for excavation in soft rock	m3	3		
19	Extra over excavation in earth for pipe trenches, chambers, etc for excavation in hard rock	m3	3		
	SANITARY FITTINGS				
	"Vaal" or similar approved				
20	Vaal Sanitaryware 510 x 405mm Hibiscus White vitreous china lavatory basin (Code: 7023) with two tapholes including integrated overflow and chainstay hole, bolted to wall with two 10mm bolts (product code 8448Z0).	No	4		
21	Vaal Sanitaryware Hibiscus White vitreous china close coupled washdown suite comprising 90° outlet open rim pan (product code 772600) and matching 6/3 litre front dual flush cistern (product code 710539) including "PARKER AVANT" toilet seat	No	5		
	WASTE UNIONS ETC				
	"Cobra Watertech" or similar approved				
22	38mm "Cobra 316" unslotted waste and plug with chain	No	4		
	Carried Forward  Section No. 7 1 x 5 WATERBORNE TOILET BLOCK Bill No. 12 Plumbing and Drainage CLUSTER G			R	

	Brought Forward			R	Ī
	TRAPS ETC				1
	"Marley" or similar approved				
	Chromium plated				
23	32 x 40mm Bottle trap	No	4		
	CATCH PITS ETC				
	The following in stormwater catchpits, junction boxes and inlet manholes				
	TAPS, VALVES, ETC				
	"Cobra Watertech" or similar approved				
24	Cobra Watertech 15mm chrome plated hi-waste elbow action pillartap with blue indicator for cold water (Code: 504-21B), manufactured in accordance with SANS 226:2004 Type 2 (BS 5412).	No	5		
25	Cobra Watertech 15mm compression type angle regulating valve with 10mm bendable copper outlet tube service connection (Code: 232/350).	No	5		
	SANITARY PLUMBING				
	uPVC pipes				
26	50mm Pipes	m	13		
27	50mm Pipes laid in and including trenches not exceeding 1m deep	m	33		
28	110mm Pipes	m	15		
	Extra over uPVC pipes for fittings				
29	50mm Bend	No	50		
30	50mm Access bend	No	5		
	Carried Forward			R	<u> </u>
	Section No. 7 1 x 5 WATERBORNE TOILET BLOCK Bill No. 12 Plumbing and Drainage CLUSTER G			K	

	Brought Forward			R	
31	50mm BSP adaptor	No	3		
32	50mm "GI Two-way" vent valve	No	1		
33	110mm Bend	No	5		
34	110mm Access bend	No	5		
35	110mm Pan Connector	No	5		
36	110mm "GI Two-way" vent valve	No	1		
	<u>Sundries</u>				
	WATER SUPPLIES				
	Class 16 uPVC pressure pipes with solvent welded joints				
37	32mm Pipes laid in and including trenches not exceeding 1m deep	m	29		
	Extra over class 16 uPVC pressure pipes for fittings with solvent welded joints				
38	32mm Bend	No	5		
	Class 0 copper pipes				
39	15mm Pipes	m	30		
40	22mm Pipes	m	29		
	Extra over class 0 copper pipes for capillary fittings				
41	15mm Fittings	No	43		
42	22mm Fittings	No	31		
	<u>Brass</u>				
43	15mm Fullway gate valve	No	1		
	Carried Forward  Section No. 7 1 x 5 WATERBORNE TOILET BLOCK Bill No. 12  Distribution and Drainage			R	
	Plumbing and Drainage CLUSTER G				

	Brought Forward		R	
44	22mm Fullway gate valve No	1		
				_
	Carried Forward to Summary of Section No. 7 Section No. 7		R	_
	1 x 5 WATERBORNE TOILET BLOCK Bill No. 12			
	Plumbing and Drainage CLUSTER G			

Item No		Quantity	Rate	Amount
	SECTION NO.7			
	BUILDING WORK			
	BILL NO. 13			
	GLAZING			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.			
	GLAZING TO STEEL WITH PUTTY			
	4mm Clear float glass			
1	Panes exceeding 0,5m2 and not exceeding 2m2 m2	54		
	4mm Rough cast glass			
2	Panes exceeding 0,1m2 and not exceeding 0,5m2 m2	3		
	TOPS, SHELVES, DOORS, MIRRORS, ETC			
	4 mm Silvered float glass copper backed mirrors with 10 mm bevelled and polished edges holed for and fixed with chromium plated dome capped mirror screws with rubber buffers to plugs in brickwork or concrete			
3	Mirror 400 x 600mm high with four (4) screws No	3		
	Carried Forward to Summary of Section No. 7		R	
	Section No. 7 1 x 5 WATERBORNE TOILET BLOCK Bill No. 13 Glazing CLUSTER G			

Item No			Quantity	Rate	Amount
	SECTION NO.7				
	BUILDING WORK				
	BILL NO. 14				
	<u>PAINTWORK</u>				
	For preambles see "Model Preambles for Edition)" and Supplementary preambles the Trades.				
	SUPPLEMENTARY PREAMBLES				
	DESCRIPTIONS				
	Descriptions of paintwork shall be deem all cutting in	ned to include for			
	PAINT SPECIFICATIONS				
	All painting shall be done in accordance Evans" specifications	e with "Plascon-			
	PAINTWORK ETC TO NEW WORK ON FLOATED PLASTER				
	Section No. 7 1 x 5 WATERBORNE TOILET BLOCK Bill No. 14 Paintwork CLUSTER G	Carried Forward		R	

	Brought Forward			R	
3	Plascon Polvin Super Acrylic to interior new cement plaster (NW 205).Surface to be dry, sound and clean and cured for a minimum of 14 days, with a moisture content measured with a Doser Hygrometer (or equivalent), of BD 2 scale - 8% or less. Prime with one coat of Plascon Plaster Primer (UC 56) with an overcoating time of 16 hours and finish with two coats of Polvin Super Acrylic (EPL) with 1 hour drying time between coats, for a maintenance cycle of 5 years in a C1 - inland environment.				
1	On internal walls	m2	209		
	One coat primer, one coat universal undercoat and two coats super acrylic PVA paint				
2	On ceilings and cornices	m2	56		
	Plascon Sure Coat Gloss Enamel to exterior new fibre cement (NW 174). Surface to be dry, sound and clean, with a moisture content, measured with a Doser Hygrometer (or equivalent), of BD 2 scale - 8% or less. Prime with one coat of Plascon Plaster Primer (UC 56) with an overcoating time of 16 hours and finish with two coats of Sure Coat Gloss Enamel (SGE) with 16 hours drying time between coats, for a maintenance cycle of 2 years in a C1 - inland environment.				
3	On fascias and barge boards	m2	4		
	Plascon Sure Coat Gloss Enamel to interior new fibre cement (NW 274). Surface to be dry, sound and clean, with a moisture content, measured with a Doser Hygrometer (or equivalent), of BD 2 scale - 8% or less. Prime with one coat of Plascon Plaster Primer (UC 56) with an overcoating time of 16 hours and finish with two coats of Sure Coat Gloss Enamel (SGE) with 16 hours drying time between coats, for a maintenance cycle of 4 years in a C1 - inland environment.				
	ON METAL				
	Carried Forward  Section No. 7 1 x 5 WATERBORNE TOILET BLOCK Bill No. 14 Paintwork CLUSTER G			R	

	Brought Forward			R	
5)	Plascon Velvaglo Satin to exterior new mild steel (NW 683). Surface to be clean and dry. Remove surface contaminants using Plascon Aquasolv Degreaser (GR 1) with bristle brush or Brillo pads. Rinse thoroughly with tap water until surface is water break-free. Remove rust and millscale by abrasive blasting to ISO 8501 - 01:1988 - Sa2½ or by hand/mechanical wire brushing to St3of the same standard. Allow to dry completely and prime within 4 hours of cleaning. Prime with one coat of Metal Primer (UC 501) with an overcoating time of 16 hours and finish with two coats of Velvaglo Satin (VLO) with 16 hours drying time between coats, for a maintenance cycle of 3 years in a C1 - inland environment.				
4	On door frames	m2	6		
5	On windows with burglar bars	m2	3		
6	On gates, grilles, burglar screens, balustrading, etc (both sides measured over the full flat area )	m2	5		
7	On outside of eaves gutters and rainwater pipes before fixing not exceeding 300mm high	m	70		
	ON WOOD				
	Plascon Velvaglo Satin to interior new wood (NW 571). Surface to be dry, sound and clean. Wash knots and resinous areas with Lacquer Thinners (ILS 1) and coat with Woodcare Knot Seal (PK 2) and apply one coat of Plascon Woodcare Pretreatment (WWP 1), overcoated within 48 hours with a moisture content, measured with a Doser Hygrometer (or equivalent), of BD 2 scale (A1-A5) < 14% or less. Prime with one coat of Wood Primer (UC 2) with an overcoating time of 16 hours and finish with two coats of Velvaglo Satin (VLO) with 16 hours drying time between coats, for a maintenance cycle of 7 years in a C1 - inland environment.				
8	On doors	m2	16		
	Section No. 7 1 x 5 WATERBORNE TOILET BLOCK Bill No. 14 Paintwork CLUSTER G			R	

	Brought Forward		R	
	Three coats matt varnish			
9	On doors m2	9		
				—
	Carried Forward to Summary of Section No. 7		R	_
	Section No. 7 1 x 5 WATERBORNE TOILET BLOCK			
	Bill No. 14 Paintwork			
	CLUSTER G			

	Section No. 7			
	1 x 5 WATERBORNE TOILET BLOCK			
	SECTION SUMMARY - 1 x 5 WATERBORNE TOILET BLOCK			
Bill No		Page No		Amount
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	Carried to Final Summary Section No. 7		R	
	1 x 5 WATERBORNE TOILET BLOCK  CLUSTER G			
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Item No		Quantity	Rate	Amount
	SECTION NO.3			
	BUILDING WORK			
	BILL NO.1			
	<u>FOUNDATIONS</u>			
	<u>EARTHWORKS</u>			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.			
	SUPPLEMENTARY PREAMBLES			
	Nature of ground			
	The nature of the ground is assumed to be sandy weathered granite, therefore "earth", but possibly interspersed with "hard rock"			
	Excavation for working space in rock			
	Notwithstanding clause 11 page 8 of the Standard System of Measuring Building Work, excavation for working space in rock will be measured in cubic metres to the extent executed and given as "extra over" bulk excavation or trench and hole excavation as the case may be			
	Carting away of excavated material			
	Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site			
	Carried Forward		R	
	Section No. 8 1 x 4 ENVIROLOO TOILETS BLOCK Bill No. 1 Foundations CLUSTER G			

	Brought Forward			R	
	Filling				
	Notwithstanding the reference to prescribed multiple handling in clause 1 page 6 of the Standard System of Measuring Building Work, prices for filling and backfilling shall include for all selection and any multiple handling of material				
	Soil poisoning				
	Ant and weed poisoning will be applied in accordance to SABS specifications by Registered and Approved Specialists who will issue a five (5) year guarantee. The contractor will only be paid for this items once they have produced the said cerfificate to the Principal Agent				
	SITE CLEARANCE, ETC.				
	Site clearance				
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc.	m2	80		
	REMOVAL TREES, ETC.				
	Taking out and removing, grubbing up roots and filling holes.				
2	Tree stump exceeding 200mm and not exceeding 500mm girth.	No	3		
	EXCAVATION, FILLING, ETC				
	Excavation in earth not exceeding 2m deep				
3	Trenches	m3	6		
4	Holes for tanks, etc.	m3	24		
	Carried Forward  Section No. 8  1 x 4 ENVIROLOO TOILETS BLOCK			R	
	Bill No. 1 Foundations CLUSTER G				

	Brought Forward			R	
	Extra over trench and hole excavations in earth for excavation in				
5	Soft rock	m3	5		
6	Hard rock	m3	3		
	Extra over all excavations for carting away				
7	Surplus material from excavations on site to a dumping site to be located by the contractor	m3	15		
	Risk of collapse of excavations				
8	Sides of trench and hole excavations not exceeding 1,5m deep	m2	181		
	Keeping excavations free of water				
9	Keeping excavations free of all water other than subterranean water		Item		
	Earth filling obtained from the excavations and /or prescribed stock piles on site including compacted to 93% Mod AASHTO density				
10	Backfilling to trenches, holes, etc	m3	6		
11	Under floors, steps, paving, etc	m3	10		
	Compaction of surfaces				
12	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 93% Mod AASHTO density				
	•	m2	31		
	Prescribed density tests on filling				
13	"Modified AASHTO Density" test	No	13		
	Section No. 8 1 x 4 ENVIROLOO TOILETS BLOCK Bill No. 1 Foundations CLUSTER G			R	

	Brought Forward	1		R	
	SOIL POISONING				
	Soil insecticide				
14	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m2	31		
15	To bottoms and sides of trenches etc	m2	40		
	CONCRETE, FORMWORK AND REINFORCEMENT				
	UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES				
	25MPa/19mm concrete				
16	Strip footings	m3	3		
17	Strip footing cast in pit latrines holes	m3	4		
	TEST CUBES				
18	Allow for preparing a set of three concrete strength test cubes, each size 150 x 150 x 150mm, sending them to an approved Testing Laboratory for testing and paying all charges in connection therewith.	Sets	12.5		
	BRICKWORK				
	Brickwork of NFP bricks in class II mortar				
19	One brick walls - in holes	m2	50		
20	One brick walls	m2	18		
21	115mm Brick corbelling in septic tank	m2	54		
	BRICKWORK SUNDRIES				
	Carried Forward  Section No. 8 1 x 4 ENVIROLOO TOILETS BLOCK Bill No. 1 Foundations CLUSTER G			R	

	Brought Forward			R	
	Brickwork reinforcement				
22	75mm wide reinforcement built in horizontally.	m	149		
23	150mm Wide reinforcement built in horizontally	m	48		
	FACE BRICKWORK				
	Face bricks (Purchase price of R 4 000,00/1000 VAT excl. delivered to site) pointed with recessed horizontal and vertical joints				
24	Extra over brickwork for face brickwork	m2	9		
	INTERNAL PLASTER				
	Steel troweled cement plaster on brickwork				
25	On walls in septic tank	m2	50		
	FLOOR AND WALL SEALERS				
	Minimum two coats 'approved' black epoxy coat				
26	On internal textured plaster walls	m2	50		
					_
	Carried Forward to Summary of Section No. 8 Section No. 8			R	<u></u>
	1 x 4 ENVIROLOO TOILETS BLOCK Bill No. 1 Foundations				
	CLUSTER G				

Item No		Quantity	Rate	Amount
	SECTION NO.3			
	BUILDING WORK			
	BILL NO.2			
	CONCRETE, FORMWORK AND REINFORCEMENT			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.			
	SUPPLEMENTARY PREAMBLES			
	Cost of tests			
	The costs of making, storing and testing of concrete test cubes as required under clause 7 "Tests" of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the architect. The testing shall be undertaken by an independent firm or institution nominated by the contractor and to the approval of the architect. (Test cubes are measured separately)			
	Breeze concrete shall consist of twelve parts clean dry furnace ash, free from coal or other foreign matter, to one part cement (12:1), the ash graded up to particles which will pass a 16,5mm ring from a minimum which fails to pass a 4,75mm mesh. The finer materials from the screening are to be first mixed with the cement into a mortar and the ash added afterwards and thoroughly incorporated			
	Carried Forward  Section No. 8 1 x 4 ENVIROLOO TOILETS BLOCK Bill No. 2 Concrete, Formwork and Reinforcement CLUSTER G		R	

	Brought Forward			R		
	<u>Formwork</u>					
	Description of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before reuse					
	The vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without damage and shall remain in position until the newly constructed work is able to support itself					
	Formworks to soffits of solid slabs etc shall be deemed to be slabs not exceeding 250mm thick unless otherwise described					
	Formwork to soffits of slabs, beams, etc shall be deemed to be propped up exceeding 1,5m and not exceeding 3,5m high unless otherwise described					
	Formwork to sides of bases, pile caps, ground beams, etc will only be measured where it is prescribed by the engineer for design reasons. Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in "Earthworks"					
	UNREINFORCED CONCRETE					
	20MPa/19mm concrete					
1	Surface beds	m3	1			
2	Surface beds cast in panels on waterproofing.	m3	3			
3	Aprons cast in panels to falls	m3	4			
	Carried Forward Section No. 8			R		
	1 x 4 ENVIROLOO TOILETS BLOCK Bill No. 2 Concrete, Formwork and Reinforcement CLUSTER G					

	Brought Forward	1		R	
	REINFORCED CONCRETE				
	25MPa/19mm concrete				
4	Slabs including beams and inverted beams	m3	5		
	CONCRETE SUNDRIES				
	Finishing top surfaces of concrete smooth with a steel trowel				
5	Surface beds, slabs, etc	m2	31		
	Finishing top surfaces of concrete smooth with a wood float				
6	Surface beds, slabs, etc	m2	31		
7	Aprons to falls	m2	38		
	<u>FORMWORK</u>				
	ROUGH FORMWORK (DEGREE OF ACCURACY II)				
	Rough formwork to sides				
8	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	38		
	SMOOTH FORMWORK (DEGREE OF ACCURACY II)				
	Smooth formwork to soffits				
9	Slabs	m2	31		
	Permanent formwork to soffits				
10	Slabs propped up not exceeding 1.5m high	m2	31		
	Carried Forward Section No. 8			R	
	1 x 4 ENVIROLOO TOILETS BLOCK Bill No. 2				
	Concrete, Formwork and Reinforcement CLUSTER G				

	Brought Forward			R	
11	Form 500mm radius opening in floor slab	No	13		
	TEST CUBES				
12	Allow for preparing a set of three concrete strength test cubes, each size 150 x 150 x 150mm, sending them to an approved Testing Laboratory for testing and paying all charges in connection therewith.	Sets	12.5		
	REINFORCEMENT				
	High tensile steel reinforcement to structural concrete work				
13	12mm Diameter	t	2.50		
14	10mm Diameter bars	t	1.25		
	Mild steel reinforcement to structural concrete work				
	REINFORCEMENT (PROVISIONAL)				
	Fabric reinforcement				
15	Steeledale Mesh standard square fabric mesh, nominal mass 1,93 kg/m² with nominal 5,6mm thick wires and 200 x 200mm pitch (code 193), complying with SANS 1024/2006 requirements, in sheets 2,4 x 6m long.	m2	31		
	Carried Forward to Summary of Section No. 8 Section No. 8			R	
	1 x 4 ENVIROLOO TOILETS BLOCK Bill No. 2 Concrete, Formwork and Reinforcement CLUSTER G				

Item No		Quantity	Rate	Amount
	SECTION NO.3			
	BUILDING WORK			
	BILL NO. 3			
	MASONRY			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.			
	SUPPLEMENTARY PREAMBLES			
	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			
	Linings to concrete			
	Descriptions of linings to concrete, unless otherwise described, shall be deemed to include wire ties			
	Hollow walls etc			
	Descriptions of hollow walls shall be deemed to include wire ties and leaving every fifth perpend of the bottom course of the external skin open as a weep hole			
	Reinforced brick lintels			
	Lintels shall bear at least 160mm onto adjacent walling. Where such bearing cannot be obtained due to the proximity of adjacent openings the lintel shall be continuous			
	Carried Forward		R	
	Section No. 8 1 x 4 ENVIROLOO TOILETS BLOCK Bill No. 3 Masonry CLUSTER G			

	Brought Forward			R	
	Face bricks	i.			
	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				
	SUPERSTRUCTURE				
	Brickwork of NFP bricks in class II mortar				
1	Half brick walls	m2	70		
2	One brick walls	m2	130		
	Brickwork reinforcement				
3	75mm Wide reinforcement built in horizontally	m	258		
4	150mm Wide reinforcement built in horizontally	m	478		
	Turning pieces				
5	230mm Wide turning piece to lintels etc	m	56		
	"Allied Concrete" prestressed fabricated lintels				
6	110 x 75mm Lintels in lengths not exceeding 3m	m	5		
	Galvanised wire ties etc				
7	4mm Diameter roof tie 2m girth bent double with one end fixed to timber and other end built into brickwork	No	19		
	FACE BRICKWORK				
	Carried Forward  Section No. 8 1 x 4 ENVIROLOO TOILETS BLOCK Bill No. 3 Masonry CLUSTER G			R	

Brought Forward			R	
Face bricks (Purchase price of R4 700,00/1000 VAT excl. delivered to site) pointed with recessed horizontal and vertical joints				
Extra over brickwork for face brickwork	m2	184		
Brick-on-edge header course copings, sills, etc of face bricks (Purchase price R4 700,00 / 1000 VAT excl. delivered to site) pointed with recessed joints on all exposed faces				
Fair raking cutting	m	10		
Extra over brickwork for brick-on-edge header course lintel	m	5		
Fair cutting and fitting around pipe not exceeding 100mm diameter	No	5		
Brick-on-edge header course copings, sills, etc of face bricks(Purchase price of R4 700,00/1000 VAT excl. delivered to site) pointed with recessed joints on all exposed faces				
110mm Wide sills set sloping and slightly projecting	m	5		
220mm Wide sill set sloping and slightly protecting outside	m	5		
Carried Forward to Summary of Section No. 8 Section No. 8 1 x 4 ENVIROLOO TOILETS BLOCK Bill No. 3 Masonry CLUSTER G			R	
	Face bricks (Purchase price of R4 700,00/1000 VAT excl. delivered to site) pointed with recessed horizontal and vertical joints  Extra over brickwork for face brickwork  Brick-on-edge header course copings, sills, etc of face bricks ( Purchase price R4 700,00 / 1000 VAT excl. delivered to site) pointed with recessed joints on all exposed faces  Fair raking cutting  Extra over brickwork for brick-on-edge header course lintel  Fair cutting and fitting around pipe not exceeding 100mm diameter  Brick-on-edge header course copings, sills, etc of face bricks(Purchase price of R4 700,00/1000 VAT excl. delivered to site) pointed with recessed joints on all exposed faces  110mm Wide sills set sloping and slightly projecting  220mm Wide sill set sloping and slightly protecting outside  Carried Forward to Summary of Section No. 8  Section No. 8  1 x 4 ENVIROLOO TOILETS BLOCK  Bill No. 3  Masonry	Face bricks (Purchase price of R4 700,00/1000 VAT excl. delivered to site) pointed with recessed horizontal and vertical joints  Extra over brickwork for face brickwork m2  Brick-on-edge header course copings, sills, etc of face bricks (Purchase price R4 700,00 / 1000 VAT excl. delivered to site) pointed with recessed joints on all exposed faces  Fair raking cutting m  Extra over brickwork for brick-on-edge header course lintel m  Fair cutting and fitting around pipe not exceeding 100mm diameter No  Brick-on-edge header course copings, sills, etc of face bricks(Purchase price of R4 700,00/1000 VAT excl. delivered to site) pointed with recessed joints on all exposed faces  110mm Wide sills set sloping and slightly projecting m  220mm Wide sill set sloping and slightly protecting outside m  Carried Forward to Summary of Section No. 8  Section No. 8  1 × 4 ENVIROLOO TOILETS BLOCK Bill No. 3  Masonry	Face bricks (Purchase price of R4 700,00/1000 VAT excl. delivered to site) pointed with recessed horizontal and vertical joints  Extra over brickwork for face brickwork m2 184  Brick-on-edge header course copings, sills, etc of face bricks (Purchase price R4 700,00 / 1000 VAT excl. delivered to site) pointed with recessed joints on all exposed faces  Fair raking cutting m 10  Extra over brickwork for brick-on-edge header course lintel m 5  Fair cutting and fitting around pipe not exceeding 100mm diameter No 5  Brick-on-edge header course copings, sills, etc of face bricks(Purchase price of R4 700,00/1000 VAT excl. delivered to site) pointed with recessed joints on all exposed faces  110mm Wide sills set sloping and slightly projecting m 5  220mm Wide sill set sloping and slightly protecting outside m 5  Carried Forward to Summary of Section No. 8  Section No. 8  1 × 4 ENVIROLOO TOILETS BLOCK  Bill No. 3  Massonry	Face bricks (Purchase price of R4 700.00/1000 VAT excl. delivered to site) pointed with recessed horizontal and vertical joints  Extra over brickwork for face brickwork m2  Brick-on-edge header course copings, sills, etc of face bricks (Purchase price R4 700.00 / 1000 VAT excl. delivered to site) pointed with recessed joints on all exposed faces  Fair raking cutting m 10  Extra over brickwork for brick-on-edge header course lintel m 5  Fair cutting and fitting around pipe not exceeding 100mm diameter No 5  Brick-on-edge header course copings, sills, etc of face bricks(Purchase price of R4 700.00/1000 VAT excl. delivered to site) pointed with recessed joints on all exposed faces  110mm Wide sills set sloping and slightly projecting m 5  220mm Wide sill set sloping and slightly protecting outside m 5  Carried Forward to Summary of Section No. 8  Section No. 8  1 x 4 ENVIROLOO TOILETS BLOCK Bill No. 3  Massonry

DING WORK  NO.4  ERPROOFING  ambles see "Model Preambles for Trades (2008 " and Supplementary preambles as specified in des.  EMENTARY PREAMBLES  roofing  roofing of roofs, basements, etc shall be laid				
RPROOFING ambles see "Model Preambles for Trades (2008 " and Supplementary preambles as specified in des.  LEMENTARY PREAMBLES  roofing				
ERPROOFING  ambles see "Model Preambles for Trades (2008 " and Supplementary preambles as specified in des.   EMENTARY PREAMBLES  roofing				
ambles see "Model Preambles for Trades (2008 " and Supplementary preambles as specified in des.   LEMENTARY PREAMBLES  roofing				
" and Supplementary preambles as specified in des  _EMENTARY PREAMBLES  roofing				
<u>roofing</u>				
<del></del>				
roofing of roofs, basements, etc shall be laid				
ten year guarantee by an approved applicator. roofing to roofs shall be laid to even falls to etc with necessary ridges, hips and valleys. tions of sheet or membrane waterproofing shall med to include additional labour to turn-ups and wns				
PROOFING OF WALLS AND FLOORS				
rer of 375 micron Consol Plastic Brikgrip DPC" sed damp proof course				
	m2	6		
rer of 250 micron "Consol Plastic USB Green" oof sheeting sealed at laps with "Gunplas re Sensitive Tape"				
surface beds	m2	31		
Carried Forward to Summary of Section No. 8			R	
(	cof sheeting sealed at laps with "Gunplas e Sensitive Tape"  urface beds  Carried Forward to Summary of Section No. 8  No. 8  IVIROLOO TOILETS BLOCK	cof sheeting sealed at laps with "Gunplas e Sensitive Tape"  urface beds m2  Carried Forward to Summary of Section No. 8  No. 8	cof sheeting sealed at laps with "Gunplas e Sensitive Tape"  urface beds m2 31  Carried Forward to Summary of Section No. 8  No. 8  IVIROLOO TOILETS BLOCK 4	cof sheeting sealed at laps with "Gunplas e Sensitive Tape"  urface beds m2 31  Carried Forward to Summary of Section No. 8  No. 8  IVIROLOO TOILETS BLOCK 4  oofing

Item No		Quantity	Rate	Amount	
	SECTION NO.3				
	BUILDING WORK				
	BILL NO.5				
	ROOF COVERINGS ETC				
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.				
	SUPPLEMENTARY PREAMBLES				
	<u>General</u>				
	All roof coverings, etc., to be with a covering of Z275 galvanising. All holes to be drilled and not punched				
	Where described as with "Chromadek" finish, all sheets, flashings, etc., shall be with "Chromadek" silicone polyester paint for exterior use				
	<u>Sizes</u>				
	All items are measured net unless otherwise described				
	Flashings, trimming plates, etc.				
	Prices to include for all cutting and waste and relevant fixing material, unless otherwise described				
	All rates for flashings, trimmings, etc., to include for forming drips and closed ends to troughs of sheet steel roof covering where applicable				
	All items are unless otherwise described measured net				
	Carried Forward		R		
	Section No. 8 1 x 4 ENVIROLOO TOILETS BLOCK Bill No. 5 Roof Coveringss, etc CLUSTER G				

	Brought Forward			R	
	2 - Admin Block 3 - Nutrition Centre 5 - 1 x 4 Classrooms Block B - 1 x 4Waterborne Toilet Block C - 2 x 4 Seats Enviroloo Toilet Block D - Gate House G - Provisional Amounts H - Preliminaries I - Demolitions K - 2 x 2 Classroom Block L - 1 x10 Seats Enviroloo Toilet Block				
	PROFILED METAL SHEETING AND ACCESSORIES				
	0,5mm "Brownbuilt Klip-Lok Light Industrial" galvanised troughed sheeting steel with "Chromadek - Traffic Green" finish on one side, in single lengths fixed to steel purlins or rails and 0,6mm galvanised steel accessories with "Chromadek" finish on one side, fixed to roof members by a firm of Specialists who will give a five (5) year guarantee, all in accordance with the manufacturer's instructions				
	Roof covering with pitch not exceeding 50 degrees	m2	35		
2	Ridge capping 550mm girth	m	3		
3	Hip capping 550mm girth	m	2		
ļ	Gable trim 550mm girth	m	2		
	Carried Forward to Summary of Section No. 8			R	
	Section No. 8 1 x 4 ENVIROLOO TOILETS BLOCK Bill No. 5 Roof Coveringss, etc CLUSTER G				
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Item No		Quantity	Rate	Amount
	SECTION NO.3			
	BUILDING WORK			
	BILL NO.6			
	CARPENTRY AND JOINERY			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.			
	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, transomes, mullions, rails, etc			
	Descriptions of hardwood joinery shall be deemed to include pelleting of bolt holes			
	<u>Fixing</u>			
	Items described as "nailed" shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete			
	Carried Forward		R	
	Section No. 8 1 x 4 ENVIROLOO TOILETS BLOCK Bill No. 6 Capentry and Joinery CLUSTER G			
	CLUSIER G			

Brought Forward	R	
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		
Pre-fabricated metal connected timber roof trusses		
All trusses shall be fabricated by an approved truss manufacturer who holds a current Certificate of Competence awarded by the Institute for Timber Construction		
<u>Timber</u>		
Timber for trusses to be South African softwood and shall be in accordance with the grades as defined in SABS Specification No 563 or as defined in SABS Specification No 1460		
<u>Bolts</u>		
Bolts shall be in accordance with BS 4190 or SABS 135		
Shear plates, tooth connectors and split rings		
Shear plates, tooth connectors and split rings shall be in accordance with BSS 1759: 1960 and installed in accordance with the CSIR Publication HOUT 468, "The Design, Manufacturing and Erection of Timber Trusses"		
<u>Washers</u>		
Square or round washers of the following dimensions shall be used with all bolts:		
Bolts up to 8mm diameter:     Washers shall be minimum 25mm wide of minimum     thickness		
Carried Forward	R	
Section No. 8 1 x 4 ENVIROLOO TOILETS BLOCK Bill No. 6 Capentry and Joinery CLUSTER G		

	Brought Forward	R	
	mm diameter: be minimum 36mm wide of minimum hickness		
	mm diameter: be minimum 60mm wide of minimum hickness		
Metal connector	<u>plates</u>		
	plates shall be fabricated out of not less rawn quality galvanised steel		
228MPa and a m 330MPa. The colless than 275g/m	ave a minimum yield strength of inimum ultimate tensile strength of rosion resisting coating shall be not 2 commercial class hot dipped or SABS 934 before stamping		
and be of a size between member	tes shall have been tested by the CSIR capable of transmitting the forces are of a truss without exceeding the blished in the CSIR report		
Truss construction	<u>n</u>		
	constructed in jigs specially designed rect profile, overhangs and cambers		
be close fitted bu	nector plates are used all joints are to tt joints made by precision pressing of tor plates into each side of the joint		
Truss design			
Professional Eng	pe designed by a registered in accordance with SABS 0163 er Structures") and Code 0160		
Truss spacing			
	s shall be less than or equal to that as bill for each respective truss		
	Carried Forward	R	
Section No. 8 1 x 4 ENVIROLO Bill No. 6 Capentry and Joi CLUSTER G	O TOILETS BLOCK		

Brought Forward	R	
<u>Truss pitch</u>		
The truss pitch shall be as described in this bill for each respective truss type		
Truss loading		
Trusses shall be designed for a live load of 0,50kN/m2 and dead load as specified under the sub-heading "Specific load specifications for roof trusses"		
Shop drawings, design and erection guarantee certificates		
It will be expected from the Contractor to timeously prepare, submit and obtain the necessary approvals from the Representative/Agent in respect of the required shop drawings, design and erection guarantee certificates as specified		
<u>Dimensions</u>		
All dimensions given in the descriptions of the trusses are nominal and actual measurements are to be obtained by actual measurements taken on the site before design or fabrication commences		
<u>Erection</u>		
All trusses are to be hoisted and erected strictly in accordance with the procedures and recommendations of the manual "The Erection and Bracing of Timber roof Trusses" as published by the Institute for Timber Construction and the CSIR, or the SABS Code of Practice "The Design, Manufacture and Erection of Timber Roof Trusses", or as designed and detailed by the designer		
<u>Design system</u>		
The design system as documented in this bill is based on the "MiTek" system and all references given in the descriptions are related to specific type of trusses based on this design system		
Section No. 8 1 x 4 ENVIROLOO TOILETS BLOCK Bill No. 6 Capentry and Joinery CLUSTER G	R	

	Brought Forward		R		
	However, Contractors are to note that any design system of similar quality may be used subject to the prior written approval of the Representative/Agent				
	Specific specifications for roof trusses				
	Unless otherwise described, the following specifications will apply:				
	1 All trusses to be with a 10° pitch				
	2 The dead load consists of corrugated roof sheeting and purlins at approximately 1200mm centres				
	ROOFS				
	The following in plate nailed timber roof truss construction				
	The following is applicable in respect of roof trusses				
	The references given in the descriptions are to the respective types of trusses detailed on the architect's drawings annexed to these bills of quantities/accompanying these bills of quantities for tender purposes				
	Prices for rafters and trusses to include all "Hurricane" clips, steel M-runners and "Permfix" plates, screws, nails, wires, sundry material, etc (bracing, wallplates, purlins and gangboarding are measured seperately)				
	Allow for the preparation and submission of the following documents in respect of all buildings				
1	Detailed shop drawings indicating truss sizes, truss positions, bracings, details, etc. to be submitted for approval prior the commencement of any fabrication	Item			
2	Design certificate indicating the licensed programme used, SANS specifications adhered to, general procedures and loadings adopted, sizes and grading of				
	timber components, details, etc.	Item			
					—
	Carried Forward Section No. 8		R		
	1 x 4 ENVIROLOO TOILETS BLOCK Bill No. 6				
	Capentry and Joinery CLUSTER G				
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	Brought Forward	Ī		R	
3	Erection guarantee certificate after the whole completed roof truss structure have been inspected, all defective work have been taken out and made good, etc. to the full satisfaction of the Principal Agent		Item		
	Sawn softwood				
4	Roof construction to double pitched roof supplied and erected complete in position with bracing, gangboarding, purlins, eaves purlins, hipped end, rafters etc. for enviroloo toilet block approximately 68m2 on plan (Refer to architect's drawings attached to these bills of quantities)	No	1		
	Sawn softwood grade 4				
5	38 x 114mm Wall plates	m	11		
6	50 x 76mm Purlins in lengths exceeding 3,9m and not exceeding 6,6m	m	100		
7	50 x 220mm Timber Beam	m			
	<u>Sundries</u>				
8	Two coats creosote on sawn timbers	m2	24		
	EAVES, VERGES, ETC				
	"Everite FC77" pressed fibre-cement				
9	15 x 250mm Fascias and barge boards including galvanised steel H-profile jointing strips	m	25		
	SKIRTINGS				
	Wrought meranti				
10	19 x 76mm Skirting including 19mm quadrant bead nailed	m	78		
	DOORS, ETC				
	Carried Forward Section No. 8 1 x 4 ENVIROLOO TOILETS BLOCK			R	
	Bill No. 6 Capentry and Joinery CLUSTER G				

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	Brought Forward				
	Wrought meranti doors hung to steel frames				
11	44mm Framed and ledged batten door 813 x 2032mm high of 44 x 100mm top rail and stiles, 22 x 100mm middle and bottom rails, covered on both sides with 6mm plywood with veneer (D3)	No	3		
	Solid core flush doors with concealed hardwood edges and 4mm thick masonite covering on both sides hung to steel frame				
12	40mm Door 813 x 2032mm high	No	5		
	Carried Forward to Summary of Section No. 8  Section No. 8  1 x 4 ENVIROLOO TOILETS BLOCK  Bill No. 6  Capentry and Joinery  CLUSTER G			R	

Item No		Ī	Quantity	Rate	Amount	
	SECTION NO.3					
	BUILDING WORK					
	BILL NO.7					
	CEILING, ETC.					
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.					
	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 elsewhere					
	CEILING CONSTRUCTION, CORNICES, ETC.					
	<u>Insulation</u>					
1	100mm glass fibre insulation blanket to manufacturer's specification, laid on ceiling.	m2	31			
	Sawn softwood					
2	38 x 114mm Ceiling joists (Provisional)	m	38			
						_
	Carried Forward			R		
	Section No. 8 1 x 4 ENVIROLOO TOILETS BLOCK					
	Bill No. 7 Ceilings, Partitions and Access Flooring CLUSTER G					

	Brought Forward			R	
	"Rhino" gypsum plasterboard cornices				
3	75mm Coved cornices	m	19		
	NAILED UP AND SCREWED UP CEILINGS				
	6mm "Everite Nutec" fibre-cement boards with H-profile primed steel jointing cover strips over joints				
4	Ceilings including 38 x 38mm brandering at 90deg to trusses at maximum centres of 400mm by 32mm long galvanised nails.				
		m2	31		
5	Extra over ceiling for opening for 610 x 610mm trap door of 50 x 76mm wrought softwood rebated framing with one 38 x 38mm sawn softwood cross brander covered with ceiling board and fitted flush in opening	No	3		
	covered with centing board and fitted fider in opening	110	3		
	Openiad Foresteed to Openia (Co. 11)				
	Carried Forward to Summary of Section No. 8 Section No. 8			R	
	1 x 4 ENVIROLOO TOILETS BLOCK Bill No. 7				
	Ceilings, Partitions and Access Flooring CLUSTER G				

Item No		Quantity	Rate	Amount
	SECTION NO.3			
	BUILDING WORK			
	BILL NO.8			
	IRONMONGERY			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.			
	SUPPLEMENTARY PREAMBLES			
	<u>Descriptions</u>			
	Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs			
	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 SD Sanded			
	LOCKS			
	"Solid"or similar approved			
1	"Code 630" padlock	3		
2	"Code 2252-76SC" three lever upright lockset No	3		
	Carried Forward		R	
	Section No. 8 1 x 4 ENVIROLOO TOILETS BLOCK Bill No. 8 Ironmongery CLUSTER G			

	Brought Forward			R	
3	293/E41 WC indicator bolt with keep fixed to metal	No	5		
	SUNDRIES				
	"Solid" or similar approved				
4	Dorma "Code 255" door stop plugged	No	8		
5	Chromium plated toilet roll holder plugged to brickwork	No	5		
	LETTERS, NAMEPLATES, ETC				
	"Union" or similar approved				
6	150 x 150mm Stainless steel plate engraved with "female" sign (St/Steel)	No	1		
7	150 x 150mm Stainless steel plate engraved with "male" sign (St/Steel)	No	1		
	Carried Forward to Summary of Section No. 8 Section No. 8			R	
	1 x 4 ENVIROLOO TOILETS BLOCK Bill No. 8				
	Ironmongery CLUSTER G				

	Quantity	Rate	Amount	
SECTION NO.3				
BUILDING WORK				
BILL NO. 9				
METALWORK				
For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.				
<u>Descriptions</u>				
Descriptions of bolts shall be deemed to include nuts and washers Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete Metalwork described as "holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described				
<u>Drawings</u>				
Tenderers are referred to architect's drawings annexed to this document for full details of the windows, doors, etc				
WELDED SCREENS, GATES, ETC				
Gates to external doors				
Gate and frame 900 x 2100mm high complete (G1)				
No	2			
	3			
PRESSED STEEL DOOR FRAMES				
Carried Forward  Section No. 8 1 x 4 ENVIROLOO TOILETS BLOCK Bill No. 9 Metalwork CLUSTER G		R		_
	BUILDING WORK  BILL NO. 9  METALWORK  For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.  Descriptions  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  Drawings  Tenderers are referred to architect's drawings annexed to this document for full details of the windows, doors, etc  WELDED SCREENS, GATES, ETC  Gates to external doors  Gate and frame 900 x 2100mm high complete (G1)  No  PRESSED STEEL DOOR FRAMES  Carried Forward  Section No. 8  1 x 4 ENVIROLOO TOILETS BLOCK Bill No. 9  Metalwork	SECTION NO.3  BUILDING WORK  BILL NO. 9  METALWORK  For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.  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  Drawings  Tenderers are referred to architect's drawings annexed to this document for full details of the windows, doors, etc  WELDED SCREENS, GATES, ETC  Gates to external doors  Gate and frame 900 x 2100mm high complete (G1)  No  3  PRESSED STEEL DOOR FRAMES  Carried Forward  Section No. 8 1 x 4 ENVIROLOO TOILETS BLOCK Bill No. 9 Metalwork	BUILDING WORK  BILL NO. 9  METALWORK  For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.  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  Drawings  Tenderers are referred to architect's drawings annexed to this document for full details of the windows, doors, etc  WELDED SCREENS, GATES, ETC  Gates to external doors  Gate and frame 900 x 2100mm high complete (G1)  No 3  PRESSED STEEL DOOR FRAMES  Carried Forward  R  Section No. 8  1 x 4 ENVIROLOO TOILETS BLOCK Bill No. 9  Metalwork	BUILDING WORK BILL NO. 9  METALWORK For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.  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 be deemed to exclude the bolts unless otherwise described  Drawings  Tenderers are referred to architect's drawings annexed to this document for full details of the windows, doors, etc  WELDED SCREENS, GATES, ETC  Gates to external doors  Gate and frame 900 x 2100mm high complete (G1)  No 3  PRESSED STEEL DOOR FRAMES  Carried Forward  R  Section No. 8  1 x 4 ENVIROLOO TOILETS BLOCK Bill No. 9  Metalwork

	Brought Forward			R	
	1,2mm Double rebated frames suitable for half brick walls				
2	Frame for door 813 x 2032mm high	No	5		
3	Frame for door 813 x 2032mm high	No	3		
	STEEL WINDOWS, DOORS, ETC				
	"Nty" or similar approved steel residential windows with burglar bars to all sashes				
4	Type NE7 size 1022 x 654mm high	No	3		
5	Window type NE1, size 533 x 654mm high	No	5		
	Carried Forward to Summary of Section No. 8			R	
	Section No. 8 1 x 4 ENVIROLOO TOILETS BLOCK				<del></del>
	Bill No. 9 Metalwork				
	CLUSTER G				

Item No		Quantity	Rate	Amount	
	SECTION NO.3				
	BUILDING WORK				
	BILL NO. 10				
	PLASTERING				
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.				
	SCREEDS				
	Screeds on concrete				
1	30mm Thick on floors m2	31			
	Comind Forward to Community (C. 17. N. C.				-
	Carried Forward to Summary of Section No. 8 Section No. 8		R		=
	1 x 4 ENVIROLOO TOILETS BLOCK Bill No. 10 Plastering				
	CLUSTER G				

Item No			Quantity	Rate	Amount	
	SECTION NO.3					
	BUILDING WORK					
	BILL NO.11					
	TILING					
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.					
	SUPPLEMENTARY PREAMBLES					
	Descriptions					
	Unless described as "fixed with adhesive to plaster (plaster elsewhere)" descriptions of tiling on brick or concrete walls, columns, etc shall be deemed to include 1:4 cement plaster backing and descriptions of tiling on concrete floors etc shall be deemed to include 1:3 plaster bedding					
	FLOOR TILING					
	300 x 300 x 11,5mm Ceramic floor tiles (PC R120.00/m2 VAT excl.) fixed with adhesive to plaster (plaster elsewhere) and flush pointed with tinted waterproof jointing compound					
1	On floors and landings	m2	31			
2	Skirting formed of ceramic tile cut to 300 x 75mm high	m	70			
_	Chiraling formed of octamine the out to ooo x roman riight		70			
	Carried Forward to Summary of Section No. 8			R		_
	Section No. 8 1 x 4 ENVIROLOO TOILETS BLOCK Bill No. 11 Tiling CLUSTER G			IX.		_

Item No		Quantity	Rate	Amount
	SECTION NO.3			
	BUILDING WORK			
	BILL NO.12			
	PLUMBING AND DRAINAGE			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.			
	SUPPLEMENTARY PREAMBLES			
	"Polycop" polypropylene pipes:			
	Polypropylene pipes 54mm diameter and under shall be seamless copper coloured class 16 pipes jointed with "Fast-fuse" heat welded thermoplastic or brass compression fittings as designed for use with copper pipes as stated			
	Pipes shall be firmly fixed to walls etc with coloured nylon snap-in pipe clips with provision for accommodating thermal movement and jointed and fixed strictly in accordance with the manufacturer's instructions			
	All pipe diameters are nominal external			
	"Polylink" polypropylene pipes:			
	Polypropylene pipes 63mm diameter and over shall be class 12 pipes jointed with cast iron "Supraclamp" running joints			
	Fusion welded bends, once or twice mitred as necessary, and tees shall be factory manufactured			
	Carried Forward		R	
	Section No. 8 1 x 4 ENVIROLOO TOILETS BLOCK Bill No. 12 Plumbing and Drainage CLUSTER G			

Brought Forward	R	
Fusion welded bends and tees shall include jointing to pipes with PVC rubber ring double Z joint couplers		
Branch tees shall include flanged and bolted joints to "Polycop" branch pipes in addition and for brass compression male iron to copper straight couplers		
Reducers shall include jointing to pipes with PVC rubber ring double Z joint couplers and reducers shall be of sufficient overall length to accommodate same		
All pipes shall be jointed and fixed strictly in accordance with the manufacturer's instructions		
All pipe diameters are nominal external		
Concrete pipes:		
Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rings		
Vitrified clay pipes:		
Pipes shall rest on solid ground and, where necessary, pockets of sufficient size shall be cut around joints to enable the jointing to be properly performed or, alternatively, pipes shall be bedded full length on and including unreinforced concrete laid in a semi-dry state immediately before pipes are laid		
Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings		
uPVC pipes and fittings:		
Soil, waste and vent pipes and fittings shall be solvent weld jointed		
uPVC pressure pipes and fittings:		
Pipes for water supply shall be of the class stated		
Carried Forward  Section No. 8 1 x 4 ENVIROLOO TOILETS BLOCK Bill No. 12 Plumbing and Drainage CLUSTER G	R	
OLOGILIN G		

Brought Forward	R	
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 fixing to walls etc, casting in, building in or suspending not exceeding 1m below suspension level		
Lead pipes and fittings		
All soldered joints shall be wiped and brass unions shall be used for jointing lead to steel		
		_
Carried Forward  Section No. 8 1 x 4 ENVIROLOO TOILETS BLOCK Bill No. 12 Plumbing and Drainage CLUSTER G	R	

Brought Forward	R	
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"		
Carried Forward Section No. 8 1 x 4 ENVIROLOO TOILETS BLOCK Bill No. 12 Plumbing and Drainage CLUSTER G	R	

	Brought Forward	R	
La	ying, backfilling, bedding, etc. of pipes		
cai	pes shall be laid and bedded and trenches shall be refully backfilled in accordance with manufacturers' structions		
be of pip tre cla Ea acc SA de	laid in accordance with clauses 5.1 and 5.2 of each the following: SABS 1200 L: Medium-pressure pelines LD: Sewers LE: Stormwater drainage Pipe nches etc shall be backfilled in accordance with buses 3, 5.5, 5.6, 5.7 and 7 of SABS 1200 DB: arthworks (Pipe trenches) Pipes shall be bedded in cordance with clauses 3.1 to 3.4.1, 5.1 to 5.3 and 7 of SABS 1200 LB: Bedding (Pipes). Unless otherwise scribed bedding of rigid pipes shall be class B dding		
Flu	ush pans		
	ush pans shall have straight or side outlets and "P" or " traps as necessary		
Sta	ainless steelbasins, sinks, wash troughs, urinals, etc.		
	nits shall have standard aprons on all exposed edges d tiling keys against walls where applicable		
Wa	aste unions		
	escriptions of waste unions shall be deemed to include ober or vulcanite plugs and chains fixed to fittings		
Ste	eel sectional water tanks		
Та	nks shall comply with SABS CKS 114		
	ensyl" petrolatum anti-corrosion tape as manufactured Denso SA (Pty) Ltd.		
pri	pes to be taped shall be coated with the appropriate mer and the tape shall be applied with minimum mm lap per spiral unless otherwise described		
	Carried Forward	R	
1 x Bill Plu	ction No. 8 4 ENVIROLOO TOILETS BLOCK I No. 12 Imbing and Drainage IUSTER G		

	Brought Forward			R	
	Couplings and fittings to pipes shall be taped in strict accordance with the manufacturer's instructions including all mastic, tape, "Layflat" sheeting, securing of same, etc				
	TOILET TANKS				
	Plumbing and drainage				
1	Erect toilet tanks set up and fixed complete as per manufacturers instruction - manufacturer to supply and delivery arrangements	No	5		
	SUPERVISION OF INSTALLATION OF TOILET TANKS				
	The following nominated sub - contractor amounts are for work to be carried out by nominated sub-contractors:Supervision of installation of toilet tanks,				
2	Four site visits to be made by the toilet tanks suppliers to assist/support the contractor in the installation of the toilet tanks and a final inspection to be ascertain the tanks has been installed correctly at which time a Certificate of Compliance should be issued between the Department Public Works,Roads & Infrastructure and		ltam		25 000 00
	Toilet tanks suppliers		Item		25,000.00
	Comical Forward to Commence of Continuity 2				
	Carried Forward to Summary of Section No. 8  Section No. 8  1 x 4 ENVIROLOO TOILETS BLOCK  Bill No. 12  Plumbing and Drainage  CLUSTER G			R	

Item No		Quantity	Rate	Amount
1	SECTION NO.3			
	BUILDING WORK			
	BILL NO. 13			
	GLAZING			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.			
	2 - Admin Block 3 - Nutrition Centre 5 - 1 x 4 Classrooms Block B - 1 x 4Waterborne Toilet Block C - 2 x 4 Seats Enviroloo Toilet Block D - Gate House G - Provisional Amounts H - Preliminaries I - Demolitions K - 2 x 2 Classroom Block L - 1 x10 Seats Enviroloo Toilet Block			
1	GLAZING TO STEEL WITH PUTTY  4mm Clear float glass  Panes exceeding 0,1m2 and not exceeding 0,5m2 m2	4		
	Carried Forward to Summary of Section No. 8  Section No. 8  1 x 4 ENVIROLOO TOILETS BLOCK  Bill No. 13  Glazing  CLUSTER G		R	

Item No		Quantity	Rate	Amount
	SECTION NO.3			
	BUILDING WORK			
	BILL NO. 14			
	<u>PAINTWORK</u>			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.			
	SUPPLEMENTARY PREAMBLES			
	DESCRIPTIONS			
	Descriptions of paintwork shall be deemed to include for all cutting in			
	PAINT SPECIFICATIONS			
	All painting shall be done in accordance with "Plascon- Evans" specifications			
	PAINTWORK ETC TO NEW WORK			
	ON FIBRE-CEMENT			
	One coat primer, one coat universal undercoat and two coats super acrylic PVA paint			
1	On ceilings and cornices m2	31		
	Carried Forward Section No. 8 1 x 4 ENVIROLOO TOILETS BLOCK		R	
	Bill No. 14 Paintwork			
	CLUSTER G			

	Brought Forward			R	
1	Plascon Sure Coat Gloss Enamel to exterior new fibre cement (NW 174). Surface to be dry, sound and clean, with a moisture content, measured with a Doser Hygrometer (or equivalent), of BD 2 scale - 8% or less. Prime with one coat of Plascon Plaster Primer (UC 56) with an overcoating time of 16 hours and finish with two coats of Sure Coat Gloss Enamel (SGE) with 16 hours drying time between coats, for a maintenance cycle of 2 years in a C1 - inland environment.				
2	On fascias and barge boards	m2	6		
	ON METAL				
	Plascon Velvaglo Satin to exterior new mild steel (NW 683).Surface to be clean and dry. Remove surface contaminants using Plascon Aquasolv Degreaser (GR 1) with bristle brush or Brillo pads. Rinse thoroughly with tap water until surface is water break-free. Remove rust and millscale by abrasive blasting to ISO 8501 - 01:1988 - Sa2½ or by hand/mechanical wire brushing to St3of the same standard. Allow to dry completely and prime within 4 hours of cleaning. Prime with one coat of Metal Primer (UC 501) with an overcoating time of 16 hours and finish with two coats of Velvaglo Satin (VLO) with 16 hours drying time between coats, for a maintenance cycle of 3 years in a C1 - inland environment.				
3	On door frames	m2	15		
4	On windows with burglar bars	m2	4		
	ON WOOD				
	Carried Forward  Section No. 8 1 x 4 ENVIROLOO TOILETS BLOCK Bill No. 14 Paintwork CLUSTER G			R	_

	Brought Forward			R	
571).S and rescoat with coat of overcoomeasu BD 2 sof Woodhours a with 16	n Velvaglo Satin to interior new wood (NW urface to be dry, sound and clean. Wash knots sinous areas with Lacquer Thinners (ILS 1) and ith Woodcare Knot Seal (PK 2) and apply one Plascon Woodcare Pretreatment (WWP 1), ated within 48 hours with a moisture content, red with a Doser Hygrometer (or equivalent), of scale (A1-A5) < 14% or less. Prime with one coat or Primer (UC 2) with an overcoating time of 16 and finish with two coats of Velvaglo Satin (VLO) is hours drying time between coats, for a nance cycle of 7 years in a C1 - inland ment.				
5 On doo	ors	m2	28		
	ork			R	

	Section No. 8			
	1 x 4 ENVIROLOO TOILETS BLOCK			
	SECTION SUMMARY - 1 x 4 ENVIROLOO TOILETS BLOCK			
Bill No		Page No		Amount
1	Foundations	268		
2	Concrete, Formwork and Reinforcement	272		
3	Masonry	275		
4	Waterproofing	276		
5	Roof Coveringss, etc	278		
6	Capentry and Joinery	285		
7	Ceilings, Partitions and Access Flooring	287		
8	Ironmongery	289		
9	Metalwork	291		
10	Plastering	292		
11	Tiling	293		
12	Plumbing and Drainage	299		
13	Glazing	300		
14	Paintwork	303		
	Carried to Final Summary		R	
	Section No. 8 1 x 4 ENVIROLOO TOILETS BLOCK			
	CLUSTER G			
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Item No		Quantity	Rate	Amount	
	SECTION NO.3				
	BUILDING WORK				
	BILL NO.1				
	<u>FOUNDATIONS</u>				
	EARTHWORKS				
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.				
	SUPPLEMENTARY PREAMBLES				
	Nature of ground				
	The nature of the ground is assumed to be sandy weathered granite, therefore "earth", but possibly interspersed with "hard rock"				
	Excavation for working space in rock				
	Notwithstanding clause 11 page 8 of the Standard System of Measuring Building Work, excavation for working space in rock will be measured in cubic metres to the extent executed and given as "extra over" bulk excavation or trench and hole excavation as the case may be				
	Carting away of excavated material				
	Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site				
	Carried Forward Section No. 9		R		_
	2 X 5 ENVIROLOO TOILETS BLOCK Bill No. 1 Foundations CLUSTER G				
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	Brought Forward			R	
	Filling				
	Notwithstanding the reference to prescribed multiple handling in clause 1 page 6 of the Standard System of Measuring Building Work, prices for filling and backfilling shall include for all selection and any multiple handling of material				
	Soil poisoning				
	Ant and weed poisoning will be applied in accordance to SABS specifications by Registered and Approved Specialists who will issue a five (5) year guarantee. The contractor will only be paid for this items once they have produced the said certificate to the Principal Agent				
	SITE CLEARANCE, ETC.				
	Site clearance				
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc.	m2	160		
	REMOVAL TREES, ETC.				
	Taking out and removing, grubbing up roots and filling holes.				
	EXCAVATION, FILLING, ETC				
	Excavation in earth not exceeding 2m deep				
2	Trenches	m3	13		
3	Holes for tanks, etc.	m3	48		
	Fixed according to the last according to a contract to the second	1110	40		
	Extra over trench and hole excavations in earth for excavation in				
4	Soft rock	m3	10		
	Carried Forward			R	
	Section No. 9 2 X 5 ENVIROLOO TOILETS BLOCK Bill No. 1 Foundations CLUSTER G			K	

	Brought Forward			R	
5	Hard rock	m3	5		
	Extra over all excavations for carting away				
6	Surplus material from excavations on site to a dumping site to be located by the contractor	m3	55		
	Risk of collapse of excavations				
7	Sides of trench and hole excavations not exceeding 1,5m deep	m2	105		
	Keeping excavations free of water				
8	Keeping excavations free of all water other than subterranean water		Item		
	Earth filling obtained from the excavations and /or prescribed stock piles on site including compacted to 93% Mod AASHTO density				
9	Backfilling to trenches, holes, etc	m3	13		
	Approved G6 filling supplied and carted by the contractor and compacted in layers not exceeding 150mm to 95% Mod AASHTO density				
	Compaction of surfaces				
10	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 93% Mod AASHTO density	m2	55		
	Prescribed density tests on filling				
	SOIL POISONING				
	Section No. 9 2 X 5 ENVIROLOO TOILETS BLOCK Bill No. 1 Foundations CLUSTER G			R	

	Brought Forward			R	
	Soil insecticide				
11	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m2	55		
12	To bottoms and sides of trenches etc	m2	80		
	CONCRETE, FORMWORK AND REINFORCEMENT				
	UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES				
	25MPa/19mm concrete				
13	Strip footings	m3	5		
14	Strip footing cast in pit latrines holes	m3	8		
	TEST CUBES				
	BRICKWORK				
	Brickwork of NFP bricks in class II mortar				
15	One brick walls - in holes	m2	100		
16	One brick walls	m2	35		
17	115mm Brick corbelling in septic tank	m2	108		
	BRICKWORK SUNDRIES				
	Joint forming material in movement joints:				
	Brickwork reinforcement				
18	150mm Wide reinforcement built in horizontally	m	96		
	FACE BRICKWORK				
	Carried Forward  Section No. 9 2 X 5 ENVIROLOO TOILETS BLOCK Bill No. 1 Foundations CLUSTER G			R	
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	Brought Forward			R	
	Face bricks (Purchase price of R 4 000,00/1000 VAT excl. delivered to site) pointed with recessed horizontal and vertical joints				
19	Extra over brickwork for face brickwork	m2	18		
	Brick-on-edge header course copings, sills, etc of face bricks (Purchase price R 4 000,00/1000 VAT excl. delivered to site) pointed with recessed joints on all exposed faces				
	INTERNAL PLASTER				
	Steel troweled cement plaster on brickwork				
20	On walls in septic tank	m2	100		
	FLOOR AND WALL SEALERS				
	Minimum two coats 'approved' black epoxy coat				
21	On internal textured plaster walls	m2	100		
	Carried Forward to Summary of Section No. 9			R	
	Section No. 9 2 X 5 ENVIROLOO TOILETS BLOCK Bill No. 1 Foundations CLUSTER G				

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	R

	Brought Forward			R	
	<u>Formwork</u>				
	Description of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before reuse				
	The vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without damage and shall remain in position until the newly constructed work is able to support itself				
	Formworks to soffits of solid slabs etc shall be deemed to be slabs not exceeding 250mm thick unless otherwise described				
	Formwork to soffits of slabs, beams, etc shall be deemed to be propped up exceeding 1,5m and not exceeding 3,5m high unless otherwise described				
	Formwork to sides of bases, pile caps, ground beams, etc will only be measured where it is prescribed by the engineer for design reasons. Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in "Earthworks"				
	UNREINFORCED CONCRETE				
	20MPa/19mm concrete				
1	Surface beds	m3	3		
2	Surface beds cast in panels on waterproofing.	m3	5		
3	Aprons cast in panels to falls	m3	8		
	Carried Forward			D	_
	Section No. 9 2 X 5 ENVIROLOO TOILETS BLOCK Bill No. 2 Concrete, Formwork and Reinforcement CLUSTER G			R	

	Brought Forward			R	
	REINFORCED CONCRETE				
	25MPa/19mm concrete				
	CONCRETE SUNDRIES				
	Finishing top surfaces of concrete smooth with a steel trowel				
4	Surface beds, slabs, etc	m2	55		
	Finishing top surfaces of concrete smooth with a wood float				
5	Surface beds, slabs, etc	m2	63		
6	Aprons to falls	m2	30		
	<u>FORMWORK</u>				
	ROUGH FORMWORK (DEGREE OF ACCURACY II)				
	Rough formwork to sides				
7	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	63		
	SMOOTH FORMWORK (DEGREE OF ACCURACY II)				
	Smooth formwork to soffits				
	Permanent formwork to soffits				
8	Slabs propped up not exceeding 1.5m high	m2	10		
9	Form 500mm radius opening in floor slab	No	10		
					$\vdash$
	Carried Forward			R	
	Section No. 9 2 X 5 ENVIROLOO TOILETS BLOCK				
	Bill No. 2 Concrete, Formwork and Reinforcement CLUSTER G				

	Brought Forward			R	
	TEST CUBES				
10	Making and testing a set of four 150 x 150 150mm concrete strength test cubes per concrete pour, one crushed at 7 days and 3 at 26 days	No	13		
	REINFORCEMENT (PROVISIONAL)				
	High tensile steel reinforcement to structural concrete work				
11	12mm Diameter	t	5.00		
12	10mm Diameter bars	t	2.50		
	Fabric reinforcement				
13	Steeledale Mesh standard square fabric mesh, nominal mass 1,93 kg/m² with nominal 5,6mm thick wires and 200 x 200mm pitch (code 193), complying with SANS 1024/2006 requirements, in sheets 2,4 x 6m long.	m2	55		
	Carried Forward to Summary of Section No. 9 Section No. 9 2 X 5 ENVIROLOO TOILETS BLOCK Bill No. 2 Concrete, Formwork and Reinforcement CLUSTER G			R	

Item No		Quantity	Rate	Amount
	SECTION NO.3			
	BUILDING WORK			
	BILL NO. 3			
	MASONRY			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.			
	SUPPLEMENTARY PREAMBLES			
	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			
	Linings to concrete			
	Descriptions of linings to concrete, unless otherwise described, shall be deemed to include wire ties			
	Hollow walls etc			
	Descriptions of hollow walls shall be deemed to include wire ties and leaving every fifth perpend of the bottom course of the external skin open as a weep hole			
	Reinforced brick lintels			
	Lintels shall bear at least 160mm onto adjacent walling. Where such bearing cannot be obtained due to the proximity of adjacent openings the lintel shall be continuous			
	Carried Forward		R	
	Section No. 9 2 X 5 ENVIROLOO TOILETS BLOCK Bill No. 3 Masonry CLUSTER G			

	Brought Forward			R	
	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				
	SUPERSTRUCTURE				
	Brickwork of NFP bricks in class II mortar				
1	Half brick walls	m2	38		
2	Half brick walls in beamfilling.	m2	3		
3	One brick walls	m2	140		
	Brickwork reinforcement				
4	75mm Wide reinforcement built in horizontally	m	113		
5	150mm Wide reinforcement built in horizontally	m	420		
	Turning pieces				
6	230mm Wide turning piece to lintels etc	m	10		
	"Allied Concrete" prestressed fabricated lintels				
7	110 x 75mm Lintels in lengths not exceeding 3m	m	30		
	Galvanised wire ties etc				
8	4mm Diameter roof tie 2m girth bent double with one end fixed to timber and other end built into brickwork	No	45		
	FACE BRICKWORK				
					_
	Section No. 9 2 X 5 ENVIROLOO TOILETS BLOCK Bill No. 3 Masonry CLUSTER G			R	

ĺ	Brought Forward			R	
	Face bricks (Purchase price of R4 700,00/1000 VAT excl. delivered to site) pointed with recessed horizontal and vertical joints				
9	Extra over brickwork for face brickwork	m2	368		
10	Extra over for facings in beamfilling for face brickwork	m2	9		
	Brick-on-edge header course copings, sills, etc of face bricks (Purchase price R4 700,00 / 1000 VAT excl. delivered to site) pointed with recessed joints on all exposed faces				
11	Extra over brickwork for brick-on-edge header course lintel	m	10		
12	Fair cutting and fitting around pipe not exceeding 100mm diameter	No	10		
	Brick-on-edge header course copings, sills, etc of face bricks(Purchase price of R4 700,00/1000 VAT excl. delivered to site) pointed with recessed joints on all exposed faces				
13	110mm Wide sills set sloping and slightly projecting	m	10		
14	220mm Wide sill set sloping and slightly protecting outside	m	10		
	Carried Forward to Summary of Section No. 9 Section No. 9 2 X 5 ENVIROLOO TOILETS BLOCK Bill No. 3 Masonry CLUSTER G			R	

Item No			Quantity	Rate	Amount	
	SECTION NO.3					
	BUILDING WORK					
	BILL NO.4					
	WATERPROOFING					
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.					
	SUPPLEMENTARY PREAMBLES					
	<u>Waterproofing</u>					
	Waterproofing of roofs, basements, etc shall be laid under a ten year guarantee by an approved applicator. Waterproofing to roofs shall be laid to even falls to outlets etc with necessary ridges, hips and valleys. Descriptions of sheet or membrane waterproofing shall be deemed to include additional labour to turn-ups and turn-downs					
	DAMP-PROOFING OF WALLS AND FLOORS					
	One layer of 375 micron Consol Plastic Brikgrip DPC" embossed damp proof course					
1	In walls	m2	13			
	One layer of 250 micron "Consol Plastic USB Green" waterproof sheeting sealed at laps with "Gunplas Pressure Sensitive Tape"					
2	Under surface beds	m2	55			
	Carried Forward to Summary of Section No. 9 Section No. 9 2 X 5 ENVIROLOO TOILETS BLOCK Bill No. 4 Waterproofing CLUSTER G			R		=

Item No		Quantity	Rate	Amount
	SECTION NO.3			
	BUILDING WORK			
	BILL NO.5			
	ROOF COVERINGS ETC			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.			
	SUPPLEMENTARY PREAMBLES			
	General			
	All roof coverings, etc., to be with a covering of Z275 galvanising. All holes to be drilled and not punched			
	Where described as with "Chromadek" finish, all sheets, flashings, etc., shall be with "Chromadek" silicone polyester paint for exterior use			
	<u>Sizes</u>			
	All items are measured net unless otherwise described			
	Flashings, trimming plates, etc.			
	Prices to include for all cutting and waste and relevant fixing material, unless otherwise described			
	All rates for flashings, trimmings, etc., to include for forming drips and closed ends to troughs of sheet steel roof covering where applicable			
	All items are unless otherwise described measured net			
	Carried Forward		R	
	Section No. 9 2 X 5 ENVIROLOO TOILETS BLOCK Bill No. 5 Roof Coveringss, etc CLUSTER G			

	Brought Forward			R	
	PROFILED METAL SHEETING AND ACCESSORIES				
	0,5mm "Brownbuilt Klip-Lok Light Industrial" galvanised troughed sheeting steel with "Chromadek - Traffic Green" finish on one side, in single lengths fixed to steel purlins or rails and 0,6mm galvanised steel accessories with "Chromadek" finish on one side, fixed to roof members by a firm of Specialists who will give a five (5) year guarantee, all in accordance with the manufacturer's instructions				
1	Roof covering with pitch not exceeding 50 degrees	m2	70		
2	Ridge capping 550mm girth	m	5		
3	Hip capping 550mm girth	m	4		
4	Gable trim 550mm girth	m	4		
	STEEL LOUVRES				
	"NTY Steelworks" or similar approved				
5	Triangular steel louvre size 1500x 500mm high fixed to timber purlins including watertight heading joints, necessary sealing strips, fixing accessories, etc	No	10		
	Carried Forward to Summary of Section No. 9 Section No. 9 2 X 5 ENVIROLOO TOILETS BLOCK Bill No. 5 Roof Coveringss, etc CLUSTER G			R	

Item No		Quantity	Rate	Amount
	SECTION NO.3			
	BUILDING WORK			
	BILL NO.6			
	CARPENTRY AND JOINERY			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.			
	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, transomes, mullions, rails, etc			
	Descriptions of hardwood joinery shall be deemed to include pelleting of bolt holes			
	<u>Fixing</u>			
	Items described as "nailed" shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete			
	Carried Forward		R	
	Section No. 9 2 X 5 ENVIROLOO TOILETS BLOCK Bill No. 6 Capentry and Joinery CLUSTER G			
	SESSIEN S			

Brought Forward	R	
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		
Pre-fabricated metal connected timber roof trusses		
All trusses shall be fabricated by an approved truss manufacturer who holds a current Certificate of Competence awarded by the Institute for Timber Construction		
<u>Timber</u>		
Timber for trusses to be South African softwood and shall be in accordance with the grades as defined in SABS Specification No 563 or as defined in SABS Specification No 1460		
<u>Bolts</u>		
Bolts shall be in accordance with BS 4190 or SABS 135		
Shear plates, tooth connectors and split rings		
Shear plates, tooth connectors and split rings shall be in accordance with BSS 1759: 1960 and installed in accordance with the CSIR Publication HOUT 468, "The Design, Manufacturing and Erection of Timber Trusses"		
<u>Washers</u>		
Square or round washers of the following dimensions shall be used with all bolts:		
Bolts up to 8mm diameter:     Washers shall be minimum 25mm wide of minimum     thickness		
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Carried Forward  Section No. 9 2 X 5 ENVIROLOO TOILETS BLOCK Bill No. 6 Capentry and Joinery CLUSTER G	R	

Ī	Brought Forward	R	İ
	2 Bolts up to 12mm diameter: Washers shall be minimum 36mm wide of minimum 4,00mm thickness		
	3 Bolts up to 20mm diameter: Washers shall be minimum 60mm wide of minimum 5,00mm thickness		
	Metal connector plates		ı
	Metal connector plates shall be fabricated out of not less than 1mm thick drawn quality galvanised steel		ĺ
	The steel shall have a minimum yield strength of 228MPa and a minimum ultimate tensile strength of 330MPa. The corrosion resisting coating shall be not less than 275g/m2 commercial class hot dipped galvanising as per SABS 934 before stamping		
	All connector plates shall have been tested by the CSIR and be of a size capable of transmitting the forces between members of a truss without exceeding the design values published in the CSIR report		
	<u>Truss construction</u>		ı
	Trusses shall be constructed in jigs specially designed to unsure the correct profile, overhangs and cambers		ĺ
	Where metal connector plates are used all joints are to be close fitted butt joints made by precision pressing of the metal connector plates into each side of the joint		
	<u>Truss design</u>		ı
	All trusses shall be designed by a registered Professional Engineer in accordance with SABS 0163 ("Design of Timber Structures") and Code 0160 ("Loadings")		
	Truss spacing		ı
	The truss centres shall be less than or equal to that as described in this bill for each respective truss		
	Carried Forward	R	<del></del>
	Section No. 9 2 X 5 ENVIROLOO TOILETS BLOCK Bill No. 6 Capentry and Joinery CLUSTER G		
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Brought Forward	R	
Truss pitch		
The truss pitch shall be as described in this bill for each respective truss type		
Truss loading		
Trusses shall be designed for a live load of 0,50kN/m2 and dead load as specified under the sub-heading "Specific load specifications for roof trusses"		
Shop drawings, design and erection guarantee certificates		
It will be expected from the Contractor to timeously prepare, submit and obtain the necessary approvals from the Representative/Agent in respect of the required shop drawings, design and erection guarantee certificates as specified		
<u>Dimensions</u>		
All dimensions given in the descriptions of the trusses are nominal and actual measurements are to be obtained by actual measurements taken on the site before design or fabrication commences		
<u>Erection</u>		
All trusses are to be hoisted and erected strictly in accordance with the procedures and recommendations of the manual "The Erection and Bracing of Timber roof Trusses" as published by the Institute for Timber Construction and the CSIR, or the SABS Code of Practice "The Design, Manufacture and Erection of Timber Roof Trusses", or as designed and detailed by the designer		
<u>Design system</u>		
The design system as documented in this bill is based on the "MiTek" system and all references given in the descriptions are related to specific type of trusses based on this design system		
		_
Section No. 9 2 X 5 ENVIROLOO TOILETS BLOCK Bill No. 6 Capentry and Joinery CLUSTER G	R	

	Brought Forward		R		
	However, Contractors are to note that any design system of similar quality may be used subject to the prior written approval of the Representative/Agent				
	Specific specifications for roof trusses				
	Unless otherwise described, the following specifications will apply:				
	1 All trusses to be with a 10° pitch				
	The dead load consists of corrugated roof sheeting and purlins at approximately 1200mm centres				
	ROOFS				
	The following in plate nailed timber roof truss construction				
	The following is applicable in respect of roof trusses				
	The references given in the descriptions are to the respective types of trusses detailed on the architect's drawings annexed to these bills of quantities/accompanying these bills of quantities for tender purposes				
	Prices for rafters and trusses to include all "Hurricane" clips, steel M-runners and "Permfix" plates, screws, nails, wires, sundry material, etc (bracing, wallplates, purlins and gangboarding are measured seperately)				
	Allow for the preparation and submission of the following documents in respect of all buildings				
1	Detailed shop drawings indicating truss sizes, truss positions, bracings, details, etc. to be submitted for approval prior the commencement of any fabrication	Item			
2	Design certificate indicating the licensed programme used, SANS specifications adhered to, general procedures and loadings adopted, sizes and grading of				
	timber components, details, etc.	Item			
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	Carried Forward Section No. 9		R		
	2 X 5 ENVIROLOO TOILETS BLOCK Bill No. 6				
	Capentry and Joinery CLUSTER G				
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Brought Forward			R	
Erection guarantee certificate after the whole completed roof truss structure have been inspected, all defective work have been taken out and made good, etc. to the full satisfaction of the Principal Agent		Item		
Sawn softwood				
Roof construction to double pitched roof supplied and erected complete in position with bracing, gangboarding, purlins, eaves purlins, hipped end, rafters etc. for waterborne toilet block approximately 28m2 on plan (Refer to architect's drawings attached to these bills of quantities)	No	2		
Sawn softwood grade 4				
38 x 114mm Wall plates	m	23		
50 x 76mm Purlins in lengths exceeding 3,9m and not exceeding 6,6m	m	200		
<u>Sundries</u>				
Two coats creosote on sawn timbers	m2	48		
EAVES, VERGES, ETC				
"Everite FC77" pressed fibre-cement				
15 x 250mm Fascias and barge boards including galvanised steel H-profile jointing strips	m	50		
DOORS, ETC				
Wrought meranti doors hung to steel frames				
44mm Framed and ledged batten door 813 x 2032mm high of 44 x 100mm top rail and stiles, 22 x 100mm middle and bottom rails, covered on both sides with 6mm plywood with veneer (D3)	No	4		
Carried Forward  Section No. 9 2 X 5 ENVIROLOO TOILETS BLOCK Bill No. 6 Capentry and Joinery CLUSTER G			R	
	Erection guarantee certificate after the whole completed roof truss structure have been inspected, all defective work have been taken out and made good, etc. to the full satisfaction of the Principal Agent  Sawn softwood  Roof construction to double pitched roof supplied and erected complete in position with bracing, gangboarding, purlins, eaves purlins, hipped end, rafters etc. for waterborne toilet block approximately 28m2 on plan (Refer to architect's drawings attached to these bills of quantities)  Sawn softwood grade 4  38 x 114mm Wall plates  50 x 76mm Purlins in lengths exceeding 3,9m and not exceeding 6,6m  Sundries  Two coats creosote on sawn timbers  EAVES, VERGES, ETC  "Everite FC77" pressed fibre-cement  15 x 250mm Fascias and barge boards including galvanised steel H-profile jointing strips  DOORS, ETC  Wrought meranti doors hung to steel frames  44mm Framed and ledged batten door 813 x 2032mm high of 44 x 100mm top rail and stiles, 22 x 100mm middle and bottom rails, covered on both sides with 6mm plywood with veneer (D3)  Carried Forward  Section No. 9  2 X 5 ENVIROLOO TOILETS BLOCK Bill No. 6 Capentry and Joinery	Erection guarantee certificate after the whole completed roof truss structure have been inspected, all defective work have been taken out and made good, etc. to the full satisfaction of the Principal Agent  Sawn softwood  Roof construction to double pitched roof supplied and erected complete in position with bracing, gangboarding, purlins, eaves purlins, hipped end, rafters etc. for waterborne toilet block approximately 28m2 on plan (Refer to architect's drawings attached to these bills of quantities)  No  Sawn softwood grade 4  38 x 114mm Wall plates  m  50 x 76mm Purlins in lengths exceeding 3,9m and not exceeding 6,6m  m  Sundries  Two coats creosote on sawn timbers  m2  EAVES, VERGES, ETC  "Everite FC77" pressed fibre-cement  15 x 250mm Fascias and barge boards including galvanised steel H-profile jointing strips  m  DOORS, ETC  Wrought meranti doors hung to steel frames  44mm Framed and ledged batten door 813 x 2032mm high of 44 x 100mm top rail and stiles, 22 x 100mm middle and bottom rails, covered on both sides with 6mm plywood with veneer (D3)  No  Carried Forward  Section No. 9  2 X 5 ENVIROLOO TOILETS BLOCK Bill No. 6  Capentry and Joinery	Erection guarantee certificate after the whole completed roof truss structure have been inspected, all defective work have been taken out and made good, etc. to the full satisfaction of the Principal Agent  Roof construction to double pitched roof supplied and erected complete in position with bracing, gangboarding, purlins, eaves purlins, hipped end, rafters etc. for waterborne toilet block approximately 25m2 on plan (Refer to architect's drawings attached to these bills of quantities)  Sawn softwood grade 4  38 x 114mm Wall plates  m 23  50 x 76mm Purlins in lengths exceeding 3,9m and not exceeding 6,6m  Sundries  Two coats creosote on sawn timbers  m2 48  EAVES, VERGES, ETC  "Everite FC77" pressed fibre-cement  15 x 250mm Fascias and barge boards including galvanised steel H-profile jointing strips  m 50  DOORS, ETC  Wrought meranti doors hung to steel frames  44mm Framed and ledged batten door 813 x 2032mm high of 44 x 100mm top rail and stiles, 22 x 100mm middle and bottom rails, covered on both sides with 6mm plywood with veneer (D3)  No 4  Carried Forward  Section No. 9  2 x 5 ENVIROLOO TOILETS BLOCK Bill No. 6 Capentry and Joinery	Erection guarantee certificate after the whole completed roof truss structure have been inspected, all defective work have been taken out and made good, etc. to the full satisfaction of the Principal Agent Item  Sawn softwood  Roof construction to double pitched roof supplied and erected complete in position with bracing, gangboarding, purlins, eaves purlins, hipped end, rafters etc. for waterborne toiler block approximately 28m2 on plan (Refer to architect's drawings attached to these bills of quantities)  No 2  Sawn softwood grade 4  38 x 114mm Wall plates m 23  50 x 76mm Purlins in lengths exceeding 3,9m and not exceeding 6,6m m 200  Sundries  Two coats creosote on sawn timbers m2 48  EAVES, VERGES, ETC  "Everite FC77" pressed fibre-cement  15 x 250mm Fascias and barge boards including galvanised steel H-profile jointing strips m 50  DOORS, ETC  Wrought meranti doors hung to steel frames  44mm Framed and ledged batten door 813 x 2032mm high of 44 x 100mm top rail and stiles, 22 x 100mm middle and bottom rails, covered on both sides with 6mm plywood with veneer (D3)  Carried Forward  Section No. 9  2 X 5 ENVIROLOO TOILETS BLOCK Bill No. 6  Capentry and Joinery

	Brought Forward			R		
	Solid core flush doors with concealed hardwood edges and 4mm thick masonite covering on both sides hung to steel frame					
10	40mm Door 813 x 2032mm high	No	10			
	Carried Forward to Summary of Section No. 9 Section No. 9 2 X 5 ENVIROLOO TOILETS BLOCK			R		
	Bill No. 6 Capentry and Joinery CLUSTER G					

Item No		Quantity	Rate	Amount
	SECTION NO.3			
	BUILDING WORK			
	BILL NO.7			
	CEILING, ETC.			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.			
	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 elsewhere			
	CEILING CONSTRUCTION, CORNICES, ETC.			
	<u>Insulation</u>			
	Sawn softwood			
1	38 x 114mm Ceiling joists (Provisional) m	18		
	"Rhino" gypsum plasterboard cornices			
2	75mm Coved cornices m	38		
	NAILED UP AND SCREWED UP CEILINGS			
	Carried Forward Section No. 9 2 X 5 ENVIROLOO TOILETS BLOCK		R	
	Bill No. 7 Ceilings, Partitions and Access Flooring CLUSTER G			

	6mm "Everite Nutec" fibre-cement boards with H-				
3	profile primed steel jointing cover strips over joints				
	Ceilings including 38 x 38mm brandering at 90deg to trusses at maximum centres of 400mm by 32mm long galvanised nails.				
		m2	55		
	Extra over ceiling for opening for 610 x 610mm trap door of 50 x 76mm wrought softwood rebated framing with one 38 x 38mm sawn softwood cross brander covered with ceiling board and fitted flush in opening	No	5		
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	Carried Forward to Summary of Section No. 9			R	=
	Section No. 9 2 X 5 ENVIROLOO TOILETS BLOCK Bill No. 7 Ceilings, Partitions and Access Flooring				
	CLUSTER G				

Item No		Quantity	Rate	Amount
	SECTION NO.3			
	BUILDING WORK			
	BILL NO.8			
	IRONMONGERY			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.			
	SUPPLEMENTARY PREAMBLES			
	<u>Descriptions</u>			
	Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs			
	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 SD Sanded			
	LOCKS			
	"Solid"or similar approved			
1	"Code 630" padlock	No 5		
2	"Code 2252-76SC" three lever upright lockset	No 5		
	Carried Forward			
	Section No. 9 2 X 5 ENVIROLOO TOILETS BLOCK Bill No. 8 Ironmongery CLUSTER G		R	

	Brought Forward			R	
3	293/E41 WC indicator bolt with keep fixed to metal	No	10		
	SUNDRIES				
	"Solid" or similar approved				
4	Dorma "Code 255" door stop plugged	No	15		
5	Chromium plated toilet roll holder plugged to brickwork	No	10		
	STEEL CUPBOARDS				
	Aproved steel lockers with standard baked enamel finish				
	PINNING BOARDS, WRITING BOARDS, PROJECTION SCREENS, ETC				
	"Vitrex" or similar approved				
	LETTERS, NAMEPLATES, ETC				
	"Union" or similar approved				
6	150 x 150mm Stainless steel plate engraved with "female" sign (St/Steel)	No	3		
7	150 x 150mm Stainless steel plate engraved with "male" sign (St/Steel)	No	3		
	Carried Forward to Summary of Section No. 9 Section No. 9			R	
	2 X 5 ENVIROLOO TOILETS BLOCK Bill No. 8				
	Ironmongery CLUSTER G				

Item No		Quantity	Rate	Amount
	SECTION NO.3			
	BUILDING WORK			
	BILL NO. 9			
	<u>METALWORK</u>			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.			
	<u>Descriptions</u>			
	Descriptions of bolts shall be deemed to include nuts and washers Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete Metalwork described as "holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described			
	<u>Drawings</u>			
	Tenderers are referred to architect's drawings annexed to this document for full details of the windows, doors, etc			
	WELDED SCREENS, GATES, ETC			
	Gates to external doors			
1	Gate and frame 900 x 2100mm high complete (G1)			
	No	5		
	PRESSED STEEL DOOR FRAMES			
	Carried Forward  Section No. 9 2 X 5 ENVIROLOO TOILETS BLOCK Bill No. 9 Metalwork CLUSTER G		R	

	Brought Forward			R	
	1,2mm Double rebated frames suitable for half brick walls				
2	Frame for door 813 x 2032mm high	No	10		
	1,2mm Double rebated frames suitable for one brick walls				
3	Frame for door 813 x 2032mm high	No	5		
	STEEL WINDOWS, DOORS, ETC				
	"Nty" or similar approved steel residential windows with burglar bars to all sashes				
4	Type NE7 size 1022 x 654mm high	No	5		
5	Window type NE1, size 533 x 654mm high	No	10		
	Corried Femulary to Summary of Section No. 0				
	Carried Forward to Summary of Section No. 9 Section No. 9			R	
	2 X 5 ENVIROLOO TOILETS BLOCK Bill No. 9				
	Metalwork CLUSTER G				

Item No		Quantity	Rate	Amount	
1	SECTION NO.3				
	BUILDING WORK				
	BILL NO. 10				
	PLASTERING				
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.				
	SCREEDS				
	Screeds on concrete				
1	30mm Thick on floors m2	55			
	Carried Forward to Summary of Section No. 9 Section No. 9 2 X 5 ENVIROLOO TOILETS BLOCK Bill No. 10 Plastering CLUSTER G		R		=

Item No		Quantity	Rate	Amount
	SECTION NO.3			
	BUILDING WORK			
	BILL NO.11			
	TILING			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.			
	SUPPLEMENTARY PREAMBLES			
	<u>Descriptions</u>			
	Unless described as "fixed with adhesive to plaster (plaster elsewhere)" descriptions of tiling on brick or concrete walls, columns, etc shall be deemed to include 1:4 cement plaster backing and descriptions of tiling on concrete floors etc shall be deemed to include 1:3 plaster bedding			
	FLOOR TILING			
	300 x 300 x 11,5mm Ceramic floor tiles (PC R120.00/m2 VAT excl.) fixed with adhesive to plaster (plaster elsewhere) and flush pointed with tinted waterproof jointing compound			
1	On floors and landings	55		
	m2	55		
	Carried Forward to Summary of Section No. 9		R	
	Section No. 9 2 X 5 ENVIROLOO TOILETS BLOCK Bill No. 11 Tiling CLUSTER G			

Item No		Quantity	Rate	Amount
	SECTION NO.3			
	BUILDING WORK			
	BILL NO.12			
	PLUMBING AND DRAINAGE			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.			
	SUPPLEMENTARY PREAMBLES			
	"Polycop" polypropylene pipes:			
	Polypropylene pipes 54mm diameter and under shall be seamless copper coloured class 16 pipes jointed with "Fast-fuse" heat welded thermoplastic or brass compression fittings as designed for use with copper pipes as stated			
	Pipes shall be firmly fixed to walls etc with coloured nylon snap-in pipe clips with provision for accommodating thermal movement and jointed and fixed strictly in accordance with the manufacturer's instructions			
	All pipe diameters are nominal external			
	TOILET TANKS			
	Plumbing and drainage			
1	Erect toilet tanks set up and fixed complete as per manufacturers instruction - manufacturer to supply and delivery arrangements	15		
	Carried Forward		R	
	Section No. 9 2 X 5 ENVIROLOO TOILETS BLOCK Bill No. 12 Plumbing and Drainage CLUSTER G			

	Brought Forward		R	
	SUPERVISION OF INSTALLATION OF TOILET TANKS			
	The following nominated sub - contractor amounts are for work to be carried out by nominated sub-contractors:Supervision of installation of toilet tanks.			
2	Four site visits to be made by the toilet tanks suppliers to assist/support the contractor in the installation of the toilet tanks and a final inspection to be ascertain the tanks has been installed correctly at which time a Certificate of Compliance should be issued between the Department Public Works,Roads & Infrastructure and Toilet tanks suppliers	Item		20,000.00
	Carried Forward to Summary of Section No. 9 Section No. 9 2 X 5 ENVIROLOO TOILETS BLOCK Bill No. 12 Plumbing and Drainage CLUSTER G		R	

Item No		Quantity	Rate	Amount
	SECTION NO.3			
	BUILDING WORK			
	BILL NO. 13			
	GLAZING			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.			
	GLAZING TO STEEL WITH PUTTY			
	4mm Clear float glass			
1	Panes exceeding 0,1m2 and not exceeding 0,5m2 m2	8		
	Carried Forward to Summary of Section No. 9		R	
	Section No. 9 2 X 5 ENVIROLOO TOILETS BLOCK Bill No. 13 Glazing CLUSTER G			

Item No		Quantity	Rate	Amount
	SECTION NO.3			
	BUILDING WORK			
	BILL NO. 14			
	PAINTWORK			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.			
	SUPPLEMENTARY PREAMBLES			
	DESCRIPTIONS			
	Descriptions of paintwork shall be deemed to include for all cutting in			
	PAINT SPECIFICATIONS			
	All painting shall be done in accordance with "Plascon- Evans" specifications			
	PAINTWORK ETC TO NEW WORK			
	ON FIBRE-CEMENT			
	One coat primer, one coat universal undercoat and two coats super acrylic PVA paint			
1	On ceilings and cornices m2	55		
	Carried Forward		R	
	Section No. 9 2 X 5 ENVIROLOO TOILETS BLOCK Bill No. 14			
	Paintwork CLUSTER G			

	Brought Forward			R	
	Plascon Sure Coat Gloss Enamel to exterior new fibre cement (NW 174). Surface to be dry, sound and clean, with a moisture content, measured with a Doser Hygrometer (or equivalent), of BD 2 scale - 8% or less. Prime with one coat of Plascon Plaster Primer (UC 56) with an overcoating time of 16 hours and finish with two coats of Sure Coat Gloss Enamel (SGE) with 16 hours drying time between coats, for a maintenance cycle of 2 years in a C1 - inland environment.				
2	On fascias and barge boards	m2	13		
	Plascon Sure Coat Gloss Enamel to interior new fibre cement (NW 274). Surface to be dry, sound and clean, with a moisture content, measured with a Doser Hygrometer (or equivalent), of BD 2 scale - 8% or less.  Prime with one coat of Plascon Plaster Primer (UC 56) with an overcoating time of 16 hours and finish with two coats of Sure Coat Gloss Enamel (SGE) with 16 hours drying time between coats, for a maintenance cycle of 4 years in a C1 - inland environment.				
	ON METAL				
	Plascon Velvaglo Satin to exterior new mild steel (NW 683).Surface to be clean and dry. Remove surface contaminants using Plascon Aquasolv Degreaser (GR 1) with bristle brush or Brillo pads. Rinse thoroughly with tap water until surface is water break-free. Remove rust and millscale by abrasive blasting to ISO 8501 - 01:1988 - Sa2½ or by hand/mechanical wire brushing to St3of the same standard. Allow to dry completely and prime within 4 hours of cleaning. Prime with one coat of Metal Primer (UC 501) with an overcoating time of 16 hours and finish with two coats of Velvaglo Satin (VLO) with 16 hours drying time between coats, for a maintenance cycle of 3 years in a C1 - inland environment.				
3	On door frames	m2	30		
4	On windows with burglar bars	m2	8		
	Carried Forward  Section No. 9 2 X 5 ENVIROLOO TOILETS BLOCK Bill No. 14 Paintwork CLUSTER G			R	

	Brought Forward			R	
	ON TIMBER				
5	Stop, fill, sand down and prepare wood surfaces.  Apply one coat Plascon Wood Primer, one coat Plascon Universal Undercoat and two coats Plascon Super Universal Enamel paint				
6	On doors	m2	53		
	Carried Forward to Summary of Section No. 9 Section No. 9 2 X 5 ENVIROLOO TOILETS BLOCK Bill No. 14 Paintwork CLUSTER G			R	
	CLUSTER G				

	Section No. 9			
	2 X 5 ENVIROLOO TOILETS BLOCK			
	SECTION SUMMARY - 2 X 5 ENVIROLOO TOILETS BLOCK			
Bill No		Page No		Amount
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5	Roof Coveringss, etc	319		
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7	Ceilings, Partitions and Access Flooring	328		
8	Ironmongery	330		
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10	Plastering	333		
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12	Plumbing and Drainage	336		
13	Glazing	337		
14	Paintwork	340		
	Carried to Final Summary Section No. 9		R	
	2 X 5 ENVIROLOO TOILETS BLOCK CLUSTER G			
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Item No		Quantity	Rate	Amount
	SECTION NO.9			
	EXTERNAL WORK			
	BILL NO. 1			
	EARTHWORKS (PROVISIONAL)			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades as well as Engineering Specifications attached to these documents.			
	EARTHWORKS (PROVISIONAL)			
	SUPPLEMENTARY PREAMBLES			
	NOTE			
	All earthworks shall comply with the requirements of the latest relevant SABS 1200 Specifications: 1200C; 1200D;1200DM			
	Nature of ground			
	The nature of the ground is assumed to be gravel, therefore "earth", but possibly interspersed with soft rock			
	Specific Requirements of imported G6 material			
	The imported material must conform to the following criteria:			
	(1) Minimum CBR at 93% Mod. AASHTO Density: 15 (2) Minimum swell at 100% Mod. AASHTO Density:			
	1,5% (3) Maximum PI: 12 (4) Maximum size particles in material: 63mm (5) Grading modulus: 2,7 ≥ GM ≥ 0,75			
	Carried Forward		R	
	Section No. 10 EXTERNAL WORKS Bill No. 1 Bulk Earthworks CLUSTER G			

	Brought Forward			R	
	Carting away of excavated material				
	Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site				
	BULK EXCAVATION, FILLING, ETC				
	Excavations				
	Site clearance				
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc for paving and bulk site clearance	m2	808		
	Open face excavation in earth over sloping site				
2	Open face excavation	m3	469		
	Extra over bulk excavation in earth for excavation in				
3	Soft rock	m3	47		
4	Hard rock	m3	23		
	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	125		
	Risk of collapse of excavations				
6	Sides of trench and hole excavations not exceeding 1 500mm deep	m2	78		
	Keeping excavations free of water				
7	Keeping excavations free of all water other than subterranean water		Item		
	Carried Forward			R	
	Section No. 10 EXTERNAL WORKS Bill No. 1 Bulk Earthworks CLUSTER G				

	Brought Forward			R	
	Earth filling obtained from the excavations and /or prescribed stock piles on site including compacted to 93% Mod AASHTO density				
8	Earth filling obtained from excavations compacted to 95% Mod AASHTO density				
		m3	121		
	Earth filling supplied by the contractor compacted to 95% Mod AASHTO density				
	The following to be natural selected gravel layers evenly spread and consolidated in layers and dimensions as specified and on the drawings. All thicknesses to be consolidated thicknesses.				
	Where described as "imported" the gravel to be supplied and carted on by the contractor from an approved borrow pit				
9	150mm Imported C4 material with and including 3% 32,50 BV cement and consolidated to 97% mod. AASHTO density				
		m3	105		
10	150mm Imported G6 material compacted to 95% mod. AASHTO density	m3	121		
11	150mm Imported G7 material compacted to 95% mod. AASHTO density	m3	121		
	Prescribed density tests on filling				
12	"Modified AASHTO Density" test	No	5		
13	Maximum dry density and optimum moisture content (MOD)	No	5		
					_
	Carried Forward to Summary of Section No. 10 Section No. 10			R	_
	EXTERNAL WORKS Bill No. 1				
	Bulk Earthworks CLUSTER G				

Item No			Quantity	Rate	Amount
1	SECTION NO.9	l			
	EXTERNAL WORKS				
	BILL NO. 2				
	PARKING AND PAVINGS				
	Materials and workmanship must be in accordance to the following SABS 1200 specifications:				
	C - Site clearance D - Earthworks DM - Earthworks (Roads, subgrade) M - Roads (General) ME - Sub-base MF - Base MK - Kerb and Channeling MM - Ancillary Roadworks				
	ACCESS ROAD AND VEHICLE PARKING				
	<u>EARTHWORKS</u>				
	Excavations				
	Site clearance				
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc for paving and bulk site clearance	m2	411		
2	Rip and scarify ground level to a depth of 150mm and consolidate to 90% mod. AASHTO density (minimum CBR 3)	m2	411		
3	Excavate in pickable earth to reduce ground level below paving and set aside for later use	m3	247		
	Carried Forward  Section No. 10  EXTERNAL WORKS  Bill No. 2  Paving and Carports  CLUSTER G			R	

	Brought Forward			R	
4	Ditto, but cart away excavated material to a dumping place to be found by the contractor (cut to spoil)	m3	185		
5	Extra over excavation for excavation in soft rock	m3	25		
6	Ditto, but in hard rock	m3	12		
	Earth filling obtained from the excavations and /or prescribed stock piles on site including compacted to 93% Mod AASHTO density				
7	Under floors, steps, paving, etc	m3	62		
	Earth filling supplied by the contractor under pavings etc				
	The following to be natural selected gravel layers evenly spread and consolidated in layers and dimensions as specified and on the drawings. All thicknesses to be consolidated thicknesses.				
	Where described as "imported" the gravel to be supplied and carted on by the contractor from an appoved borrow pit				
8	Over site of G7 material in accordance with SABS 1200 DM compacted to 95% Mod AASHTO density	m3	62		
9	150mm Imported G6 material compacted to 95% mod. AASHTO density	m3	62		
0	·		02		
J	150mm Imported C4 material with and including 3% 32,50 BV cement and consolidated to 97% mod. AASHTO density	m3	62		
	Compaction of surfaces				
1	Compaction of ground surface under parking areas etc by wetting and compacting	m2	411		
	Carried Forward Section No. 10 EXTERNAL WORKS			R	
	Bill No. 2 Paving and Carports CLUSTER G				

	Brought Forward			R	
	Prescribed density tests on filling				
12	In-situ dry density (sand replacement) test in accordance with method A10 (a) of TMH 1	No	5		
13	25mm Thick layer clean,dry, riversand layer treated with an approved weed killer at the rate of 50 grams per square metre,spread and levelled to receive paving blocks (elsewhere measured)	m2	489		
14	Tests to determine the degree of comapction, etc of ground filling	No	5		
	PAVING				
	Interlocking Pavings				
15	80mm Thick double interlocking (DZZ) precast grey coloured concrete paving blocks laid in a herringbone pattern on and including 20mm sand founding layer with and covered with sand layer sweep into joints	m2	411		
16	Circular cutting to paving	m	43		
	Kerbs, etc				
17	Precast concrete figure 7 mountable kerb (SABS 927), levelled and jointed in 1:5 cement mortar complete with 15Mpa/19mm in situ concrete support blocks size 225 x 150 x 225mm high, at joints at 1,0m centres, including leaving 6mm expansion joints at 10m intervals between kerbs	m	164		
18	Precast concrete figure 7 kerb (SABS 927), circular on plan n.e 4m area levelled and jointed in 1:5 cement mortar complete with 15Mpa/19mm in situ concrete support blocks size 225 x 150 x 225mm high, at joints at 1,0m centres, including leaving 6mm expansion joints at 10m intervals between kerbs	m	144		
	Carried Forward  Section No. 10  EXTERNAL WORKS  Bill No. 2  Paving and Carports  CLUSTER G			R	_

	Brought Forward			R	
	<u>Sundries</u>				
19	Mass concrete (25MPa) in 300 x 150mm edge filler strip finished smooth on top with a wood float, including all excavation, formwork, etc	m	4		
	<u>PAINTWORK</u>				
	Prepare and paint one coat reflective road marking paint on concrete paving block surfaces				
20	Lines 100mm wide	m	35		
21	Disable persons pictorial 1000mm high	No	1		
22	Sign Faces with Painted or Galvanised (as stated) Background, with Painted Symbols, Characters, Legend and Borders, and with Signboardings Constructed from:  Steel tubing 76mm diameter x 2,5mm thick CHS sections 3m long, with two coats bitumen tar below ground and zinc phosphate primer and two coats metal paint above ground	No	1		
	ASSEMBLY AREA AND WALKWAYS				
	<u>EARTHWORKS</u>				
	Excavations				
	Site clearance				
23	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc for paving and bulk site clearance	m2	758		
24	Rip and scarify ground level to a depth of 150mm and consolidate to 90% mod. AASHTO density (minimum CBR 3)	m2	758		
25	Excavate in pickable earth to reduce ground level below paving and set aside for later use	m3	114		
	Carried Forward Section No. 10			R	
	EXTERNAL WORKS Bill No. 2 Paving and Carports CLUSTER G				

	Brought Forward			R	
26	Ditto, but cart away excavated material to a dumping place to be found by the contractor (cut to spoil)	m3	114		
27	Extra over excavation for excavation in soft rock	m3	11		
28	Ditto, but in hard rock	m3	6		
	Earth filling obtained from the excavations and /or prescribed stock piles on site including compacted to 93% Mod AASHTO density				
29	Under floors, steps, paving, etc	m3	114		
	Earth filling supplied by the contractor under pavings etc				
	The following to be natural selected gravel layers evenly spread and consolidated in layers and dimensions as specified and on the drawings. All thicknesses to be consolidated thicknesses.				
	Where described as "imported" the gravel to be supplied and carted on by the contractor from an appoved borrow pit				
30	150mm Imported G6 material compacted to 95% mod. AASHTO density	m3	114		
	Compaction of surfaces				
31	Compaction of ground surface under parking areas etc by wetting and compacting	m2	758		
	Prescribed density tests on filling				
32	In-situ dry density (sand replacement) test in accordance with method A10 (a) of TMH 1	No	5		
33	25mm Thick layer clean,dry, riversand layer treated with an approved weed killer at the rate of 50 grams per square metre,spread and levelled to receive paving blocks (elsewhere measured)	m2	758		
	Carried Forward Section No. 10			R	
	EXTERNAL WORKS Bill No. 2 Paving and Carports CLUSTER G				

	Brought Forward			R	
34	Tests to determine the degree of comapction, etc of ground filling	No	5		
	PAVING				
	Interlocking Pavings				
35	60mm Thick double interlocking (DZZ) precast grey coloured concrete paving blocks laid in a herringbone pattern on and including 20mm sand founding layer with and covered with sand layer sweep into joints	m2	758		
36	Circular cutting to paving	m	303		
	Kerbs, etc				
37	Precast concrete figure 7 mountable kerb (SABS 927), levelled and jointed in 1:5 cement mortar complete with 15Mpa/19mm in situ concrete support blocks size 225 x 150 x 225mm high, at joints at 1,0m centres, including leaving 6mm expansion joints at 10m intervals between kerbs	m	303		
38	Precast concrete figure 7 kerb (SABS 927), circular on plan n.e 4m area levelled and jointed in 1:5 cement mortar complete with 15Mpa/19mm in situ concrete support blocks size 225 x 150 x 225mm high, at joints at 1,0m centres, including leaving 6mm expansion joints at 10m intervals between kerbs	m	227		
	Sundries				
39	Mass concrete (25MPa) in 300 x 150mm edge filler strip finished smooth on top with a wood float, including all excavation, formwork, etc	m	8		
	CARPORTS				
40	Provide the amount of R250 000,00 (Two Hundred Fifty Thousand Rand) for the supply and installation of Carports by Specialists		Item		250,000.00
	Carried Forward  Section No. 10  EXTERNAL WORKS  Bill No. 2  Paving and Carports			R	
	CLUSTER G				

	Brought Forward		R	
41	Allow for profit on above if required	Item		
41 42		Item		
	Carried Forward to Summary of Section No. 10 Section No. 10 EXTERNAL WORKS Bill No. 2 Paving and Carports CLUSTER G		R	

Item No			Quantity	Rate	Amount
1	SECTION NO.9				
	EXTERNAL WORKS				
	BILL NO.3				
	STORMWATER DRAINAGE				
	Materials and workmanship must be in accordance to the following SABS 1200 specifications:				
	C - Site clearance D - Earthworks DM - Earthworks (Roads, subgrade) M - Roads (General) ME - Sub-base MF - Base MK - Kerb and Channeling MM - Ancillary Roadworks				
	ACCESS ROAD AND VEHICLE PARKING				
	<u>EARTHWORKS</u>				
	<u>Excavations</u>				
	Site clearance				
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc for paving and bulk site clearance	m2	97		
2	Rip and scarify ground level to a depth of 150mm and consolidate to 90% mod. AASHTO density (minimum CBR 3)	m2	97		
3	Excavate in pickable earth to reduce ground level below paving and set aside for later use	m3	15		
	Carried Forward  Section No. 10  EXTERNAL WORKS  Bill No. 3  Stormwater Drainage  CLUSTER G			R	

	Brought Forward			R	
4	Ditto, but cart away excavated material to a dumping place to be found by the contractor (cut to spoil)	m3	8		
5	Extra over excavation for excavation in soft rock	m3	1		
6	Ditto, but in hard rock	m3	1		
	Earth filling obtained from the excavations and /or prescribed stock piles on site including compacted to 93% Mod AASHTO density				
7	Under floors, steps, paving, etc	m3	16		
	Earth filling supplied by the contractor under pavings etc				
	Compaction of surfaces				
8	Compaction of ground surface under parking areas etc by wetting and compacting	m2	97		
	Prescribed density tests on filling				
9	In-situ dry density (sand replacement) test in accordance with method A10 (a) of TMH 1	No	5		
	REINFORCED CONCRETE				
	30MPa/19mm concrete				
10	Stormwater channels cast in panels	m3	10		
	CONCRETE SUNDRIES				
	Finishing top surfaces of concrete smooth with a steel trowel				
11	Surface beds, slabs, etc	m2	97		
	<u>FORMWORK</u>				
	Carried Forward			R	
	Section No. 10 EXTERNAL WORKS Bill No. 3 Stormwater Drainage CLUSTER G				

	Brought Forward			R	
	ROUGH FORMWORK (DEGREE OF ACCURACY II)				
	Rough formwork to sides				
12	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	97		
	TEST CUBES				
13	Allow for preparing a set of three concrete strength test cubes, each size 150 x 150 x 150mm, sending them to an approved Testing Laboratory for testing and paying all charges in connection therewith.	Sets	2.5		
	MOVEMENT JOINTS ETC				
	Expansion joints with bitumen impregnated softboard between vertical concrete and brick surfaces				
14	Saw cut joints in top of concrete	m	97		
	REINFORCEMENT				
	REINFORCEMENT (PROVISIONAL)				
	Fabric reinforcement				
15	Type 311 fabric reinforcement in concrete slabs etc	m2	97		
	Carried Forward to Summary of Section No. 10			R	
	Section No. 10 EXTERNAL WORKS Bill No. 3 Stormwater Drainage				
	CLUSTER G				

Item No			Quantity	Rate	Amount
	SECTION NO.9				
	EXTERNAL WORKS				
	BILL NO. 4				
	WATER SUPPLIES				
	Materials and workmanship must be in accordance to the following SABS 1200 specifications:				
	C - Site clearance D - Earthworks DM - Earthworks (Roads, subgrade) M - Roads (General) ME - Sub-base MF - Base MK - Kerb and Channeling MM - Ancillary Roadworks				
	Class 6 black uPVC pipes including "Plasson" compression fittings				
1	75mm Pipes laid in and including trenches not exceeding 1m deep	m	215		
2	25mm Pipes laid in and including trenches not exceeding 1m deep	m	13		
	Extra over class 6 uPVC pressure pipes for fittings with solvent welded joints				
3	25mm Junction	No	2		
4	25mm Bend	No	4		
5	75 x 25mm Reducer	No	6		
6	25 x 15 x 25mm Tee	No	6		
7	25 x 22mm Reducer	No	2		
	Carried Forward Section No. 10 EXTERNAL WORKS Bill No. 4 Water Supply CLUSTER G			R	

	Brought Forward	ı	1	R	
8	25mm Tee	No	3		
9	75mm Elbow	No	2		
10	75mm Junction	No	4		
11	75 x 32mm reducer	No	4		
12	75 x 32 x 63mm Tee	No	2		
	Carried Forward to Summary of Section No. 10	,		R	
	Section No. 10 EXTERNAL WORKS				
	Bill No. 4 Water Supply				
	CLUSTER G				

Item No		Quantity	Rate	Amount
	SECTION NO.9			
	BILL NO. 5			
	SOIL DRAINAGE			
	SUPPLEMENTARY PREAMBLES			
	"Polycop" polypropylene pipes:			
	Polypropylene pipes 54mm diameter and under shall be seamless copper coloured class 16 pipes jointed with "Fast-fuse" heat welded thermoplastic or brass compression fittings as designed for use with copper pipes as stated			
	Pipes shall be firmly fixed to walls etc with coloured nylon snap-in pipe clips with provision for accommodating thermal movement and jointed and fixed strictly in accordance with the manufacturer's instructions			
	All pipe diameters are nominal external			
	"Polylink" polypropylene pipes:			
	Polypropylene pipes 63mm diameter and over shall be class 12 pipes jointed with cast iron "Supraclamp" running joints			
	Fusion welded bends, once or twice mitred as necessary, and tees shall be factory manufactured			
	Fusion welded bends and tees shall include jointing to pipes with PVC rubber ring double Z joint couplers			
	Branch tees shall include flanged and bolted joints to "Polycop" branch pipes in addition and for brass compression male iron to copper straight couplers			
	Carried Forward Section No. 10		R	
	EXTERNAL WORKS Bill No. 5 Sewer Drainage CLUSTER G			

Brought Forward	R		
Reducers shall include jointing to pipes with PVC rubber ring double Z joint couplers and reducers shall be of sufficient overall length to accommodate same			
All pipes shall be jointed and fixed strictly in accordance with the manufacturer's instructions			
All pipe diameters are nominal external			
Concrete pipes:			
Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rings			
Vitrified clay pipes:			
Pipes shall rest on solid ground and, where necessary, pockets of sufficient size shall be cut around joints to enable the jointing to be properly performed or, alternatively, pipes shall be bedded full length on and including unreinforced concrete laid in a semi-dry state immediately before pipes are laid			
Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings			
uPVC pipes and fittings:			
Soil, waste and vent pipes and fittings shall be solvent weld jointed			
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			
Carried Forward			_
Section No. 10 EXTERNAL WORKS Bill No. 5 Sewer Drainage CLUSTER G	R		

	Brought Forward	R	
ļ	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 fixing to walls etc, casting in, building in or suspending not exceeding 1m below suspension level		
	Lead pipes and fittings		
	All soldered joints shall be wiped and brass unions shall be used for jointing lead to steel		
	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		
	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		
	Carried Forward  Section No. 10  EXTERNAL WORKS  Bill No. 5  Sewer Drainage  CLUSTER G	R	_

Brought Forward	R	
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 clauses 3, 5.5, 5.6, 5.7 and 7 of SABS 1200 DB: Earthworks (Pipe trenches) Pipes shall be bedded in accordance with clauses 3.1 to 3.4.1, 5.1 to 5.3 and 7 of SABS 1200 LB: Bedding (Pipes). Unless otherwise described bedding of rigid pipes shall be class B bedding		
Flush pans		
Flush pans shall have straight or side outlets and "P" or "S" traps as necessary		
Stainless steelbasins, sinks, wash troughs, urinals, etc.		
Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable		
Carried Forward  Section No. 10  EXTERNAL WORKS  Bill No. 5  Sewer Drainage  CLUSTER G	R	

	Brought Forward			R	
	Waste unions				
	Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings				
	Steel sectional water tanks				
	Tanks shall comply with SABS CKS 114				
	"Densyl" petrolatum anti-corrosion tape as manufactured by Denso SA (Pty) Ltd.				
	Pipes to be taped shall be coated with the appropriate primer and the tape shall be applied with minimum 15mm lap per spiral unless otherwise described				
	Couplings and fittings to pipes shall be taped in strict accordance with the manufacturer's instructions including all mastic, tape, "Layflat" sheeting, securing of same, etc				
	SOIL DRAINAGE				
	uPVC pipes				
1	160mm Pipes laid in and including trenches	m	140		
	Extra over "Corflo" double walled radial ribbed uPVC pipes with integral moulded cuff joints and rubber seal rings for uPVC fittings				
2	160mm Bend	No	2		
3	160mm Junction	No	2		
4	160mm End cap	No	1		
	SUNDRIES				
	Carried Forward  Section No. 10  EXTERNAL WORKS  Bill No. 5  Sewer Drainage  CLUSTER G			R	

	Brought Forward			R	
	Precast concrete circular inspection chambers, with and including manhole cover and frame all as per Engineer's drawings no.??????				
5	Inspection chamber 1000mm diameter and not exceeding 750mm deep internally				
		No	2		
6	Inspection chamber 1000mm diameter and exceeding 750mm and not exceeding 1000mm deep internally	No	2		
7	Inspection chamber 1000mm diameter and exceeding 1000mm and not exceeding 2000mm deep internally				
		No	2		
	Covers etc				
8	Lifting key for manhole cover	No	6		
	SEPTIC TANKS, ETC.				
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades				
	SITE CLEARANCE ETC				
	Site clearance				
9	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc	m2	48		
	EXCAVATION, FILLING, ETC				
	Excavation in earth not exceeding 2m deep				
10	Holes	m3	41		
	Carried Forward Section No. 10			R	
	EXTERNAL WORKS Bill No. 5				
	Sewer Drainage CLUSTER G				

Excavation in earth exceeding 2m and not exceeding 4m deep.  Holes m3 5  Extra over all excavations for carting away  Extra over all excavations for carting away surplus material from excavations and/or stockpile on site to a dumping site to be located by the Contractor m3 21  Risk of collapse of excavations  Sides of trench and hole excavations not exceeding 1,5m deep m2 34  Sides of trench and hole excavations exceeding 1,5m deep and not exceeding not exceeding 3m deep m2 16  Earth filling obtained from the excavations and /or prescribed stock piles on site including compacted to 93% Mod AASHTO density  Backfilling to trenches, holes, etc m3 25  Keeping excavations free of all water other than subterranean water ltem  REINFORCED CONCRETE  20MPa/19mm concrete  Surface beds cast in panels m3 1  Slab over septic tank m3 1  Concrete haunch formed below pipes m3 0.05  CONCRETE SUNDRIES  Carried Forward  Rescribing No. 10  EXTERNAL WORKS Bill No. 5  Sewer Drainage		Brought Forward		1	R		
Extra over all excavations for carting away  Extra over all excavations for carting away surplus material from excavations and/or stockpile on site to a dumping site to be located by the Contractor m3 21  Risk of collapse of excavations  Sides of trench and hole excavations not exceeding 1,5m deep m2 34  Sides of trench and hole excavations exceeding 1,5m deep and not exceeding not exceeding 3m deep m2 16  Earth filling obtained from the excavations and /or prescribed stock piles on site including compacted to 93% Mod AASHTO density  Backfilling to trenches, holes, etc m3 25  Keeping excavations free of water  Keeping excavations free of all water other than subterranean water ltem  REINFORCED CONCRETE  20MPa/19mm concrete  17 Surface beds cast in panels m3 1  18 Slab over septic tank m3 1  19 Concrete haunch formed below pipes m3 0.05  CONCRETE SUNDRIES  Carried Forward  REINFORCED CONCRES  Section No. 10  EXTERNAL WORKS Bill No. 5  Sewer Drainage							
Extra over all excavations for carting away surplus material from excavations and/or stockpile on site to a dumping site to be located by the Contractor m3 21  Risk of collapse of excavations  Sides of trench and hole excavations not exceeding 1,5m deep m2 34  Sides of trench and hole excavations exceeding 1,5m deep and not exceeding not exceeding 3m deep m2 16  Earth filling obtained from the excavations and /or prescribed stock piles on site including compacted to 93% Mod AASHTO density  Backfilling to trenches, holes, etc m3 25  Keeping excavations free of water  Keeping excavations free of all water other than subterranean water ltem  REINFORCED CONCRETE  20MPa/19mm concrete  Surface beds cast in panels m3 1  Slab over septic tank m3 1  Concrete haunch formed below pipes m3 0.05  CONCRETE SUNDRIES	11	Holes	m3	5			
material from excavations and/or stockpile on site to a dumping site to be located by the Contractor m3 21  Risk of collapse of excavations  Sides of trench and hole excavations not exceeding 1,5m deep m2 34  Sides of trench and hole excavations exceeding 1,5m deep and not exceeding not exceeding 3m deep m2 16  Earth filling obtained from the excavations and /or prescribed stock piles on site including compacted to 93% Mod AASHTO density  Backfilling to trenches, holes, etc m3 25  Keeping excavations free of water  Keeping excavations free of all water other than subterranean water litem  REINFORCED CONCRETE  20MPa/19mm concrete  Surface beds cast in panels m3 1  Slab over septic tank m3 1  Concrete haunch formed below pipes m3 0.05  CONCRETE SUNDRIES  Carried Forward R  Section No. 10  EXTERNAL WORKS Bill No. 5  Sewer Drainage		Extra over all excavations for carting away					
13 Sides of trench and hole excavations not exceeding 1,5m deep	12	material from excavations and/or stockpile on site to a	m3	21			
1,5m deep m2 34  14 Sides of trench and hole excavations exceeding 1,5m deep and not exceeding not exceeding 3m deep m2 16  Earth filling obtained from the excavations and /or prescribed stock piles on site including compacted to 93% Mod AASHTO density  15 Backfilling to trenches, holes, etc m3 25  Keeping excavations free of water  Keeping excavations free of all water other than subterranean water  Item  REINFORCED CONCRETE  20MPa/19mm concrete  17 Surface beds cast in panels m3 1  18 Slab over septic tank m3 1  19 Concrete haunch formed below pipes m3 0.05  CONCRETE SUNDRIES  Carried Forward R  Section No. 10  EXTERNAL WORKS Bill No. 5 Sewer Drainage		Risk of collapse of excavations					
deep and not exceeding not exceeding 3m deep m2  Earth filling obtained from the excavations and /or prescribed stock piles on site including compacted to 93% Mod AASHTO density  Backfilling to trenches, holes, etc m3 25  Keeping excavations free of water  Keeping excavations free of all water other than subterranean water  Item  REINFORCED CONCRETE  20MPa/19mm concrete  Surface beds cast in panels m3 1  Slab over septic tank m3 1  Concrete haunch formed below pipes m3 0.05  CONCRETE SUNDRIES  Carried Forward  R  Section No. 10  EXTERNAL WORKS  Bill No. 5  Sewer Drainage	13		m2	34			
prescribed stock piles on site including compacted to 93% Mod AASHTO density  15 Backfilling to trenches, holes, etc m3 25  Keeping excavations free of water  Keeping excavations free of all water other than subterranean water  Item  REINFORCED CONCRETE  20MPa/19mm concrete  17 Surface beds cast in panels m3 1  18 Slab over septic tank m3 1  19 Concrete haunch formed below pipes m3 0.05  CONCRETE SUNDRIES  Carried Forward  R  Section No. 10 EXTERNAL WORKS Bill No. 5 Sewer Drainage	14		m2	16			
Keeping excavations free of water  Keeping excavations free of all water other than subterranean water  REINFORCED CONCRETE  20MPa/19mm concrete  17 Surface beds cast in panels m3 1 18 Slab over septic tank m3 1 19 Concrete haunch formed below pipes m3 0.05  CONCRETE SUNDRIES  Carried Forward  R  Section No. 10  EXTERNAL WORKS Bill No. 5 Sewer Drainage		prescribed stock piles on site including compacted to					
Keeping excavations free of all water other than subterranean water    REINFORCED CONCRETE	15	Backfilling to trenches, holes, etc	m3	25			
subterranean water  REINFORCED CONCRETE  20MPa/19mm concrete  17 Surface beds cast in panels m3 1  18 Slab over septic tank m3 1  19 Concrete haunch formed below pipes m3 0.05  CONCRETE SUNDRIES  Carried Forward R  Section No. 10  EXTERNAL WORKS Bill No. 5 Sewer Drainage		Keeping excavations free of water					
REINFORCED CONCRETE  20MPa/19mm concrete  17 Surface beds cast in panels m3 1  18 Slab over septic tank m3 1  19 Concrete haunch formed below pipes m3 0.05  CONCRETE SUNDRIES  Carried Forward R  Section No. 10 EXTERNAL WORKS Bill No. 5 Sewer Drainage	16			ltana			
20MPa/19mm concrete  17 Surface beds cast in panels m3 1  18 Slab over septic tank m3 1  19 Concrete haunch formed below pipes m3 0.05  CONCRETE SUNDRIES  Carried Forward R  Section No. 10 EXTERNAL WORKS Bill No. 5 Sewer Drainage				петт			
Surface beds cast in panels m3 1  Slab over septic tank m3 1  Concrete haunch formed below pipes m3 0.05  CONCRETE SUNDRIES  Carried Forward R  Section No. 10  EXTERNAL WORKS Bill No. 5 Sewer Drainage		REINFORCED CONCRETE					
Slab over septic tank m3 1  19 Concrete haunch formed below pipes m3 0.05  CONCRETE SUNDRIES  Carried Forward R  Section No. 10 EXTERNAL WORKS Bill No. 5 Sewer Drainage		20MPa/19mm concrete					
CONCRETE SUNDRIES  Carried Forward  Section No. 10 EXTERNAL WORKS Bill No. 5 Sewer Drainage	17	Surface beds cast in panels	m3	1			
CONCRETE SUNDRIES  Carried Forward  R Section No. 10 EXTERNAL WORKS Bill No. 5 Sewer Drainage	18	Slab over septic tank	m3	1			
Carried Forward R Section No. 10 EXTERNAL WORKS Bill No. 5 Sewer Drainage	19	Concrete haunch formed below pipes	m3	0.05			
Section No. 10 EXTERNAL WORKS Bill No. 5 Sewer Drainage		CONCRETE SUNDRIES					
Section No. 10 EXTERNAL WORKS Bill No. 5 Sewer Drainage							
Sewer Drainage		Section No. 10 EXTERNAL WORKS			R		
GLUSTER G							

	Brought Forward			R	
	Finishing top surfaces of concrete smooth with a steel trowel				
20	Surface beds, slabs, etc to falls	m2	23		
	Grooves, channels, mortice, sinkings, etc in concrete				
	Form 25 x 25mm chamfer to edges of concrete	m	16		
	Permanent formwork to soffits				
21	Slab over septic tank	m2	8		
	Smooth formwork to form				
22	Opening not exceeding 1m girth through 150mm slab	No	3		
	SMOOTH FORMWORK (DEGREE OF ACCURACY I)				
	Smooth formwork to sides				
23	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	18		
	REINFORCEMENT				
	Mild steel reinforcement to structural concrete work				
24	10mm Diameter bars	t	0.05		
	Fabric reinforcement				
25	Steeledale Mesh standard square fabric mesh, nominal mass 3,95 kg/m² with nominal 8mm thick wires and 200 x 200mm pitch (code 395), complying with SANS 1024/2006 requirements, in sheets 2,4 x 6m long.(septic tank bottoms)	m2	11		
	MASONRY				
	Carried Forward  Section No. 10  EXTERNAL WORKS  Bill No. 5  Sewer Drainage  CLUSTER G			R	

	Brought Forward			R	
	Brickwork of NFP bricks in class II mortar				
26	One brick walls	m2	29		
	Brickwork reinforcement				
27	150mm Wide reinforcement built in horizontally	m	90		
	BRICKWORK SUNDRIES				
28	Leave of form 450 x 150mm high opening through a one brick wall	No	1		
29	Leave or form opening through one brickwall for pipe exceeding 100mm and n.e 200mm diameter	No	3		
	PLASTERING				
	Watertight cement plaster on brickwork				
30	On walls	m2	29		
	PLUMBING AND DRAINAGE				
	uPVC pipes				
31	110mm Pipes	m	1		
	Extra over uPVC pipes for fittings				
32	110mm Tee	No	3		
	Cover, etc				
33	600 x 600mm Type 2A cast iron single seal manhole cover and frame	No	3		
34	Lifting key for manhole cover	No	3		
	FRENCH DRAINS				
	SITE CLEARANCE ETC				
	Carried Forward  Section No. 10  EXTERNAL WORKS  Bill No. 5  Sewer Drainage  CLUSTER G			R	

	Brought Forward			R	
l.	Site clearance				
35	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc	m2	56		
	EXCAVATION, FILLING, ETC				
	Excavation in earth not exceeding 2m deep				
36	Holes	m3	24		
	Extra over trench and hole excavations in earth for excavation in				
37	Soft rock	m3	1		
38	Hard rock	m3	3		
	Extra over all excavations for carting away				
39	Extra over all excavations for carting away surplus material from excavations and/or stockpile on site to a dumping site to be located by the Contractor	m3	20		
	Risk of collapse of excavations				
40	Sides of trench and hole excavations not exceeding 1,5m deep	m2	44		
	Keeping excavations free of water				
41	Keeping excavations free of all water other than subterranean water		Item		
	Earth filling obtained from the excavations and/or prescribed stock piles on site (not compacted)				
42	On top of french drain as soil cover	m3	4		
	FILTER FABRIC				
	Carried Forward  Section No. 10  EXTERNAL WORKS  Bill No. 5  Sewer Drainage			R	_
	CLUSTER G				

	Brought Forward			R	
	"Kaytech Engineered Fabric" or similar approved laid in strict accordance to the manufacturer's instructions				
43	"Kaymat U14" around stone filling in sub-soil drain trenches	m2	48		
	20mm Graded stone filling or similar approved				
44	In holes	m3	6		
	200 - 300mm Diameter clean washed stone filling or similar approved by engineer				
45	In holes	m3	14		
	WATERPROOFING				
	One layer of 250 micron "Tarkon USB Green" waterproof sheeting sealed at laps with "Gunplas Pressure Sensitive Tape"				
46	On top of pipes as protection of joints	m2	11		
	uPVC pipes				
47	110mm Inspection pipes	m	10		
	Extra over uPVC pipes for fittings				
48	110mm End cap	No	1		
	Carried Forward to Summary of Section No. 10			R	
	Section No. 10 EXTERNAL WORKS Bill No. 5 Sewer Drainage CLUSTER G				

Item No		Quantity	Rate	Amount
	SECTION NO. 9			
	BILL NO.6			
	<u>FENCING</u>			
	SITE CLEARANCE, ETC.			
	Site clearance			
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc m2	170		
	Steel palisade fencing			
2	Steel palisade fence 2100mm high above ground level over flat or sloping terrain including all posts, excavation, backfilling, concrete bases, etc m	284		
3	Single gate gate 1200 x 2100m high including heavy duty hasp and staple, padlock and two barrel bolts with two keeps in and including concrete anchor blocks with Spot primer defects in pre-primed surfaces with zinc chromate primer UC 53, one universal undercoat and two coats approved enamel paint	1		
4	Single gate gate 2982 x 2100m high including heavy duty hasp and staple, padlock and two barrel bolts with two keeps in and including concrete anchor blocks with Spot primer defects in pre-primed surfaces with zinc chromate primer UC 53, one universal undercoat and two coats approved enamel paint	1		
	Carried Forward to Summary of Section No. 10 Section No. 10 EXTERNAL WORKS Bill No. 6 Fencing CLUSTER G		R	

	Section No. 10				
	EXTERNAL WORKS				
Bill No	SECTION SUMMARY - EXTERNAL WORKS	Page No		Amount	
1	Bulk Earthworks	344			
2	Paving and Carports	351			_
3	Stormwater Drainage	354			_
4	Water Supply	356			_
5	Sewer Drainage	367			_
6	Fencing	368			_
	Carried to Final Summary Section No. 10 EXTERNAL WORKS CLUSTER G		R		_

Item No		Quantity	Rate	Amount	
	SECTION NO. 4				
	BILL NO.1				
	PROVISIONAL SUMS				
	SUPPLEMENTARY PREAMBLES				
	NOTE: Tenderers are referred to the definition of general attendance on nominated sub-contractors given in Clause 9 of the Preliminaries				
	NOTE: Under no circumstances may any Prime Cost - Provisional Amount, etc be extended at an amount lower than the amount given in the Bill				
					_
	Carried Forward  Section No. 11 PROVISIONAL SUMS Bill No. 1 PROVISIONAL SUMS CLUSTER G		R		
	OLOGIER O				

	Brought Forward		R	
	THE FOLLOWING PROVISIONAL SUMS ARE FOR WORK TO BE EXECUTED BY SELECTED SUBCONTRACTORS			
	The following Provisional Sums are for specialists work to be executed by a selected Sub-contractor who upon appointment in terms of the Conditions of Contract shall be deemed to be a Domestic Sub-Contractor to the Contractor			
	A Selected Sub-Contractor shall be a Sub-contractor executing work for which a sum of money is provided for in the Bills of Quantities or a Sub-contractor executing additional specialist work which arises as a result of an instruction by the Principal Agent/Engineer			
	Tender documents for such work shall be prepared by the Principal Agent/Engineer in consultation with and to the approval of the Contractor and such tender document shall be issued by the Principal Agent/Engineer to a list of tenderers agreed upon between the Principal Agent/Engineer and Contractor. Tenders shall be submitted to the Principal Agent/Engineer			
	The Selected Sub-contractor shall be chosen by the Principal Agent/Engineer and the Contractor, and the Contractor shall satisfy himself that such selected sub-contractor can meet the requirements of the Sub-Contract agreement and the Contractor shall inform the Principal Agent/Engineer accordingly			
	The procedure relating to the method of selection, obtaining of tenders, adjudication thereof and the appointment of the Selected Sub-contractor shall not create any contractual relationship between the Client and the Selected Sub-contractor			
	Community Liaison Officer			
1	Provide the sum of R190,000.00 (One Hundred Ninety Thousand Rand) for community liaison officer	Item		190,000.00
2	Allow for giving every facility to Specialists as described	Item		
	Carried Forward		R	
	Section No. 11 PROVISIONAL SUMS Bill No. 1 PROVISIONAL SUMS			
	CLUSTER G			

	Brought Forward		R	
3	Allow for profit on above if required	Item		
	Project Steering Committee			
4	Provide a sum of R50 000,00 (Fifty Thousand Rand) for the provision of a Project Steering Committee	Item		50,000.00
5	Allow for profit on above if required	Item		
6	Allow for giving every to specialist as described	Item		
	Borehole, Bulk Water Storage and Water pipe line			
7	Provide the amount of R800 000.00 (Eight Hundred Thousand Rand) for equipping of borehole, elevated water storage and Water pipe reticulation by Specialists			
	approved by the civil engineer	Item		800,000.00
8	Allow for profit on above if required	Item		
9	Allow for giving every facility to Specialists as described	Item		
	Mobile Classroom Relocation			
10	Provide the sum of R 300,000-00(Three Hundred Thousand Rand) for mobile relocations	Item		300,000.00
11	Allow for profit.	Item		
12	Allow for attendance on sub-contractor	Item		
	CONTRACT PARTICIPATION GOALS			
13	Provide the sum of R 50 000.00 (Fifty Thousand Rand) for contract participation goals for targeted enterprises in accordance to CIDB Competence Standard for Contractors Gazette No. 41237, 10 November 2017.	Item		50,000.00
14	Allow for profit.	Item		33,333.33
14	Allow for profit.	item		
	Carried Forward		R	
	Section No. 11 PROVISIONAL SUMS Bill No. 1 PROVISIONAL SUMS CLUSTER G			
				1

	Brought Forward		R	
15	Allow for attendance on sub-contractor	Item		
	ELECTRICAL, ELECTRONICAL AND MECHANICAL INSTALLATION			
	Electrical Installation, etc			
	Electrical Installation			
16	Provide the amount of R2,350,000.00 (Two Million Three Hundred Fifty Thousand Rand) for electrical installation to the buildings and site by Specialists	Item		2,350,000.00
17	Allow for giving every facility to Specialists as described	Item		
18	Allow for profit on above if required	Item		
	WORK EXECUTED BY SEPARATE DIRECT CONTRACTORS			
	The following work will be executed by contractors under direct agreement with the employer. The contractor is to accommodate these direct contractors and allow them to execute their work unhindered and allow them the use of water and toilet facilities. Damage caused by these contractors to work completed by the principal contractor is to be recorded in detail to enable the employer to counter-charge the direct contractors the cost of making good such damages			
	Occupation Health and Safety			
19	Provide the sum of R500,000.00 Five Hundred Thousand Rand) for Health and Safety Consultant to be appointed as nominated sub contractor from the client	ltem		500,000.00
20	Allow for profit on above if required	Item		
21	Allow for giving every to specialist as described	Item		
	Carried to Final Summary  Section No. 11  PROVISIONAL SUMS  Bill No. 1  PROVISIONAL SUMS  CLUSTER G		R	

	FINAL SUMMARY	Dome.		A
Section No		Page No		Amount
1	PRELIMINARIES	71		
2	DEMOLITIONS OF 13 CLASSROMMS AND 13 PIT TOILETS	74		
3	RENOVATIONS OF 10 ENVIROLOO TOILETS	77		
4	MEDIUM ADMIN BLOCK	134		
5	1 X 2 GRADE R CLASSROOM BLOCKS	178		
6	3 X 4 CLASSROOM BLOCK	218		
7	1 x 5 WATERBORNE TOILET BLOCK	263		
8	1 x 4 ENVIROLOO TOILETS BLOCK	304		
9	2 X 5 ENVIROLOO TOILETS BLOCK	341		
10	EXTERNAL WORKS	369		
11	PROVISIONAL SUMS	373		
	Sub Total		R	
	CONTINGENCIES			
	Contingencies:			
	Provide the amount of R1 000 000.00 (One Million Rand) for contingencies to be used by the architect in terms of clause 17 of the principal Building Agreement.	Item		1,000,000.00
	SPECIAL CONDITIONS			
	Provide the sum of R 850 000.00 (Eight Hundred Fifty Thousand Rand) for fluctuations in cost	Item		850,000.00
	Sub Total		R	
	Carried Forward CLUSTER G		R	

	FINAL SUMMARY	_		
Section No		Page No		Amount
	Brought Forward		R	
	Add: Value Added Tax at 15%		R	
	Carried to Form of Tender CLUSTER G		R	
	GLUSIER G			

# PART C3 SCOPE OF WORKS



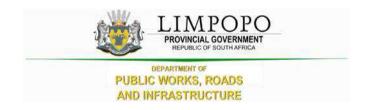
#### PART C3.1: SPECIAL NOTES TO BIDDERS

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

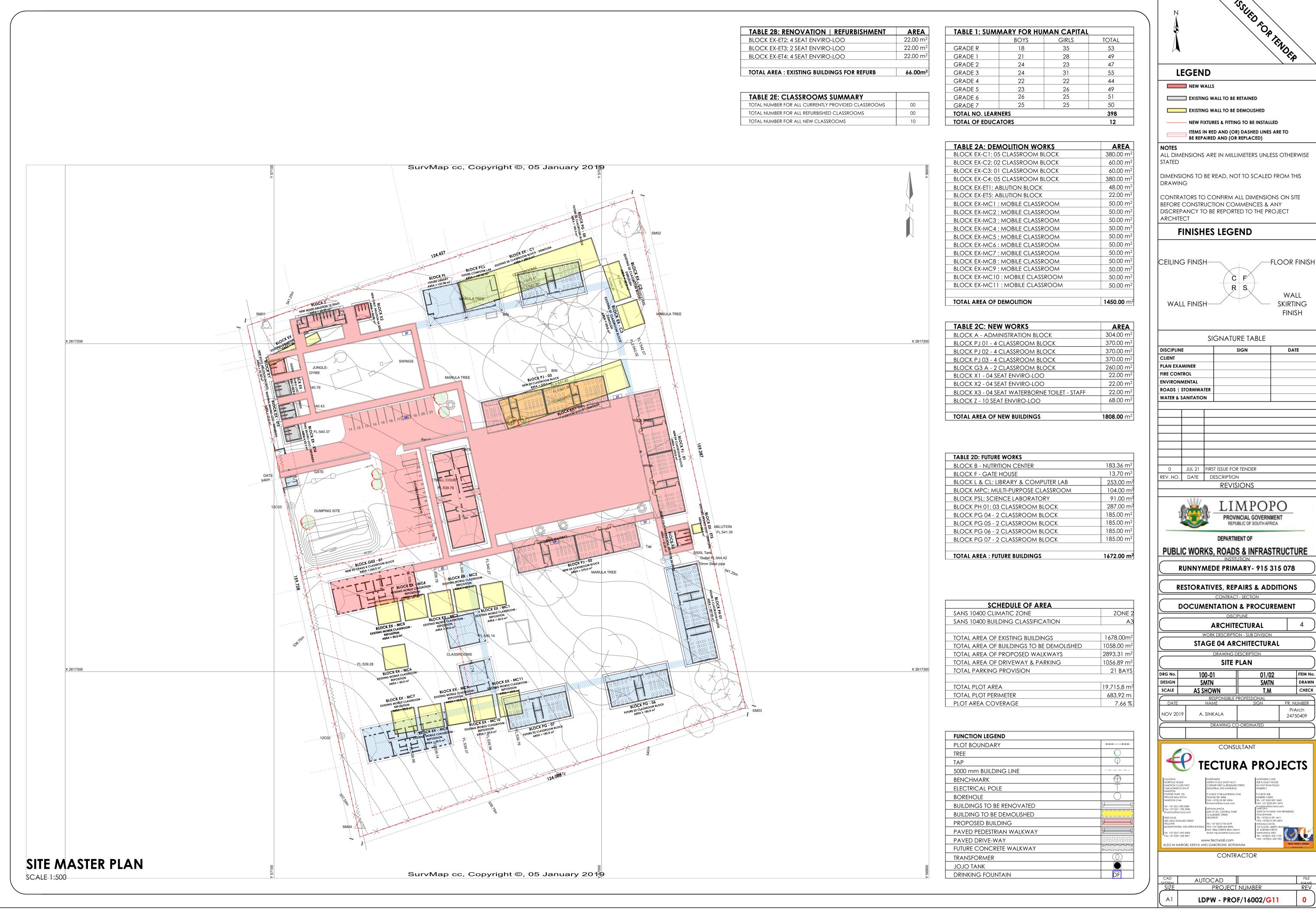
- 1.1.LDPWR&I reserve the right to call interviews with short-listed bidders before final selection.
- 1.2.LDPWR&I reserve the right to conduct supplier due diligence prior to final award or at any time during the contract period. This may include surprise site visits.
- 1.3. LDPWR&I reserve the right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

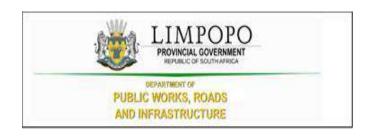


# **PART C3.2: OHS SPECIFICATIONS**



# **PART C4 SITE INFORMATION**





# C4.1 DRAWINGS

#### FLOORS:

#### F1: FULLY FLEXIBLE TILES (Corrosive Resistant & Anti-Slippery)

420 x420 11.5mm kilimanjaro floor tiles or similar approved by architects, fixed with adhesive, painted with tinted waterproof jointing compound. Grouting to be grey, tiles should have expansion joint and aluminium edging strip.

#### F2: PORCELAIN TILES -MATT

600 x 600 x10mm thick matt porcelain tile to comply with SABS 1449 laid on approved pattern by an approved specialist to comply with SABS 107 and approved adhesives and grout on screeds With Thickness/Specification in strict compliance to manufacturers instructions and SABS specification. Fittings to include, ribbed angle tiles where there is change of level & Movement Joints of 6mm Wide With Patent Aluminium Movement Joints Strips Consisting Of Synthetic Fibre Inserts Installed At Intervals As Per Manufacturer's Instruction. Colour and pattern to architects approval.

500mm x 500mm , 100% PFX staple fibre carpet files To Comply With SABS 1419 (heavy commercial) consisting of fibres set out on waterproof vinyl backing and to comply with EN 1307 Wear Class 4 (heavy duty), laid with approved adhesive on 30mm thick cement creeds in strict compliance with manufacturer's instructions. Carpet tiles to conform to BS 4790 on fire rating, and DIN 54324 on wira test and ISO body test at less than 2Kv at 25% RH on static electricity. Colour and pattern to architects approval.

30mm thick polished cement sand screed with 13mm Stone Nominal aggregate for Topping to comply with SABS 1083 or latest revision for

#### F5: EXTERIOR MULTI COLOURED CONCRETE INTERLOCKING PAVERS

65mm thick multi-coloured concrete pavers laid on sand bedding to civil/structural engineer's specification in approved pattern and compacted to approval and grouted in strict accordance to manufacturer's specifications. All to be manufactured and installed in strict compliance to SABS 1058 or Latest Revision.

#### F6: GRANOLITHIC FINISH

22 mm thick untinted Granolithic finish composed of one part cement, one part fine sand, two parts coarse sand and one part granite that would pass through a 5mm mesh sieve; laid by specialist in panels not exceeding 10m2. divided with approved brass dividing strips. All to be manufactured and installed in strict compliance to the latest SABS approved standards. Colour, pattern and aggregate size to architects approval.

#### F7: INTERLOCKING PAVERS (RIGID PAVING/VEHICULAR WAYS)

220mm x 197mm x 80 mm thick concrete interlocking pavers, 25 mpa, manufactured to SABS spec 1058, laid on sand bedding to civil/structural engineer's specification to a 'herringbone' pattern to the Architect's approval.

#### F8: SEMI FLEXIBLE VINLY SHEETING (CORROSIVE RESISTANT/ANTI-SLIPPERY)

2.5mm Thick Heavy Traffic Use, Corrosive Resistant & Anti-Slippery Vinyl Sheeting Semi-Flexible To Comply With SABS 586, With Static Dissipative Properties Throughout Thickness, Engineered for ESD or SD (anti-static) Protection Vinyl Sheet, Laid on Self-Levelled Smooth Screed glued with conducive adhesive To SABS 070 or Latest Revision In Accordance To Manufacturer's Instructions And Installed By Approved Specialist. Joints Shall be Welded as Per Manufacturer's Specifications With No more than 2mm Gap. Clean & Polish Floor In Compliance With SABS 1042. Colour To Architect Approval On Sample Presentation. Contractor to provide Certificate of Static Current Conductivity. Contractor to provide Certificate of Static Current Conductivity, Corrosive resistant & Anti-Slippery.

#### F9: GRAVEL FINISH ON SAND LAYER

32mm Gravel On Compacted Sand Layer Base as Per PSE Details Installed in All Duct Chambers Accommodating Sanitary Services.

#### SKIRTING:

#### S1: HARDWOOD OR EQUAL AND APPROVED

"Ex 75mm x 20mm Moulded Hardwood Skirting" to comply with SANS 1099, fixed to walls in long lengths with splayed heading joints and mitred coners with screws and plugs at centres not exceeding 600mm , and fixed with a 19mm x 19mm quadrant beading. The skirting to be vanished with 3No. coats of egg shell clear vanish to comply with SABS/SANS 381 type 1.

#### **S2: CERAMIC TILE SKIRTING**

600mm wide x 100mm high x 7mm thick matt porcelain tile to comply with SABS 1449 laid with approved adhesives and grout on 22mm thick screeds in strict compliance to manufacturers instructions and SABS specification, with cove base and straight tops. Complete with corner and top trims. Fittings to include, ribbed angle tiles where there is change of level. Colour and pattern to architects approval.

75 mm high x 20 mm thick hardened cement sand screed skirting coved at 50 mm dia. to form a continuous joint with the adjoining screed floor finish to PA's approval. All to be manufactured and installed in strict compliance With SABS 1083 or latest revision.

#### **WALL FINISHES:**

R1: FACE BRICK FBX face brick in common running bond to comply with SABS 227 and forming part of the structural work.

#### R2: EMULSION (PVA) PAINT - FULL HEIGHT 2 no. coats of PVA matt finish emulsion paint to SABS 1586 applied on plastered surface primed and with 1 no. coat undercoat to SABS 681

grade1, in accordance to manufacturer's instructions.

#### no. coats matt (egg shell) finish alkyd (enamel) paint to SABS 630, type 2 applied on plastered surfaces with 1 no coat alkali resistant plaster primer to SABS 1416 and 1 no. coat undercoat to SABS 681 grade1, in accordance to manufacturer's instructions.

# R4: GLAZED CERAMIC WALL TILES / ENAMEL PAINT COMBO

ombination of; 600mm wide x 300mm x 7mm thick high glazed ceramic tiles To Specification "R5", laid on 15 mm thick plaster prepared t receive wall tiles fixed with approved adhesives and grout in compliance to manufacturer's specifications and government standard specifications laid from finish floor level to window level AND ENAMEL paint to specification "R3" To Comply with SABS 630 or latest revision applied from 2100 mm above finished floor level to ceiling height all in strict compliance to manufacturer's instructions. All to be manufactured and installed in strict compliance to the latest SABS Standards.

600mm x 300mm x 7mm thick high glazed ceramic tiles to Comply with SABS 22 or Latest revision, laid on 15 mm thick plaster prepared to receive wall tiles fixed with approved adhesives and grout in compliance to manufacturer's specifications and government standard specifications. Tiles to be laid to full ceiling height. All to be manufactured and installed in strict compliance SABS 22 Standard. All to be manufactured and installed in strict compliance SABS 22 Standard.

## CEILING AND CORNICE:

# C1: 9mm GYPSUM BOARDS FLUSH PLASTERED CEILINGS OR EQUAL AND APPROVED

"GypCeil Classic" gypsum plasterboard ceilingor **EQUAL & APPROVED** consisting of 1 layer Gyproc RhinoBoard 9mm (locally manufactured, ISO 9001 & 14001 certification, recycled paper content, Ecospecifier listing) fixed to timber brandering installed at maximum 300mm centers using Gyproc RhinoBoard Sharp Point Grabber Screws 32mm at maximum 150mm centers. Apply . Gyproc RhinoTape to all joints and skim the ceiling using Gyproc RhinoLite.

## C2: FIBRE CEMENT BOARDS (H-JOINTED)

6.4mm thick GypCeil Prestige S" fibre cement ceiling boards or EQUAL & APPROVED consisting of 1 layer Gyproc RhinoBoard 9 mm (locally manufactured, ISO 9001 & 14001 certification, recycled paper content, Ecospecifier listing, non-combustible to SANS 10177-5) fixed to EX 38mm x 50mm timber brandering installed at maximum 400mm centres using Gyproc RhinoBoard Sharp Point Grabber Screws 32mm at maximum 150mm centres with all necessary accessories, finished with 3 No. coats of super PVA external quality paint colour to PA's approval. Gyproc RhinoTape to all joints and skim the ceiling using Gyproc RhinoLite.

# C3: PATENT SUSPENDED ACOUSTIC TILES OR EQUAL AND APPROVED

200mm x 600mm X 15mm Gyproc Celotex Pin Perforated or Fine Fissured OR EQUAL & APPROVED laid into Donn ceiling grid and secured nto place using Donn Hold Down Clips @ 200mm c/c. Donn Wall Angle M6 fixed to the perimeter wall using fixings at 300mm centres. Donn T38 FR Main Tees (0.4mm thickness, Z150 galv. coating, locally manufactured, recycled content, ISO 9001 & 14001 certification) at 1200 centres & Donn T38V (1200 long) Cross Tees at 600 centres. Suspend main tees @ 1200mm c/c using Donn Hanger Strap 19mm suitably fixed to the building structural members. Donn Galvanized Hanger Strap 19mm at maximum 150mm on both sides of the fire notch. All fire notches to be in line. Suspend all full length 1200 Cross Tees at their mid-point using Donn Hanger Strap 19mm suitably fixed to the building structural members. All to comply with latest SANS 803 including all necessary accessories and installed in strict accordance to manufacturer's specifications.

## C4 EMULSION (PVA) PAINT OR EQUAL AND APPROVED

Emulsion (PVA) Paint on Skimmed Plastered Slab" 3No. coats of PVA emulsion ceiling paint to latest SANS 1586 approved on 6mm thick light weight hemi-hydrate gypsum plaster on concrete slab soffit.

## **ROOF COVERING AND INSULATION:**

## ER1: EMBOSSED ROOFING SHEET (TWO SIDES)

**Roofing Sheets:** 0.58mm Thick concealed fixing roofing sheets manufactured from roll-formed from certified steel complying with ISQ 550 (31). The profile shall have three trapezoidal ribs at 203mm centers giving a net cover of 406mm. The rib height shall

be 41mm and provide capillary breaks. The male rib shall have spurs at 283mm centers to ensure a positive double interlocking action at side-laps. Each pan shall incorporate two stiffener ribs. Profiled roofsheets to be coated on both sides with "Global Coat" or "Chromadek Colour" and laid on structural timber/steel structure incorporating all necessary accessories such as flashings and eave closers in strict compliance to manufacturer's instructions.

Insulation: SHALL EITHER BE: 1: where there are acoustic ceilings susspeded board, a heavy duty "Aluminium sisalation foil" shall be installed AND 2: where the steel work is exposed, a 50mm "FactoryBoard" manufactured from noncombustible glass fibres and thermo-setting resin binder supplied size 2400mm x 1200mm and 80kg/mÑ and finished with white metalized foil.

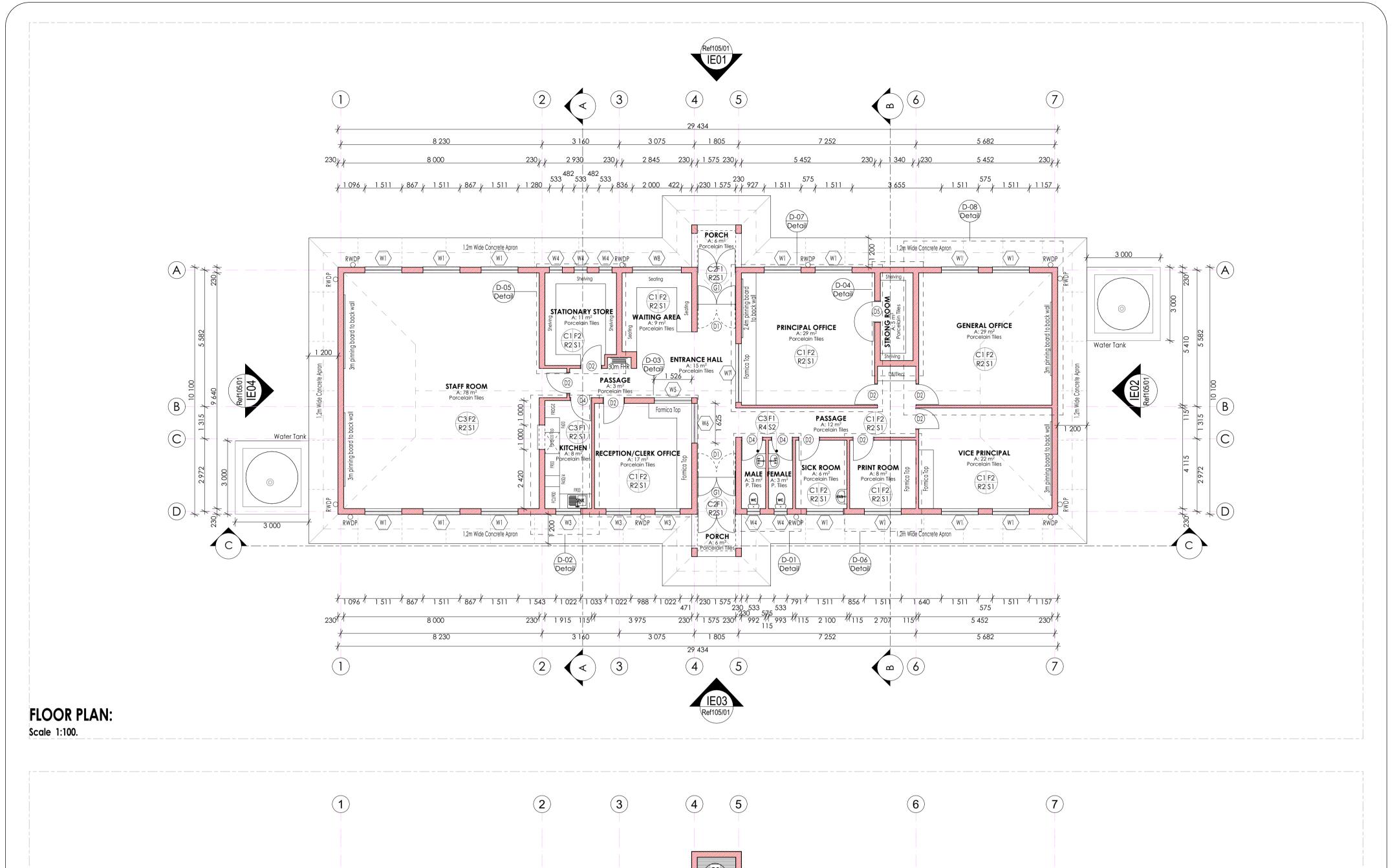
Galvanised Steel (GI) Gutter: 150mm Wide x 100mm Deep x 0.6mm Eaves Gutter of Commercial Grade Steel With Class 7275 Galvanising To Comply With SABS 934 or latest Revision Fixed To Painted Fibre Cement Fascia Board Together with standard accessories discharging into Rainwater Downpipes.

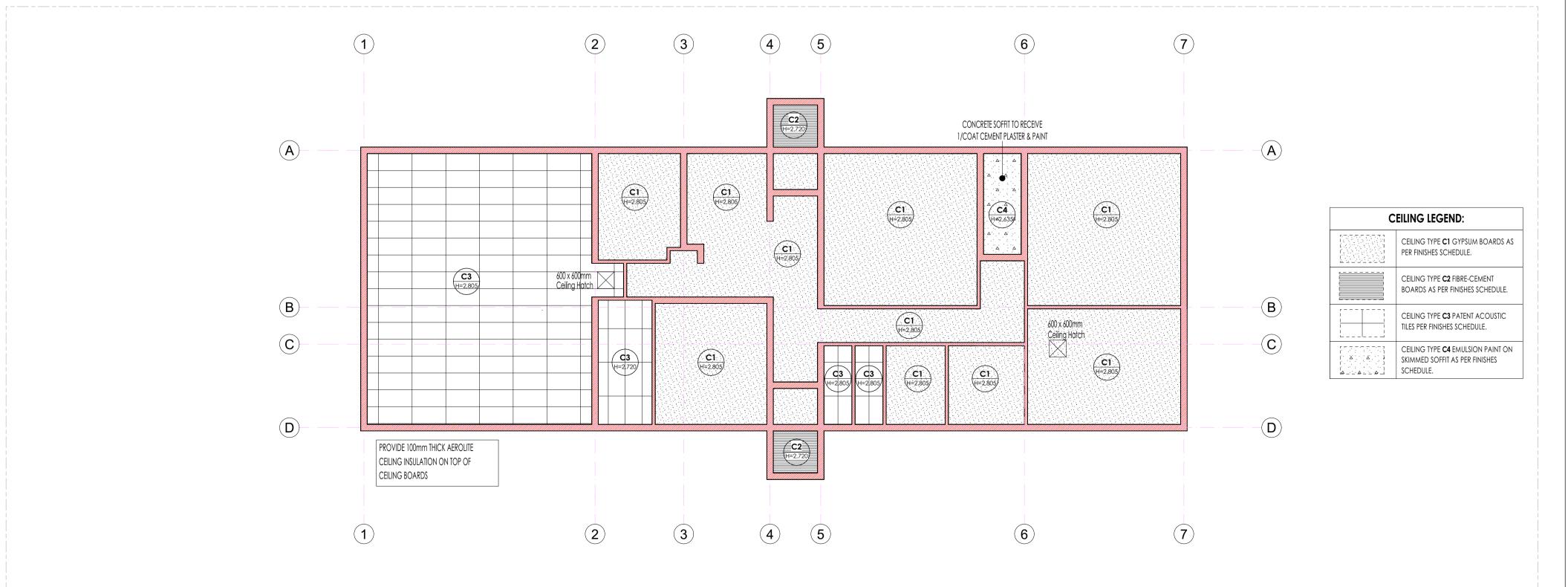
Downpipe: 110 x110 x 0.6mm Thick Commercial Grade Galvanised Steel Sheet With Class Z275 Galvanising To Comply With SABS 934 or Latest Revision to or built into walls or cast in concrete columns fixed to brickwork or steel including brackets and self-taping screws To Manufacturer Installation Instructions.

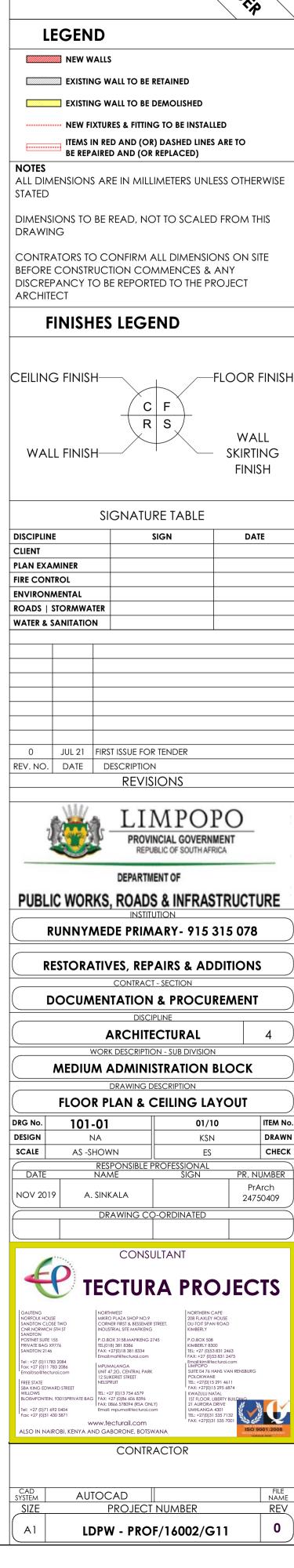
Fascia board: 250 x 10 mm Fibre- Cement Fascia/Barge Board, Screw Fixed To Truss Ends & Counter Batten With Countersunk Brass Screws. Prepare & Apply One Universal Undercoat & Two Coats Super Acrylic P.V.A.

**CEILING PLAN:** 

Scale 1:100.







#### FLOORS:

#### F1: FULLY FLEXIBLE TILES (Corrosive Resistant & Anti-Slippery)

420 x420 11.5mm kilimanjaro floor tiles or similar approved by architects, fixed with adhesive, painted with tinted waterproof jointing compound. Grouting to be grey, tiles should have expansion joint and aluminium edging strip.

F2: PORCELAIN TILES -MATT 600 x 600 x10mm thick matt porcelain tile to comply with SABS 1449 laid on approved pattern by an approved specialist to comply with SABS 107 and approved adhesives and grout on screeds With Thickness/Specification in strict compliance to manufacturers instructions and SABS specification. Fittings to include, ribbed angle tiles where there is change of level & Movement Joints of 6mm Wide With Patent Aluminium Movement Joints Strips Consisting Of Synthetic Fibre Inserts Installed At Intervals As Per Manufacturer's Instruction. Colour and pattern to architects approval.

#### F3: CARPET TILES

500mm x 500mm , 100% PFX staple fibre carpet tiles To Comply With SABS 1419 (heavy commercial) consisting of fibres set out on waterproof vinyl backing and to comply with EN 1307 Wear Class 4 (heavy duty), laid with approved adhesive on 30mm thick cement creeds in strict compliance with manufacturer's instructions. Carpet tiles to conform to BS 4790 on fire rating, and DIN 54324 on wira test and ISO body test at less than 2Kv at 25% RH on static electricity. Colour and pattern to architects approval.

#### F4: CEMENT SAND SCREED

30mm thick polished cement sand screed with 13mm Stone Nominal aggregate for Topping to comply with SABS 1083 or latest revision for

#### F5: EXTERIOR MULTI COLOURED CONCRETE INTERLOCKING PAVERS

65mm thick multi-coloured concrete pavers laid on sand bedding to civil/structural engineer's specification in approved pattern and compacted to approval and grouted in strict accordance to manufacturer's specifications. All to be manufactured and installed in strict compliance to SABS 1058 or Latest Revision.

#### F6: GRANOLITHIC FINISH

22 mm thick untinted Granolithic finish composed of one part cement, one part fine sand, two parts coarse sand and one part granite that would pass through a 5mm mesh sieve; laid by specialist in panels not exceeding 10m2. divided with approved brass dividing strips. All to be manufactured and installed in strict compliance to the latest SABS approved standards. Colour, pattern and aggregate size to architects approval.

#### F7: INTERLOCKING PAVERS (RIGID PAVING/VEHICULAR WAYS)

220mm x 197mm x 80 mm thick concrete interlocking pavers, 25 mpa, manufactured to SABS spec 1058, laid on sand bedding to civil/structural engineer's specification to a 'herringbone' pattern to the Architect's approval.

#### F8: SEMI FLEXIBLE VINLY SHEETING (CORROSIVE RESISTANT/ANTI-SLIPPERY)

2.5mm Thick Heavy Traffic Use, Corrosive Resistant & Anti-Slippery Vinyl Sheeting Semi-Flexible To Comply With SABS 586, With Static Dissipative Properties Throughout Thickness, Engineered for ESD or SD (anti-static) Protection Vinyl Sheet, Laid on Self-Levelled Smooth Screed glued with conducive adhesive To SABS 070 or Latest Revision In Accordance To Manufacturer's Instructions And Installed By Approved Specialist. Joints Shall be Welded as Per Manufacturer's Specifications With No more than 2mm Gap. Clean & Polish Floor In Compliance With SABS 1042. Colour To Architect Approval On Sample Presentation. Contractor to provide Certificate of Static Current Conductivity. Contractor to provide Certificate of Static Current Conductivity, Corrosive resistant & Anti-Slippery.

#### F9: GRAVEL FINISH ON SAND LAYER

32mm Gravel On Compacted Sand Layer Base as Per PSE Details Installed in All Duct Chambers Accommodating Sanitary Services.

#### SKIRTING:

#### \$1: HARDWOOD OR EQUAL AND APPROVED

"Ex 75mm x 20mm Moulded Hardwood Skirting" to comply with SANS 1099, fixed to walls in long lengths with splayed heading joints and mitred coners with screws and plugs at centres not exceeding 600mm , and fixed with a 19mm x 19mm quadrant beading. The skirting to be vanished with 3No. coats of egg shell clear vanish to comply with SABS/SANS 381 type 1.

#### **S2: CERAMIC TILE SKIRTING**

600mm wide x 100mm high x 7mm thick matt porcelain tile to comply with SABS 1449 laid with approved adhesives and grout on 22mm thick screeds in strict compliance to manufacturers instructions and SABS specification, with cove base and straight tops. Complete with corner and top trims. Fittings to include, ribbed angle tiles where there is change of level. Colour and pattern to architects approval.

75 mm high x 20 mm thick hardened cement sand screed skirting coved at 50 mm dia. to form a continuous joint with the adjoining screed floor finish to PA's approval. All to be manufactured and installed in strict compliance With SABS 1083 or latest revision.

#### **WALL FINISHES:** R1: FACE BRICK

FBX face brick in common running bond to comply with SABS 227 and forming part of the structural work.

R2: EMULSION (PVA) PAINT - FULL HEIGHT no. coats of PVA matt finish emulsion paint to SABS 1586 applied on plastered surface primed and with 1 no. coat undercoat to SABS 681

grade1, in accordance to manufacturer's instructions. R3:ALKYD (ENAMEL) PAINT

no. coats matt (egg shell) finish alkyd (enamel) paint to SABS 630, type 2 applied on plastered surfaces with 1 no coat alkali resistant plaster primer to SABS 1416 and 1 no. coat undercoat to SABS 681 grade1, in accordance to manufacturer's instructions.

## R4: GLAZED CERAMIC WALL TILES / ENAMEL PAINT COMBO

ombination of: 600mm wide x 300mm x 7mm thick high glazed ceramic tiles To Specification "R5", laid on 15 mm thick plaster prepared receive wall tiles fixed with approved adhesives and grout in compliance to manufacturer's specifications and government standard specifications laid from finish floor level to window level AND ENAMEL paint to specification "R3" To Comply with SABS 630 or latest revision applied from 2100 mm above finished floor level to ceiling height all in strict compliance to manufacturer's instructions. All to be manufactured and installed in strict compliance to the latest SABS Standards.

## R5:CERAMIC WALL TILES - FULL HEIGHT

600mm x 300mm x 7mm thick high glazed ceramic tiles to Comply with SABS 22 or Latest revision, laid on 15 mm thick plaster prepared to receive wall tiles fixed with approved adhesives and grout in compliance to manufacturer's specifications and government standard specifications. Tiles to be laid to full ceiling height. All to be manufactured and installed in strict compliance SABS 22 Standard. All to be manufactured and installed in strict compliance SABS 22 Standard.

## CEILING AND CORNICE:

# C1: 9mm GYPSUM BOARDS FLUSH PLASTERED CEILINGS OR EQUAL AND APPROVED

"GypCeil Classic" gypsum plasterboard ceilingor **EQUAL & APPROVED** consisting of 1 layer Gyproc RhinoBoard 9mm (locally manufactured, ISO 9001 & 14001 certification, recycled paper content, Ecospecifier listing) fixed to timber brandering installed at maximum 300mm centers using Gyproc RhinoBoard Sharp Point Grabber Screws 32mm at maximum 150mm centers. Apply . Gyproc RhinoTape to all joints and skim the ceiling using Gyproc RhinoLite.

## C2: FIBRE CEMENT BOARDS (H-JOINTED)

6.4mm thick GypCeil Prestige S" fibre cement ceiling boards or **EQUAL & APPROVED** consisting of 1 layer Gyproc RhinoBoard 9 mm (locally manufactured, ISO 9001 & 14001 certification, recycled paper content, Ecospecifier listing, non-combustible to SANS 10177-5) fixed to EX 38mm x 50mm timber brandering installed at maximum 400mm centres using Gyproc RhinoBoard Sharp Point Grabber Screws 32mm at maximum 150mm centres with all necessary accessories, finished with 3 No. coats of super PVA external quality paint colour to PA's approval. Gyproc RhinoTape to all joints and skim the ceiling using Gyproc RhinoLite.

## C3: PATENT SUSPENDED ACOUSTIC TILES OR EQUAL AND APPROVED

200mm x 600mm X 15mm Gyproc Celotex Pin Perforated or Fine Fissured OR EQUAL & APPROVED laid into Donn ceiling grid and secured into place using Donn Hold Down Clips @ 200mm c/c. Donn Wall Angle M6 fixed to the perimeter wall using fixings at 300mm centres. Donn T38 FR Main Tees (0.4mm thickness, Z150 galv. coating, locally manufactured, recycled content, ISO 9001 & 14001 certification) at 1200 centres & Donn T38V (1200 long) Cross Tees at 600 centres. Suspend main tees @ 1200mm c/c using Donn Hanger Strap 19mm suitably fixed to the building structural members. Donn Galvanized Hanger Strap 19mm at maximum 150mm on both sides of the fire notch. All fire notches to be in line. Suspend all full length 1200 Cross Tees at their mid-point using Donn Hanger Strap 19mm suitably fixed to the building structural members. All to comply with latest SANS 803 including all necessary accessories and installed in strict accordance to

#### manufacturer's specifications. C4 EMULSION (PVA) PAINT OR EQUAL AND APPROVED

Emulsion (PVA) Paint on Skimmed Plastered Slab" 3No. coats of PVA emulsion ceiling paint to latest SANS 1586 approved on 6mm thick light

#### weight hemi-hydrate gypsum plaster on concrete slab soffit. **ROOF COVERING AND INSULATION:**

compliance to manufacturer's instructions.

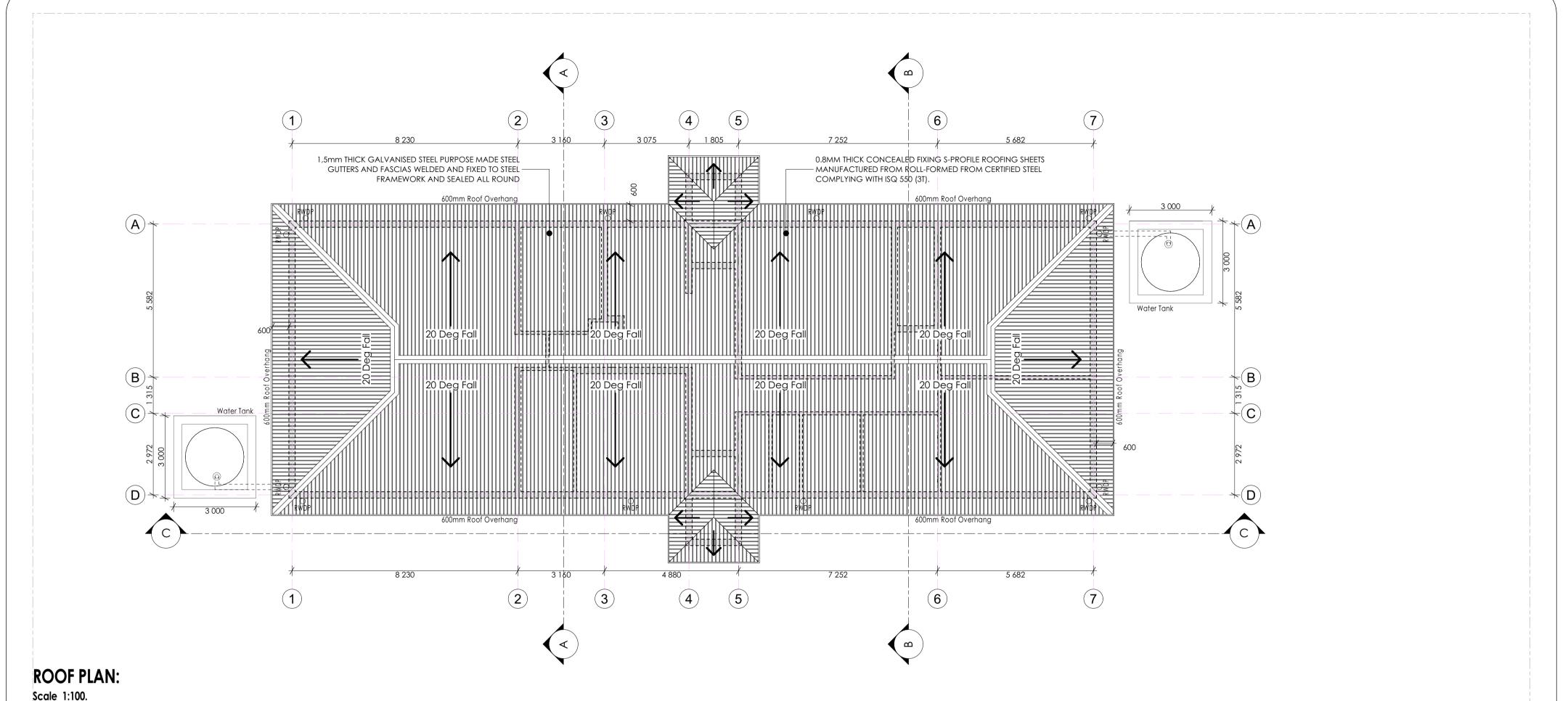
ER1: EMBOSSED ROOFING SHEET (TWO SIDES) **Roofing Sheets:** 0.58mm Thick concealed fixing roofing sheets manufactured from roll-formed from certified steel

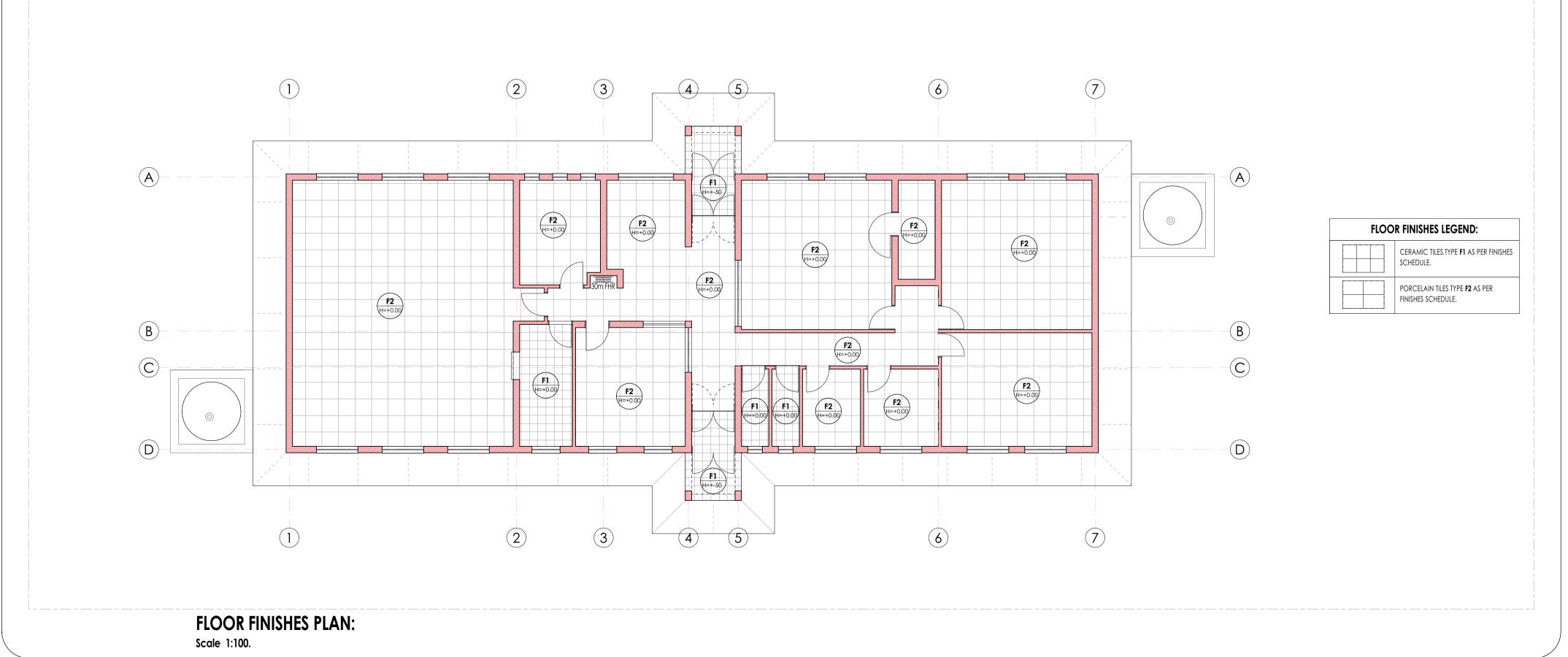
complying with ISQ 550 (3T). The profile shall have three trapezoidal ribs at 203mm centers giving a net cover of 406mm. The rib height shall be 41mm and provide capillary breaks. The male rib shall have spurs at 283mm centers to ensure a positive double interlocking action at side-laps. Each pan shall incorporate two stiffener ribs. Profiled roofsheets to be coated on both sides with "Global Coat" or "Chromadek Colour" and laid on structural timber/steel structure incorporating all necessary accessories such as flashings and eave closers in strict

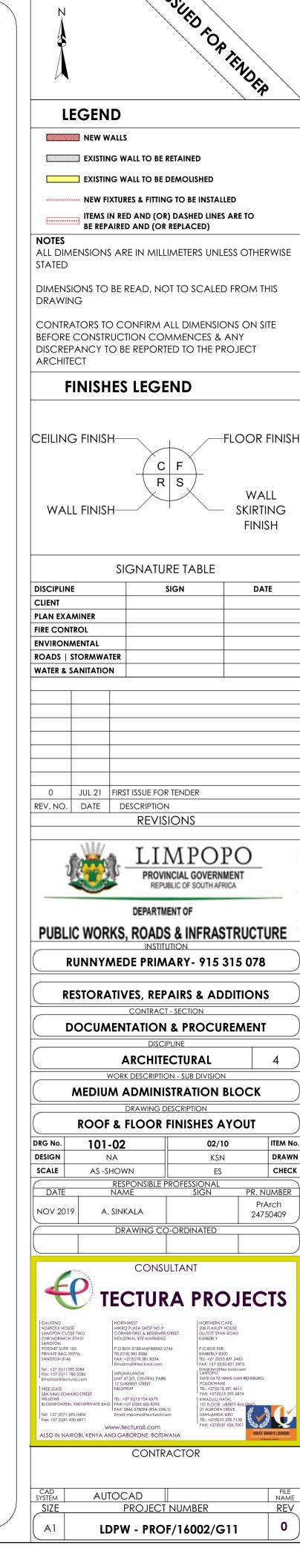
Insulation: SHALL EITHER BE: 1: where there are acoustic ceilings susspeded board, a heavy duty "Aluminium sisalation foil" shall be installed AND 2: where the steel work is exposed, a 50mm "FactoryBoard" manufactured from noncombustible glass fibres and thermo-setting resin binder supplied size 2400mm x 1200mm and 80kg/mÑ and finished with white metalized foil.

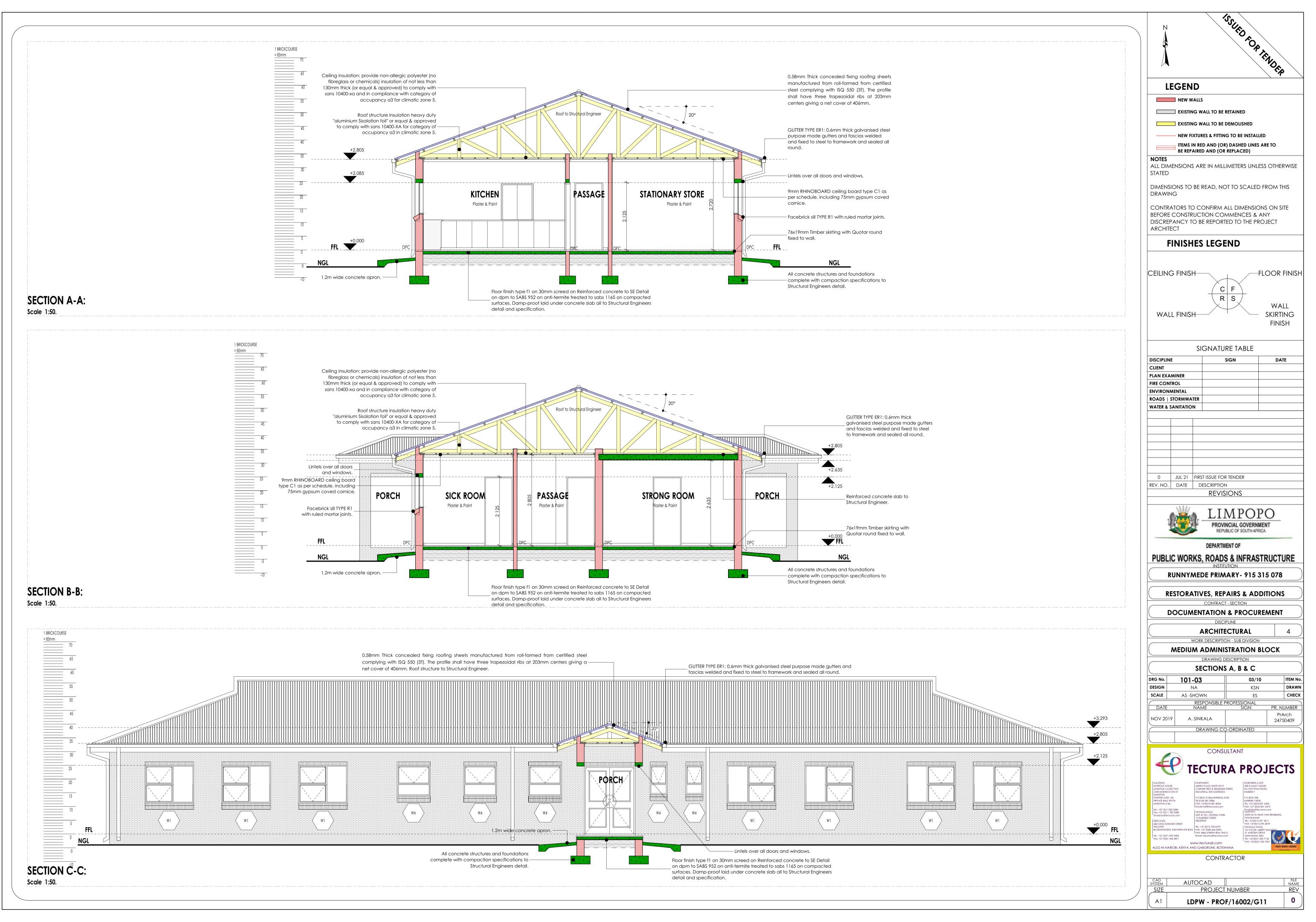
Galvanised Steel (GI) Gutter: 150mm Wide x 100mm Deep x 0.6mm Eaves Gutter of Commercial Grade Steel With Class 7275 Galvanising To Comply With SABS 934 or latest Revision Fixed To Painted Fibre Cement Fascia Board Together with standard accessories discharging into Rainwater Downpipes.

**Downpipe:** 110 x110 x 0.6mm Thick Commercial Grade Galvanised Steel Sheet With Class Z275 Galvanising To Comply With SABS 934 or Latest Revision to or built into walls or cast in concrete columns fixed to brickwork or steel including brackets and self-taping screws To Manufacturer Installation Instructions.









#### FINISHES LEGEND FLOORS: F1: FULLY FLEXIBLE TILES (Corrosive Resistant & Anti-Slippery) 420 x420 11.5mm kilimanjaro floor tiles or similar approved by architects, fixed with adhesive, painted with tinted waterproof jointing

compound. Grouting to be grey, tiles should have expansion joint and aluminium edging strip. F2: PORCELAIN TILES -MATT 600 x 600 x10mm thick matt porcelain tile to comply with SABS 1449 laid on approved pattern by an approved specialist to comply with SABS 107 and approved adhesives and grout on screeds With Thickness/Specification in strict compliance to manufacturers instructions and SABS specification. Fittings to include, ribbed angle tiles where there is change of level & Movement Joints of 6mm Wide With Patent

#### Aluminium Movement Joints Strips Consisting Of Synthetic Fibre Inserts Installed At Intervals As Per Manufacturer's Instruction. Colour and pattern to architects approval.

F3: CARPET TILES 500mm x 500mm , 100% PFX staple fibre carpet tiles To Comply With SABS 1419 (heavy commercial) consisting of fibres set out on waterproof vinyl backing and to comply with EN 1307 Wear Class 4 (heavy duty), laid with approved adhesive on 30mm thick cement creeds in strict compliance with manufacturer's instructions. Carpet tiles to conform to BS 4790 on fire ratina, and DIN 54324 on wira test and ISO body test at less than 2Kv at 25% RH on static electricity. Colour and pattern to architects approval.

#### F4: CEMENT SAND SCREED

30mm thick polished cement sand screed with 13mm Stone Nominal aggregate for Topping to comply with SABS 1083 or latest revision for

#### F5: EXTERIOR MULTI COLOURED CONCRETE INTERLOCKING PAVERS

65mm thick multi-coloured concrete pavers laid on sand bedding to civil/structural engineer's specification in approved pattern and compacted to approval and grouted in strict accordance to manufacturer's specifications. All to be manufactured and installed in strict compliance to SABS 1058 or Latest Revision.

#### F6: GRANOLITHIC FINISH

22 mm thick untinted Granolithic finish composed of one part cement, one part fine sand, two parts coarse sand and one part granite that would pass through a 5mm mesh sieve; laid by specialist in panels not exceeding 10m2. divided with approved brass dividing strips. All to be manufactured and installed in strict compliance to the latest SABS approved standards. Colour, pattern and aggregate size to architects approval.

#### F7: INTERLOCKING PAVERS (RIGID PAVING/VEHICULAR WAYS)

220mm x 197mm x 80 mm thick concrete interlocking pavers, 25 mpa, manufactured to SABS spec 1058, laid on sand bedding to civil/structural engineer's specification to a 'herringbone' pattern to the Architect's approval.

#### F8: SEMI FLEXIBLE VINLY SHEETING (CORROSIVE RESISTANT/ANTI-SLIPPERY)

2.5mm Thick Heavy Traffic Use, Corrosive Resistant & Anti-Slippery Vinyl Sheeting Semi-Flexible To Comply With SABS 586, With Static Dissipative Properties Throughout Thickness, Engineered for ESD or SD (anti-static) Protection Vinyl Sheet, Laid on Self-Levelled Smooth Screed glued with conducive adhesive To SABS 070 or Latest Revision In Accordance To Manufacturer's Instructions And Installed By Approved Specialist. Joints Shall be Welded as Per Manufacturer's Specifications With No more than 2mm Gap. Clean & Polish Floor In Compliance With SABS 1042. Colour To Architect Approval On Sample Presentation. Contractor to provide Certificate of Static Current Conductivity. Contractor to provide Certificate of Static Current Conductivity, Corrosive resistant & Anti-Slippery.

#### F9: GRAVEL FINISH ON SAND LAYER

32mm Gravel On Compacted Sand Layer Base as Per PSE Details Installed in All Duct Chambers Accommodating Sanitary Services.

#### SKIRTING:

#### \$1: HARDWOOD OR EQUAL AND APPROVED

"Ex 75mm x 20mm Moulded Hardwood Skirting" to comply with SANS 1099, fixed to walls in long lengths with splayed heading joints and mitred coners with screws and plugs at centres not exceeding 600mm , and fixed with a 19mm x 19mm quadrant beading. The skirting to be vanished with 3No. coats of egg shell clear vanish to comply with SABS/SANS 381 type 1.

#### **S2: CERAMIC TILE SKIRTING**

600mm wide x 100mm high x 7mm thick matt porcelain tile to comply with SABS 1449 laid with approved adhesives and grout on 22mm thick screeds in strict compliance to manufacturers instructions and SABS specification, with cove base and straight tops. Complete with corner and top trims. Fittings to include, ribbed angle tiles where there is change of level. Colour and pattern to architects approval.

5 mm high x 20 mm thick hardened cement sand screed skirting coved at 50 mm dia. to form a continuous joint with the adjoining screed floor finish to PA's approval. All to be manufactured and installed in strict compliance With SABS 1083 or latest revision.

#### **WALL FINISHES:** R1: FACE BRICK

FBX face brick in common running bond to comply with SABS 227 and forming part of the structural work.

#### R2: EMULSION (PVA) PAINT - FULL HEIGHT no. coats of PVA matt finish emulsion paint to SABS 1586 applied on plastered surface primed and with 1 no. coat undercoat to SABS 681

grade1, in accordance to manufacturer's instructions. R3:ALKYD (ENAMEL) PAINT

no. coats matt (egg shell) finish alkyd (enamel) paint to SABS 630, type 2 applied on plastered surfaces with 1 no coat alkali resistant plaster primer to SABS 1416 and 1 no. coat undercoat to SABS 681 grade1, in accordance to manufacturer's instructions.

## R4: GLAZED CERAMIC WALL TILES / ENAMEL PAINT COMBO

ombination of; 600mm wide x 300mm x 7mm thick high glazed ceramic tiles To Specification "R5", laid on 15 mm thick plaster prepared receive wall tiles fixed with approved adhesives and grout in compliance to manufacturer's specifications and government standard specifications laid from finish floor level to window level AND ENAMEL paint to specification "R3" To Comply with SABS 630 or latest revision applied from 2100 mm above finished floor level to ceiling height all in strict compliance to manufacturer's instructions. All to be manufactured and installed in strict compliance to the latest SABS Standards.

## R5:CERAMIC WALL TILES - FULL HEIGHT

600mm x 300mm x 7mm thick high glazed ceramic tiles to Comply with SABS 22 or Latest revision, laid on 15 mm thick plaster prepared to receive wall tiles fixed with approved adhesives and grout in compliance to manufacturer's specifications and government standard specifications. Tiles to be laid to full ceiling height. All to be manufactured and installed in strict compliance SABS 22 Standard. All to be manufactured and installed in strict compliance SABS 22 Standard.

## **CEILING AND CORNICE:**

# C1: 9mm GYPSUM BOARDS FLUSH PLASTERED CEILINGS OR EQUAL AND APPROVED

GypCeil Classic" gypsum plasterboard ceilingor EQUAL & APPROVED consisting of 1 layer Gyproc RhinoBoard 9mm (locally manufactured, ISO 9001 & 14001 certification, recycled paper content, Ecospecifier listing) fixed to timber brandering installed at maximum 300mm centers using Gyproc RhinoBoard Sharp Point Grabber Screws 32mm at maximum 150mm centers. Apply . Gyproc RhinoTape to all joints and skim he ceiling using Gyproc RhinoLite.

## C2: FIBRE CEMENT BOARDS (H-JOINTED)

6.4mm thick GypCeil Prestige S" fibre cement ceiling boards or **EQUAL & APPROVED** consisting of 1 layer Gyproc RhinoBoard 9 mm (locally manufactured, ISO 9001 & 14001 certification, recycled paper content, Ecospecifier listing, non-combustible to SANS 10177-5) fixed to EX 38mm x 50mm timber brandering installed at maximum 400mm centres using Gyproc RhinoBoard Sharp Point Grabber Screws 32mm at maximum 150mm centres with all necessary accessories, finished with 3 No. coats of super PVA external quality paint colour to PA's approval. Gyproc RhinoTape to all joints and skim the ceiling using Gyproc RhinoLite.

## C3: PATENT SUSPENDED ACOUSTIC TILES OR EQUAL AND APPROVED

200mm x 600mm X 15mm Gyproc Celotex Pin Perforated or Fine Fissured OR EQUAL & APPROVED laid into Donn ceiling grid and secured into place using Donn Hold Down Clips @ 200mm c/c. Donn Wall Angle M6 fixed to the perimeter wall using fixings at 300mm centres. Donn T38 FR Main Tees (0.4mm thickness, Z150 galv. coating, locally manufactured, recycled content, ISO 9001 & 14001 certification) at 1200 centres & Donn T38V (1200 long) Cross Tees at 600 centres. Suspend main tees @ 1200mm c/c using Donn Hanger Strap 19mm suitably fixed to the building structural members. Donn Galvanized Hanger Strap 19mm at maximum 150mm on both sides of the fire notch. All fire notches to be in line. Suspend all full length 1200 Cross Tees at their mid-point using Donn Hanger Strap 19mm suitably fixed to the building structural members. All to comply with latest SANS 803 including all necessary accessories and installed in strict accordance to manufacturer's specifications.

# C4 EMULSION (PVA) PAINT OR EQUAL AND APPROVED

Emulsion (PVA) Paint on Skimmed Plastered Slab" 3No. coats of PVA emulsion ceiling paint to latest SANS 1586 approved on 6mm thick light weight hemi-hydrate gypsum plaster on concrete slab soffit.

## **ROOF COVERING AND INSULATION:**

## ER1: EMBOSSED ROOFING SHEET (TWO SIDES)

**Roofing Sheets:** 0.58mm Thick concealed fixing roofing sheets manufactured from roll-formed from certified steel complying with ISQ 550 (3T). The profile shall have three trapezoidal ribs at 203mm centers giving a net cover of 406mm. The rib height shall be 41mm and provide capillary breaks. The male rib shall have spurs at 283mm centers to ensure a positive double interlocking action at

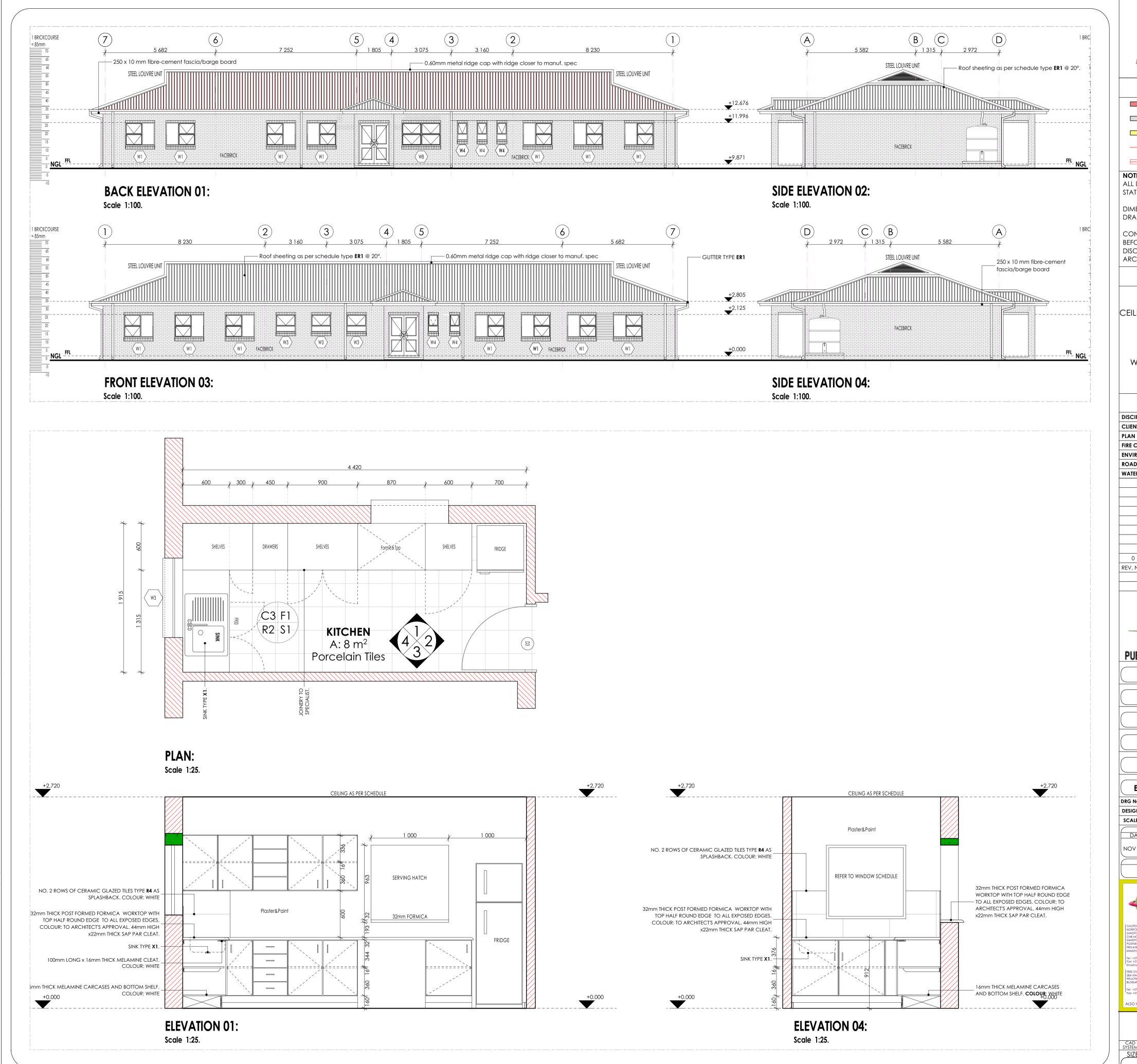
side-laps. Each pan shall incorporate two stiffener ribs. Profiled roofsheets to be coated on both sides with "Global Coat" or "Chromadek

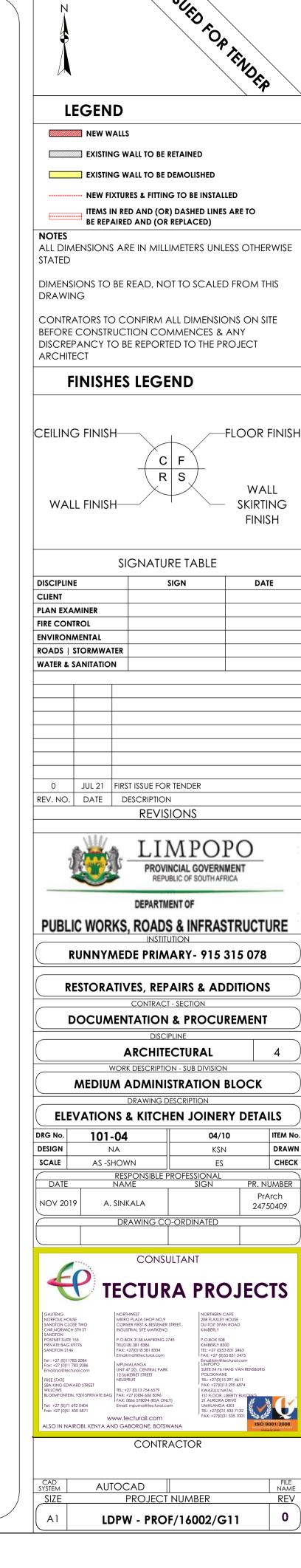
Colour" and laid on structural timber/steel structure incorporating all necessary accessories such as flashings and eave closers in strict

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binder supplied size 2400mm x 1200mm and 80kg/mÑ and finished with white metalized foil. Galvanised Steel (GI) Gutter: 150mm Wide x 100mm Deep x 0.6mm Eaves Gutter of Commercial Grade Steel With Class Z275 Galvanising To Comply With SABS 934 or latest Revision Fixed To Painted Fibre Cement Fascia Board Together with standard accessories discharging into

Rainwater Downpipes. Downpipe: 110 x110 x 0.6mm Thick Commercial Grade Galvanised Steel Sheet With Class Z275 Galvanising To Comply With SABS 934 or Latest Revision to or built into walls or cast in concrete columns fixed to brickwork or steel including brackets and self-taping screws To Manufacturer Installation Instructions.





#### FLOORS:

#### F1: PORCELAIN TILES - MATT (Corrosive Resistant & Anti-Slippery)

420 x420 11.5mm kilimanjaro floor tiles or similar approved by architects, fixed with adhesive, painted with tinted waterproof jointing compound. Grouting to be grey, tiles should have expansion joint and aluminium edging strip.

#### F2: PORCELAIN TILES -MATT

600 x 600 x10mm thick matt porcelain tile to comply with SABS 1449 laid on approved pattern by an approved specialist to comply with SABS 107 and approved adhesives and grout on screeds With Thickness/Specification in strict compliance to manufacturers instructions and SABS specification. Fittings to include, ribbed angle tiles where there is change of level & Movement Joints of 6mm Wide With Patent Aluminium Movement Joints Strips Consisting Of Synthetic Fibre Inserts Installed At Intervals As Per Manufacturer's Instruction. Colour and pattern to architects approval.

500mm x 500mm , 100% PFX staple fibre carpet tiles To Comply With SABS 1419 (heavy commercial) consisting of fibres set out on waterproof vinyl backing and to comply with EN 1307 Wear Class 4 (heavy duty), laid with approved adhesive on 30mm thick cement creeds in strict compliance with manufacturer's instructions. Carpet tiles to conform to BS 4790 on fire rating, and DIN 54324 on wira test and ISO body test at less than 2Kv at 25% RH on static electricity. Colour and pattern to architects approval.

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#### F6: GRANOLITHIC FINISH

22 mm thick untinted Granolithic finish composed of one part cement, one part fine sand, two parts coarse sand and one part granite that would pass through a 5mm mesh sieve; laid by specialist in panels not exceeding 10m2. divided with approved brass dividing strips. All to be manufactured and installed in strict compliance to the latest SABS approved standards. Colour, pattern and aggregate size to architects approval.

#### 7: INTERLOCKING PAVERS (RIGID PAVING/VEHICULAR WAYS)

220mm x 197mm x 80 mm thick concrete interlocking pavers, 25 mpa, manufactured to SABS spec 1058, laid on sand bedding to civil/structural engineer's specification to a 'herringbone' pattern to the Architect's approval.

#### F8: SEMI FLEXIBLE VINLY SHEETING (CORROSIVE RESISTANT/ANTI-SLIPPERY)

2.5mm Thick Heavy Traffic Use, Corrosive Resistant & Anti-Slippery Vinyl Sheeting Semi-Flexible To Comply With SABS 586, With Static Dissipative Properties Throughout Thickness, Engineered for ESD or SD (anti-static) Protection Vinyl Sheet, Laid on Self -Levelled Smooth Screed glued with conducive adhesive To SABS 070 or Latest Revision In Accordance To Manufacturer's Instructions And Installed By Approved Specialist. Joints Shall be Welded as Per Manufacturer's Specifications With No more than 2mm Gap. Clean & Polish Floor In Compliance With SABS 1042. Colour To Architect Approval On Sample Presentation. Contractor to provide Certificate of Static Current Conductivity. Contractor to provide Certificate of Static Current Conductivity, Corrosive resistant & Anti-Slippery.

#### F9: GRAVEL FINISH ON SAND LAYER

32mm Gravel On Compacted Sand Layer Base as Per PSE Details Installed in All Duct Chambers Accommodating Sanitary Services.

#### SKIRTING:

#### S1: HARDWOOD OR EQUAL AND APPROVED

"Ex 75mm x 20mm Moulded Hardwood Skirting" to comply with SANS 1099, fixed to walls in long lengths with splayed heading joints and nitred coners with screws and plugs at centres not exceeding 600mm, and fixed with a 19mm x 19mm quadrant beading. The skirting to be anished with 3No. coats of egg shell clear vanish to comply with SABS/SANS 381 type 1.

#### **S2: CERAMIC TILE SKIRTING**

600mm wide x 100mm high x 7mm thick matt porcelain tile to comply with SABS 1449 laid with approved adhesives and grout on 22mm thick screeds in strict compliance to manufacturers instructions and SABS specification, with cove base and straight tops. Complete with corner and top trims. Fittings to include, ribbed angle tiles where there is change of level. Colour and pattern to architects approval.

5 mm high x 20 mm thick hardened cement sand screed skirting coved at 50 mm dia. to form a continuous joint with the adjoining screed floor finish to PA's approval. All to be manufactured and installed in strict compliance With SABS 1083 or latest revision.

#### **WALL FINISHES:**

R1: FACE BRICK FBX face brick in common running bond to comply with SABS 227 and forming part of the structural work.

R2: EMULSION (PVA) PAINT - FULL HEIGHT no, coats of PVA matt finish emulsion paint to SABS 1586 applied on plastered surface primed and with 1 no, coat undercoat to SABS 68 grade1, in accordance to manufacturer's instructions.

R3:ALKYD (ENAMEL) PAINT no. coats matt (egg shell) finish alkyd (enamel) paint to SABS 630, type 2 applied on plastered surfaces with 1 no coat alkali resistant laster primer to SABS 1416 and 1 no. coat undercoat to SABS 681 grade1, in accordance to manufacturer's instructions.

#### R4: GLAZED CERAMIC WALL TILES / ENAMEL PAINT COMBO

ombination of; 600mm wide x 300mm x 7mm thick high glazed ceramic tiles To Specification "R5", laid on 15 mm thick plaster prepared receive wall tiles fixed with approved adhesives and grout in compliance to manufacturer's specifications and government standard specifications laid from finish floor level to window level AND ENAMEL paint to specification "R3" To Comply with SABS 630 or latest revision applied from 2100 mm above finished floor level to ceiling height all in strict compliance to manufacturer's instructions. All to be manufactured and installed in strict compliance to the latest SABS Standards.

## R5:CERAMIC WALL TILES - FULL HEIGHT

600mm x 300mm x 7mm thick high glazed ceramic tiles to Comply with SABS 22 or Latest revision, laid on 15 mm thick plaster prepared to receive wall tiles fixed with approved adhesives and grout in compliance to manufacturer's specifications and government standard specifications. Tiles to be laid to full ceiling height. All to be manufactured and installed in strict compliance SABS 22 Standard. All to be manufactured and installed in strict compliance SABS 22 Standard.

## **CEILING AND CORNICE:**

## C1: 9mm GYPSUM BOARDS FLUSH PLASTERED CEILINGS OR EQUAL AND APPROVED

GypCeil Classic" gypsum plasterboard ceilingor **EQUAL & APPROVED** consisting of 1 layer Gyproc RhinoBoard 9mm (locally manufactured, SO 9001 & 14001 certification, recycled paper content, Ecospecifier listing) fixed to timber brandering installed at maximum 300mm centers using Gyproc RhinoBoard Sharp Point Grabber Screws 32mm at maximum 150mm centers. Apply . Gyproc RhinoTape to all joints and skim he ceiling using Gyproc RhinoLite.

## C2: FIBRE CEMENT BOARDS (H-JOINTED)

6.4mm thick GypCeil Prestige S" fibre cement ceiling boards or EQUAL & APPROVED consisting of 1 layer Gyproc RhinoBoard 9 mm (locally nanufactured, ISO 9001 & 14001 certification, recycled paper content, Ecospecifier listing, non-combustible to SANS 10177-5) fixed to EX 38mm x 50mm timber brandering installed at maximum 400mm centres using Gyproc RhinoBoard Sharp Point Grabber Screws 32mm at naximum 150mm centres with all necessary accessories, finished with 3 No. coats of super PVA external quality paint colour to PA's approval. Gyproc RhinoTape to all joints and skim the ceiling using Gyproc RhinoLite.

## C3: PATENT SUSPENDED ACOUSTIC TILES OR EQUAL AND APPROVED

200mm x 600mm X 15mm Gyproc Celotex Pin Perforated or Fine Fissured OR EQUAL & APPROVED laid into Donn ceiling grid and secured ato place using Donn Hold Down Clips @ 200mm c/c. Donn Wall Angle M6 fixed to the perimeter wall using fixings at 300mm centres. Donn T38 FR Main Tees (0.4mm thickness, Z150 galv. coating, locally manufactured, recycled content, ISO 9001 & 14001 certification) at 1200 entres & Donn T38V (1200 long) Cross Tees at 600 centres. Suspend main tees @ 1200mm c/c using Donn Hanger Strap 19mm suitably fixed o the building structural members. Donn Galvanized Hanger Strap 19mm at maximum 150mm on both sides of the fire notch. All fire notches to be in line. Suspend all full length 1200 Cross Tees at their mid-point using Donn Hanger Strap 19mm suitably fixed to the building structural members. All to comply with latest SANS 803 including all necessary accessories and installed in strict accordance to manufacturer's specifications.

## C4 EMULSION (PVA) PAINT OR EQUAL AND APPROVED

Emulsion (PVA) Paint on Skimmed Plastered Slab" 3No. coats of PVA emulsion ceiling paint to latest SANS 1586 approved on 6mm thick light veight hemi-hydrate gypsum plaster on concrete slab soffit.

## **ROOF COVERING AND INSULATION:**

## ER1: EMBOSSED ROOFING SHEET (TWO SIDES)

**Roofing Sheets:** 0.58mm Thick concealed fixing roofing sheets manufactured from roll-formed from certified steel omplying with ISQ 550 (31). The profile shall have three trapezoidal ribs at 203mm centers giving a net cover of 406mm. The rib height shall be 41mm and provide capillary breaks. The male rib shall have spurs at 283mm centers to ensure a positive double interlocking action at side-laps. Each pan shall incorporate two stiffener ribs. Profiled roofsheets to be coated on both sides with "Global Coat" or "Chromadek

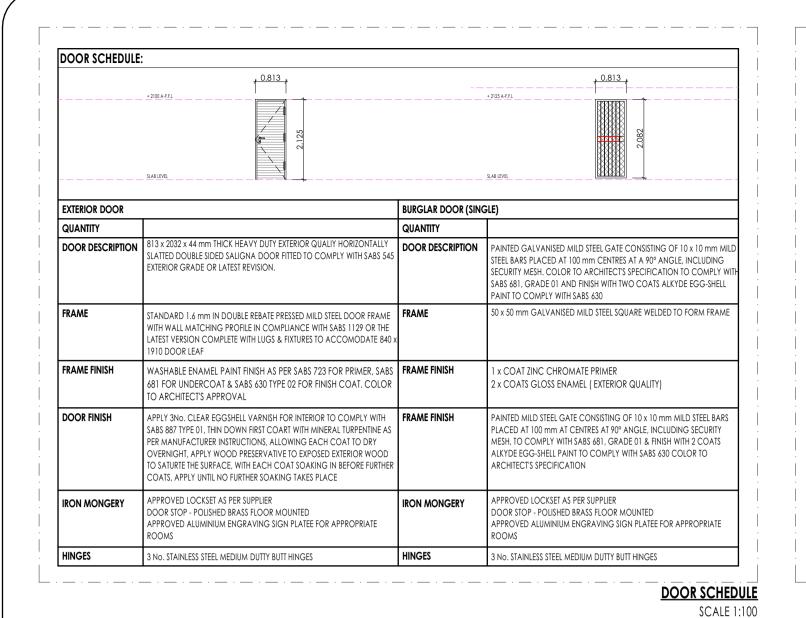
Colour" and laid on structural timber/steel structure incorporating all necessary accessories such as flashings and eave closers in strict

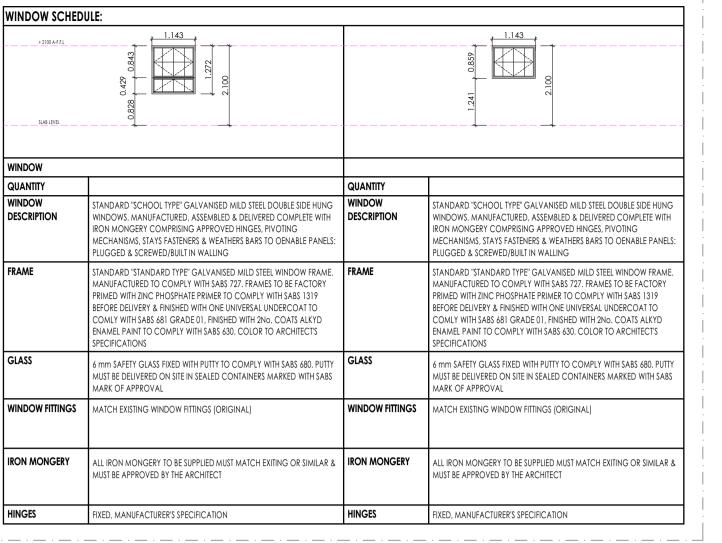
compliance to manufacturer's instructions. Insulation: SHALL EITHER BE: 1: where there are acoustic ceilings susspeded board, a heavy duty "Aluminium sisalation foil" shall be installed AND 2: where the steel work is exposed, a 50mm "FactoryBoard" manufactured from noncombustible glass fibres and thermo-setting resin

binder supplied size 2400mm x 1200mm and 80kg/mÑ and finished with white metalized foil. Galvanised Steel (GI) Gutter: 150mm Wide x 100mm Deep x 0.6mm Eaves Gutter of Commercial Grade Steel With Class 7275 Galvanising To Comply With SABS 934 or latest Revision Fixed To Painted Fibre Cement Fascia Board Together with standard accessories discharging into Rainwater Downpipes.

Downpipe: 110 x110 x 0.6mm Thick Commercial Grade Galvanised Steel Sheet With Class Z275 Galvanising To Comply With SABS 934 or Latest Revision to or built into walls or cast in concrete columns fixed to brickwork or steel including brackets and self-taping screws To Manufacturer Installation Instructions.

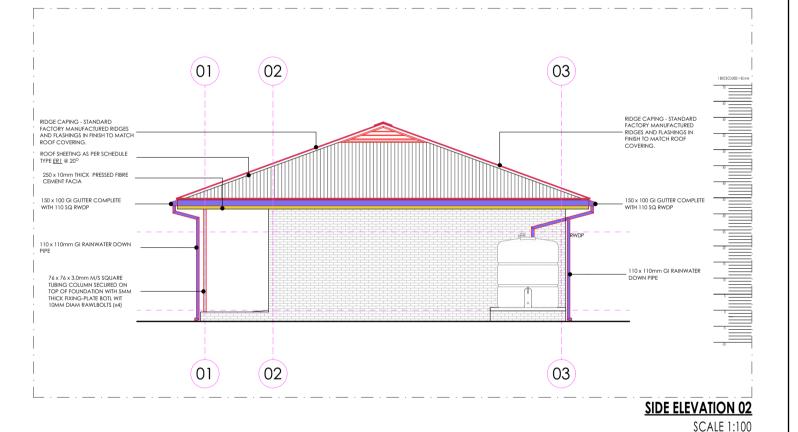
Fascia board: 250 x 10 mm Fibre- Cement Fascia/Barge Board, Screw Fixed To Truss Ends & Counter Batten With Countersunk Brass Screws. Prepare & Apply One Universal Undercoat & Two Coats Super Acrylic P.V.A.

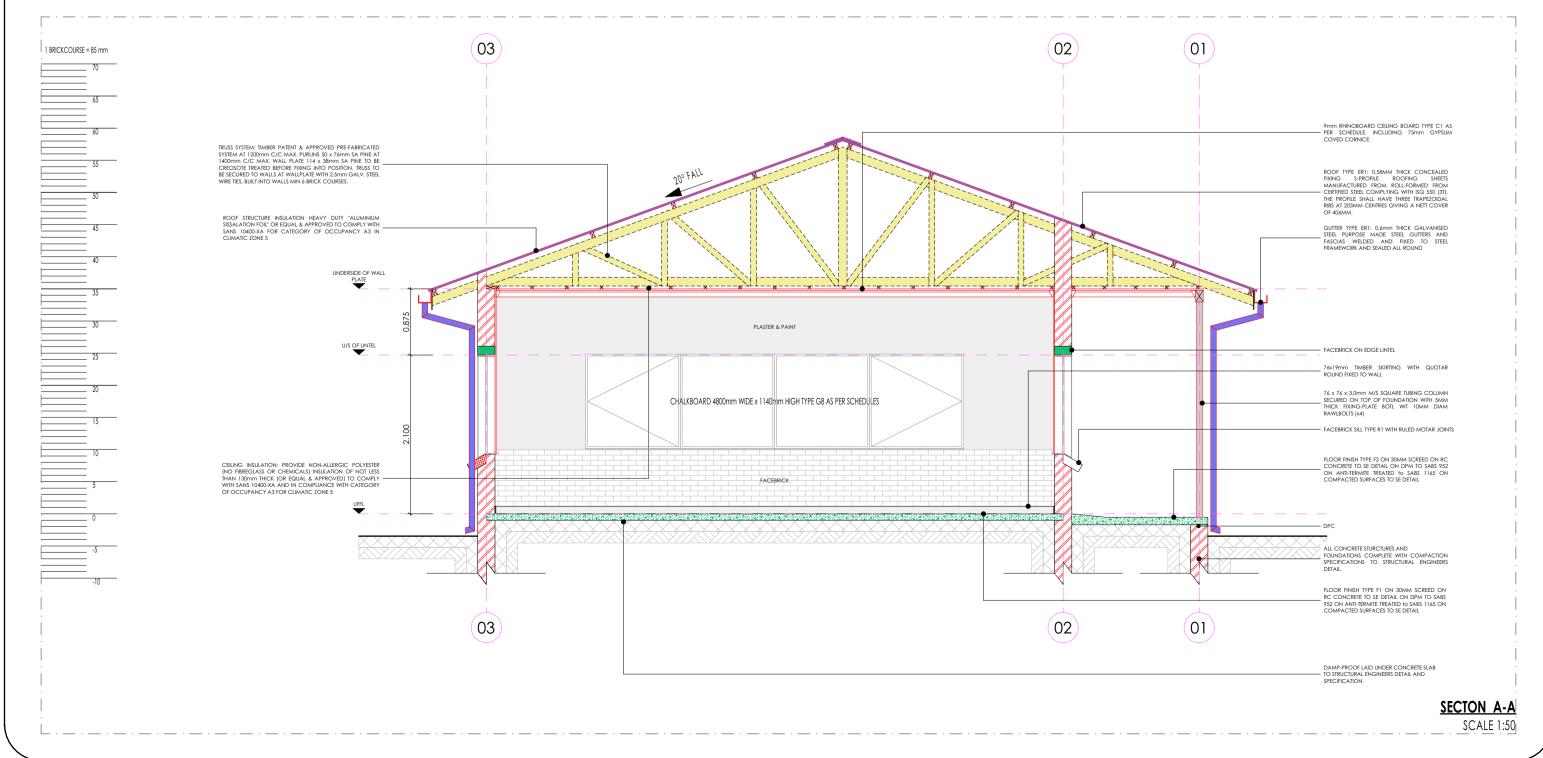




WINDOW SCHEDULE

# (01) SIDE ELEVATION 0





#### **SANITARY SCHEDULE**

#### **WC'S URINALS & SHOWER Z1: CERAMIC STANDARD WC (CC)- CONCEALED CISTERN**

Vitreous ching 90° outlet WC or equal and approved top inlet closed rim back-to-wall pan. Floor Mounted to comply with SARS 497 & Fitted with "Id Thermoset Plastic Seat". Fitted with Concealed Flushing Cistern for WC 6-7 litres adjustable with small discharge valve access pneumatic discharge valve Installed with dual flush ability & complete with all necessary fittings to manufacturer's specification and applicable SABS standards. Flush valve to be fitted with

treous china 900 outlet or equal and approved, top inlet closed rim back-to-wall pan to comply with SABS 497. Fitted with Cistern Installed complete with c necessary fittings to manufacturer's specification and applicable SABS standards. Flush valve to be fitted with suitable extension lever

Z3: CERAMIC PARAPLEGIC WC (CC)- CONCEALED CISTERN Vitreous china 900 outlet WC or equal and approved top inlet closed rim back-to-wall pan, Floor Mounted to comply with SABS 497 & Fitted with "Ja; Thermoset Plastic Seat". Fitted with Concealed Flushing Cistern for WC 6-7 litres adjustable with small discharge valve access pneumatic discharge valve

# Installed with dual flush ability & complete with all necessary fittings to manufacturer's specification and applicable SABS standards. Flush valve to be fitted with

#### suitable extension lever, blank flush plate & offset push button for parapleaic access Z4: CERAMIC STANDARD WC (BACK INLET) Vitreous china 900 outlet, back inlet pan to comply with SABS 497. Fitted complete with Back inlet exposed flush-valve complete with all necessary fittings as per

#### manufacturer's specifications and applicable SABS standards. Flush valve to be fitted with suitable extension lever. **Z5: CERAMIC STANDARD WC (CC)**

/itreous china 900 outlet, back inlet pan to comply with SABS 497. Fitted complete with matching 7 litre pushbutton top dual flush cistern fitted with quality approved heavy duty thermoset lid, seat and complete with all necessary fittings as per manufacturer's specifications and applicable SABS standards. TAIL CERAMIC WALL HUNG URINAL wall hang bowl urinal to comply with SABS 497. Supplied with suitable 38mmCP domical grating, CP top inlet spreader an

two hanger brackets and fitted with exposed flush-valve, and suitable bottle trap chrome finish as per manufacturer's specifications and applicable SABS mm thick Enamelled steel shower tray size 900x900x160 mm manufactured with anti slip pattern, with rounded internal corners, and 38 mm BSP grated waste

fitting in corner position fitted with Shower set and complying with SABS 226 comprising of approved:

• Glazed Shower Cubicle with access door as per standard supply from manufacturer and sized to fit space configuration Overhead shower arm with wall flange.

Chrome Plated Shower Head with ball jointed connector

• Chrome Plated Bath/shower diverter mixer-wall type with sliding wall flanges and concealed connections adjustable from 178 mm to 203 mm centres. Shower tray to be recessed 50 mm into a 100mm high concrete plinth with exposed plinth face tiled.

#### **WASH-HAND BASIN**

**B1: WHB & MIXER TAP** 

yous china size 560 x 415mm rounded 'Tuscany', OR EQUAL AND APPROVE basin to comply with SABS 497 with single tapho configuration supplied with integrated overflow and chainstay hole through the centre semi-punched supplied with a 'Tuscany' pedestal and fitted with 1N 'Cobra Watertech' 15mm chrome pushbutton demand pillar tap with flanged backnut (code KM2.102) metering tap, 309-32 CP anti-theft plug with spindle, 308 basin waste, 365/40 CP Bottle Trap, mounting kit and angle valves.

B2: DISABLED BASIN A 20mm semi rounded lavatory basin to comply with SABS 497, in two tap hole configuration fitted with; 2 No.chrome plated Elbow action pillar-tap, with ¼ turn ceramic disc head and blue & Red indicators water applications and flanged backnut, chrome plated waste, chrome plated 32 mn standing overflow tube, chrome plated Bottle Trap supplied with all necessary pipe connections. Fixed with concealed wall bracket in accordance to the

# B3: WHITE GLAZED PORCELAIN WHB (VANITY)

imic fireclay size 450x350mm oval self-rimming vanity basin to comply with SABS 497 in one tap hole configuration supplied without overflow and fitted with 1No. chrome plated tap with flanged backnut (code KM2.102) metering tap, mounting kit and angle valves 400mm long flexible inlets and chrome plated bottle trap supplied with all necessary pipe connections. Basin mounted on cabinet or vanity slab with silicon sealant between contact areas in stric accordance to manufacture's specifications.

#### B4: SMALL BASIN & 2 TAPSTRAY & SHOWER SET (FOR WORKSHOPS) Vitreous china size 455x290mm wash basin to comply with SABS 497 in 2-tap hole configuration supplied with integrated overflow and chainstay hole with; 2Nc

pillar taps, chrome plated anti-theft plug with spindle plug, slotted basin waste, chrome plated Bottle Trap, mounting kit and angle valves with 400mm lor flexible inlets supplied with all necessary pipe connections. All brackets and fixing accessories in strict accordance to the manufacturer's specifications. B5: H/DUTY BASIN & 1No. TAP (FOR LABS)
Evaluation for comply with SABS 497 and RHS hole plugged and fitted with; 1No. pillar tap, Chrome Plated anti-theft plug with spindle plug, slotted basin waste, chrome plated Bottle Trap, mounting kit and angle valves with 400mm long

#### flexible inlets supplied with all necessary pipe connections. Fitted to wall using 2No. Semi-concealed cast iron brackets in accordance to the manufacturer **B6: MEDIC BASIN & FITTINGS (SICK BAY)**

Vitreous china 510 x 420mm semi rounded lavatory basin to comply with SABS 497, in two tap hole configuration fitted with; 2 No.chrome plated Elbow action pillar-tap, with . turn ceramic disc head and blue & Red indicators water applications and flanged backnut, chrome plated waste, chrome plated 32mm standing overflow tube, chrome plated Bottle Trap supplied with all necessary pipe connections. Fixed with concealed wall bracket in accordance to the manufacturer's specifications.

Combination of sanitaryware, accessories and general fittings comprising of: • Mirror type K2. • Paper towel dispenser K8 and bin type K3. • Soap dispenser type K9.

• Splashback comprising 2no, rows of wall tile finish type R5 as per finishes schedule

#### and grout in compliance to manufacturer's specifications and government standard specifications. Installation heights as indicated in the drawings.

Stainless steel 1000 x 457mm inset single end bowl with recessed drainage ledge and folded edges. Bowl to be fitted to kitchen cupboard (cupboard elsewhe measured), Grade 304 (18/10) Stainless Steel sink to comply with SABS 906 fittled with: Approved Sink mixer- wall type, chrome plated swivel Outlet, adjustable and supplied with suitable assesories in accordance to manufacturer's specifications. Sink installation height = 900mm AFFL.

Stainless steel 1500 x 457mm inset double end bowl with recessed drainage ledge and folded edges. Bowl to be fitted to kitchen cupboard (cupboar elsewhere measured), Grade 304 (18/10) Stainless Steel sink to comply with SABS 906 fitted with: Approved Sink mixer- wall tape, with chrome plated overarm swivel Outlet, adjustable wall flanges and supplied with suitable acesories in accordance to manufacturer's specifications. Sink installation height = 900mm AFFL.

#### Ceramic fireclay 435 x 335 x 180 mm rectangular laboratory sink without overflow, with a centre end waste outlet, fitted to the wall on two semi-concealer brackets supplied with all necessary accessories (all to be acid resistant

x 500mm Inset washtrough, manufactured from grade 18/10 SS, stainless steel with radiused internal corners and provision for a 40mm dia, outlet. Fitted with Approved 2No. CP bibtaps - plain extended chrome plated, complete with sliding wall flanges, Un-slotted sink waste with back nut, plug with stirrup, chain and stay. CP, 'P' trap, with deep seal and cleaning eye. Rough brass. Sink installation height = 900mm AFFL. Cut out size 535 x 425mm. X5: DOUBLE WASH TROUGH (inset) & 2 no. TAPS

x 553 x 260mm Double bowl wall hung washtub manufactured from grade 304 (18/10) SS, radiused internal corners and provision for a 40mm dia. outlet fitted with: Approved 2no wall type bibtaps, with Swivel Outlet, adjustable wall flanges and exposed adjustable connections. CP. Un-slotted sink waste with bac nut and plug with stirrup. CP, Double drain black rubber deep seal 'P'-Trap. Sink mounted on 2no. 25mm square SS gallow brackets, front leg and adjustable fooi

## SANITARY ACCESSORIES

K5: SOAP HOLDER

K1: SS TOILET ROLL HOLDER- 2 ROLL ndard stainless steel toilet roll holder (2 roll) 153mm width x 270mm high 275mm depth Toilet Roll Holder manufactured from 18/10 Stainless Steel, surface Satii finish, including screws and dowels and all other necessary accessories in accordance to manufacturer's specifications.

64 smm thick clear float glass silver-backed mirror, size 450x900mm height with polished bevelled edges 4 times holed for and fixed, with chromium plated dom headed mirror screws K3: SS WASTE BIN

328W x 826H x 203D Waste bin manufactured From 18/10 Stainless steel, Surface Satin Finish, Material Thickness 1.5mm, including Screws, dowels and all necessar accessories in accordance to manufacturer's specifications.

x 320mm x 600mm Plastic Sanitary Pedal Bin with capacity of 100 Liners per pack Complete with all necessary accessories and installed in accordance to manufacturer's specifications.

Single semi-recessed ceramic soap dish Complete with all necessary accessories and installed in accordance to manufacturer's specifications. K6: WALL GRAB RAILS-PARAPLEGIC

#### manufacturer's instructions. K7: GRAB RAILS (RIGHT/LEFT HAND)-PARAPLEGIC Stainless steel 1016 x 90 x 32mm diameter right/left hand side toilet grab rail with 450mm high centre flange, in satin polished finish complete with SS fixing screw

and plastic wall plugs. Installed as per manufacturer's instructions 350mmWx365mmHx230mmD tear and dry paper hand towel dispenser in stainless steel. Complete with screws, locking key, and all necessary accessories and installed in accordance to manufacturer's specification:

Stainless steel 914 x 90 x 32mm diameter wall (rear) grab rail, in satin polished finish complete with SS fixing screws and plastic wall plugs. Installed as per

K9: SOAP DISPENSER/DISH- WALL MOUNTED 115W x 270H x 110D Stailess steel Hands Free soap dispenser. Complete with screws, locking key, and all necessary accessories and installed in accordance manufacturer's specifications.

820mm Wide x 220mm High x 90mm High Aluminium Multi-rack Hat and Coat Hook in multi-track two Hooks Configuration With Anodised Silver Finish Comple K11: HAND DRYER (Hands free)

55mm dia. Polished 900mm long towel rail complete with all necessary accessories in accordance to manufacturer's specifications. Installation height as pe

#### K13: SHOWER CURTAIN RAIL (straight) 20mm dia. standard chromium plated shower curtain rail 1300mm long with flanged ends and screws CP fixing height as per PA's drawing.

**GENERAL FIXTURES** 

200mm wide uPVC Door Protector manufactured in high impact resistant rigid uPVC (Colour Grey) and cut to suit door width from 3m length, installed strictly in accordance to manufacturer's specifications. Installation height 900mm above FFL, or as specified.

G2: PROJECTOR SCREEN Pull down PVC screen size 2440 x 1850mm (viewing area 2340 x 1750mm) with wall-mounted code SC0400 Keystone Brackets Adjustable Set of 2, size 300mm. To be supplied complete with all accessories, and fitted in strict accordance with manufactures instructions.

G3: PINBOARD 1500W X 1000H Pinboard size 1000mm H x 1500mm W comprising of laminated soft board core pinning material beaded all round with anodised aluminium channel surrour mitred at the corners. To be fitted complete with fixing brackets, screws and wall plugs at 900mm above floor level.

#### Pinboard size 1200mm H x 3000mm W comprising of laminated soft board core pinning material beaded all round with anodised aluminium channel surrour mitred at the corners. To be fitted complete with fixing brackets, screws and wall plugs at 900mm above floor level G5: WINDOW NORMAL BLINDS(vertical fabric)

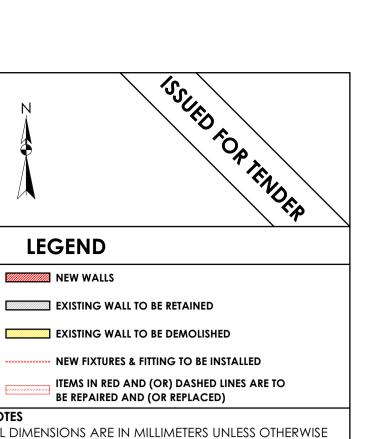
27 mm vertical deco blinds with anodised aluminium headrail fitted with colour coordinated insert. All runners o be wheeled and fitted with individual clut mechanism. All runners to be connected by stainless steel links. Tilt mechanism to be operated by a nylon ball chain with a reduction gear inside a fully enclose cap. Blinds to be face fixed (fixed over the window opening) by means of concealed type fixing brackets.

#### **G6: FLOOR DRAIN** Cast iron flat type full-flow outlets size 110 mm diameter with centre bolt, , including connections to downpipes.

## **G7: SS FLOOR EXPANSION JOINT COVER**

Co-extruded heavy-duty stainless steel movement joint strip, with polyurethane infill (colour grey). To be installed within the tile surface over the 20mm expansion joints, in accordance to the manufacturer's specifications. G8: CHALKBOARDS- GREEN SURFACE COLOUR

system 1000 standard WRITEBOARD or EQUAL & APPROVED vitreous enamelled steel utility school chalkboards wall-mounted size 4800mm x 1140mm high manufactured in accordance with SABS Standard CKS 36/2004 Edition 4 and suitable for Class 1: Heavy Duty applications, as defined therein. Enamel steel Utili chalk board surfaces to be matt and finely structured, olive green in colour (Vitrex Colour Reference - Chalk Board Green LM1797/2), supplied complete with ntegral anodised aluminium chalk rail (ACR), fixing components and secured in position to brickwork. The Chalk boards are to be fixed in position strictly ir accordance with the manufacturer's instructions



# all dimensions are in millimeters unless otherwise

DIMENSIONS TO BE READ, NOT TO SCALED FROM THIS

CONTRATORS TO CONFIRM ALL DIMENSIONS ON SITE BEFORE CONSTRUCTION COMMENCES & ANY DISCREPANCY TO BE REPORTED TO THE PROJECT ARCHITECT

FINISHES LEGEND

WALL FINISH

# -FLOOR FINISH CEILING FINISH-

SKIRTING

FINISH

DISCIBLIAN			SIGN	DATE					
DISCIPLINE  CLIENT  PLAN EXAMINER  FIRE CONTROL  ENVIRONMENTAL  ROADS   STORMWATER  WATER & SANITATION			3IGN	DATE					
					WAIER & S	ANIIAIION	<u> </u>		
0	JUL 21	FIRST ISSUE FOR TENDER							
REV. NO.	DATE	DESCRIPTION							
			revisions						
7		5	PROVINCIAL GOVERNM REPUBLIC OF SOUTH AFR	MENT					

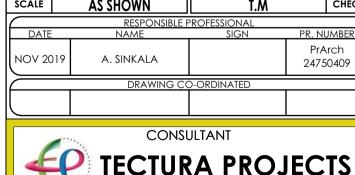
# PUBLIC WORKS, ROADS & INFRASTRUCTURE RUNNYMEDE PRIMARY- 915 315 078

RESTORATIVES, REPAIRS & ADDITIONS

# **DOCUMENTATION & PROCUREMENT**

**ARCHITECTURAL** BLOCK PJ 01 - 04 CLASSROOM

SECTION | SIDE ELEVATION | SCHEDULES 102-03 **SMTN** NΔ CHECK AS SHOWN T.M





ALSO IN NAIROBI, KENYA AND GABORONE, BOTSWANA CONTRACTOR

AUTOCAD PROJECT NUMBER

LDPW - PROF/16002/G11

#### FINISHES LEGEND FLOORS: F1: PORCELAIN TILES - MATT (Corrosive Resistant & Anti-Slippery) 420 x420 11.5mm kilimanjaro floor tiles or similar approved by architects, fixed with adhesive, painted with tinted waterproof jointing compound. Grouting to be grey, tiles should have expansion joint and aluminium edging strip.

F2: PORCELAIN TILES -MATT 600 x 600 x10mm thick matt porcelain tile to comply with SABS 1449 laid on approved pattern by an approved specialist to comply with SABS 107 and approved adhesives and grout on screeds With Thickness/Specification in strict compliance to manufacturers instructions

and SABS specification. Fittings to include, ribbed angle tiles where there is change of level & Movement Joints of 6mm Wide With Patent Aluminium Movement Joints Strips Consisting Of Synthetic Fibre Inserts Installed At Intervals As Per Manufacturer's Instruction. Colour and pattern to architects approval.

500mm x 500mm , 100% PFX staple fibre carpet files To Comply With SABS 1419 (heavy commercial) consisting of fibres set out on waterproof vinyl backing and to comply with EN 1307 Wear Class 4 (heavy duty), laid with approved adhesive on 30mm thick cement creeds in strict compliance with manufacturer's instructions. Carpet tiles to conform to BS 4790 on fire rating, and DIN 54324 on wira test and ISO body test at less than 2Kv at 25% RH on static electricity. Colour and pattern to architects approval.

30mm thick polished cement sand screed with 13mm Stone Nominal aggregate for Topping to comply with SABS 1083 or latest revision for

#### F5: EXTERIOR MULTI COLOURED CONCRETE INTERLOCKING PAVERS

65mm thick multi-coloured concrete pavers laid on sand bedding to civil/structural engineer's specification in approved pattern and compacted to approval and grouted in strict accordance to manufacturer's specifications. All to be manufactured and installed in strict compliance to SABS 1058 or Latest Revision.

#### F6: GRANOLITHIC FINISH

22 mm thick untinted Granolithic finish composed of one part cement, one part fine sand, two parts coarse sand and one part granite that would pass through a 5mm mesh sieve; laid by specialist in panels not exceeding 10m2. divided with approved brass dividing strips. All to be manufactured and installed in strict compliance to the latest SABS approved standards. Colour, pattern and aggregate size to architects approval.

#### F7: INTERLOCKING PAVERS (RIGID PAVING/VEHICULAR WAYS)

220mm x 197mm x 80 mm thick concrete interlocking pavers, 25 mpa, manufactured to SABS spec 1058, laid on sand bedding to civil/structural engineer's specification to a 'herringbone' pattern to the Architect's approval.

#### F8: SEMI FLEXIBLE VINLY SHEETING (CORROSIVE RESISTANT/ANTI-SLIPPERY)

2.5mm Thick Heavy Traffic Use, Corrosive Resistant & Anti-Slippery Vinyl Sheeting Semi-Flexible To Comply With SABS 586, With Static Dissipative Properties Throughout Thickness, Engineered for ESD or SD (anti-static) Protection Vinyl Sheet, Laid on Self-Levelled Smooth Screed glued with conducive adhesive To SABS 070 or Latest Revision In Accordance To Manufacturer's Instructions And Installed By Approved Specialist. Joints Shall be Welded as Per Manufacturer's Specifications With No more than 2mm Gap. Clean & Polish Floor In Compliance With SABS 1042. Colour To Architect Approval On Sample Presentation. Contractor to provide Certificate of Static Current Conductivity. Contractor to provide Certificate of Static Current Conductivity, Corrosive resistant & Anti-Slippery.

#### F9: GRAVEL FINISH ON SAND LAYER

32mm Gravel On Compacted Sand Layer Base as Per PSE Details Installed in All Duct Chambers Accommodating Sanitary Services.

# SKIRTING:

#### **S1: HARDWOOD OR EQUAL AND APPROVED**

"Ex 75mm x 20mm Moulded Hardwood Skirting" to comply with SANS 1099, fixed to walls in long lengths with splayed heading joints and mitred coners with screws and plugs at centres not exceeding 600mm, and fixed with a 19mm x 19mm quadrant beading. The skirting to be vanished with 3No. coats of egg shell clear vanish to comply with SABS/SANS 381 type 1.

#### **S2: CERAMIC TILE SKIRTING**

600mm wide x 100mm high x 7mm thick matt porcelain tile to comply with SABS 1449 laid with approved adhesives and grout on 22mm thick screeds in strict compliance to manufacturers instructions and SABS specification, with cove base and straight tops. Complete with corner and top trims. Fittings to include, ribbed angle tiles where there is change of level. Colour and pattern to architects approval.

75 mm high x 20 mm thick hardened cement sand screed skirting coved at 50 mm dia. to form a continuous joint with the adjoining screed floor finish to PA's approval. All to be manufactured and installed in strict compliance With SABS 1083 or latest revision.

#### **WALL FINISHES:**

R1: FACE BRICK FBX face brick in common running bond to comply with SABS 227 and forming part of the structural work.

R2: EMULSION (PVA) PAINT - FULL HEIGHT 2 no. coats of PVA matt finish emulsion paint to SABS 1586 applied on plastered surface primed and with 1 no. coat undercoat to SABS 681

grade1, in accordance to manufacturer's instructions.

no. coats matt (egg shell) finish alkyd (enamel) paint to SABS 630, type 2 applied on plastered surfaces with 1 no coat alkali resistant plaster primer to SABS 1416 and 1 no. coat undercoat to SABS 681 grade1, in accordance to manufacturer's instructions.

## R4: GLAZED CERAMIC WALL TILES / ENAMEL PAINT COMBO

ombination of; 600mm wide x 300mm x 7mm thick high glazed ceramic tiles To Specification "R5", laid on 15 mm thick plaster prepared receive wall tiles fixed with approved adhesives and grout in compliance to manufacturer's specifications and government standard specifications laid from finish floor level to window level AND ENAMEL paint to specification "R3" To Comply with SABS 630 or latest revision applied from 2100 mm above finished floor level to ceiling height all in strict compliance to manufacturer's instructions. All to be manufactured and installed in strict compliance to the latest SABS Standards.

600mm x 300mm x 7mm thick high glazed ceramic tiles to Comply with SABS 22 or Latest revision, laid on 15 mm thick plaster prepared to receive wall tiles fixed with approved adhesives and grout in compliance to manufacturer's specifications and government standard specifications. Tiles to be laid to full ceiling height. All to be manufactured and installed in strict compliance SABS 22 Standard. All to be manufactured and installed in strict compliance SABS 22 Standard.

## CEILING AND CORNICE:

## C1: 9mm GYPSUM BOARDS FLUSH PLASTERED CEILINGS OR EQUAL AND APPROVED

"GypCeil Classic" gypsum plasterboard ceilingor **EQUAL & APPROVED** consisting of 1 layer Gyproc RhinoBoard 9mm (locally manufactured, ISO 9001 & 14001 certification, recycled paper content, Ecospecifier listing) fixed to timber brandering installed at maximum 300mm centers using Gyproc RhinoBoard Sharp Point Grabber Screws 32mm at maximum 150mm centers. Apply . Gyproc RhinoTape to all joints and skim the ceiling using Gyproc RhinoLite.

## C2: FIBRE CEMENT BOARDS (H-JOINTED)

6.4mm thick GypCeil Prestige \$" fibre cement ceiling boards or EQUAL & APPROVED consisting of 1 layer Gyproc RhinoBoard 9 mm (locally manufactured, ISO 9001 & 14001 certification, recycled paper content, Ecospecifier listing, non-combustible to SANS 10177-5) fixed to EX 38mm x 50mm timber brandering installed at maximum 400mm centres using Gyproc RhinoBoard Sharp Point Grabber Screws 32mm at maximum 150mm centres with all necessary accessories, finished with 3 No. coats of super PVA external quality paint colour to PA's approval. Gyproc RhinoTape to all joints and skim the ceiling using Gyproc RhinoLite.

# C3: PATENT SUSPENDED ACOUSTIC TILES OR EQUAL AND APPROVED

200mm x 600mm X 15mm Gyproc Celotex Pin Perforated or Fine Fissured OR EQUAL & APPROVED laid into Donn ceiling grid and secured into place using Donn Hold Down Clips @ 200mm c/c. Donn Wall Angle M6 fixed to the perimeter wall using fixings at 300mm centres. Donn T38 FR Main Tees (0.4mm thickness, Z150 galv. coating, locally manufactured, recycled content, ISO 9001 & 14001 certification) at 1200 centres & Donn T38V (1200 long) Cross Tees at 600 centres. Suspend main tees @ 1200mm c/c using Donn Hanger Strap 19mm suitably fixed to the building structural members. Donn Galvanized Hanger Strap 19mm at maximum 150mm on both sides of the fire notch. All fire notches to be in line. Suspend all full length 1200 Cross Tees at their mid-point using Donn Hanger Strap 19mm suitably fixed to the building structural members. All to comply with latest SANS 803 including all necessary accessories and installed in strict accordance to manufacturer's specifications.

## C4 EMULSION (PVA) PAINT OR EQUAL AND APPROVED

Emulsion (PVA) Paint on Skimmed Plastered Slab" 3No. coats of PVA emulsion ceiling paint to latest SANS 1586 approved on 6mm thick light weight hemi-hydrate gypsum plaster on concrete slab soffit.

# ROOF COVERING AND INSULATION:

# ER1: EMBOSSED ROOFING SHEET (TWO SIDES)

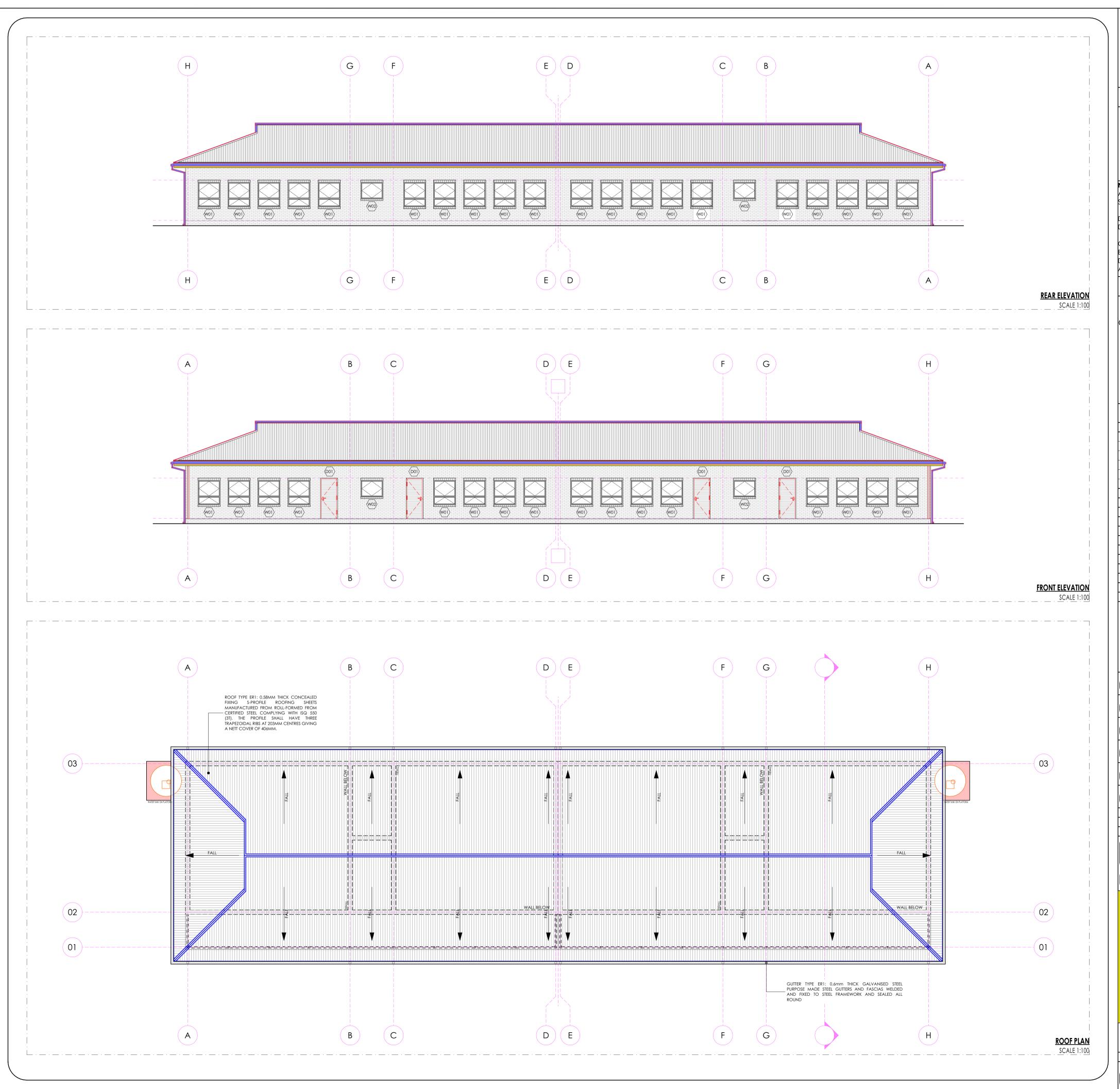
**Roofing Sheets:** 0.58mm Thick concealed fixing roofing sheets manufactured from roll-formed from certified steel complying with ISQ 550 (3T). The profile shall have three trapezoidal ribs at 203mm centers giving a net cover of 406mm. The rib height shall be 41mm and provide capillary breaks. The male rib shall have spurs at 283mm centers to ensure a positive double interlocking action at

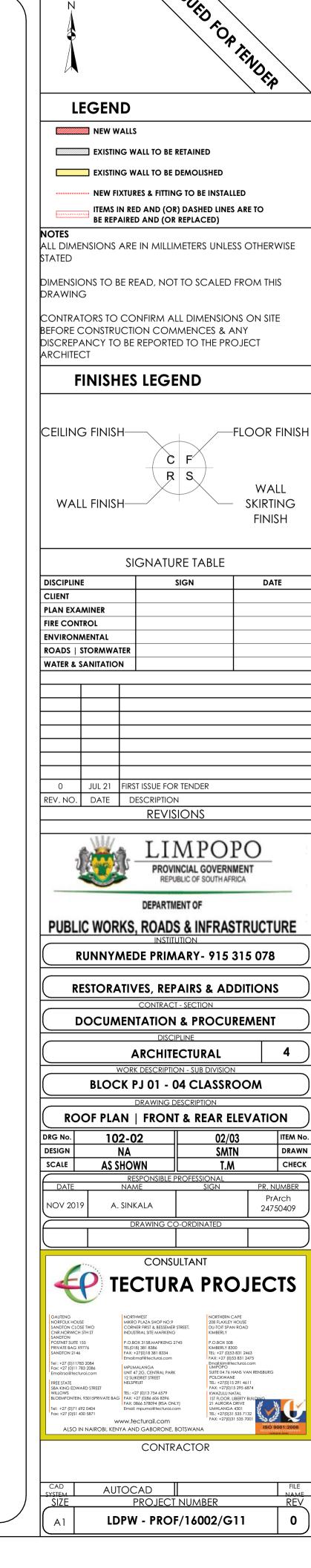
side-laps. Each pan shall incorporate two stiffener ribs. Profiled roofsheets to be coated on both sides with "Global Coat" or "Chromadek

Colour" and laid on structural timber/steel structure incorporating all necessary accessories such as flashings and eave closers in strict compliance to manufacturer's instructions. Insulation: SHALL EITHER BE: 1: where there are acoustic ceilings susspeded board, a heavy duty "Aluminium sisalation foil" shall be installed AND 2: where the steel work is exposed, a 50mm "FactoryBoard" manufactured from noncombustible glass fibres and thermo-setting resin

binder supplied size 2400mm x 1200mm and 80kg/mÑ and finished with white metalized foil. Galvanised Steel (GI) Gutter: 150mm Wide x 100mm Deep x 0.6mm Eaves Gutter of Commercial Grade Steel With Class 7275 Galvanising To Comply With SABS 934 or latest Revision Fixed To Painted Fibre Cement Fascia Board Together with standard accessories discharging into Rainwater Downpipes.

Downpipe: 110 x110 x 0.6mm Thick Commercial Grade Galvanised Steel Sheet With Class Z275 Galvanising To Comply With SABS 934 or Latest Revision to or built into walls or cast in concrete columns fixed to brickwork or steel including brackets and self-taping screws To Manufacturer Installation Instructions.





#### FINISHES LEGEND FLOORS: F1: PORCELAIN TILES - MATT (Corrosive Resistant & Anti-Slippery) 420 x420 11.5mm kilimanjaro floor tiles or similar approved by architects, fixed with adhesive, painted with tinted waterproof jointing

compound. Grouting to be grey, tiles should have expansion joint and aluminium edging strip.

F2: PORCELAIN TILES -MATT 600 x 600 x10mm thick matt porcelain tile to comply with SABS 1449 laid on approved pattern by an approved specialist to comply with SABS 107 and approved adhesives and grout on screeds With Thickness/Specification in strict compliance to manufacturers instructions and SABS specification. Fittings to include, ribbed angle tiles where there is change of level & Movement Joints of 6mm Wide With Patent Aluminium Movement Joints Strips Consisting Of Synthetic Fibre Inserts Installed At Intervals As Per Manufacturer's Instruction. Colour and

pattern to architects approval.

500mm x 500mm , 100% PFX staple fibre carpet tiles To Comply With SABS 1419 (heavy commercial) consisting of fibres set out on waterproof vinyl backing and to comply with EN 1307 Wear Class 4 (heavy duty), laid with approved adhesive on 30mm thick cement creeds in strict compliance with manufacturer's instructions. Carpet tiles to conform to BS 4790 on fire rating, and DIN 54324 on wira test and ISO body test at less than 2Kv at 25% RH on static electricity. Colour and pattern to architects approval.

30mm thick polished cement sand screed with 13mm Stone Nominal aggregate for Topping to comply with SABS 1083 or latest revision for

#### F5: EXTERIOR MULTI COLOURED CONCRETE INTERLOCKING PAVERS

65mm thick multi-coloured concrete pavers laid on sand bedding to civil/structural engineer's specification in approved pattern and compacted to approval and grouted in strict accordance to manufacturer's specifications. All to be manufactured and installed in strict compliance to SABS 1058 or Latest Revision.

#### F6: GRANOLITHIC FINISH

22 mm thick untinted Granolithic finish composed of one part cement, one part fine sand, two parts coarse sand and one part granite that would pass through a 5mm mesh sieve; laid by specialist in panels not exceeding 10m2. divided with approved brass dividing strips. All to be manufactured and installed in strict compliance to the latest SABS approved standards. Colour, pattern and aggregate size to architects approval.

#### F7: INTERLOCKING PAVERS (RIGID PAVING/VEHICULAR WAYS)

220mm x 197mm x 80 mm thick concrete interlocking pavers, 25 mpa, manufactured to SABS spec 1058, laid on sand bedding to civil/structural engineer's specification to a 'herringbone' pattern to the Architect's approval.

#### F8: SEMI FLEXIBLE VINLY SHEETING (CORROSIVE RESISTANT/ANTI-SLIPPERY)

2.5mm Thick Heavy Traffic Use, Corrosive Resistant & Anti-Slippery Vinyl Sheeting Semi-Flexible To Comply With SABS 586, With Static Dissipative Properties Throughout Thickness, Engineered for ESD or SD (anti-static) Protection Vinyl Sheet, Laid on Self-Levelled Smooth Screed glued with conducive adhesive To SABS 070 or Latest Revision In Accordance To Manufacturer's Instructions And Installed By Approved Specialist. Joints Shall be Welded as Per Manufacturer's Specifications With No more than 2mm Gap. Clean & Polish Floor In Compliance With SABS 1042. Colour To Architect Approval On Sample Presentation. Contractor to provide Certificate of Static Current Conductivity. Contractor to provide Certificate of Static Current Conductivity, Corrosive resistant & Anti-Slippery.

#### F9: GRAVEL FINISH ON SAND LAYER

32mm Gravel On Compacted Sand Layer Base as Per PSE Details Installed in All Duct Chambers Accommodating Sanitary Services.

#### SKIRTING:

#### **S1: HARDWOOD OR EQUAL AND APPROVED**

"Ex 75mm x 20mm Moulded Hardwood Skirting" to comply with SANS 1099, fixed to walls in long lengths with splayed heading joints and mitred coners with screws and plugs at centres not exceeding 600mm , and fixed with a 19mm x 19mm quadrant beading. The skirting to be vanished with 3No. coats of egg shell clear vanish to comply with SABS/SANS 381 type 1.

#### **S2: CERAMIC TILE SKIRTING**

600mm wide x 100mm high x 7mm thick matt porcelain tile to comply with SABS 1449 laid with approved adhesives and grout on 22mm thick screeds in strict compliance to manufacturers instructions and SABS specification, with cove base and straight tops. Complete with corner and top trims. Fittings to include, ribbed angle tiles where there is change of level. Colour and pattern to architects approval.

75 mm high x 20 mm thick hardened cement sand screed skirting coved at 50 mm dia. to form a continuous joint with the adjoining screed floor finish to PA's approval. All to be manufactured and installed in strict compliance With SABS 1083 or latest revision.

#### **WALL FINISHES:** R1: FACE BRICK

FBX face brick in common running bond to comply with SABS 227 and forming part of the structural work.

R2: EMULSION (PVA) PAINT - FULL HEIGHT 2 no, coats of PVA matt finish emulsion paint to SABS 1586 applied on plastered surface primed and with 1 no, coat undercoat to SABS 681

grade1, in accordance to manufacturer's instructions. R3:ALKYD (ENAMEL) PAINT

2 no. coats matt (egg shell) finish alkyd (enamel) paint to SABS 630, type 2 applied on plastered surfaces with 1 no coat alkali resistant plaster primer to SABS 1416 and 1 no. coat undercoat to SABS 681 grade1, in accordance to manufacturer's instructions.

#### R4: GLAZED CERAMIC WALL TILES / ENAMEL PAINT COMBO

receive wall tiles fixed with approved adhesives and grout in compliance to manufacturer's specifications and government standard specifications laid from finish floor level to window level AND ENAMEL paint to specification "R3" To Comply with SABS 630 or latest revision applied from 2100 mm above finished floor level to ceiling height all in strict compliance to manufacturer's instructions. All to be manufactured and installed in strict compliance to the latest SABS Standards.

## R5:CERAMIC WALL TILES - FULL HEIGHT

600mm x 300mm x 7mm thick high glazed ceramic tiles to Comply with SABS 22 or Latest revision, laid on 15 mm thick plaster prepared to receive wall tiles fixed with approved adhesives and grout in compliance to manufacturer's specifications and government standard specifications. Tiles to be laid to full ceiling height. All to be manufactured and installed in strict compliance SABS 22 Standard. All to be manufactured and installed in strict compliance SABS 22 Standard.

## **CEILING AND CORNICE:**

## C1: 9mm GYPSUM BOARDS FLUSH PLASTERED CEILINGS OR EQUAL AND APPROVED

"GypCeil Classic" gypsum plasterboard ceilingor **EQUAL & APPROVED** consisting of 1 layer Gyproc RhinoBoard 9mm (locally manufactured, ISO 9001 & 14001 certification, recycled paper content, Ecospecifier listing) fixed to timber brandering installed at maximum 300mm centers using Gyproc RhinoBoard Sharp Point Grabber Screws 32mm at maximum 150mm centers. Apply . Gyproc RhinoTape to all joints and skim the ceiling using Gyproc RhinoLite.

## C2: FIBRE CEMENT BOARDS (H-JOINTED)

6.4mm thick GypCeil Prestige S" fibre cement ceiling boards or **EQUAL & APPROVED** consisting of 1 layer Gyproc RhinoBoard 9 mm (locally manufactured, ISO 9001 & 14001 certification, recycled paper content, Ecospecifier listing, non-combustible to SANS 10177-5) fixed to EX 38mm x 50mm timber brandering installed at maximum 400mm centres using Gyproc RhinoBoard Sharp Point Grabber Screws 32mm at maximum 150mm centres with all necessary accessories, finished with 3 No. coats of super PVA external quality paint colour to PA's approval. Gyproc RhinoTape to all joints and skim the ceiling using Gyproc RhinoLite.

## C3: PATENT SUSPENDED ACOUSTIC TILES OR EQUAL AND APPROVED

1200mm x 600mm X 15mm Gyproc Celotex Pin Perforated or Fine Fissured OR EQUAL & APPROVED laid into Donn ceiling grid and secured into place using Donn Hold Down Clips @ 200mm c/c. Donn Wall Angle M6 fixed to the perimeter wall using fixings at 300mm centres. Donn T38 FR Main Tees (0.4mm thickness, Z150 galv. coating, locally manufactured, recycled content, ISO 9001 & 14001 certification) at 1200 centres & Donn T38V (1200 long) Cross Tees at 600 centres. Suspend main tees @ 1200mm c/c using Donn Hanger Strap 19mm suitably fixed to the building structural members. Donn Galvanized Hanger Strap 19mm at maximum 150mm on both sides of the fire notch. All fire notches to be in line. Suspend all full length 1200 Cross Tees at their mid-point using Donn Hanger Strap 19mm suitably fixed to the building structural members. All to comply with latest SANS 803 including all necessary accessories and installed in strict accordance to manufacturer's specifications.

## C4 EMULSION (PVA) PAINT OR EQUAL AND APPROVED

Emulsion (PVA) Paint on Skimmed Plastered Slab" 3No. coats of PVA emulsion ceiling paint to latest SANS 1586 approved on 6mm thick light weight hemi-hydrate gypsum plaster on concrete slab soffit.

# **ROOF COVERING AND INSULATION:**

# ER1: EMBOSSED ROOFING SHEET (TWO SIDES)

Roofing Sheets: 0.58mm Thick concealed fixing roofing sheets manufactured from roll-formed from certified steel

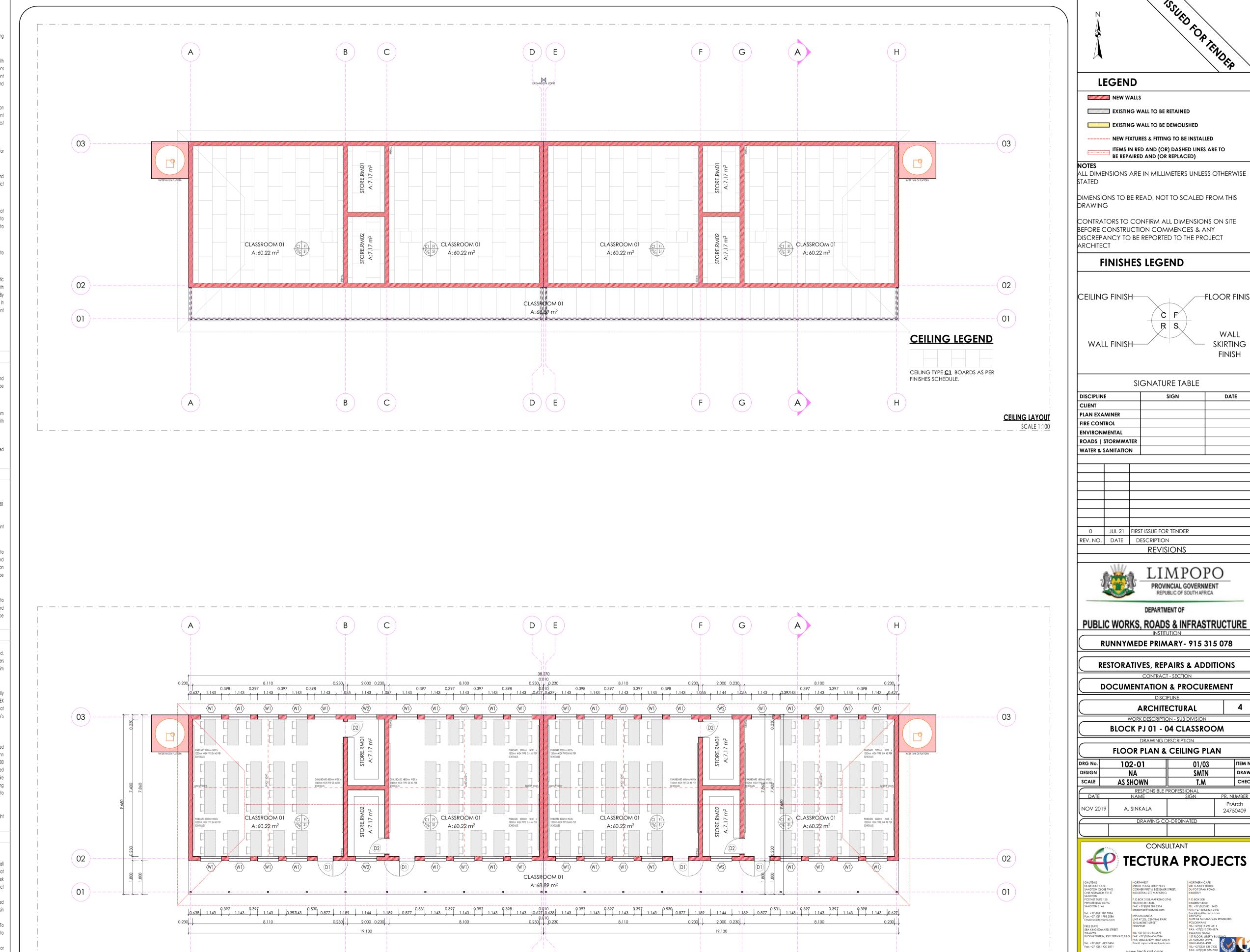
complying with ISQ 550 (3T). The profile shall have three trapezoidal ribs at 203mm centers giving a net cover of 406mm. The rib height shall be 41mm and provide capillary breaks. The male rib shall have spurs at 283mm centers to ensure a positive double interlocking action at side-laps. Each pan shall incorporate two stiffener ribs. Profiled roofsheets to be coated on both sides with "Global Coat" or "Chromadek Colour" and laid on structural timber/steel structure incorporating all necessary accessories such as flashings and eave closers in strict compliance to manufacturer's instructions.

Insulation: SHALL EITHER BE: 1: where there are acoustic ceilings susspeded board, a heavy duty "Aluminium sisalation foil" shall be installed AND 2: where the steel work is exposed, a 50mm "FactoryBoard" manufactured from noncombustible glass fibres and thermo-setting resin binder supplied size 2400mm x 1200mm and  $80 kg/m\tilde{N}$  and finished with white metalized foil.

Galvanised Steel (GI) Gutter: 150mm Wide x 100mm Deep x 0.6mm Eaves Gutter of Commercial Grade Steel With Class Z275 Galvanising To Comply With SABS 934 or latest Revision Fixed To Painted Fibre Cement Fascia Board Together with standard accessories discharging into Rainwater Downpipes. <u>Downpipe:</u> 110 x110 x 0.6mm Thick Commercial Grade Galvanised Steel Sheet With Class Z275 Galvanising To Comply With SABS 934 or

Latest Revision to or built into walls or cast in concrete columns fixed to brickwork or steel including brackets and self-taping screws To Manufacturer Installation Instructions.

Fascia board: 250 x 10 mm Fibre- Cement Fascia/Barge Board, Screw Fixed To Truss Ends & Counter Batten With Countersunk Brass Screws. Prepare & Apply One Universal Undercoat & Two Coats Super Acrylic P.V.A.



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NEW FIXTURES & FITTING TO BE INSTALLED ITEMS IN RED AND (OR) DASHED LINES ARE TO

SIGNATURE TABLE

LIMPOPO

PROVINCIAL GOVERNMENT REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF

**ARCHITECTURAL** 

BLOCK PJ 01 - 04 CLASSROOM

FLOOR PLAN & CEILING PLAN

CONSULTANT

CONTRACTOR

PRO IECT NUMBER

LDPW - PROF/16002/G11

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A. SINKALA

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ALSO IN NAIROBI, KENYA AND GABORONE, BOTSWANA

AUTOCAD

FLOOR PLAN SCALE 1:100 -FLOOR FINISH

SKIRTING FINISH

DATE

BE REPAIRED AND (OR REPLACED)

#### FLOORS:

#### F1: PORCELAIN TILES - MATT (Corrosive Resistant & Anti-Slippery)

420 x420 11.5mm kilimanjaro floor tiles or similar approved by architects, fixed with adhesive, painted with tinted waterproof jointing compound. Grouting to be grey, tiles should have expansion joint and aluminium edging strip.

#### F2: PORCELAIN TILES -MATT

600 x 600 x10mm thick matt porcelain tile to comply with SABS 1449 laid on approved pattern by an approved specialist to comply with SABS 107 and approved adhesives and grout on screeds With Thickness/Specification in strict compliance to manufacturers instructions and SABS specification. Fittings to include, ribbed angle tiles where there is change of level & Movement Joints of 6mm Wide With Patent Aluminium Movement Joints Strips Consisting Of Synthetic Fibre Inserts Installed At Intervals As Per Manufacturer's Instruction. Colour and pattern to architects approval.

500mm x 500mm , 100% PFX staple fibre carpet tiles To Comply With SABS 1419 (heavy commercial) consisting of fibres set out on waterproof vinyl backing and to comply with EN 1307 Wear Class 4 (heavy duty), laid with approved adhesive on 30mm thick cement creeds in strict compliance with manufacturer's instructions. Carpet tiles to conform to BS 4790 on fire rating, and DIN 54324 on wira test and ISO body test at less than 2Kv at 25% RH on static electricity. Colour and pattern to architects approval.

#### F4: CEMENT SAND SCREED

30mm thick polished cement sand screed with 13mm Stone Nominal aggregate for Topping to comply with SABS 1083 or latest revision for

#### F5: EXTERIOR MULTI COLOURED CONCRETE INTERLOCKING PAVERS

65mm thick multi-coloured concrete pavers laid on sand bedding to civil/structural engineer's specification in approved pattern and compacted to approval and grouted in strict accordance to manufacturer's specifications. All to be manufactured and installed in strict compliance to SABS 1058 or Latest Revision.

#### F6: GRANOLITHIC FINISH

22 mm thick untinted Granolithic finish composed of one part cement, one part fine sand, two parts coarse sand and one part granite that would pass through a 5mm mesh sieve; laid by specialist in panels not exceeding 10m2. divided with approved brass dividing strips. All to be manufactured and installed in strict compliance to the latest SABS approved standards. Colour, pattern and aggregate size to architects approval.

#### 7: INTERLOCKING PAVERS (RIGID PAVING/VEHICULAR WAYS)

220mm x 197mm x 80 mm thick concrete interlocking pavers, 25 mpa, manufactured to SABS spec 1058, laid on sand bedding to civil/structural engineer's specification to a 'herringbone' pattern to the Architect's approval.

#### F8: SEMI FLEXIBLE VINLY SHEETING (CORROSIVE RESISTANT/ANTI-SLIPPERY)

2.5mm Thick Heavy Traffic Use, Corrosive Resistant & Anti-Slippery Vinyl Sheeting Semi-Flexible To Comply With SABS 586, With Static Dissipative Properties Throughout Thickness, Engineered for ESD or SD (anti-static) Protection Vinyl Sheet, Laid on Self-Levelled Smooth Screed glued with conducive adhesive To SABS 070 or Latest Revision In Accordance To Manufacturer's Instructions And Installed By Approved Specialist. Joints Shall be Welded as Per Manufacturer's Specifications With No more than 2mm Gap. Clean & Polish Floor In Compliance With SABS 1042. Colour To Architect Approval On Sample Presentation. Contractor to provide Certificate of Static Current Conductivity. Contractor to provide Certificate of Static Current Conductivity, Corrosive resistant & Anti-Slippery.

#### F9: GRAVEL FINISH ON SAND LAYER

32mm Gravel On Compacted Sand Layer Base as Per PSE Details Installed in All Duct Chambers Accommodating Sanitary Services.

#### SKIRTING:

#### S1: HARDWOOD OR EQUAL AND APPROVED

"Ex 75mm x 20mm Moulded Hardwood Skirting" to comply with SANS 1099, fixed to walls in long lengths with splayed heading joints and nitred coners with screws and plugs at centres not exceeding 600mm, and fixed with a 19mm x 19mm quadrant beading. The skirting to be anished with 3No. coats of egg shell clear vanish to comply with SABS/SANS 381 type 1.

#### **S2: CERAMIC TILE SKIRTING**

600mm wide x 100mm high x 7mm thick matt porcelain tile to comply with SABS 1449 laid with approved adhesives and grout on 22mm thick screeds in strict compliance to manufacturers instructions and SABS specification, with cove base and straight tops. Complete with corner and top trims. Fittings to include, ribbed angle tiles where there is change of level. Colour and pattern to architects approval.

5 mm high x 20 mm thick hardened cement sand screed skirting coved at 50 mm dia. to form a continuous joint with the adjoining screed floor finish to PA's approval. All to be manufactured and installed in strict compliance With SABS 1083 or latest revision.

#### **WALL FINISHES:**

R1: FACE BRICK FBX face brick in common running bond to comply with SABS 227 and forming part of the structural work.

#### R2: EMULSION (PVA) PAINT - FULL HEIGHT no, coats of PVA matt finish emulsion paint to SABS 1586 applied on plastered surface primed and with 1 no, coat undercoat to SABS 681

grade1, in accordance to manufacturer's instructions. R3:ALKYD (ENAMEL) PAINT

no. coats matt (egg shell) finish alkyd (enamel) paint to SABS 630, type 2 applied on plastered surfaces with 1 no coat alkali resistant plaster primer to SABS 1416 and 1 no. coat undercoat to SABS 681 grade1, in accordance to manufacturer's instructions.

## R4: GLAZED CERAMIC WALL TILES / ENAMEL PAINT COMBO

ombination of: 600mm wide x 300mm x 7mm thick high glazed ceramic tiles To Specification "R5", laid on 15 mm thick plaster prepared receive wall tiles fixed with approved adhesives and grout in compliance to manufacturer's specifications and government standard specifications laid from finish floor level to window level AND ENAMEL paint to specification "R3" To Comply with SABS 630 or latest revision applied from 2100 mm above finished floor level to ceiling height all in strict compliance to manufacturer's instructions. All to be manufactured and installed in strict compliance to the latest SABS Standards.

600mm x 300mm x 7mm thick high glazed ceramic tiles to Comply with SABS 22 or Latest revision, laid on 15 mm thick plaster prepared to receive wall tiles fixed with approved adhesives and grout in compliance to manufacturer's specifications and government standard specifications. Tiles to be laid to full ceiling height. All to be manufactured and installed in strict compliance SABS 22 Standard. All to be manufactured and installed in strict compliance SABS 22 Standard.

# **CEILING AND CORNICE:**

# C1: 9mm GYPSUM BOARDS FLUSH PLASTERED CEILINGS OR EQUAL AND APPROVED

GypCeil Classic" gypsum plasterboard ceilingor **EQUAL & APPROVED** consisting of 1 layer Gyproc RhinoBoard 9mm (locally manufactured, ISO 9001 & 14001 certification, recycled paper content, Ecospecifier listing) fixed to timber brandering installed at maximum 300mm centers using Gyproc RhinoBoard Sharp Point Grabber Screws 32mm at maximum 150mm centers. Apply . Gyproc RhinoTape to all joints and skim he ceiling using Gyproc RhinoLite.

## C2: FIBRE CEMENT BOARDS (H-JOINTED)

6.4mm thick GypCeil Prestige S" fibre cement ceiling boards or EQUAL & APPROVED consisting of 1 layer Gyproc RhinoBoard 9 mm (locally nanufactured, ISO 9001 & 14001 certification, recycled paper content, Ecospecifier listing, non-combustible to SANS 10177-5) fixed to EX 38mm x 50mm timber brandering installed at maximum 400mm centres using Gyproc RhinoBoard Sharp Point Grabber Screws 32mm at naximum 150mm centres with all necessary accessories, finished with 3 No. coats of super PVA external quality paint colour to PA's approval. Gyproc RhinoTape to all joints and skim the ceiling using Gyproc RhinoLite.

## C3: PATENT SUSPENDED ACOUSTIC TILES OR EQUAL AND APPROVED

200mm x 600mm X 15mm Gyproc Celotex Pin Perforated or Fine Fissured OR EQUAL & APPROVED laid into Donn ceiling grid and secured ato place using Donn Hold Down Clips @ 200mm c/c. Donn Wall Angle M6 fixed to the perimeter wall using fixings at 300mm centres. Donn T38 FR Main Tees (0.4mm thickness, Z150 galv. coating, locally manufactured, recycled content, ISO 9001 & 14001 certification) at 1200 centres & Donn T38V (1200 long) Cross Tees at 600 centres. Suspend main tees @ 1200mm c/c using Donn Hanger Strap 19mm suitably fixed o the building structural members. Donn Galvanized Hanger Strap 19mm at maximum 150mm on both sides of the fire notch. All fire notches to be in line. Suspend all full length 1200 Cross Tees at their mid-point using Donn Hanger Strap 19mm suitably fixed to the building structural members. All to comply with latest SANS 803 including all necessary accessories and installed in strict accordance to manufacturer's specifications.

## C4 EMULSION (PVA) PAINT OR EQUAL AND APPROVED

Emulsion (PVA) Paint on Skimmed Plastered Slab" 3No. coats of PVA emulsion ceiling paint to latest SANS 1586 approved on 6mm thick light weight hemi-hydrate gypsum plaster on concrete slab soffit.

# **ROOF COVERING AND INSULATION:**

# ER1: EMBOSSED ROOFING SHEET (TWO SIDES)

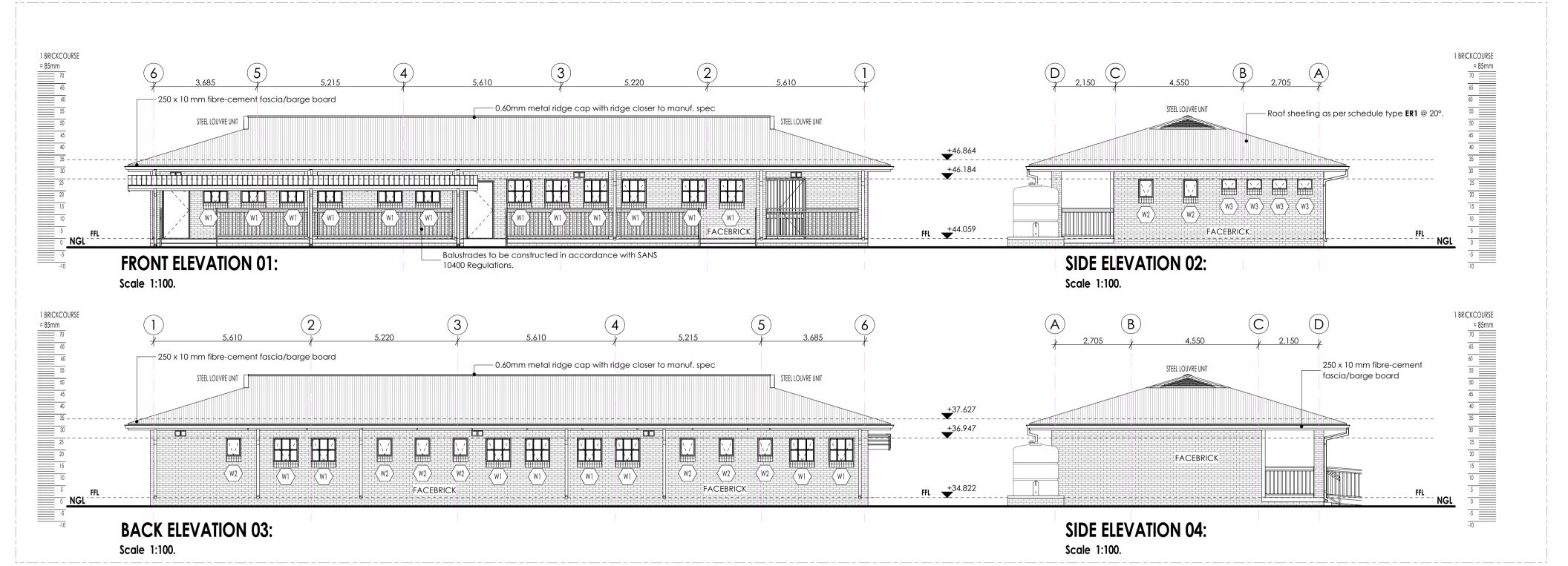
**Roofing Sheets:** 0.58mm Thick concealed fixing roofing sheets manufactured from roll-formed from certified steel complying with ISQ 550 (3T). The profile shall have three trapezoidal ribs at 203mm centers giving a net cover of 406mm. The rib height shall be 41mm and provide capillary breaks. The male rib shall have spurs at 283mm centers to ensure a positive double interlocking action at

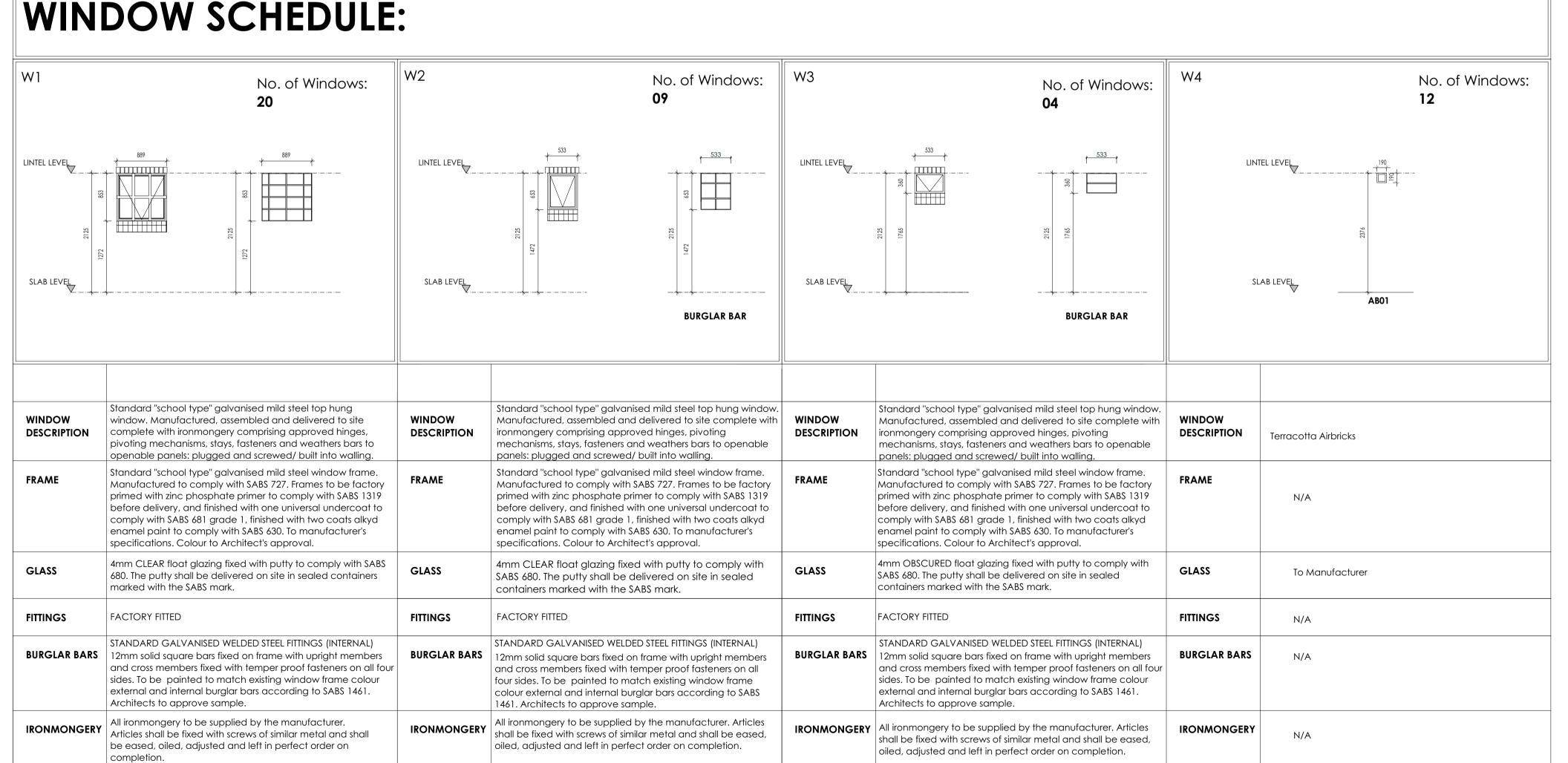
side-laps. Each pan shall incorporate two stiffener ribs. Profiled roofsheets to be coated on both sides with "Global Coat" or "Chromadek

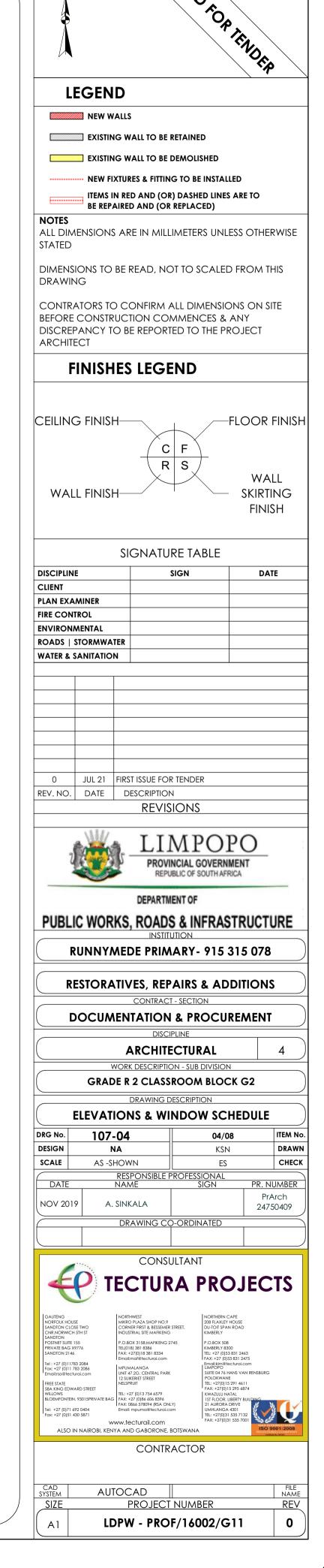
Colour" and laid on structural timber/steel structure incorporating all necessary accessories such as flashings and eave closers in strict compliance to manufacturer's instructions. Insulation: SHALL EITHER BE: 1: where there are acoustic ceilings susspeded board, a heavy duty "Aluminium sisalation foil" shall be installed AND 2: where the steel work is exposed, a 50mm "FactoryBoard" manufactured from noncombustible glass fibres and thermo-setting resin

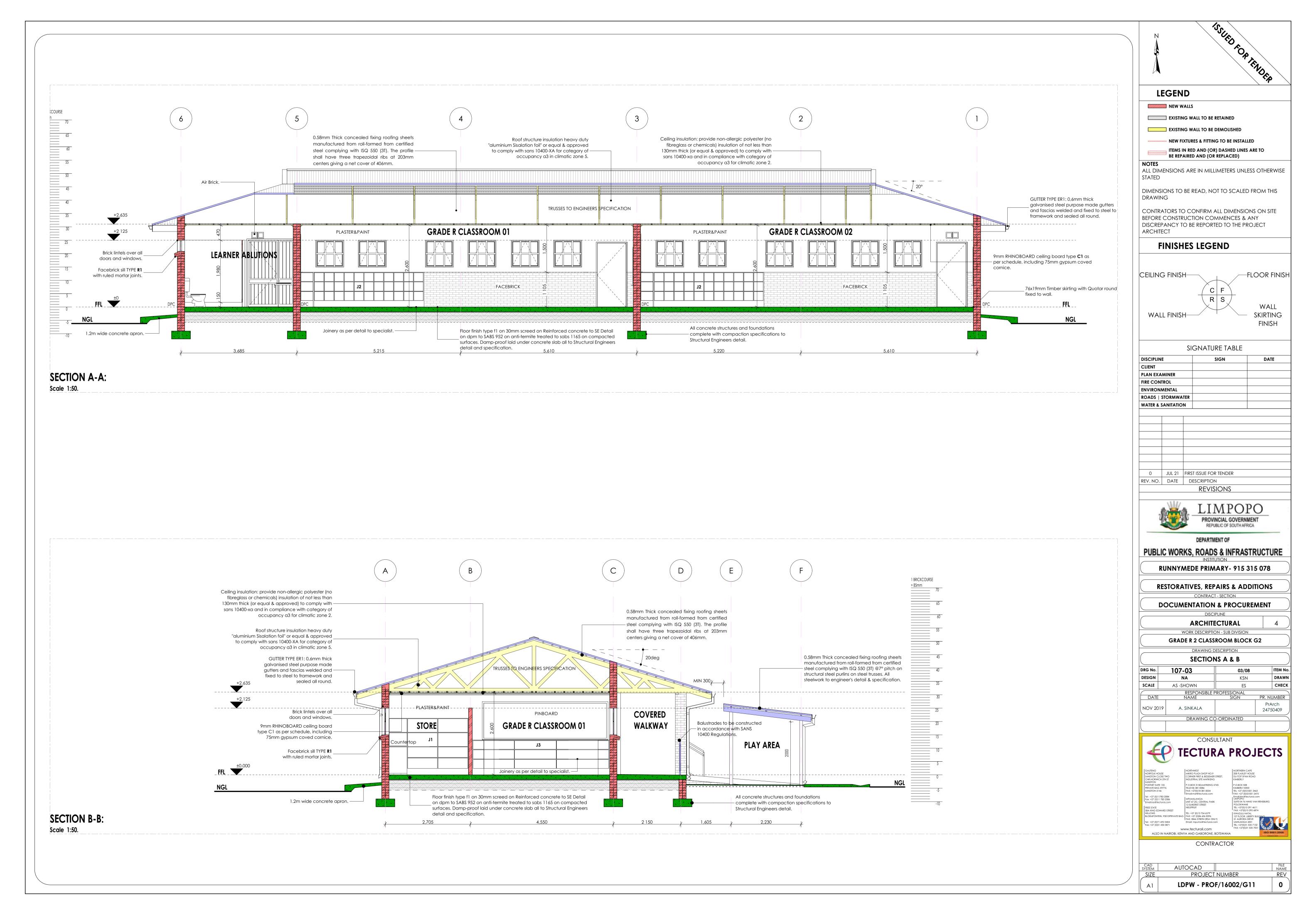
binder supplied size 2400mm x 1200mm and 80kg/mÑ and finished with white metalized foil. Galvanised Steel (GI) Gutter: 150mm Wide x 100mm Deep x 0.6mm Eaves Gutter of Commercial Grade Steel With Class 2275 Galvanising To Comply With SABS 934 or latest Revision Fixed To Painted Fibre Cement Fascia Board Together with standard accessories discharging into

**Downpipe:** 110 x110 x 0.6mm Thick Commercial Grade Galvanised Steel Sheet With Class Z275 Galvanising To Comply With SABS 934 or Latest Revision to or built into walls or cast in concrete columns fixed to brickwork or steel including brackets and self-taping screws To Manufacturer Installation Instructions









#### FLOORS:

#### F1: PORCELAIN TILES - MATT (Corrosive Resistant & Anti-Slippery)

420 x420 11.5mm kilimanjaro floor tiles or similar approved by architects, fixed with adhesive, painted with tinted waterproof jointing compound. Grouting to be grey, tiles should have expansion joint and aluminium edging strip.

F2: PORCELAIN TILES -MATT 600 x 600 x10mm thick matt porcelain tile to comply with SABS 1449 laid on approved pattern by an approved specialist to comply with SABS 107 and approved adhesives and grout on screeds With Thickness/Specification in strict compliance to manufacturers instructions and SABS specification. Fittings to include, ribbed angle tiles where there is change of level & Movement Joints of 6mm Wide With Patent Aluminium Movement Joints Strips Consisting Of Synthetic Fibre Inserts Installed At Intervals As Per Manufacturer's Instruction. Colour and pattern to architects approval.

500mm x 500mm , 100% PFX staple fibre carpet tiles To Comply With SABS 1419 (heavy commercial) consisting of fibres set out on waterproof vinyl backing and to comply with EN 1307 Wear Class 4 (heavy duty), laid with approved adhesive on 30mm thick cement screeds in strict compliance with manufacturer's instructions. Carpet tiles to conform to BS 4790 on fire rating, and DIN 54324 on wira test and ISO body test at less than 2Kv at 25% RH on static electricity. Colour and pattern to architects approval.

30mm thick polished cement sand screed with 13mm Stone Nominal aggregate for Topping to comply with SABS 1083 or latest revision for

#### F5: EXTERIOR MULTI COLOURED CONCRETE INTERLOCKING PAVERS

65mm thick multi-coloured concrete pavers laid on sand bedding to civil/structural engineer's specification in approved pattern and compacted to approval and grouted in strict accordance to manufacturer's specifications. All to be manufactured and installed in strict compliance to SABS 1058 or Latest Revision.

#### F6: GRANOLITHIC FINISH

22 mm thick untinted Granolithic finish composed of one part cement, one part fine sand, two parts coarse sand and one part granite that would pass through a 5mm mesh sieve; laid by specialist in panels not exceeding 10m2. divided with approved brass dividing strips. All to be manufactured and installed in strict compliance to the latest SABS approved standards. Colour, pattern and aggregate size to architects approval.

#### F7: INTERLOCKING PAVERS (RIGID PAVING/VEHICULAR WAYS)

220mm x 197mm x 80 mm thick concrete interlocking pavers, 25 mpa, manufactured to SABS spec 1058, laid on sand bedding to civil/structural engineer's specification to a 'herringbone' pattern to the Architect's approval.

#### F8: SEMI FLEXIBLE VINLY SHEETING (CORROSIVE RESISTANT/ANTI-SLIPPERY)

2.5mm Thick Heavy Traffic Use, Corrosive Resistant & Anti-Slippery Vinyl Sheeting Semi-Flexible To Comply With SABS 586, With Static Dissipative Properties Throughout Thickness, Engineered for ESD or SD (anti-static) Protection Vinyl Sheet, Laid on Self-Levelled Smooth Screed glued with conducive adhesive To SABS 070 or Latest Revision In Accordance To Manufacturer's Instructions And Installed By Approved Specialist. Joints Shall be Welded as Per Manufacturer's Specifications With No more than 2mm Gap. Clean & Polish Floor In Compliance With SABS 1042. Colour To Architect Approval On Sample Presentation. Contractor to provide Certificate of Static Current Conductivity. Contractor to provide Certificate of Static Current Conductivity, Corrosive resistant & Anti-Slippery.

#### F9: GRAVEL FINISH ON SAND LAYER

32mm Gravel On Compacted Sand Layer Base as Per PSE Details Installed in All Duct Chambers Accommodating Sanitary Services.

## **SKIRTING:**

#### S1: HARDWOOD OR EQUAL AND APPROVED

"Ex 75mm x 20mm Moulded Hardwood Skirting" to comply with SANS 1099, fixed to walls in long lengths with splayed heading joints and mitred coners with screws and plugs at centres not exceeding 600mm, and fixed with a 19mm x 19mm quadrant beading. The skirting to be vanished with 3No. coats of egg shell clear vanish to comply with SABS/SANS 381 type 1.

#### **S2: CERAMIC TILE SKIRTING**

600mm wide x 100mm high x 7mm thick matt porcelain tile to comply with SABS 1449 laid with approved adhesives and grout on 22mm thick screeds in strict compliance to manufacturers instructions and SABS specification, with cove base and straight tops. Complete with corner and top trims. Fittings to include, ribbed angle tiles where there is change of level. Colour and pattern to architects approval.

75 mm high x 20 mm thick hardened cement sand screed skirting coved at 50 mm dia. to form a continuous joint with the adjoining screed floor finish to PA's approval. All to be manufactured and installed in strict compliance With SABS 1083 or latest revision.

#### **WALL FINISHES:**

FBX face brick in common running bond to comply with SABS 227 and forming part of the structural work.

R2: EMULSION (PVA) PAINT - FULL HEIGHT 2 no. coats of PVA matt finish emulsion paint to SABS 1586 applied on plastered surface primed and with 1 no. coat undercoat to SABS 681

grade1, in accordance to manufacturer's instructions.

2 no. coats matt (egg shell) finish alkyd (enamel) paint to SABS 630, type 2 applied on plastered surfaces with 1 no coat alkali resistant plaster primer to SABS 1416 and 1 no. coat undercoat to SABS 681 grade1, in accordance to manufacturer's instructions.

## R4: GLAZED CERAMIC WALL TILES / ENAMEL PAINT COMBO

ombination of; 600mm wide x 300mm x 7mm thick high glazed ceramic tiles To Specification "R5", laid on 15 mm thick plaster prepared t receive wall tiles fixed with approved adhesives and grout in compliance to manufacturer's specifications and government standard specifications laid from finish floor level to window level AND ENAMEL paint to specification "R3" To Comply with SABS 630 or latest revision applied from 2100 mm above finished floor level to ceiling height all in strict compliance to manufacturer's instructions. All to be manufactured and installed in strict compliance to the latest SABS Standards.

600mm x 300mm x 7mm thick high glazed ceramic tiles to Comply with SABS 22 or Latest revision, laid on 15 mm thick plaster prepared to receive wall tiles fixed with approved adhesives and grout in compliance to manufacturer's specifications and government standard specifications. Tiles to be laid to full ceiling height. All to be manufactured and installed in strict compliance SABS 22 Standard. All to be

# CEILING AND CORNICE:

# C1: 9mm GYPSUM BOARDS FLUSH PLASTERED CEILINGS OR EQUAL AND APPROVED

manufactured and installed in strict compliance SABS 22 Standard.

"GypCeil Classic" gypsum plasterboard ceilingor **EQUAL & APPROVED** consisting of 1 layer Gyproc RhinoBoard 9mm (locally manufactured, ISO 9001 & 14001 certification, recycled paper content, Ecospecifier listing) fixed to timber brandering installed at maximum 300mm centers using Gyproc RhinoBoard Sharp Point Grabber Screws 32mm at maximum 150mm centers. Apply . Gyproc RhinoTape to all joints and skim the ceiling using Gyproc RhinoLite.

## C2: FIBRE CEMENT BOARDS (H-JOINTED)

6.4mm thick GypCeil Prestige S" fibre cement ceiling boards or EQUAL & APPROVED consisting of 1 layer Gyproc RhinoBoard 9 mm (locally manufactured, ISO 9001 & 14001 certification, recycled paper content, Ecospecifier listing, non-combustible to SANS 10177-5) fixed to EX 38mm x 50mm timber brandering installed at maximum 400mm centres using Gyproc RhinoBoard Sharp Point Grabber Screws 32mm at maximum 150mm centres with all necessary accessories, finished with 3 No. coats of super PVA external quality paint colour to PA's approval. Gyproc RhinoTape to all joints and skim the ceiling using Gyproc RhinoLite.

## C3: PATENT SUSPENDED ACOUSTIC TILES OR EQUAL AND APPROVED

200mm x 600mm X 15mm Gyproc Celotex Pin Perforated or Fine Fissured OR EQUAL & APPROVED laid into Donn ceiling grid and secured nto place using Donn Hold Down Clips @ 200mm c/c. Donn Wall Angle M6 fixed to the perimeter wall using fixings at 300mm centres. Donn T38 FR Main Tees (0.4mm thickness, Z150 galv. coating, locally manufactured, recycled content, ISO 9001 & 14001 certification) at 1200 centres & Donn T38V (1200 long) Cross Tees at 600 centres. Suspend main tees @ 1200mm c/c using Donn Hanger Strap 19mm suitably fixed to the building structural members. Donn Galvanized Hanger Strap 19mm at maximum 150mm on both sides of the fire notch. All fire notches to be in line. Suspend all full length 1200 Cross Tees at their mid-point using Donn Hanger Strap 19mm suitably fixed to the building structural members. All to comply with latest SANS 803 including all necessary accessories and installed in strict accordance to

# manufacturer's specifications.

C4 EMULSION (PVA) PAINT OR EQUAL AND APPROVED Emulsion (PVA) Paint on Skimmed Plastered Slab" 3No. coats of PVA emulsion ceiling paint to latest SANS 1586 approved on 6mm thick light

#### weight hemi-hydrate gypsum plaster on concrete slab soffit. **ROOF COVERING AND INSULATION:**

#### ER1: EMBOSSED ROOFING SHEET (TWO SIDES)

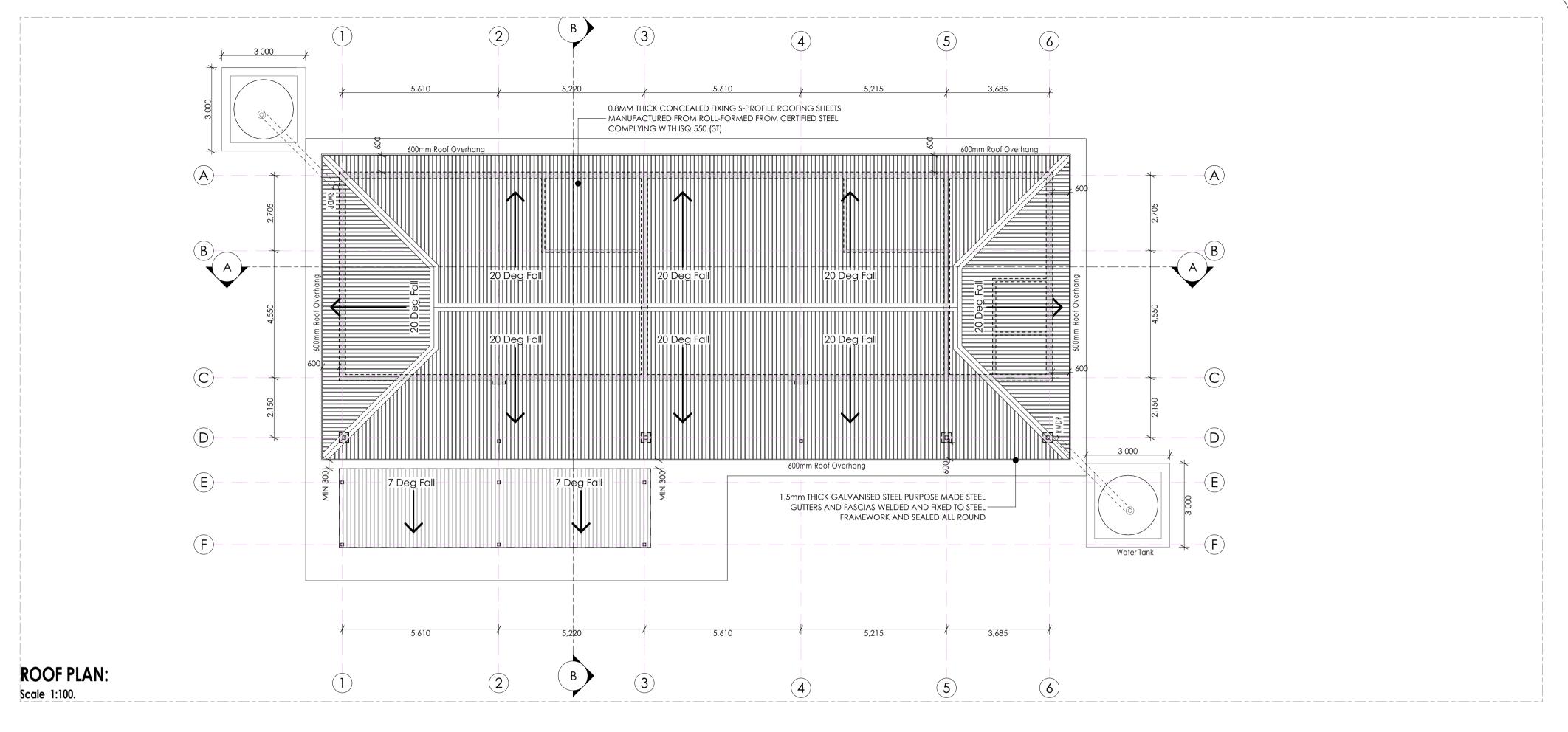
**Roofing Sheets:** 0.58mm Thick concealed fixing roofing sheets manufactured from roll-formed from certified steel complying with ISQ 550 (31). The profile shall have three trapezoidal ribs at 203mm centers giving a net cover of 406mm. The rib height shall

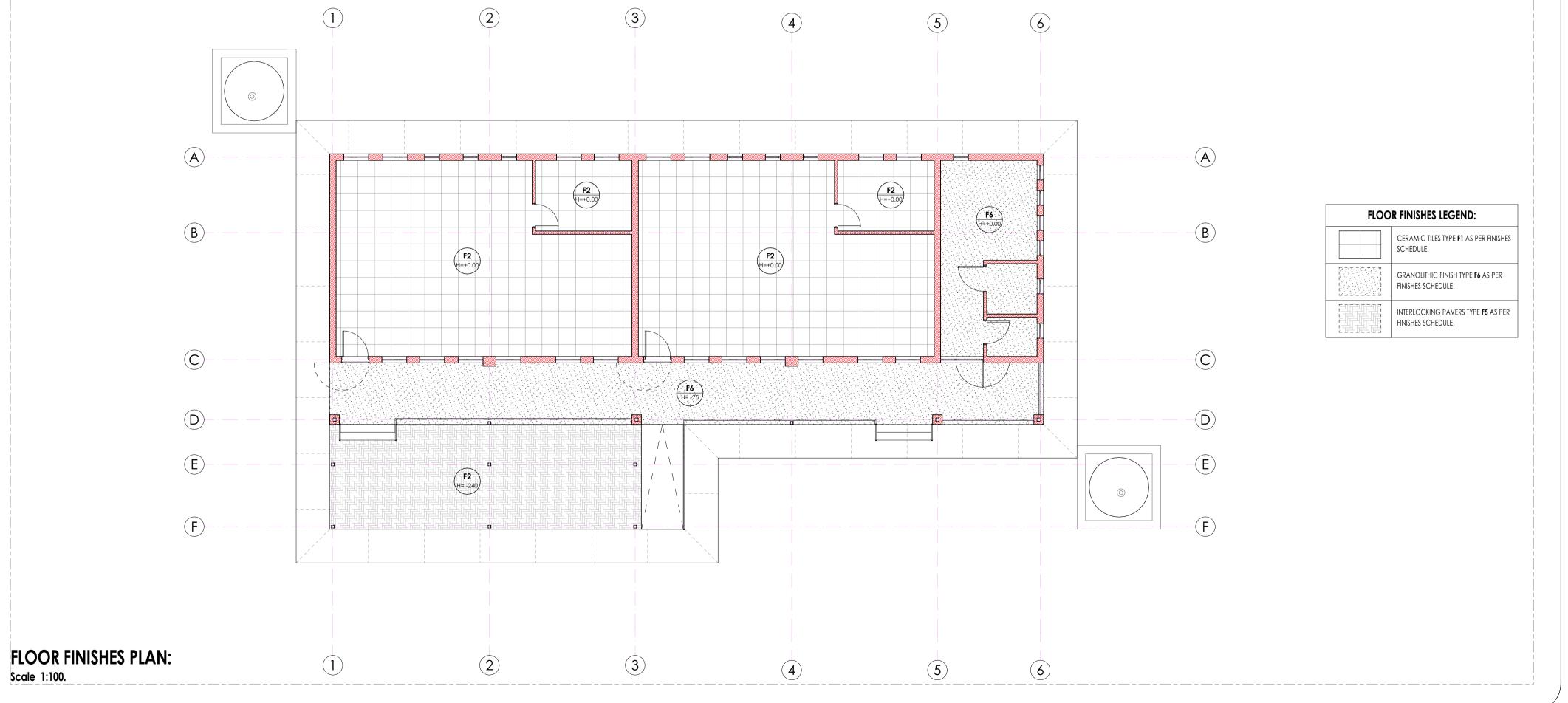
be 41mm and provide capillary breaks. The male rib shall have spurs at 283mm centers to ensure a positive double interlocking action at side-laps. Each pan shall incorporate two stiffener ribs. Profiled roofsheets to be coated on both sides with "Global Coat" or "Chromadek Colour" and laid on structural timber/steel structure incorporating all necessary accessories such as flashings and eave closers in strict compliance to manufacturer's instructions.

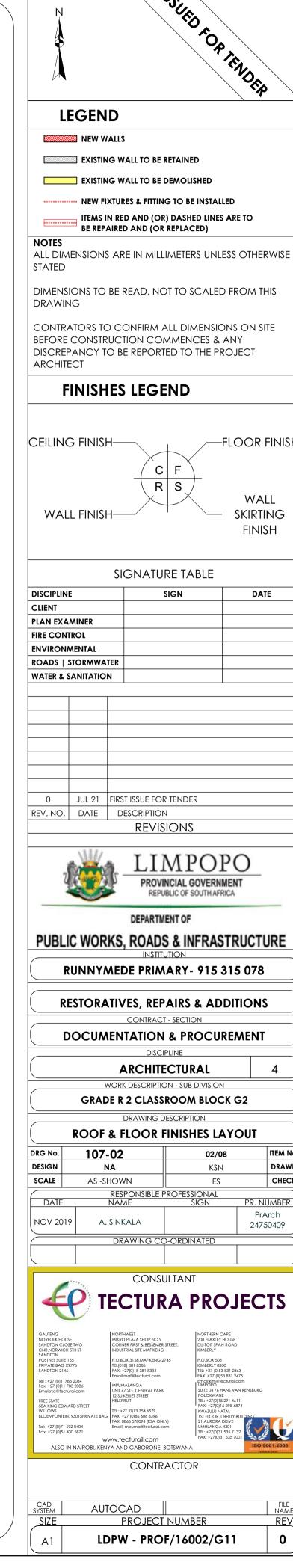
Insulation: SHALL EITHER BE: 1: where there are acoustic ceilings susspeded board, a heavy duty "Aluminium sisalation foil" shall be installed AND 2: where the steel work is exposed, a 50mm "FactoryBoard" manufactured from noncombustible glass fibres and thermo-setting resin binder supplied size 2400mm x 1200mm and 80kg/mÑ and finished with white metalized foil.

Galvanised Steel (GI) Gutter: 150mm Wide x 100mm Deep x 0.6mm Eaves Gutter of Commercial Grade Steel With Class 7275 Galvanising To Comply With SABS 934 or latest Revision Fixed To Painted Fibre Cement Fascia Board Together with standard accessories discharging into

Downpipe: 110 x110 x 0.6mm Thick Commercial Grade Galvanised Steel Sheet With Class Z275 Galvanising To Comply With SABS 934 or Latest Revision to or built into walls or cast in concrete columns fixed to brickwork or steel including brackets and self-taping screws To Manufacturer Installation Instructions.







#### FLOORS:

#### F1: PORCELAIN TILES - MATT (Corrosive Resistant & Anti-Slippery)

420 x420 11.5mm kilimanjaro floor tiles or similar approved by architects, fixed with adhesive, painted with tinted waterproof jointing compound. Grouting to be grey, tiles should have expansion joint and aluminium edging strip.

F2: PORCELAIN TILES -MATT 600 x 600 x10mm thick matt porcelain tile to comply with SABS 1449 laid on approved pattern by an approved specialist to comply with SABS 107 and approved adhesives and grout on screeds With Thickness/Specification in strict compliance to manufacturers instructions and SABS specification. Fittings to include, ribbed angle tiles where there is change of level & Movement Joints of 6mm Wide With Patent Aluminium Movement Joints Strips Consisting Of Synthetic Fibre Inserts Installed At Intervals As Per Manufacturer's Instruction. Colour and pattern to architects approval.

500mm x 500mm , 100% PFX staple fibre carpet tiles To Comply With SABS 1419 (heavy commercial) consisting of fibres set out on waterproof vinyl backing and to comply with EN 1307 Wear Class 4 (heavy duty), laid with approved adhesive on 30mm thick cement creeds in strict compliance with manufacturer's instructions. Carpet tiles to conform to BS 4790 on fire rating, and DIN 54324 on wira test and ISO body test at less than 2Kv at 25% RH on static electricity. Colour and pattern to architects approval.

30mm thick polished cement sand screed with 13mm Stone Nominal aggregate for Topping to comply with SABS 1083 or latest revision for

#### F5: EXTERIOR MULTI COLOURED CONCRETE INTERLOCKING PAVERS

65mm thick multi-coloured concrete pavers laid on sand bedding to civil/structural engineer's specification in approved pattern and compacted to approval and grouted in strict accordance to manufacturer's specifications. All to be manufactured and installed in strict compliance to SABS 1058 or Latest Revision.

#### F6: GRANOLITHIC FINISH

22 mm thick untinted Granolithic finish composed of one part cement, one part fine sand, two parts coarse sand and one part granite that would pass through a 5mm mesh sieve; laid by specialist in panels not exceeding 10m2. divided with approved brass dividing strips. All to be manufactured and installed in strict compliance to the latest SABS approved standards. Colour, pattern and aggregate size to architects approval.

#### F7: INTERLOCKING PAVERS (RIGID PAVING/VEHICULAR WAYS)

220mm x 197mm x 80 mm thick concrete interlocking pavers, 25 mpa, manufactured to SABS spec 1058, laid on sand bedding to civil/structural engineer's specification to a 'herringbone' pattern to the Architect's approval.

#### F8: SEMI FLEXIBLE VINLY SHEETING (CORROSIVE RESISTANT/ANTI-SLIPPERY)

2.5mm Thick Heavy Traffic Use, Corrosive Resistant & Anti-Slippery Vinyl Sheeting Semi-Flexible To Comply With SABS 586, With Static Dissipative Properties Throughout Thickness, Engineered for ESD or SD (anti-static) Protection Vinyl Sheet, Laid on Self-Levelled Smooth Screed glued with conducive adhesive To SABS 070 or Latest Revision In Accordance To Manufacturer's Instructions And Installed By Approved Specialist. Joints Shall be Welded as Per Manufacturer's Specifications With No more than 2mm Gap. Clean & Polish Floor In Compliance With SABS 1042. Colour To Architect Approval On Sample Presentation. Contractor to provide Certificate of Static Current Conductivity. Contractor to provide Certificate of Static Current Conductivity, Corrosive resistant & Anti-Slippery.

#### F9: GRAVEL FINISH ON SAND LAYER

32mm Gravel On Compacted Sand Layer Base as Per PSE Details Installed in All Duct Chambers Accommodating Sanitary Services.

#### SKIRTING:

#### **S1: HARDWOOD OR EQUAL AND APPROVED**

"Ex 75mm x 20mm Moulded Hardwood Skirting" to comply with SANS 1099, fixed to walls in long lengths with splayed heading joints and mitred coners with screws and plugs at centres not exceeding 600mm , and fixed with a 19mm x 19mm quadrant beading. The skirting to be vanished with 3No. coats of egg shell clear vanish to comply with SABS/SANS 381 type 1.

#### **S2: CERAMIC TILE SKIRTING**

600mm wide x 100mm high x 7mm thick matt porcelain tile to comply with SABS 1449 laid with approved adhesives and grout on 22mm thick screeds in strict compliance to manufacturers instructions and SABS specification, with cove base and straight tops. Complete with corner and top trims. Fittings to include, ribbed angle tiles where there is change of level. Colour and pattern to architects approval.

75 mm high x 20 mm thick hardened cement sand screed skirting coved at 50 mm dia. to form a continuous joint with the adjoining screed floor finish to PA's approval. All to be manufactured and installed in strict compliance With SABS 1083 or latest revision.

#### **WALL FINISHES:** R1: FACE BRICK

FBX face brick in common running bond to comply with SABS 227 and forming part of the structural work.

#### R2: EMULSION (PVA) PAINT - FULL HEIGHT 2 no. coats of PVA matt finish emulsion paint to SABS 1586 applied on plastered surface primed and with 1 no. coat undercoat to SABS 681

grade1, in accordance to manufacturer's instructions. R3:ALKYD (ENAMEL) PAINT

2 no. coats matt (egg shell) finish alkyd (enamel) paint to SABS 630, type 2 applied on plastered surfaces with 1 no coat alkali resistant plaster primer to SABS 1416 and 1 no. coat undercoat to SABS 681 grade1, in accordance to manufacturer's instructions.

## R4: GLAZED CERAMIC WALL TILES / ENAMEL PAINT COMBO

ombination of; 600mm wide x 300mm x 7mm thick high glazed ceramic tiles To Specification "R5", laid on 15 mm thick plaster prepared receive wall tiles fixed with approved adhesives and grout in compliance to manufacturer's specifications and government standard specifications laid from finish floor level to window level AND ENAMEL paint to specification "R3" To Comply with SABS 630 or latest revision applied from 2100 mm above finished floor level to ceiling height all in strict compliance to manufacturer's instructions. All to be manufactured and installed in strict compliance to the latest SABS Standards.

600mm x 300mm x 7mm thick high glazed ceramic tiles to Comply with SABS 22 or Latest revision, laid on 15 mm thick plaster prepared to receive wall tiles fixed with approved adhesives and grout in compliance to manufacturer's specifications and government standard specifications. Tiles to be laid to full ceiling height. All to be manufactured and installed in strict compliance SABS 22 Standard. All to be manufactured and installed in strict compliance SABS 22 Standard.

# CEILING AND CORNICE:

# C1: 9mm GYPSUM BOARDS FLUSH PLASTERED CEILINGS OR EQUAL AND APPROVED

GypCeil Classic" gypsum plasterboard ceilingor **EQUAL & APPROVED** consisting of 1 layer Gyproc RhinoBoard 9mm (locally manufactured, ISO 9001 & 14001 certification, recycled paper content, Ecospecifier listing) fixed to timber brandering installed at maximum 300mm centers using Gyproc RhinoBoard Sharp Point Grabber Screws 32mm at maximum 150mm centers. Apply . Gyproc RhinoTape to all joints and skim the ceiling using Gyproc RhinoLite.

## C2: FIBRE CEMENT BOARDS (H-JOINTED)

6.4mm thick GypCeil Prestige S" fibre cement ceiling boards or EQUAL & APPROVED consisting of 1 layer Gyproc RhinoBoard 9 mm (locally manufactured, ISO 9001 & 14001 certification, recycled paper content, Ecospecifier listing, non-combustible to SANS 10177-5) fixed to EX 38mm x 50mm timber brandering installed at maximum 400mm centres using Gyproc RhinoBoard Sharp Point Grabber Screws 32mm at maximum 150mm centres with all necessary accessories, finished with 3 No. coats of super PVA external quality paint colour to PA's approval. Gyproc RhinoTape to all joints and skim the ceiling using Gyproc RhinoLite.

## C3: PATENT SUSPENDED ACOUSTIC TILES OR EQUAL AND APPROVED

200mm x 600mm X 15mm Gyproc Celotex Pin Perforated or Fine Fissured OR EQUAL & APPROVED laid into Donn ceiling grid and secured nto place using Donn Hold Down Clips @ 200mm c/c. Donn Wall Angle M6 fixed to the perimeter wall using fixings at 300mm centres. Donn T38 FR Main Tees (0.4mm thickness, Z150 galv. coating, locally manufactured, recycled content, ISO 9001 & 14001 certification) at 1200 centres & Donn T38V (1200 long) Cross Tees at 600 centres. Suspend main tees @ 1200mm c/c using Donn Hanger Strap 19mm suitably fixed to the building structural members. Donn Galvanized Hanger Strap 19mm at maximum 150mm on both sides of the fire notch. All fire notches to be in line. Suspend all full length 1200 Cross Tees at their mid-point using Donn Hanger Strap 19mm suitably fixed to the building structural members. All to comply with latest SANS 803 including all necessary accessories and installed in strict accordance to manufacturer's specifications.

## C4 EMULSION (PVA) PAINT OR EQUAL AND APPROVED

Emulsion (PVA) Paint on Skimmed Plastered Slab" 3No. coats of PVA emulsion ceiling paint to latest SANS 1586 approved on 6mm thick light weight hemi-hydrate gypsum plaster on concrete slab soffit.

# **ROOF COVERING AND INSULATION:**

# ER1: EMBOSSED ROOFING SHEET (TWO SIDES)

compliance to manufacturer's instructions.

**Roofing Sheets:** 0.58mm Thick concealed fixing roofing sheets manufactured from roll-formed from certified steel

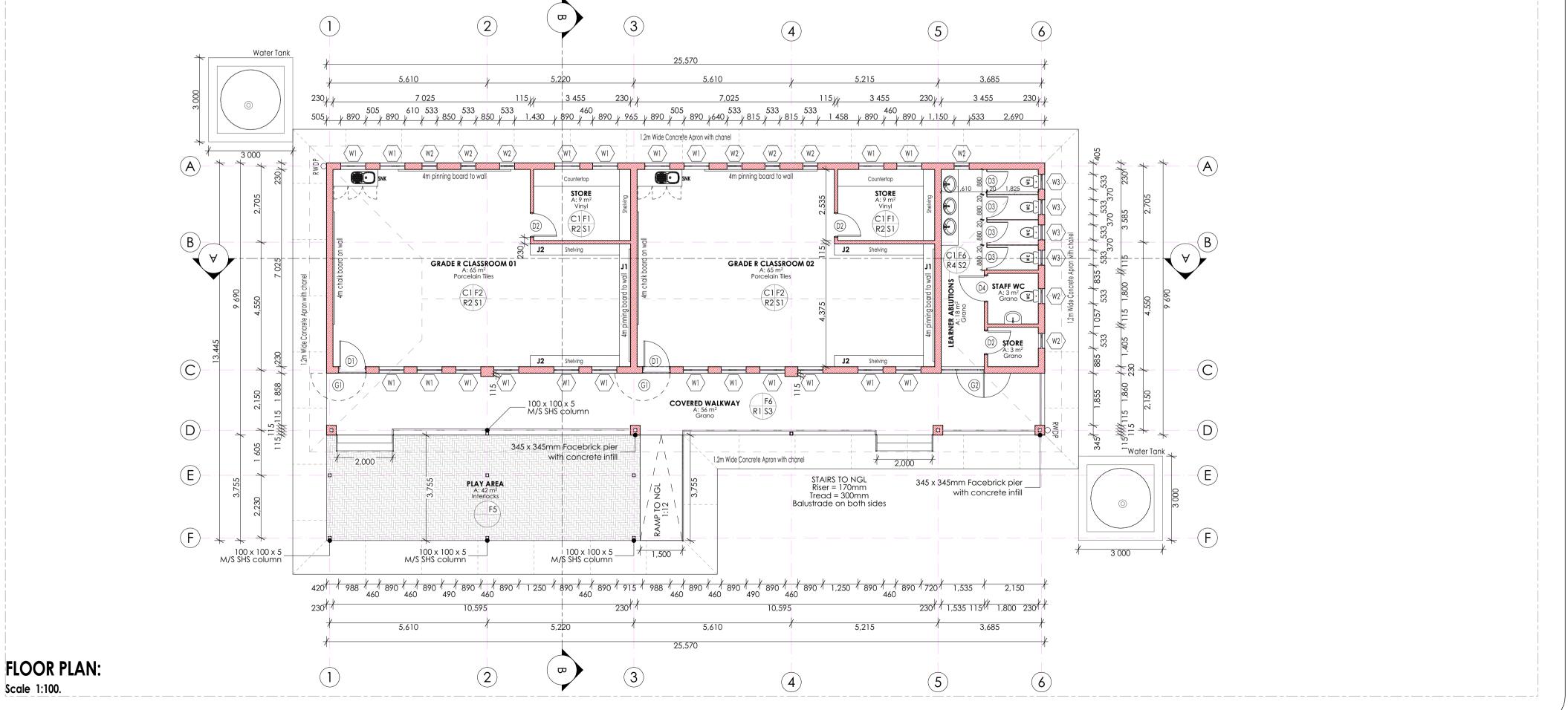
complying with ISQ 550 (3T). The profile shall have three trapezoidal ribs at 203mm centers giving a net cover of 406mm. The rib height shall be 41mm and provide capillary breaks. The male rib shall have spurs at 283mm centers to ensure a positive double interlocking action at side-laps. Each pan shall incorporate two stiffener ribs. Profiled roofsheets to be coated on both sides with "Global Coat" or "Chromadek Colour" and laid on structural timber/steel structure incorporating all necessary accessories such as flashings and eave closers in strict

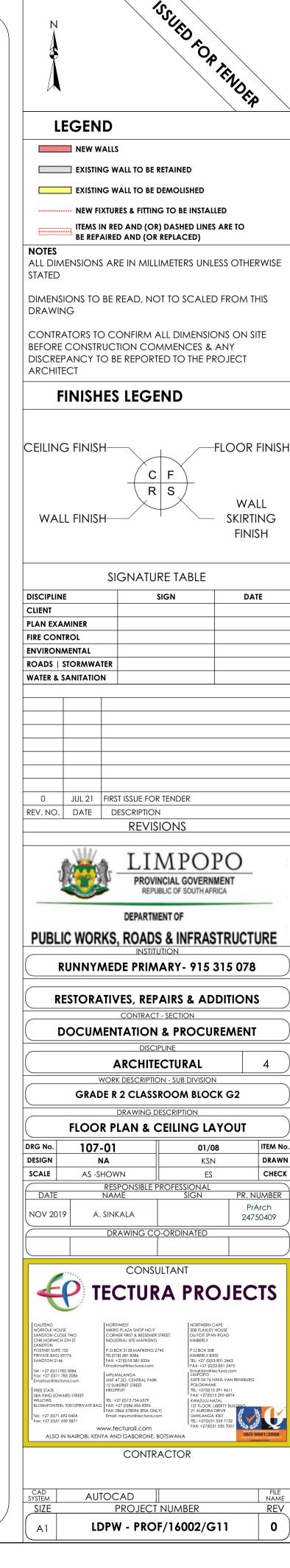
Insulation: SHALL EITHER BE: 1: where there are acoustic ceilings susspended board, a heavy duty "Aluminium sisalation foil" shall be installed AND 2: where the steel work is exposed, a 50mm "FactoryBoard" manufactured from noncombustible glass fibres and thermo-setting resin binder supplied size 2400mm x 1200mm and 80kg/mÑ and finished with white metalized foil.

Galvanised Steel (GI) Gutter: 150mm Wide x 100mm Deep x 0.6mm Eaves Gutter of Commercial Grade Steel With Class 7275 Galvanising To Comply With SABS 934 or latest Revision Fixed To Painted Fibre Cement Fascia Board Together with standard accessories discharging into Rainwater Downpipes.

**Downpipe:** 110 x110 x 0.6mm Thick Commercial Grade Galvanised Steel Sheet With Class Z275 Galvanising To Comply With SABS 934 or Latest Revision to or built into walls or cast in concrete columns fixed to brickwork or steel including brackets and self-taping screws To Manufacturer Installation Instructions.







#### F1: FULLY FLEXIBLE TILES (Corrosive Resistant & Anti-Slippery)

300 x 300 x 2.0mm thick (colour type to architects approval), OR EQUAL AND APPROVED, quartz reinforced semi-flexible vinyl floor tiles to SABS Specification 581: 1992 (or later revision), and laid to SABS 070 (or later revision) and in accordance to manufacturer's specifications on cement screed subfloor. Fittings to include, ribbed angle tiles where there is change of level & Movement Joints of 6mm Wide With Patent Aluminium Movement Joints Strips Consisting Of Synthetic Fibre Inserts Installed At Intervals As Per Manufacturer's Instruction. Colour and pattern to architects approval

600 x 600 x10mm thick matt porcelain tile to comply with SABS 1449 laid on approved pattern by an approved specialist to comply with SABS 107 and approved adhesives and grout on screeds With Thickness/Specification in strict compliance to manufacturers instructions and SABS specification. Fittings to include, ribbed angle tiles where there is change of level & Movement Joints of 6mm Wide With Patent Aluminium Movement Joints Strips Consisting Of Synthetic Fibre Inserts Installed At Intervals As Per Manufacturer's Instruction. Colour and pattern to architects approval.

F3: CARPET TILES 500mm x 500mm , 100% PFX staple fibre carpet tiles To Comply With SABS 1419 (heavy commercial) consisting of fibres set out on waterproof vinyl backing and to comply with EN 1307 Wear Class 4 (heavy duty), laid with approved adhesive on 30mm thick cement creeds in strict compliance with manufacturer's instructions. Carpet tiles to conform to BS 4790 on fire rating, and DIN 54324 on wira test and ISO body test at less than 2Kv at 25% RH on static electricity. Colour and pattern to architects approval.

30mm thick polished cement sand screed with 13mm Stone Nominal aggregate for Topping to comply with SABS 1083 or latest revision for

#### F5: EXTERIOR MULTI COLOURED CONCRETE INTERLOCKING PAVERS

55mm thick multi-coloured concrete pavers laid on sand bedding to civil/structural engineer's specification in approved pattern and compacted to approval and grouted in strict accordance to manufacturer's specifications. All to be manufactured and installed in strict compliance to SABS 1058 or Latest Revision.

22 mm thick untinted Granolithic finish composed of one part cement, one part fine sand, two parts coarse sand and one part granite that would pass through a 5mm mesh sieve; laid by specialist in panels not exceeding 10m2. divided with approved brass dividing strips. All to be manufactured and installed in strict compliance to the latest SABS approved standards. Colour, pattern and aggregate size to architects approval.

#### F7: INTERLOCKING PAVERS (RIGID PAVING/VEHICULAR WAYS)

220mm x 197mm x 80 mm thick concrete interlocking pavers, 25 mpa, manufactured to SABS spec 1058, laid on sand bedding to civil/structural engineer's specification to a 'herringbone' pattern to the Architect's approval.

#### F8: SEMI FLEXIBLE VINLY SHEETING (CORROSIVE RESISTANT/ANTI-SLIPPERY)

2.5mm Thick Heavy Traffic Use, Corrosive Resistant & Anti-Slippery Vinyl Sheeting Semi-Flexible To Comply With SABS 586, With Static Dissipative Properties Throughout Thickness, Engineered for ESD or SD (anti-static) Protection Vinyl Sheet, Laid on Self-Levelled Smooth Screed alued with conducive adhesive To SABS 070 or Latest Revision In Accordance To Manufacturer's Instructions And Installed By Approved Specialist. Joints Shall be Welded as Per Manufacturer's Specifications With No more than 2mm Gap. Clean & Polish Floor In Compliance With SABS 1042. Colour To Architect Approval On Sample Presentation. Contractor to provide Certificate of Static Current Conductivity. Contractor to provide Certificate of Static Current Conductivity, Corrosive resistant & Anti-Slippery.

F9: GRAVEL FINISH ON SAND LAYER 32mm Gravel On Compacted Sand Layer Base as Per PSE Details Installed in All Duct Chambers Accommodating Sanitary Services.

S1: HARDWOOD OR EQUAL AND APPROVED "Ex 75mm x 20mm Moulded Hardwood Skirting" to comply with SANS 1099, fixed to walls in long lengths with splayed heading joints and mitred coners with screws and plugs at centres not exceeding 600mm, and fixed with a 19mm x 19mm quadrant beading. The skirting to be

vanished with 3No. coats of egg shell clear vanish to comply with SABS/SANS 381 type 1.

600mm wide x 100mm high x 7mm thick matt porcelain tile to comply with SABS 1449 laid with approved adhesives and grout on 22mm thick screeds in strict compliance to manufacturers instructions and SABS specification, with cove base and straight tops. Complete with corner and top trims. Fittings to include, ribbed angle tiles where there is change of level. Colour and pattern to architects approval.

#### 5 mm high x 20 mm thick hardened cement sand screed skirting coved at 50 mm dia, to form a continuous joint with the adjoining screed

floor finish to PA's approval. All to be manufactured and installed in strict compliance With SABS 1083 or latest revision.

#### **WALL FINISHES:** R1: FACE BRICK

BX face brick in common running bond to comply with SABS 227 and forming part of the structural work. R2: EMULSION (PVA) PAINT - FULL HEIGHT

#### no. coats of PVA matt finish emulsion paint to SABS 1586 applied on plastered surface primed and with 1 no. coat undercoat to SABS 681

grade1, in accordance to manufacturer's instructions. R3:ALKYD (ENAMEL) PAINT

#### no. coats matt (egg shell) finish alkyd (enamel) paint to SABS 630, type 2 applied on plastered surfaces with 1 no coat alkali resistant plaster primer to SABS 1416 and 1 no. coat undercoat to SABS 681 grade1, in accordance to manufacturer's instructions.

R4: GLAZED CERAMIC WALL TILES / ENAMEL PAINT COMBO

Combination of; 600mm wide x 300mm x 7mm thick high glazed ceramic tiles To Specification "R5", laid on 15 mm thick plaster prepared to receive wall tiles fixed with approved adhesives and grout in compliance to manufacturer's specifications and government standard specifications laid from finish floor level to window level AND ENAMEL paint to specification "R3" To Comply with SABS 630 or latest revision applied from 2100 mm above finished floor level to ceiling height all in strict compliance to manufacturer's instructions. All to be manufactured and installed in strict compliance to the latest SABS Standards.

#### R5:CERAMIC WALL TILES - FULL HEIGHT

600mm x 300mm x 7mm thick high glazed ceramic tiles to Comply with SABS 22 or Latest revision, laid on 15 mm thick plaster prepared to receive wall tiles fixed with approved adhesives and grout in compliance to manufacturer's specifications and government standard specifications. Tiles to be laid to full ceiling height. All to be manufactured and installed in strict compliance SABS 22 Standard. All to be nanufactured and installed in strict compliance SABS 22 Standard.

## CEILING AND CORNICE:

## C1: 9mm GYPSUM BOARDS FLUSH PLASTERED CEILINGS OR EQUAL AND APPROVED

GypCeil Classic" gypsum plasterboard ceilingor EQUAL & APPROVED consisting of 1 layer Gyproc RhinoBoard 9mm (locally manufactured, ISO 9001 & 14001 certification, recycled paper content, Ecospecifier listing) fixed to timber brandering installed at maximum 300mm centers using Gyproc RhinoBoard Sharp Point Grabber Screws 32mm at maximum 150mm centers. Apply . Gyproc RhinoTape to all joints and skim the ceiling using Gyproc RhinoLite.

## C2: FIBRE CEMENT BOARDS (H-JOINTED)

6.4mm thick GypCeil Prestige S" fibre cement ceiling boards or EQUAL & APPROVED consisting of 1 layer Gyproc RhinoBoard 9 mm (locally manufactured, ISO 9001 & 14001 certification, recycled paper content, Ecospecifier listing, non-combustible to SANS 10177-5) fixed to EX 38mm x 50mm timber brandering installed at maximum 400mm centres using Gyproc RhinoBoard Sharp Point Grabber Screws 32mm at maximum 150mm centres with all necessary accessories, finished with 3 No. coats of super PVA external quality paint colour to PA's approval. Gyproc RhinoTape to all joints and skim the ceiling using Gyproc RhinoLite.

## C3: PATENT SUSPENDED ACOUSTIC TILES OR EQUAL AND APPROVED

200mm x 600mm X 15mm Gyproc Celotex Pin Perforated or Fine Fissured OR EQUAL & APPROVED laid into Donn ceiling grid and secured into place using Donn Hold Down Clips @ 200mm c/c. Donn Wall Angle M6 fixed to the perimeter wall using fixings at 300mm centres. Donn 138 FR Main Tees (0.4mm thickness, Z150 galv. coating, locally manufactured, recycled content, ISO 9001 & 14001 certification) at 1200 centres & Donn T38V (1200 long) Cross Tees at 600 centres. Suspend main tees @ 1200mm c/c using Donn Hanger Strap 19mm suitably fixed o the building structural members. Donn Galvanized Hanger Strap 19mm at maximum 150mm on both sides of the fire notch. All fire otches to be in line. Suspend all full length 1200 Cross Tees at their mid-point using Donn Hanger Strap 19mm suitably fixed to the building structural members. All to comply with latest SANS 803 including all necessary accessories and installed in strict accordance to manufacturer's specifications.

## C4 EMULSION (PVA) PAINT OR EQUAL AND APPROVED

mulsion (PVA) Paint on Skimmed Plastered Slab" 3No. coats of PVA emulsion ceiling paint to latest SANS 1586 approved on 6mm thick ligh weight hemi-hydrate gypsum plaster on concrete slab soffit.

## **ROOF COVERING AND INSULATION:**

# ER1: EMBOSSED ROOFING SHEET (TWO SIDES)

Roofing Sheets: 0.58mm Thick concealed fixing roofing sheets manufactured from roll-formed from certified steel

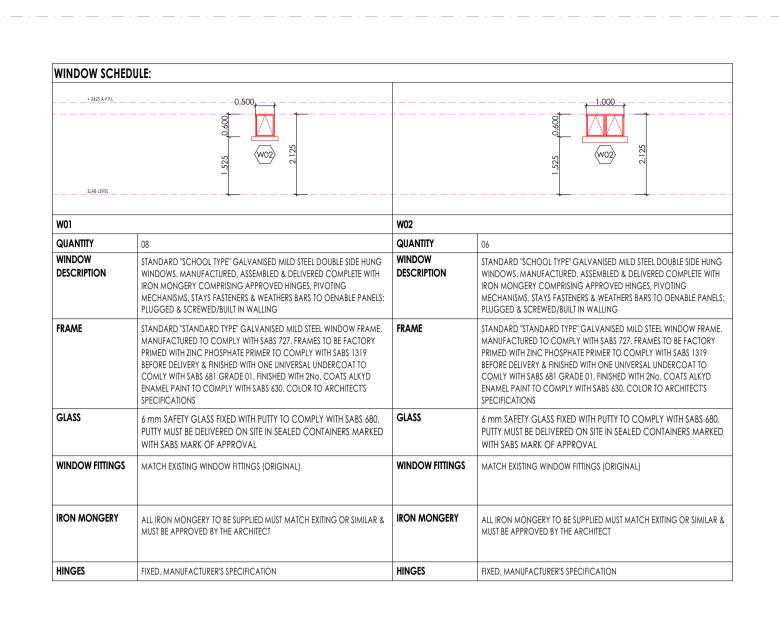
omplying with ISQ 550 (3T). The profile shall have three trapezoidal ribs at 203mm centers giving a net cover of 406mm. The rib height shall be 41mm and provide capillary breaks. The male rib shall have spurs at 283mm centers to ensure a positive double interlocking action at side-laps. Each pan shall incorporate two stiffener ribs. Profiled roofsheets to be coated on both sides with "Global Coat" or "Chromadek Colour" and laid on structural timber/steel structure incorporating all necessary accessories such as flashings and eave closers in strict compliance to manufacturer's instruction

Insulation: SHALL EITHER BE: 1: where there are acoustic ceilings susspeded board, a heavy duty "Aluminium sisalation foil" shall be installed AND 2: where the steel work is exposed, a 50mm "FactoryBoard" manufactured from noncombustible glass fibres and thermo-setting resin binder supplied size 2400mm x 1200mm and 80kg/mÑ and finished with white metalized foil.

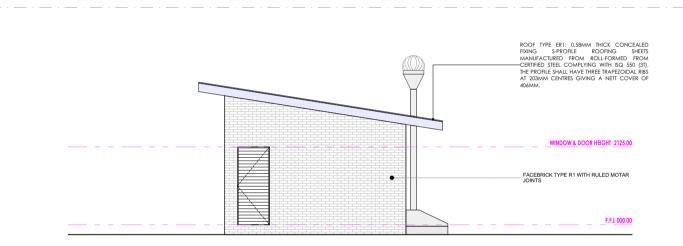
Galvanised Steel (GI) Gutter: 150mm Wide x 100mm Deep x 0.6mm Eaves Gutter of Commercial Grade Steel With Class Z275 Galvanising To Comply With SABS 934 or latest Revision Fixed To Painted Fibre Cement Fascia Board Together with standard accessories discharging into

Downpipe: 110 x 110 x 0.6mm Thick Commercial Grade Galvanised Steel Sheet With Class Z275 Galvanising To Comply With SABS 934 or Latest Revision to or built into walls or cast in concrete columns fixed to brickwork or steel including brackets and self-taping screws To

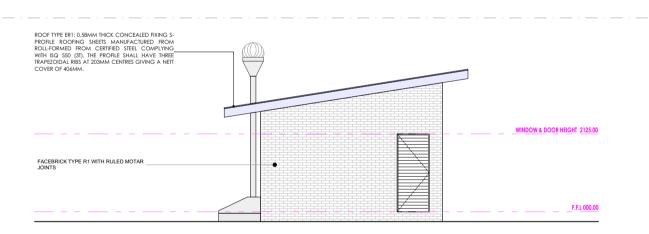
Fascia board: 250 x 10 mm Fibre- Cement Fascia/Barge Board, Screw Fixed To Truss Ends & Counter Batten With Countersunk Brass Screws. Prepare & Apply One Universal Undercoat & Two Coats Super Acrylic P.V.A.



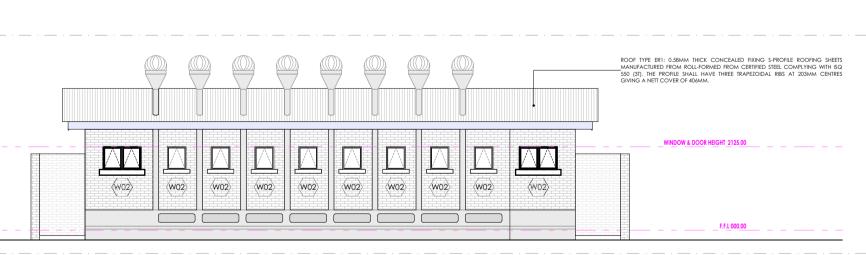
**BLOCK Z-01 WINDOW SCHEDULE** 



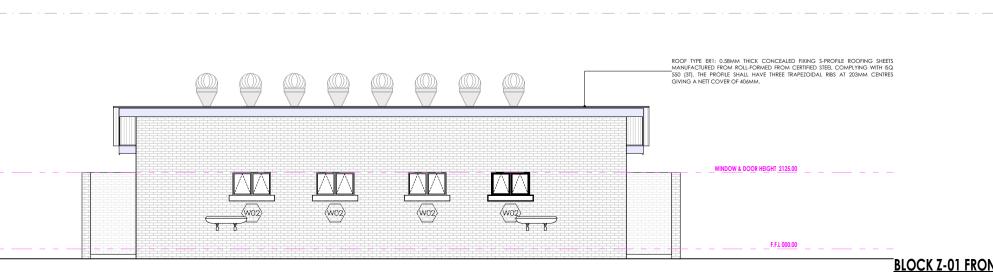
**BLOCK Z-01 SIDE ELEVATION** 



**BLOCK Z-01 SIDE ELEVATION** SCALE 1:100



**BLOCK Z-01 REAR ELEVATION** 



BLOCK Z-01 FRONT ELEVATION

**SANITARY SCHEDULE** 

#### WC'S URINALS & SHOWER Z1: CERAMIC STANDARD WC (CC)- CONCEALED CISTERN

Vitreous ching 90° outlet WC or equal and approved top inlet closed rim back-to-wall pan. Floor Mounted to comply with SARS 497 & Fitted with " Thermoset Plastic Seat" Fitted with Concealed Flushing Cistern for WC 6-7 litres adjustable with small discharge valve access pneumatic discharge val Installed with dual flush ability & complete with all necessary fittings to manufacturer's specification and applicable SABS standards. Flush valve to be fitted with

/itreous china 900 outlet or equal and approved, top inlet closed rim back-to-wall pan to comply with SABS 497. Fitted with Cistern Installed complete with c

#### necessary fittings to manufacturer's specification and applicable SABS standards. Flush valve to be fitted with suitable extension lever. Z3: CERAMIC PARAPLEGIC WC (CC)- CONCEALED CISTERN

Vitreous china 90o outlet WC or equal and approved top inlet closed rim back-to-wall pan, Floor Mounted to comply with SABS 497 & Fitted with "Jo Thermoset Plastic Seat". Fitted with Concealed Flushing Cistern for WC 6-7 litres adjustable with small discharge valve access pneumatic discharge valve Installed with dual flush ability & complete with all necessary fittings to manufacturer's specification and applicable SABS standards. Flush valve to be fitted with suitable extension lever, blank flush plate & offset push button for paraplegic access

Vitreous china 900 outlet, back inlet pan to comply with SABS 497. Fitted complete with Back inlet exposed flush-valve complete with all necessary fittings as per

#### manufacturer's specifications and applicable SABS standards. Flush valve to be fitted with suitable extension lever. **Z5: CERAMIC STANDARD WC (CC)**

Vitreous china 900 outlet, back inlet pan to comply with SABS 497. Fitted complete with matching 7 litre pushbutton top dual flush cistern fitted with quality approved heavy duty thermoset lid, seat and complete with all necessary fittings as per manufacturer's specifications and applicable SABS standards.

74: CERAMIC WALLHUNG URINAL wall hang bowl urinal to comply with SABS 497. Supplied with suitable 38mmCP domical grating, CP top inlet spreader an two hanger brackets and fitted with exposed flush-valve, and suitable bottle trap chrome finish as per manufacturer's specifications and applicable SABS

mm thick Enamelled steel shower tray size 900x900x160 mm manufactured with anti slip pattern, with rounded internal corners, and 38 mm BSP grated waste

fitting in corner position fitted with Shower set and complying with SABS 226 comprising of approved: • Glazed Shower Cubicle with access door as per standard supply from manufacturer and sized to fit space configuration

 Overhead shower arm with wall flange. Chrome Plated Shower Head with ball jointed connector

• Chrome Plated Bath/shower diverter mixer-wall type with sliding wall flanges and concealed connections adjustable from 178 mm to 203 mm centres. Shower tray to be recessed 50 mm into a 100mm high concrete plinth with exposed plinth face tiled.

#### **WASH-HAND BASIN**

B1: WHB & MIXER TAP ous china size 560 x 415mm rounded 'Tuscany', OR EQUAL AND APPROVE basin to comply with SABS 497 with single tapho configuration supplied with integrated overflow and chainstay hole through the centre semi-punched supplied with a 'Tuscany' pedestal and fitted with 1N 'Cobra Watertech' 15mm chrome pushbutton demand pillar tap with flanged backnut (code KM2.102) metering tap, 309-32 CP anti-theft plug with spindle, 308 asin waste, 365/40 CP Bottle Trap, mounting kit and angle valves.

**B2: DISABLED BASIN** 420mm semi rounded lavatory basin to comply with SABS 497, in two tap hole configuration fitted with;2 No.chrome plated Elbow action pillar-tap, with 1/4 turn ceramic disc head and blue & Red indicators water applications and flanged backnut, chrome plated waste, chrome plated 32 mn standing overflow tube, chrome plated Bottle Trap supplied with all necessary pipe connections. Fixed with concealed wall bracket in accordance to t

#### B3: WHITE GLAZED PORCELAIN WHB (VANITY) amic fireclay size 450x350mm oval self-rimming vanity basin to comply with SABS 497 in one tap hole configuration supplied without overflow and fitted with:

1No. chrome plated tap with flanged backnut (code KM2.102) metering tap, mounting kit and angle valves 400mm long flexible inlets and chrome plated bottle trap supplied with all necessary pipe connections. Basin mounted on cabinet or vanity slab with silicon sealant between contact areas in stric accordance to manufacture's specifications.

#### **B4: SMALL BASIN & 2 TAPSTRAY & SHOWER SET (FOR WORKSHOPS)** eous china size 455x290mm wash basin to comply with SABS 497 in 2-tap hole configuration supplied with integrated overflow and chainstay hole with; 2N pillar taps, chrome plated anti-theft plug with spindle plug, slotted basin waste, chrome plated Bottle Trap, mounting kit and angle valves with 400mm for

flexible inlets supplied with all necessary pipe connections. All brackets and fixing accessories in strict accordance to the manufacturer's specifications. B5: H/DUTY BASIN & 1No. TAP (FOR LABS) heavy duty basin in one taphole configuration to comply with SABS 497 and RHS hole plugged and fitted with;1No. pillar tap, Chrome Plated anti-theft plug with spindle plug, slotted basin waste, chrome plated Bottle Trap, mounting kit and angle valves with 400mm long flexible inlets supplied with all necessary pipe connections. Fitted to wall using 2No. Semi-concealed cast iron brackets in accordance to the manufacturer

#### B6: MEDIC BASIN & FITTINGS (SICK BAY)

Vitreous china 510 x 420mm semi rounded lavatory basin to comply with SABS 497, in two tap hole configuration fitted with; 2 No.chrome plated Elbow action pillar-tap, with . turn ceramic disc head and blue & Red indicators water applications and flanged backnut, chrome plated waste, chrome plated 32mm standing overflow tube, chrome plated Bottle Trap supplied with all necessary pipe connections. Fixed with concealed wall bracket in accordance to the manufacturer's specifications.

Combination of sanitaryware, accessories and general fittings comprising of • Mirror type K2. • Paper towel dispenser K8 and bin type K3. • Soap dispenser type K9.

• Splashback comprising 2no, rows of wall tile finish type R5 as per finishes schedule and grout in compliance to manufacturer's specifications and government standard specifications. Installation heights as indicated in the drawinas.

Stainless steel 1000 x 457mm inset single end bowl with recessed drainage ledge and folded edges. Bowl to be fitted to kitchen cupboard (cupboard elsewl measured), Grade 304 (18/10) Stainless Steel sink to comply with SABS 906 fitted with: Approved Sink mixer- wall type, chrome plated swivel Outlet, adjustab and supplied with suitable assesories in accordance to manufacturer's specifications. Sink installation height = 900mm AFFL.

Stainless steel 1500 x 457mm inset double end bowl with recessed drainage ledge and folded edges. Bowl to be fitted to kitchen cupboard (cupboar elsewhere measured), Grade 304 (18/10) Stainless Steel sink to comply with SABS 906 fitted with: Approved Sink mixer- wall tape, with chrome plated overarm swivel Outlet, adjustable wall flanges and supplied with suitable acesories in accordance to manufacturer's specifications. Sink installation height = 900mm AFFI

Ceramic fireclay 435 x 335 x 180 mm rectangular laboratory sink without overflow, with a centre end waste outlet, fitted to the wall on two semi-concealer brackets supplied with all necessary accessories (all to be acid resistant

x 500mm Inset washtrough, manufactured from grade 18/10 SS, stainless steel with radiused internal corners and provision for a 40mm dia, outlet. Fitte with Approved 2No. CP bibtaps - plain extended chrome plated, complete with sliding wall flanges, Un-slotted sink waste with back nut, plug with stirrup, cha and stay. CP, 'P' trap, with deep seal and cleaning eye. Rough brass. Sink installation height = 900mm AFFL. Cut out size 535 x 425mm. X5: DOUBLE WASH TROUGH (inset) & 2 no. TAPS

x 553 x 260mm Double bowl wall hung washtub manufactured from grade 304 (18/10) SS, radiused internal corners and provision for a 40mm dia. outle fitted with: Approved 2no wall type bibtaps, with Swivel Outlet, adjustable wall flanges and exposed adjustable connections. CP. Un-slotted sink waste with bac nut and plug with stirrup, CP, Double drain black rubber deep seal 'P'-Trap. Sink mounted on 2no. 25mm square SS gallow brackets, front leg and adjustable fo

## SANITARY ACCESSORIES

dard stainless steel toilet roll holder (2 roll) 153mm width x 270mm high 275mm depth Toilet Roll Holder manufactured from 18/10 Stainless Steel, surface Sa finish, including screws and dowels and all other necessary accessories in accordance to manufacturer's specifications.

64 kmm thick clear float glass silver-backed mirror, size 450x900mm height with polished bevelled edges 4 times holed for and fixed, with chromium plated dor headed mirror screws K3: SS WASTE BIN

328W x 826H x 203D Waste bin manufactured From 18/10 Stainless steel, Surface Satin Finish, Material Thickness 1.5mm, including Screws, dowels and all necessa

accessories in accordance to manufacturer's specifications.

0mm x 320mm x 600mm Plastic Sanitary Pedal Bin with capacity of 100 Liners per pack Complete with all necessary accessories and installed in accordance to manufacturer's specifications.

Single semi-recessed ceramic soap dish Complete with all necessary accessories and installed in accordance to manufacturer's specifications.

Stainless steel 914 x 90 x 32mm diameter wall (rear) grab rail, in satin polished finish complete with SS fixing screws and plastic wall plugs. Installed as pe manufacturer's instructions.

# K7: GRAB RAILS (RIGHT/LEFT HAND)-PARAPLEGIC Stainless steel 1016 x 90 x 32mm diameter right/left hand side toilet grab rail with 450mm high centre flange, in satin polished finish complete with SS fixing screw

and plastic wall plugs. Installed as per manufacturer's instructions. 350mmWx365mmHx230mmD tear and dry paper hand towel dispenser in stainless steel. Complete with screws, locking key, and all necessary accessories ar

installed in accordance to manufacturer's specifications. K9: SOAP DISPENSER/DISH- WALL MOUNTED 115W x 270H x 110D Stailess steel Hands Free soap dispenser. Complete with screws, locking key, and all necessary accessories and installed in accordance

manufacturer's specifications. 820mm Wide x 220mm High x 90mm High Aluminium Multi-rack Hat and Coat Hook in multi-track two Hooks Configuration With Anodised Silver Finish Comple

K11: HAND DRYER (Hands free) 55mm dia. Polished 900mm long towel rail complete with all necessary accessories in accordance to manufacturer's specifications. Installation height as p

K13: SHOWER CURTAIN RAIL (straight)
20mm dia. standard chromium plated shower curtain rail 1300mm long with flanged ends and screws CP fixing height as per PA's drawing.

## **GENERAL FIXTURES**

200mm wide uPVC Door Protector manufactured in high impact resistant rigid uPVC (Colour Grey) and cut to suit door width from 3m length, installed strictly accordance to manufacturer's specifications. Installation height 900mm above FFL, or as specified.

Pull down PVC screen size 2440 x 1850mm (viewing area 2340 x 1750mm) with wall-mounted code \$C0400 Keystone Brackets Adjustable Set of 2, size 300mm. be supplied complete with all accessories, and fitted in strict accordance with manufactures instructions.

Pinboard size 1000mm H x 1500mm W comprising of laminated soft board core pinning material beaded all round with anodised aluminium channel surrour mitred at the corners. To be fitted complete with fixing brackets, screws and wall plugs at 900mm above floor level.

27 mm vertical deco blinds with anodised aluminium headrail fitted with colour coordinated insert. All runners o be wheeled and fitted with individual clut

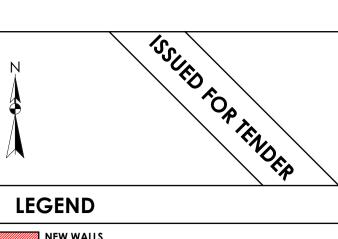
Pinboard size 1200mm H x 3000mm W comprising of laminated soft board core pinning material beaded all round with anodised aluminium channel surrou mitred at the corners. To be fitted complete with fixing brackets, screws and wall plugs at 900mm above floor level G5: WINDOW NORMAL BLINDS(vertical fabric)

mechanism. All runners to be connected by stainless steel links. Tilt mechanism to be operated by a nylon ball chain with a reduction gear inside a fully enclose cap. Blinds to be face fixed (fixed over the window opening) by means of concealed type fixing brackets. **G6: FLOOR DRAIN** 

Cast iron flat type full-flow outlets size 110 mm diameter with centre bolt, , including connections to downpipes. G7: SS FLOOR EXPANSION JOINT COVER

#### Co-extruded heavy-duty stainless steel movement joint strip, with polyurethane infill (colour grey). To be installed within the file surface over the 20mm expansic joints, in accordance to the manufacturer's specifications.

G8: CHALKBOARDS- GREEN SURFACE COLOUR m 1000 standard WRITEBOARD or EQUAL & APPROVED vitreous enamelled steel utility school chalkboards wall-mounted size 4800mm x 1140mm hig nanufactured in accordance with SABS Standard CKS 36/2004 Edition 4 and suitable for Class 1: Heavy Duty applications, as defined therein. Enamel steel Util chalk board surfaces to be matt and finely structured, olive green in colour (Vitrex Colour Reference - Chalk Board Green LM1797/2), supplied complete wi ntegral anodised aluminium chalk rail (ACR), fixing components and secured in position to brickwork. The Chalk boards are to be fixed in position strictly accordance with the manufacturer's instructions.



# WWW NEW WALLS

EXISTING WALL TO BE RETAINED

EXISTING WALL TO BE DEMOLISHED NEW FIXTURES & FITTING TO BE INSTALLED ITEMS IN RED AND (OR) DASHED LINES ARE TO

BE REPAIRED AND (OR REPLACED)

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE

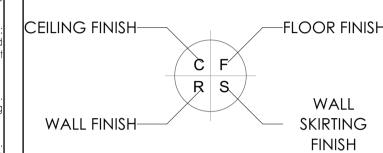
DIMENSIONS TO BE READ, NOT TO SCALED FROM THIS

CONTRATORS TO CONFIRM ALL DIMENSIONS ON SITE BEFORE CONSTRUCTION COMMENCES & ANY

DISCREPANCY TO BE REPORTED TO THE PROJECT

## FINISHES LEGEND

ARCHITECT



SIGNATURE TABLE								
DISCIPLIN	E		SIGN	DATE				
CLIENT								
PLAN EXA	MINER							
FIRE CON	TROL							
ENVIRONMENTAL								
ROADS   STORMWATER								
WATER & SANITATION								
0	JUL 21	FIRST ISSUE FOR TENDER						
REV. NO.	DATE	DESCRIPTION						
revisions								
LIMPOPO  PROVINCIAL GOVERNMENT REPUBLIC OF SOUTH AFRICA								
DEPARTMENT OF								

PUBLIC WORKS, ROADS & INFRASTRUCTURE RUNNEYMEDE PRIMARY - 915 315 078

RESTORATIVES, REPAIRS & ADDITIONS

**DOCUMENTATION & PROCUREMENT** 

**ARCHITECTURAL** 

STAGE 04 ARCHITECTURAL **Z-01 ELEVATIONS | W-SCHEDULE** 

G11-108-02 **SMTN** AS SHOWN T.M CHECK NOV 2019 T. MANYADZA 43981757

CONSULTANT

www.tecturail.com

ALSO IN NAIROBI, KENYA AND GABORONE, BOTSWANA CONTRACTOR

AUTOCAD LDPW - PROF/16002/G11

#### EL COPS:

#### F1: FULLY FLEXIBLE TILES (Corrosive Resistant & Anti-Slippery)

300 x 300 x 2.0mm thick (colour type to architects approval), OR EQUAL AND APPROVED, quartz reinforced semi-flexible vinyl floor tiles to SABS Specification 581: 1992 (or later revision), and laid to SABS 070 (or later revision) and in accordance to manufacturer's specifications on cement screed subfloor. Fittings to include, ribbed angle tiles where there is change of level & Movement Joints of 6mm Wide With Patent Aluminium Movement Joints Strips Consisting Of Synthetic Fibre Inserts Installed At Intervals As Per Manufacturer's Instruction. Colour and pattern to architects approval.

#### F2: PORCELAIN TILES -MATT

600 x 600 x 10mm thick matt porcelain tile to comply with SABS 1449 laid on approved pattern by an approved specialist to comply with SABS 107 and approved adhesives and grout on screeds With Thickness/Specification in strict compliance to manufacturers instructions and SABS specification. Fittings to include, ribbed angle tiles where there is change of level & Movement Joints of 6mm Wide With Patent Aluminium Movement Joints Strips Consisting Of Synthetic Fibre Inserts Installed At Intervals As Per Manufacturer's Instruction. Colour and pattern to architects approval.

F3: CARPET TILES

500mm x 500mm , 100% PFX staple fibre carpet tiles To Comply With SABS 1419 (heavy commercial) consisting of fibres set out on waterproof vinyl backing and to comply with EN 1307 Wear Class 4 (heavy duty), laid with approved adhesive on 30mm thick cement screeds in strict compliance with manufacturer's instructions. Carpet files to conform to BS 4790 on fire rating, and DIN 54324 on wira test and ISO body test at less than 2Kv at 25% RH on static electricity. Colour and pattern to architects approval.

#### F4: CEMENT SAND SCRE

30mm thick polished cement sand screed with 13mm Stone Nominal aggregate for Topping to comply with SABS 1083 or latest revision for

#### F5: EXTERIOR MULTI COLOURED CONCRETE INTERLOCKING PAVERS

65mm thick multi-coloured concrete pavers laid on sand bedding to civil/structural engineer's specification in approved pattern and compacted to approval and grouted in strict accordance to manufacturer's specifications. All to be manufactured and installed in strict compliance to SABS 1058 or Latest Revision.

#### F6: GRANOLITHIC FINISH

22 mm thick untinted Granolithic finish composed of one part cement, one part fine sand, two parts coarse sand and one part granite that would pass through a 5mm mesh sieve; laid by specialist in panels not exceeding 10m2. divided with approved brass dividing strips. All to be manufactured and installed in strict compliance to the latest SABS approved standards. Colour, pattern and aggregate size to architects approval.

#### F7: INTERLOCKING PAVERS (RIGID PAVING/VEHICULAR WAYS)

220mm x 197mm x 80 mm thick concrete interlocking pavers, 25 mpa, manufactured to SABS spec 1058, laid on sand bedding to civil/structural engineer's specification to a 'herringbone' pattern to the Architect's approval.

#### F8: SEMI FLEXIBLE VINLY SHEETING (CORROSIVE RESISTANT/ANTI-SLIPPERY)

2.5mm Thick Heavy Traffic Use, Corrosive Resistant & Anti-Slippery Vinyl Sheeting Semi-Flexible To Comply With SABS 586, With Static Dissipative Properties Throughout Thickness, Engineered for ESD or SD (anti-static) Protection Vinyl Sheet, Laid on Self -Levelled Smooth Screed glued with conducive adhesive To SABS 070 or Latest Revision In Accordance To Manufacturer's Instructions And Installed By Approved Specialist. Joints Shall be Welded as Per Manufacturer's Specifications With No more than 2mm Gap. Clean & Polish Floor In Compliance With SABS 1042. Colour To Architect Approval On Sample Presentation. Contractor to provide Certificate of Static Current Conductivity. Contractor to provide Certificate of Static Current Conductivity, Corrosive resistant & Anti-Slippery.

#### F9: GRAVEL FINISH ON SAND LAYER

32mm Gravel On Compacted Sand Layer Base as Per PSE Details Installed in All Duct Chambers Accommodating Sanitary Services.

#### JKIKIIIIO.

S1: HARDWOOD OR EQUAL AND APPROVED

"Ev 75mm v 20mm Moulded Hardwood Skirting" t

"Ex 75mm x 20mm Moulded Hardwood Skirting" to comply with SANS 1099, fixed to walls in long lengths with splayed heading joints and mitred coners with screws and plugs at centres not exceeding 600mm, and fixed with a 19mm x 19mm quadrant beading. The skirting to be vanished with 3No. coats of egg shell clear vanish to comply with SABS/SANS 381 type 1.

#### S2: CERAMIC TILE SKIRTIN

600mm wide x 100mm high x 7mm thick matt porcelain tile to comply with SABS 1449 laid with approved adhesives and grout on 22mm thick screeds in strict compliance to manufacturers instructions and SABS specification, with cove base and straight tops. Complete with corner and top trims. Fittings to include, ribbed angle tiles where there is change of level. Colour and pattern to architects approval.

# 75 mm high x 20 mm thick hardened cement sand screed skirting coved at 50 mm dia. to form a continuous joint with the adjoining screed floor finish to PA's approval. All to be manufactured and installed in strict compliance With SABS 1083 or latest revision.

**S3: CEMENT SAND SCREED** 

WALL FINISHES:
R1: FACE BRICK

FBX face brick in common running bond to comply with SABS 227 and forming part of the structural work.

R2: EMULSION (PVA) PAINT – FULL HEIGHT
2 no. coats of PVA matt finish emulsion paint to SABS 1586 applied on plastered surface primed and with 1 no. coat undercoat to SABS 681 grade1, in accordance to manufacturer's instructions.

R3:ALKYD (ENAMEL) PAINT
2 no. coats matt (egg shell) finish alkyd (enamel) paint to SABS 630, type 2 applied on plastered surfaces with 1 no coat alkali resistant

# plaster primer to SABS 1416 and 1 no. coat undercoat to SABS 681 grade1, in accordance to manufacturer's instructions. R4: GLAZED CERAMIC WALL TILES / ENAMEL PAINT COMBO

Combination of; 600mm wide x 300mm x 7mm thick high glazed ceramic tiles To Specification "R5", laid on 15 mm thick plaster prepared to receive wall tiles fixed with approved adhesives and grout in compliance to manufacturer's specifications and government standard specifications laid from finish floor level to window level AND ENAMEL paint to specification "R3" To Comply with SABS 630 or latest revision applied from 2100 mm above finished floor level to ceiling height all in strict compliance to manufacturer's instructions. All to be manufactured and installed in strict compliance to the latest SABS Standards.

## R5:CERAMIC WALL TILES - FULL HEIGHT

600mm x 300mm x 7mm thick high glazed ceramic tiles to Comply with SABS 22 or Latest revision, laid on 15 mm thick plaster prepared to receive wall tiles fixed with approved adhesives and grout in compliance to manufacturer's specifications and government standard specifications. Tiles to be laid to full ceiling height. All to be manufactured and installed in strict compliance SABS 22 Standard. All to be manufactured and installed in strict compliance SABS 22 Standard.

## CEILING AND CORNICE:

## C1: 9mm GYPSUM BOARDS FLUSH PLASTERED CEILINGS OR EQUAL AND APPROVED

"GypCeil Classic" gypsum plasterboard ceilingor **EQUAL & APPROVED** consisting of 1 layer Gyproc RhinoBoard 9mm (locally manufactured, ISO 9001 & 14001 certification, recycled paper content, Ecospecifier listing) fixed to timber brandering installed at maximum 300mm centers using Gyproc RhinoBoard Sharp Point Grabber Screws 32mm at maximum 150mm centers. Apply . Gyproc RhinoTape to all joints and skim the ceiling using Gyproc RhinoLite.

## C2: FIBRE CEMENT BOARDS (H-JOINTED)

6.4mm thick GypCeil Prestige \$" fibre cement ceiling boards or **EQUAL & APPROVED** consisting of 1 layer Gyproc RhinoBoard 9 mm (locally manufactured, ISO 9001 & 14001 certification, recycled paper content, Ecospecifier listing, non-combustible to SANS 10177-5) fixed to EX 38mm x 50mm timber brandering installed at maximum 400mm centres using Gyproc RhinoBoard Sharp Point Grabber Screws 32mm at maximum 150mm centres with all necessary accessories, finished with 3 No. coats of super PVA external quality paint colour to PA's approval. Gyproc RhinoTape to all joints and skim the ceiling using Gyproc RhinoLite.

# C3: PATENT SUSPENDED ACOUSTIC TILES OR EQUAL AND APPROVED

1200mm x 600mm X 15mm Gyproc Celotex Pin Perforated or Fine Fissured OR EQUAL & APPROVED laid into Donn ceiling grid and secured into place using Donn Hold Down Clips @ 200mm c/c. Donn Wall Angle M6 fixed to the perimeter wall using fixings at 300mm centres. Donn T38 FR Main Tees (0.4mm thickness, Z150 galv. coating, locally manufactured, recycled content, ISO 9001 & 14001 certification) at 1200 centres & Donn T38V (1200 long) Cross Tees at 600 centres. Suspend main tees @ 1200mm c/c using Donn Hanger Strap 19mm suitably fixed to the building structural members. Donn Galvanized Hanger Strap 19mm at maximum 150mm on both sides of the fire notch. All fire notches to be in line. Suspend all full length 1200 Cross Tees at their mid-point using Donn Hanger Strap 19mm suitably fixed to the building structural members. All to comply with latest SANS 803 including all necessary accessories and installed in strict accordance to manufacturer's specifications.

# C4 EMULSION (PVA) PAINT OR EQUAL AND APPROVED

<u>-4 EMULSION (PVA) PAINT OR EQUAL AND APPROVED</u> Emulsion (PVA) Paint on Skimmed Plastered Slab" 3No. coats of PVA emulsion ceiling paint to latest SANS 1586 approved on 6mm thick light

# weight hemi-hydrate gypsum plaster on concrete slab soffit. ROOF COVERING AND INSULATION:

# ER1: EMBOSSED ROOFING SHEET (TWO SIDES)

Roofing Sheets: 0.58mm Thick concealed fixing roofing sheets manufactured from roll-formed from certified steel

complying with ISQ 550 (3T). The profile shall have three trapezoidal ribs at 203mm centers giving a net cover of 406mm. The rib height shall be 41mm and provide capillary breaks. The male rib shall have spurs at 283mm centers to ensure a positive double interlocking action at side-laps. Each pan shall incorporate two stiffener ribs. Profiled roofsheets to be coated on both sides with "Global Coat" or "Chromadek Colour" and laid on structural timber/steel structure incorporating all necessary accessories such as flashings and eave closers in strict compliance to manufacturer's instructions.

AND 2: where the steel work is exposed, a 50mm "FactoryBoard" manufactured from noncombustible glass fibres and thermo-setting resin binder supplied size 2400mm x 1200mm and 80kg/mÑ and finished with white metalized foil.

Galvanised Steel (GI) Gutter: 150mm Wide x 100mm Deep x 0.6mm Eaves Gutter of Commercial Grade Steel With Class Z275 Galvanising To

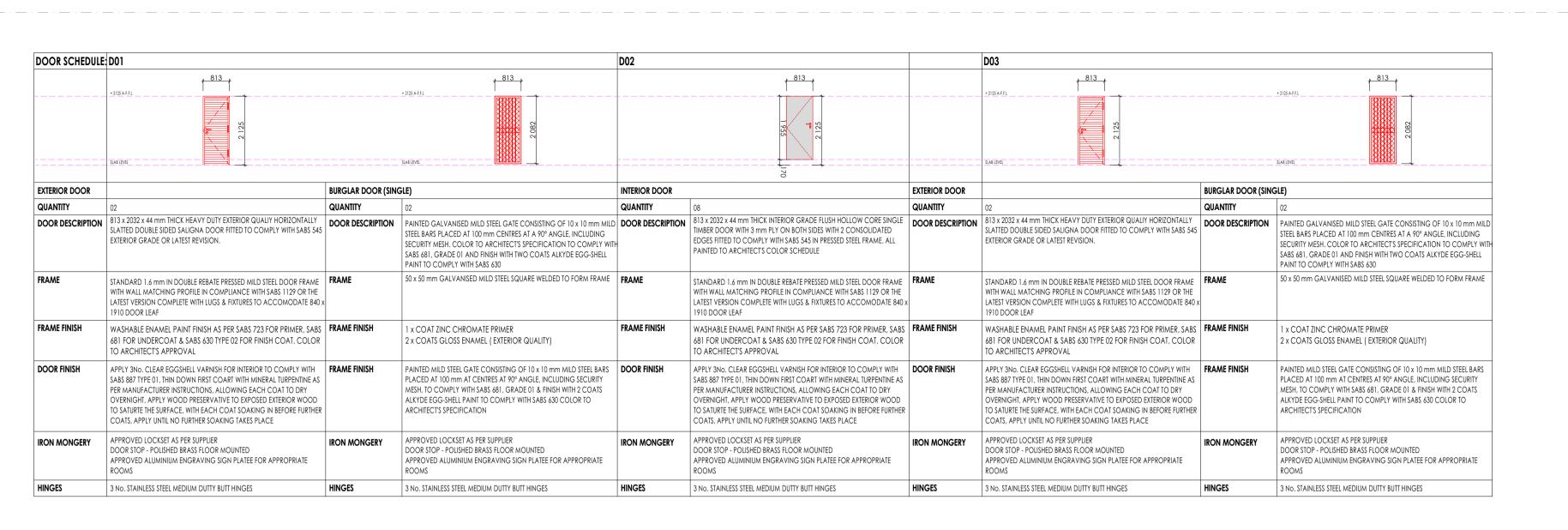
Insulation: SHALL EITHER BE: 1: where there are acoustic ceilings susspeded board, a heavy duty "Aluminium sisalation foil" shall be installed

Comply With SABS 934 or latest Revision Fixed To Painted Fibre Cement Fascia Board Together with standard accessories discharging into Rainwater Downpipes.

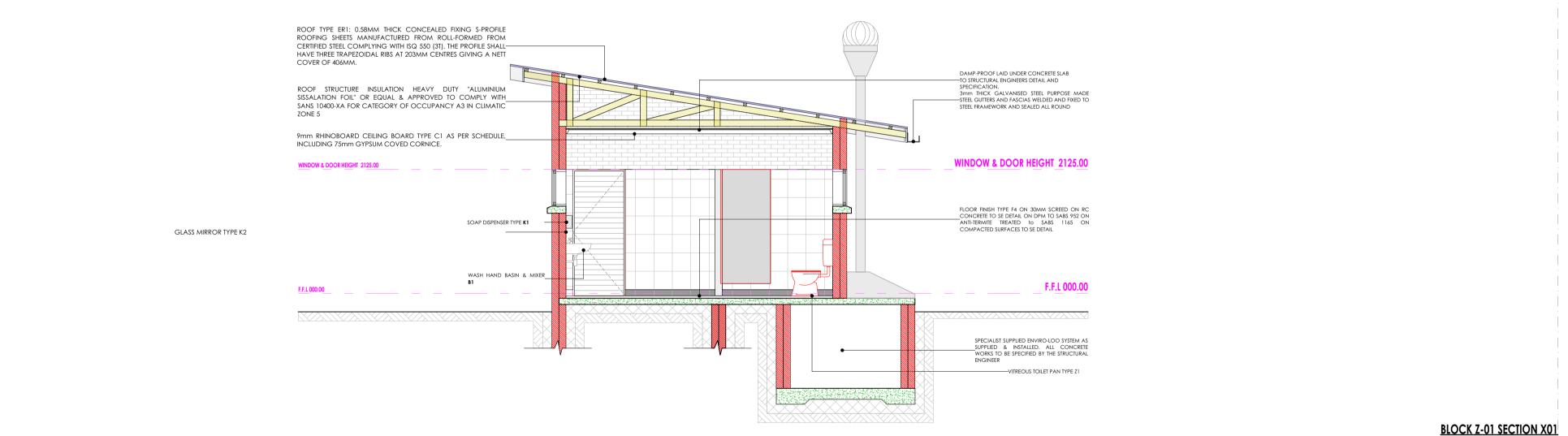
Downpipe: 110 x110 x 0.6mm Thick Commercial Grade Galvanised Steel Sheet With Class Z275 Galvanising To Comply With SABS 934 or

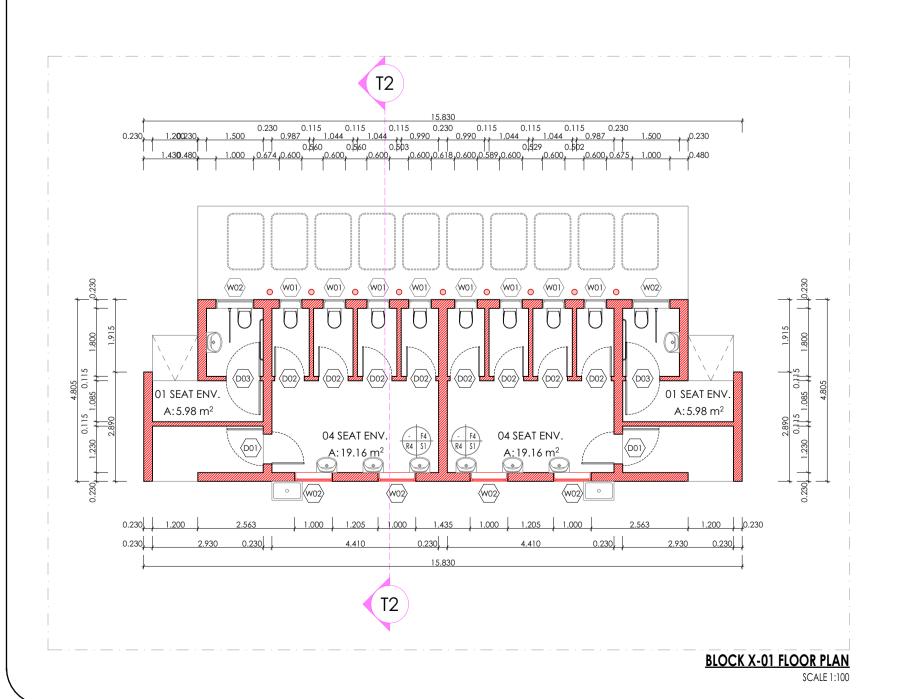
Latest Revision to or built into walls or cast in concrete columns fixed to brickwork or steel including brackets and self-taping screws To Manufacturer Installation Instructions.

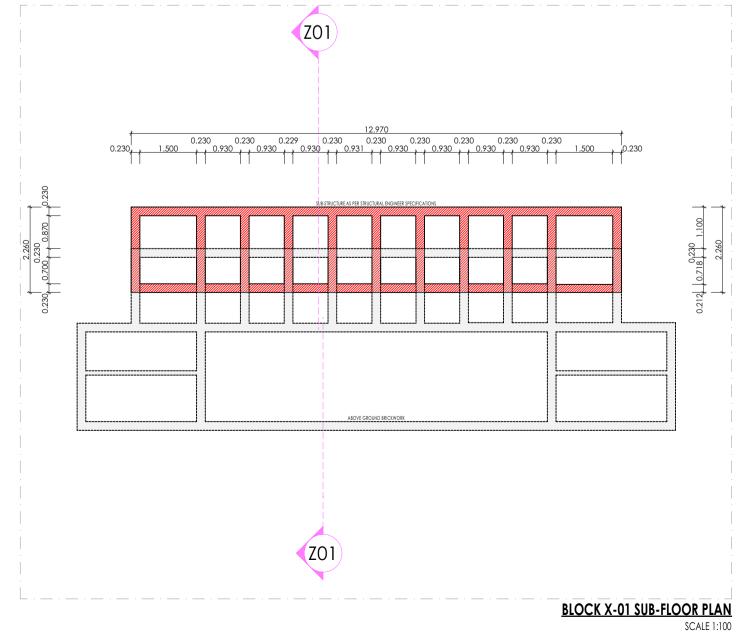
Fascia board: 250 x 10 mm Fibre- Cement Fascia/Barge Board, Screw Fixed To Truss Ends & Counter Batten With Countersunk Brass Screws. Prepare & Apply One Universal Undercoat & Two Coats Super Acrylic P.V.A.

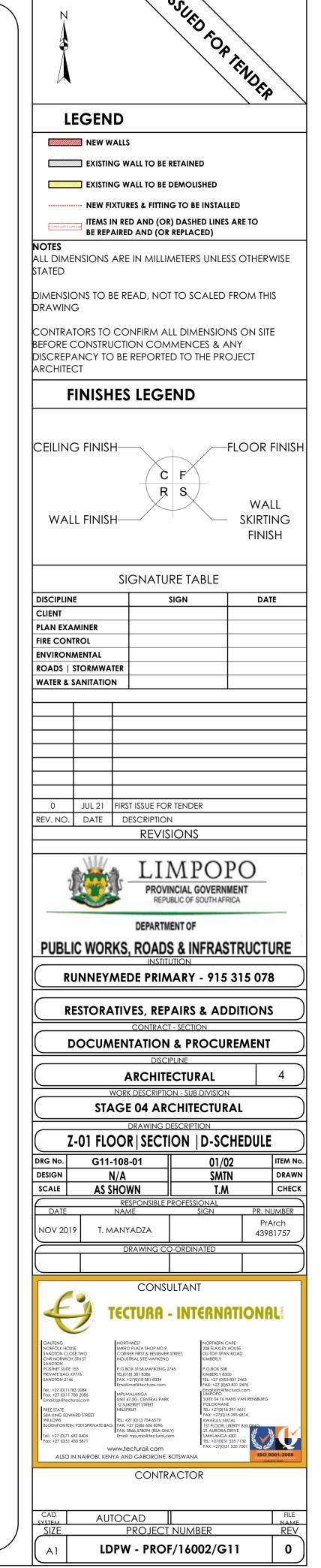


BLOCK Z-01 DOOR SCHEDULE SCALE 1:100









#### F1: FULLY FLEXIBLE TILES (Corrosive Resistant & Anti-Slippery)

300 x 300 x 2.0mm thick (colour type to architects approval), OR EQUAL AND APPROVED, quartz reinforced semi-flexible vinyl floor tiles to SABS Specification 581: 1992 (or later revision), and laid to SABS 070 (or later revision) and in accordance to manufacturer's specifications on cement screed subfloor. Fittings to include, ribbed angle tiles where there is change of level & Movement Joints of 6mm Wide With Patent Aluminium Movement Joints Strips Consisting Of Synthetic Fibre Inserts Installed At Intervals As Per Manufacturer's Instruction. Colour and pattern to architects approval

600 x 600 x10mm thick matt porcelain tile to comply with SABS 1449 laid on approved pattern by an approved specialist to comply with SABS 107 and approved adhesives and grout on screeds With Thickness/Specification in strict compliance to manufacturers instructions and SABS specification. Fittings to include, ribbed angle tiles where there is change of level & Movement Joints of 6mm Wide With Patent Aluminium Movement Joints Strips Consisting Of Synthetic Fibre Inserts Installed At Intervals As Per Manufacturer's Instruction. Colour and pattern to architects approval.

F3: CARPET TILES 500mm x 500mm , 100% PFX staple fibre carpet tiles To Comply With SABS 1419 (heavy commercial) consisting of fibres set out on waterproof vinyl backing and to comply with EN 1307 Wear Class 4 (heavy duty), laid with approved adhesive on 30mm thick cement creeds in strict compliance with manufacturer's instructions. Carpet tiles to conform to BS 4790 on fire rating, and DIN 54324 on wira test and ISO body test at less than 2Kv at 25% RH on static electricity. Colour and pattern to architects approval.

30mm thick polished cement sand screed with 13mm Stone Nominal aggregate for Topping to comply with SABS 1083 or latest revision for

#### F5: EXTERIOR MULTI COLOURED CONCRETE INTERLOCKING PAVERS

55mm thick multi-coloured concrete pavers laid on sand bedding to civil/structural engineer's specification in approved pattern and compacted to approval and grouted in strict accordance to manufacturer's specifications. All to be manufactured and installed in strict compliance to SABS 1058 or Latest Revision.

22 mm thick untinted Granolithic finish composed of one part cement, one part fine sand, two parts coarse sand and one part granite that would pass through a 5mm mesh sieve; laid by specialist in panels not exceeding 10m2. divided with approved brass dividing strips. All to be manufactured and installed in strict compliance to the latest SABS approved standards. Colour, pattern and aggregate size to architects approval.

#### F7: INTERLOCKING PAVERS (RIGID PAVING/VEHICULAR WAYS)

220mm x 197mm x 80 mm thick concrete interlocking pavers, 25 mpa, manufactured to SABS spec 1058, laid on sand bedding to civil/structural engineer's specification to a 'herringbone' pattern to the Architect's approval.

#### F8: SEMI FLEXIBLE VINLY SHEETING (CORROSIVE RESISTANT/ANTI-SLIPPERY)

2.5mm Thick Heavy Traffic Use, Corrosive Resistant & Anti-Slippery Vinyl Sheeting Semi-Flexible To Comply With SABS 586, With Static Dissipative Properties Throughout Thickness, Engineered for ESD or SD (anti-static) Protection Vinyl Sheet, Laid on Self -Levelled Smooth Screed glued with conducive adhesive To SABS 070 or Latest Revision In Accordance To Manufacturer's Instructions And Installed By Approved Specialist, Joints Shall be Welded as Per Manufacturer's Specifications With No more than 2mm Gap. Clean & Polish Floor In Compliance With SABS 1042. Colour To Architect Approval On Sample Presentation. Contractor to provide Certificate of Static Curren Conductivity. Contractor to provide Certificate of Static Current Conductivity, Corrosive resistant & Anti-Slippery.

#### F9: GRAVEL FINISH ON SAND LAYER

32mm Gravel On Compacted Sand Layer Base as Per PSE Details Installed in All Duct Chambers Accommodating Sanitary Services.

S1: HARDWOOD OR EQUAL AND APPROVED "Ex 75mm x 20mm Moulded Hardwood Skirting" to comply with SANS 1099, fixed to walls in long lengths with splayed heading joints and

mitred coners with screws and plugs at centres not exceeding 600mm, and fixed with a 19mm x 19mm quadrant beading. The skirting to be vanished with 3No. coats of egg shell clear vanish to comply with SABS/SANS 381 type 1.

#### 600mm wide x 100mm high x 7mm thick matt porcelain tile to comply with SABS 1449 laid with approved adhesives and grout on 22mm

thick screeds in strict compliance to manufacturers instructions and SABS specification, with cove base and straight tops. Complete with corner and top trims. Fittings to include, ribbed angle tiles where there is change of level. Colour and pattern to architects approval.

#### 5 mm high x 20 mm thick hardened cement sand screed skirting coved at 50 mm dia. to form a continuous joint with the adjoining screed floor finish to PA's approval. All to be manufactured and installed in strict compliance With SABS 1083 or latest revision.

**WALL FINISHES:** R1: FACE BRICK

BX face brick in common running bond to comply with SABS 227 and forming part of the structural work.

#### R2: EMULSION (PVA) PAINT - FULL HEIGHT no. coats of PVA matt finish emulsion paint to SABS 1586 applied on plastered surface primed and with 1 no. coat undercoat to SABS 6

grade1, in accordance to manufacturer's instructions. R3:ALKYD (ENAMEL) PAINT

#### ! no. coats matt (egg shell) finish alkyd (enamel) paint to SABS 630, type 2 applied on plastered surfaces with 1 no coat alkali resistant plaster primer to SABS 1416 and 1 no. coat undercoat to SABS 681 grade1, in accordance to manufacturer's instructions.

R4: GLAZED CERAMIC WALL TILES / ENAMEL PAINT COMBO Combination of; 600mm wide x 300mm x 7mm thick high glazed ceramic tiles To Specification "R5", laid on 15 mm thick plaster prepared to receive wall tiles fixed with approved adhesives and grout in compliance to manufacturer's specifications and government standard specifications laid from finish floor level to window level AND ENAMEL paint to specification "R3" To Comply with SABS 630 or latest revision applied from 2100 mm above finished floor level to ceiling height all in strict compliance to manufacturer's instructions. All to be

#### manufactured and installed in strict compliance to the latest SABS Standards. **R5:CERAMIC WALL TILES – FULL HEIGHT**

600mm x 300mm x 7mm thick high glazed ceramic tiles to Comply with SABS 22 or Latest revision, laid on 15 mm thick plaster prepared to receive wall tiles fixed with approved adhesives and grout in compliance to manufacturer's specifications and government standard specifications. Tiles to be laid to full ceiling height. All to be manufactured and installed in strict compliance SABS 22 Standard. All to be nanufactured and installed in strict compliance SABS 22 Standard.

## CEILING AND CORNICE:

## C1: 9mm GYPSUM BOARDS FLUSH PLASTERED CEILINGS OR EQUAL AND APPROVED

GypCeil Classic" gypsum plasterboard ceilingor EQUAL & APPROVED consisting of 1 layer Gyproc RhinoBoard 9mm (locally manufactured, ISO 9001 & 14001 certification, recycled paper content, Ecospecifier listing) fixed to timber brandering installed at maximum 300mm centers using Gyproc RhinoBoard Sharp Point Grabber Screws 32mm at maximum 150mm centers. Apply . Gyproc RhinoTape to all joints and skim the ceiling using Gyproc RhinoLite.

## C2: FIBRE CEMENT BOARDS (H-JOINTED)

6.4mm thick GypCeil Prestige S" fibre cement ceiling boards or EQUAL & APPROVED consisting of 1 layer Gyproc RhinoBoard 9 mm (locally nanufactured, ISO 9001 & 14001 certification, recycled paper content, Ecospecifier listing, non-combustible to SANS 10177-5) fixed to EX 38mm x 50mm timber brandering installed at maximum 400mm centres using Gyproc RhinoBoard Sharp Point Grabber Screws 32mm at maximum 150mm centres with all necessary accessories, finished with 3 No. coats of super PVA external quality paint colour to PA's approval. Gyproc RhinoTape to all joints and skim the ceiling using Gyproc RhinoLite.

## C3: PATENT SUSPENDED ACOUSTIC TILES OR EQUAL AND APPROVED

200mm x 600mm X 15mm Gyproc Celotex Pin Perforated or Fine Fissured OR EQUAL & APPROVED laid into Donn ceiling grid and secured into place using Donn Hold Down Clips @ 200mm c/c. Donn Wall Angle M6 fixed to the perimeter wall using fixings at 300mm centres. Donn 138 FR Main Tees (0.4mm thickness, Z150 galv. coating, locally manufactured, recycled content, ISO 9001 & 14001 certification) at 1200 centres & Donn T38V (1200 long) Cross Tees at 600 centres. Suspend main tees @ 1200mm c/c using Donn Hanger Strap 19mm suitably fixed o the building structural members. Donn Galvanized Hanger Strap 19mm at maximum 150mm on both sides of the fire notch. All fire otches to be in line. Suspend all full length 1200 Cross Tees at their mid-point using Donn Hanger Strap 19mm suitably fixed to the building structural members. All to comply with latest SANS 803 including all necessary accessories and installed in strict accordance to manufacturer's specifications.

## C4 EMULSION (PVA) PAINT OR EQUAL AND APPROVED

mulsion (PVA) Paint on Skimmed Plastered Slab" 3No. coats of PVA emulsion ceiling paint to latest SANS 1586 approved on 6mm thick light weight hemi-hydrate gypsum plaster on concrete slab soffit.

## **ROOF COVERING AND INSULATION:**

ER1: EMBOSSED ROOFING SHEET (TWO SIDES) **Roofing Sheets:** 0.58mm Thick concealed fixing roofing sheets manufactured from roll-formed from certified steel

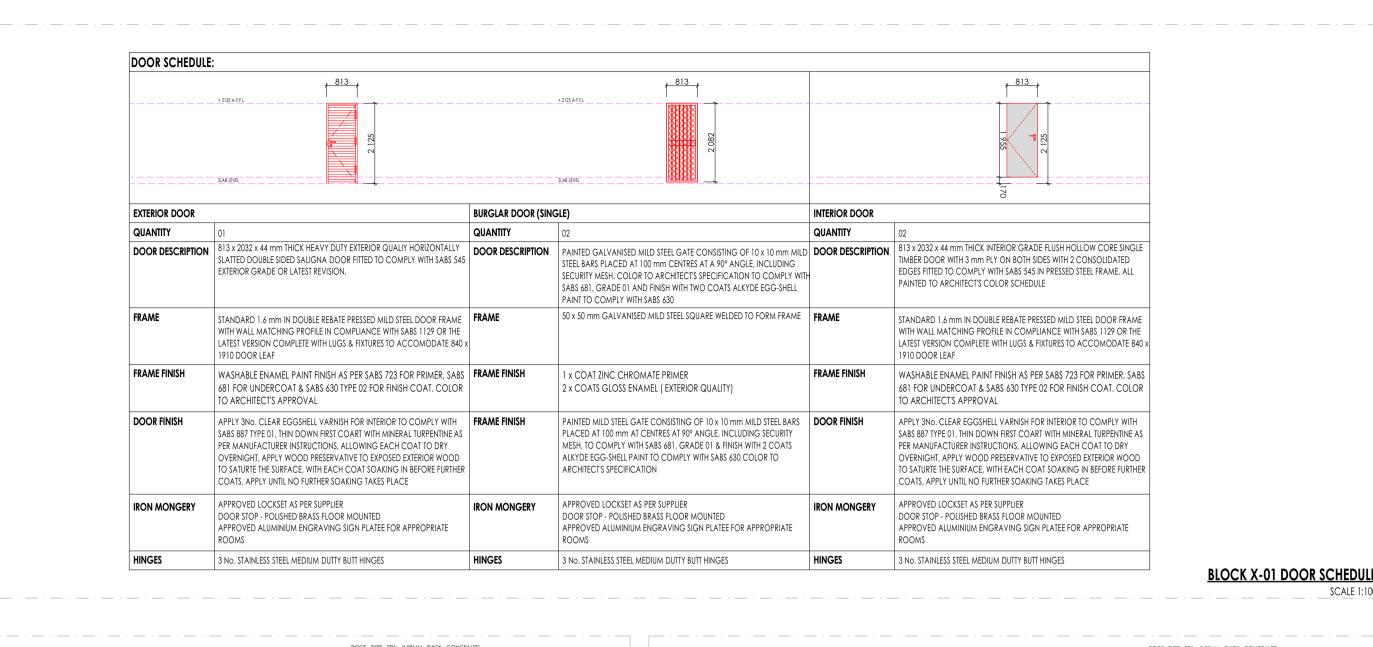
omplying with ISQ 550 (31). The profile shall have three trapezoidal ribs at 203mm centers giving a net cover of 406mm. The rib height shall be 41mm and provide capillary breaks. The male rib shall have spurs at 283mm centers to ensure a positive double interlocking action at side-laps. Each pan shall incorporate two stiffener ribs. Profiled roofsheets to be coated on both sides with "Global Coat" or "Chromadek Colour" and laid on structural timber/steel structure incorporating all necessary accessories such as flashings and eave closers in strict compliance to manufacturer's instruction

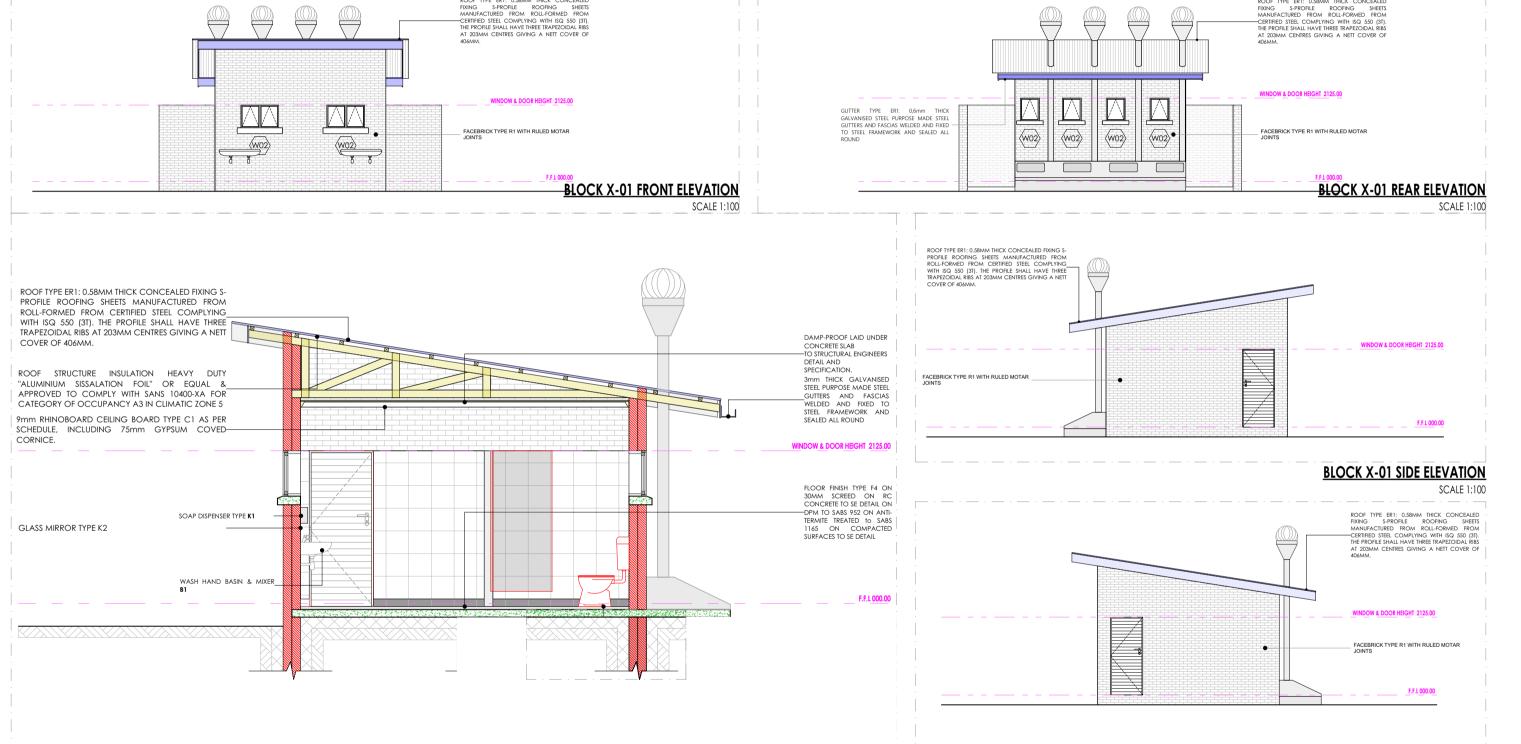
AND 2: where the steel work is exposed, a 50mm "FactoryBoard" manufactured from noncombustible glass fibres and thermo-setting resin binder supplied size 2400mm x 1200mm and 80kg/mÑ and finished with white metalized foil. Galvanised Steel (GI) Gutter: 150mm Wide x 100mm Deep x 0.6mm Eaves Gutter of Commercial Grade Steel With Class 7275 Galvanising To Comply With SABS 934 or latest Revision Fixed To Painted Fibre Cement Fascia Board Together with standard accessories discharging into

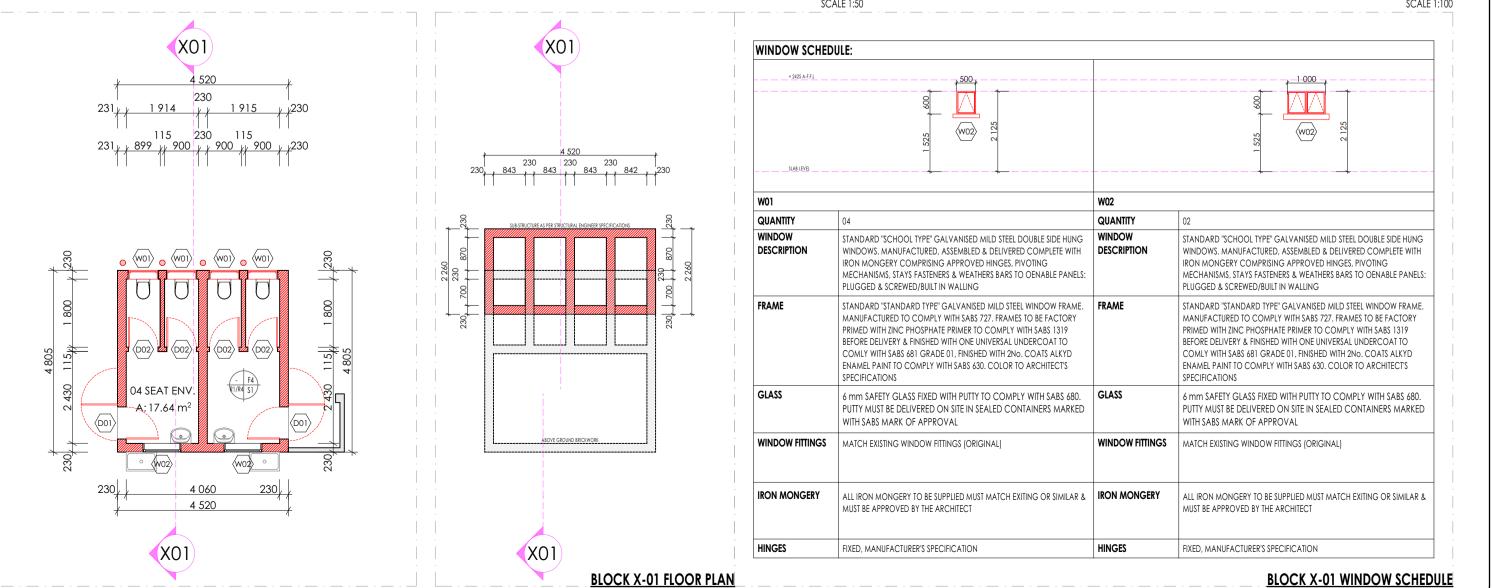
Insulation: SHALL EITHER BE: 1: where there are acoustic ceilings susspeded board, a heavy duty "Aluminium sisalation foil" shall be installed

Downpipe: 110 x 110 x 0.6mm Thick Commercial Grade Galvanised Steel Sheet With Class 2275 Galvanising To Comply With SABS 934 or Latest Revision to or built into walls or cast in concrete columns fixed to brickwork or steel including brackets and self-taping screws To

Manufacturer Installation Instructions. Fascia board: 250 x 10 mm Fibre- Cement Fascia/Barge Board, Screw Fixed To Truss Ends & Counter Batten With Countersunk Brass Screws. Prepare & Apply One Universal Undercoat & Two Coats Super Acrylic P.V.A.







SCALE 1:100

**BLOCK X-01 SECTION XO** 

#### **SANITARY SCHEDULE**

#### WC'S URINALS & SHOWER

Z1: CERAMIC STANDARD WC (CC)- CONCEALED CISTERN Vitreous china 90° outlet WC or eaual and approved top inlet closed rim back-to-wall pan, Floor Mounted to comply with SABS 497 & Fitted with "J Thermoset Plastic Seat" Fitted with Concealed Flushing Cistern for WC 6-7 litres adjustable with small discharge valve access pneumatic discharge valve Installed with dual flush ability & complete with all necessary fittings to manufacturer's specification and applicable SABS standards. Flush valve to be fitted with

Vitreous china 90o outlet or equal and approved, top inlet closed rim back-to-wall pan to comply with SABS 497. Fitted with Cistern Installed complete with c necessary fittings to manufacturer's specification and applicable SABS standards. Flush valve to be fitted with suitable extension lever.

#### Z3: CERAMIC PARAPLEGIC WC (CC)- CONCEALED CISTERN

Vitreous china 90o outlet WC or equal and approved top inlet closed rim back-to-wall pan, Floor Mounted to comply with SABS 497 & Fitted with "Jac Thermoset Plastic Seat". Fitted with Concealed Flushing Cistern for WC 6-7 litres adjustable with small discharge valve access pneumatic discharge valve Installed with dual flush ability & complete with all necessary fittings to manufacturer's specification and applicable SABS standards. Flush valve to be fitted with suitable extension lever, blank flush plate & offset push button for paraplegic access

Vitreous china 900 outlet, back inlet pan to comply with SABS 497. Fitted complete with Back inlet exposed flush-valve complete with all necessary fittings as per manufacturer's specifications and applicable SABS standards. Flush valve to be fitted with suitable extension lever.

# **Z5: CERAMIC STANDARD WC (CC)**

ritreous china 900 outlet, back inlet pan to comply with SABS 497. Fitted complete with matching 7 litre pushbutton top dual flush cistern fitted with quality approved heavy duty thermoset lid, seat and complete with all necessary fittings as per manufacturer's specifications and applicable SABS standards.

#### 74: CERAMIC WALL HUNG URINAL wall hang bowl urinal to comply with SABS 497. Supplied with suitable 38mmCP domical grating, CP top inlet spreader an two hanger brackets and fitted with exposed flush-valve, and suitable bottle trap chrome finish as per manufacturer's specifications and applicable SABS

mm thick Enamelled steel shower tray size 900x900x160 mm manufactured with anti slip pattern, with rounded internal corners, and 38 mm BSP grated waste fitting in corner position fitted with Shower set and complying with SABS 226 comprising of approved:

Glazed Shower Cubicle with access door as per standard supply from manufacturer and sized to fit space configuration

 Overhead shower arm with wall flange Chrome Plated Shower Head with ball jointed connector

 Chrome Plated Bath/shower diverter mixer-wall type with sliding wall flanges and concealed connections adjustable from 178 mm to 203 mm centres. Shower tray to be recessed 50 mm into a 100mm high concrete plinth with exposed plinth face tiled.

#### **WASH-HAND BASIN**

yous china size 560 x 415mm rounded 'Tuscany', OR EQUAL AND APPROVE basin to comply with SABS 497 with single tapho configuration supplied with integrated overflow and chainstay hole through the centre semi-punched supplied with a 'Tuscany' pedestal and fitted with 1N 'Cobra Watertech' 15mm chrome pushbutton demand pillar tap with flanged backnut (code KM2.102) metering tap, 309-32 CP anti-theft plug with spindle, 30 pasin waste, 365/40 CP Bottle Trap, mounting kit and angle valves.

**B2: DISABLED BASIN** 420mm semi rounded lavatory basin to comply with SABS 497, in two tap hole configuration fitted with;2 No.chrome plated Elbow action pillar-tap, with ¼ turn ceramic disc head and blue & Red indicators water applications and flanged backnut, chrome plated waste, chrome plated 32 mm

#### standing overflow tube, chrome plated Bottle Trap supplied with all necessary pipe connections. Fixed with concealed wall bracket in accordance to t B3: WHITE GLAZED PORCELAIN WHB (VANITY) amic fireclay size 450x350mm oval self-rimming vanity basin to comply with SABS 497 in one tap hole configuration supplied without overflow and fitted with:

1No. chrome plated tap with flanged backnut (code KM2.102) metering tap, mounting kit and angle valves 400mm long flexible inlets and chrome plated bottle trap supplied with all necessary pipe connections. Basin mounted on cabinet or vanity slab with silicon sealant between contact areas in stric accordance to manufacture's specifications. **B4: SMALL BASIN & 2 TAPSTRAY & SHOWER SET (FOR WORKSHOPS)** 

#### Vitreous china size 455x290mm wash basin to comply with SABS 497 in 2-tap hole configuration supplied with integrated overflow and chainstay hole with; 2N pillar taps, chrome plated anti-theft plug with spindle plug, slotted basin waste, chrome plated Bottle Trap, mounting kit and angle valves with 400mm lor flexible inlets supplied with all necessary pipe connections. All brackets and fixing accessories in strict accordance to the manufacturer's specifications.

B5: H/DUTY BASIN & 1No. TAP (FOR LABS) heavy duty basin in one taphole configuration to comply with SABS 497 and RHS hole plugged and fitted with;1No. pillar tap, Chrome Plated anti-theft plug with spindle plug, slotted basin waste, chrome plated Bottle Trap, mounting kit and angle valves with 400mm long flexible inlets supplied with all necessary pipe connections. Fitted to wall using 2No. Semi-concealed cast iron brackets in accordance to the manufacturer

#### B6: MEDIC BASIN & FITTINGS (SICK BAY) Vitreous china 510 x 420mm semi rounded lavatory basin to comply with SABS 497, in two tap hole configuration fitted with; 2 No.chrome plated Elbow action pillar-tap, with . turn ceramic disc head and blue & Red indicators water applications and flanged backnut, chrome plated waste, chrome plated 32mm standing overflow tube, chrome plated Bottle Trap supplied with all necessary pipe connections. Fixed with concealed wall bracket in accordance to the manufacturer's specifications.

Combination of sanitaryware, accessories and general fittings comprising of • Mirror type K2. • Paper towel dispenser K8 and bin type K3. • Soap dispenser type K9.

#### • Splashback comprising 2no, rows of wall tile finish type R5 as per finishes schedule and grout in compliance to manufacturer's specifications and government standard specifications. Installation heights as indicated in the drawings

Stainless steel 1000 x 457mm inset single end bowl with recessed drainage ledge and folded edges. Bowl to be fitted to kitchen cupboard (cupboard elsewl measured), Grade 304 (18/10) Stainless Steel sink to comply with SABS 906 fitted with: Approved Sink mixer- wall type, chrome plated swivel Outlet, adjustab and supplied with suitable assesories in accordance to manufacturer's specifications. Sink installation height = 900mm AFFL.

Stainless steel 1500 x 457mm inset double end bowl with recessed drainage ledge and folded edges. Bowl to be fitted to kitchen cupboard (cupboal elsewhere measured), Grade 304 (18/10) Stainless Steel sink to comply with SABS 906 fitted with: Approved Sink mixer- wall tape, with chrome plated overarm swivel Outlet, adjustable wall flanges and supplied with suitable acesories in accordance to manufacturer's specifications. Sink installation height = 900mm AFFI

Ceramic fireclay 435 x 335 x 180 mm rectangular laboratory sink without overflow, with a centre end waste outlet, fitted to the wall on two semi-concealer brackets supplied with all necessary accessories (all to be acid resistant

x 500mm Inset washtrough, manufactured from grade 18/10 SS, stainless steel with radiused internal corners and provision for a 40mm dia, outlet, Fith with Approved 2No. CP bibtaps – plain extended chrome plated, complete with sliding wall flanges, Un-slotted sink waste with back nut, plug with stirrup, cha and stay. CP, 'P' trap, with deep seal and cleaning eye. Rough brass. Sink installation height = 900mm AFFL. Cut out size 535 x 425mm. X5: DOUBLE WASH TROUGH (inset) & 2 no. TAPS

x 553 x 260mm Double bowl wall hung washtub manufactured from grade 304 (18/10) SS, radiused internal corners and provision for a 40mm dia. outlet fitted with: Approved 2no wall type bibtaps, with Swivel Outlet, adjustable wall flanges and exposed adjustable connections. CP. Un-slotted sink waste with bac nut and plug with stirrup. CP, Double drain black rubber deep seal 'P'-Trap. Sink mounted on 2no. 25mm square SS gallow brackets, front leg and adjustable fo

## **SANITARY ACCESSORIES**

K5: SOAP HOLDER

**BLOCK X-01 SIDE ELEVATION** 

K1: SS TOILET ROLL HOLDER- 2 ROLL dard stainless steel toilet roll holder (2 roll) 153mm width x 270mm high 275mm depth Toilet Roll Holder manufactured from 18/10 Stainless Steel, surface Sat finish, including screws and dowels and all other necessary accessories in accordance to manufacturer's specifications.

**K2: GLASS MIRROR** 6mm thick clear float glass silver-backed mirror, size 450x900mm height with polished bevelled edges 4 times holed for and fixed, with chromium plated dom headed mirror screws K3: SS WASTE BIN

328W x 826H x 203D Waste bin manufactured From 18/10 Stainless steel, Surface Satin Finish, Material Thickness 1.5mm, including Screws, dowels and all necessar accessories in accordance to manufacturer's specifications.

1 x 320mm x 600mm Plastic Sanitary Pedal Bin with capacity of 100 Liners per pack Complete with all necessary accessories and installed in accordance to manufacturer's specifications.

Single semi-recessed ceramic soap dish Complete with all necessary accessories and installed in accordance to manufacturer's specifications. K6: WALL GRAB RAILS-PARAPLEGIC

Stainless steel 914 x 90 x 32mm diameter wall (rear) grab rail, in satin polished finish complete with SS fixing screws and plastic wall plugs. Installed as per manufacturer's instructions. K7: GRAB RAILS (RIGHT/LEFT HAND)-PARAPLEGIC

#### Stainless steel 1016 x 90 x 32mm diameter right/left hand side toilet grab rail with 450mm high centre flange, in satin polished finish complete with SS fixing screw and plastic wall plugs. Installed as per manufacturer's instructions

350mmWx365mmHx230mmD tear and dry paper hand towel dispenser in stainless steel. Complete with screws, locking key, and all necessary accessories ar installed in accordance to manufacturer's specifications. K9: SOAP DISPENSER/DISH- WALL MOUNTED 115W x 270H x 110D Stailess steel Hands Free soap dispenser. Complete with screws, locking key, and all necessary accessories and installed in accordance

manufacturer's specifications. 820mm Wide x 220mm High x 90mm High Aluminium Multi-rack Hat and Coat Hook in multi-track two Hooks Configuration With Anodised Silver Finish Comple

55mm dia. Polished 900mm long towel rail complete with all necessary accessories in accordance to manufacturer's specifications. Installation height as pe

K11: HAND DRYER (Hands free) As per Electrical Engineers specification

K13: SHOWER CURTAIN RAIL (straight)

## 20mm dia. standard chromium plated shower curtain rail 1300mm long with flanged ends and screws CP fixing height as per PA's drawing.

GENERAL FIXTURES

**G2: PROJECTOR SCREEN** 

200mm wide uPVC Door Protector manufactured in high impact resistant rigid uPVC (Colour Grey) and cut to suit door width from 3m length, installed strictly in accordance to manufacturer's specifications. Installation height 900mm above FFL, or as specified.

Pull down PVC screen size 2440 x 1850mm (viewing area 2340 x 1750mm) with wall-mounted code SCO400 Keystone Brackets Adjustable Set of 2, size 300mm. To be supplied complete with all accessories, and fitted in strict accordance with manufactures instructions.

G3: PINBOARD 1500W X 1000H Pinboard size 1000mm H x 1500mm W comprising of laminated soft board core pinning material beaded all round with anodised aluminium channel surrour mitred at the corners. To be fitted complete with fixing brackets, screws and wall plugs at 900mm above floor level.

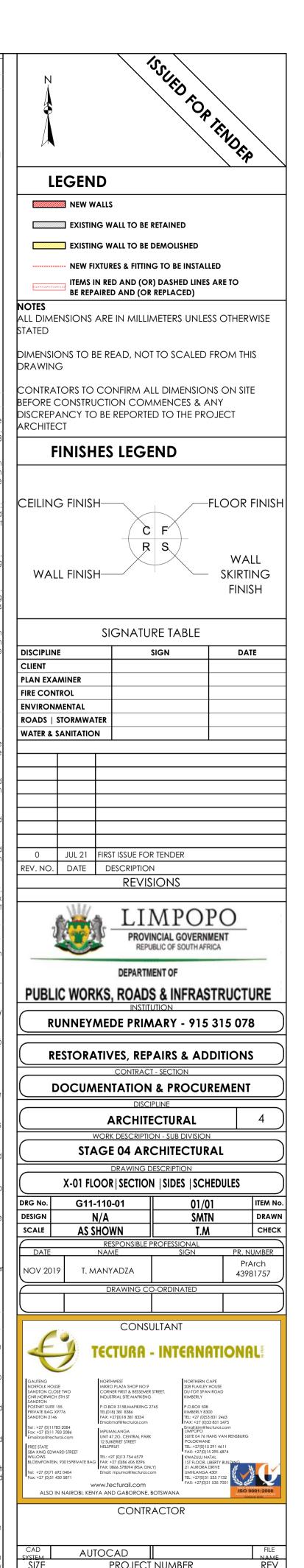
Pinboard size 1200mm H x 3000mm W comprising of laminated soft board core pinning material beaded all round with anodised aluminium channel surrour mitred at the corners. To be fitted complete with fixing brackets, screws and wall plugs at 900mm above floor level G5: WINDOW NORMAL BLINDS(vertical fabric) 27 mm vertical deco blinds with anodised aluminium headrail fitted with colour coordinated insert. All runners o be wheeled and fitted with individual clut

mechanism. All runners to be connected by stainless steel links. Tilt mechanism to be operated by a nylon ball chain with a reduction gear inside a fully enclose cap. Blinds to be face fixed (fixed over the window opening) by means of concealed type fixing brackets. **G6: FLOOR DRAIN** 

Cast iron flat type full-flow outlets size 110 mm diameter with centre bolt, , including connections to downpipes. **G7: SS FLOOR EXPANSION JOINT COVER** 

Co-extruded heavy-duty stainless steel movement joint strip, with polyurethane infill (colour grey). To be installed within the tile surface over the 20mm expansion joints, in accordance to the manufacturer's specifications.

G8: CHALKBOARDS- GREEN SURFACE COLOUR m 1000 standard WRITEBOARD or EQUAL & APPROVED vitreous enamelled steel utility school chalkboards wall-mounted size 4800mm x 1140mm hig manufactured in accordance with SABS Standard CKS 36/2004 Edition 4 and suitable for Class 1: Heavy Duty applications, as defined therein. Enamel steel Utili chalk board surfaces to be matt and finely structured, olive green in colour (Vitrex Colour Reference - Chalk Board Green LM1797/2), supplied complete wit ntegral anodised aluminium chalk rail (ACR), fixing components and secured in position to brickwork. The Chalk boards are to be fixed in position strictly in accordance with the manufacturer's instructions.



LDPW - PROF/16002/G11

#### F1: FULLY FLEXIBLE TILES (Corrosive Resistant & Anti-Slippery)

300 x 300 x 2.0mm thick (colour type to architects approval), OR EQUAL AND APPROVED, quartz reinforced semi-flexible vinyl floor tiles to SABS Specification 581: 1992 (or later revision), and laid to SABS 070 (or later revision) and in accordance to manufacturer's specifications on cement screed subfloor. Fittings to include, ribbed angle tiles where there is change of level & Movement Joints of 6mm Wide With Patent Aluminium Movement Joints Strips Consisting Of Synthetic Fibre Inserts Installed At Intervals As Per Manufacturer's Instruction. Colour and pattern to architects approval

#### F2: PORCELAIN TILES -MATT

600 x 600 x10mm thick matt porcelain tile to comply with SABS 1449 laid on approved pattern by an approved specialist to comply with SABS 107 and approved adhesives and grout on screeds With Thickness/Specification in strict compliance to manufacturers instructions and SABS specification. Fittings to include, ribbed angle tiles where there is change of level & Movement Joints of 6mm Wide With Patent Aluminium Movement Joints Strips Consisting Of Synthetic Fibre Inserts Installed At Intervals As Per Manufacturer's Instruction. Colour and pattern to architects approval.

F3: CARPET TILES 500mm x 500mm , 100% PFX staple fibre carpet tiles To Comply With SABS 1419 (heavy commercial) consisting of fibres set out on waterproof vinyl backing and to comply with EN 1307 Wear Class 4 (heavy duty), laid with approved adhesive on 30mm thick cement creeds in strict compliance with manufacturer's instructions. Carpet tiles to conform to BS 4790 on fire rating, and DIN 54324 on wira test and ISO body test at less than 2Kv at 25% RH on static electricity. Colour and pattern to architects approval.

30mm thick polished cement sand screed with 13mm Stone Nominal aggregate for Topping to comply with SABS 1083 or latest revision for

#### F5: EXTERIOR MULTI COLOURED CONCRETE INTERLOCKING PAVERS

55mm thick multi-coloured concrete pavers laid on sand bedding to civil/structural engineer's specification in approved pattern and compacted to approval and grouted in strict accordance to manufacturer's specifications. All to be manufactured and installed in strict compliance to SABS 1058 or Latest Revision.

22 mm thick untinted Granolithic finish composed of one part cement, one part fine sand, two parts coarse sand and one part granite that would pass through a 5mm mesh sieve; laid by specialist in panels not exceeding 10m2. divided with approved brass dividing strips. All to be manufactured and installed in strict compliance to the latest SABS approved standards. Colour, pattern and aggregate size to architects approval.

#### F7: INTERLOCKING PAVERS (RIGID PAVING/VEHICULAR WAYS)

220mm x 197mm x 80 mm thick concrete interlocking pavers, 25 mpa, manufactured to SABS spec 1058, laid on sand bedding to civil/structural engineer's specification to a 'herringbone' pattern to the Architect's approval.

#### F8: SEMI FLEXIBLE VINLY SHEETING (CORROSIVE RESISTANT/ANTI-SLIPPERY)

2.5mm Thick Heavy Traffic Use, Corrosive Resistant & Anti-Slippery Vinyl Sheeting Semi-Flexible To Comply With SABS 586, With Static Dissipative Properties Throughout Thickness, Engineered for ESD or SD (anti-static) Protection Vinyl Sheet, Laid on Self -Levelled Smooth Screed alued with conducive adhesive To SABS 070 or Latest Revision In Accordance To Manufacturer's Instructions And Installed By Approved Specialist, Joints Shall be Welded as Per Manufacturer's Specifications With No more than 2mm Gap. Clean & Polish Floor In Compliance With SABS 1042. Colour To Architect Approval On Sample Presentation. Contractor to provide Certificate of Static Current Conductivity. Contractor to provide Certificate of Static Current Conductivity, Corrosive resistant & Anti-Slippery.

# F9: GRAVEL FINISH ON SAND LAYER

32mm Gravel On Compacted Sand Layer Base as Per PSE Details Installed in All Duct Chambers Accommodating Sanitary Services.

S1: HARDWOOD OR EQUAL AND APPROVED "Ex 75mm x 20mm Moulded Hardwood Skirting" to comply with SANS 1099, fixed to walls in long lengths with splayed heading joints and mitred coners with screws and plugs at centres not exceeding 600mm , and fixed with a 19mm x 19mm quadrant beading. The skirting to be

# vanished with 3No. coats of egg shell clear vanish to comply with SABS/SANS 381 type 1. 600mm wide x 100mm high x 7mm thick matt porcelain tile to comply with SABS 1449 laid with approved adhesives and grout on 22mm

thick screeds in strict compliance to manufacturers instructions and SABS specification, with cove base and straight tops. Complete with corner and top trims. Fittings to include, ribbed angle tiles where there is change of level. Colour and pattern to architects approval.

#### 5 mm high x 20 mm thick hardened cement sand screed skirting coved at 50 mm dia, to form a continuous joint with the adjoining screed floor finish to PA's approval. All to be manufactured and installed in strict compliance With SABS 1083 or latest revision.

S3: CEMENT SAND SCREED

**WALL FINISHES:** R1: FACE BRICK

R4: GLAZED CERAMIC WALL TILES / ENAMEL PAINT COMBO

#### BX face brick in common running bond to comply with SABS 227 and forming part of the structural work. R2: EMULSION (PVA) PAINT - FULL HEIGHT

no. coats of PVA matt finish emulsion paint to SABS 1586 applied on plastered surface primed and with 1 no. coat undercoat to SABS 681 grade1, in accordance to manufacturer's instructions.

## R3:ALKYD (ENAMEL) PAINT

no. coats matt (egg shell) finish alkyd (enamel) paint to SABS 630, type 2 applied on plastered surfaces with 1 no coat alkali resistant plaster primer to SABS 1416 and 1 no. coat undercoat to SABS 681 grade1, in accordance to manufacturer's instructions.

Combination of; 600mm wide x 300mm x 7mm thick high glazed ceramic tiles To Specification "R5", laid on 15 mm thick plaster prepared to receive wall tiles fixed with approved adhesives and grout in compliance to manufacturer's specifications and government standard specifications laid from finish floor level to window level AND ENAMEL paint to specification "R3" To Comply with SABS 630 or latest revision applied from 2100 mm above finished floor level to ceiling height all in strict compliance to manufacturer's instructions. All to be manufactured and installed in strict compliance to the latest SABS Standards.

## **R5:CERAMIC WALL TILES – FULL HEIGHT**

600mm x 300mm x 7mm thick high glazed ceramic tiles to Comply with SABS 22 or Latest revision, laid on 15 mm thick plaster prepared to receive wall tiles fixed with approved adhesives and grout in compliance to manufacturer's specifications and government standard specifications. Tiles to be laid to full ceiling height. All to be manufactured and installed in strict compliance SABS 22 Standard. All to be nanufactured and installed in strict compliance SABS 22 Standard.

## **CEILING AND CORNICE:**

## C1: 9mm GYPSUM BOARDS FLUSH PLASTERED CEILINGS OR EQUAL AND APPROVED

GypCeil Classic" gypsum plasterboard ceilingor EQUAL & APPROVED consisting of 1 layer Gyproc RhinoBoard 9mm (locally manufactured, ISO 9001 & 14001 certification, recycled paper content, Ecospecifier listing) fixed to timber brandering installed at maximum 300mm centers using Gyproc RhinoBoard Sharp Point Grabber Screws 32mm at maximum 150mm centers. Apply . Gyproc RhinoTape to all joints and skim the ceiling using Gyproc RhinoLite.

## C2: FIBRE CEMENT BOARDS (H-JOINTED)

6.4mm thick GypCeil Prestige S" fibre cement ceiling boards or EQUAL & APPROVED consisting of 1 layer Gyproc RhinoBoard 9 mm (locally manufactured, ISO 9001 & 14001 certification, recycled paper content, Ecospecifier listing, non-combustible to SANS 10177-5) fixed to EX 38mm x 50mm timber brandering installed at maximum 400mm centres using Gyproc RhinoBoard Sharp Point Grabber Screws 32mm at maximum 150mm centres with all necessary accessories, finished with 3 No. coats of super PVA external quality paint colour to PA's approval. Gyproc RhinoTape to all joints and skim the ceiling using Gyproc RhinoLite.

## C3: PATENT SUSPENDED ACOUSTIC TILES OR EQUAL AND APPROVED

200mm x 600mm X 15mm Gyproc Celotex Pin Perforated or Fine Fissured OR EQUAL & APPROVED laid into Donn ceiling grid and secured into place using Donn Hold Down Clips @ 200mm c/c. Donn Wall Angle M6 fixed to the perimeter wall using fixings at 300mm centres. Donn 138 FR Main Tees (0.4mm thickness, Z150 galv. coating, locally manufactured, recycled content, ISO 9001 & 14001 certification) at 1200 centres & Donn T38V (1200 long) Cross Tees at 600 centres. Suspend main tees @ 1200mm c/c using Donn Hanger Strap 19mm suitably fixed o the building structural members. Donn Galvanized Hanger Strap 19mm at maximum 150mm on both sides of the fire notch. All fire otches to be in line. Suspend all full length 1200 Cross Tees at their mid-point using Donn Hanger Strap 19mm suitably fixed to the building structural members. All to comply with latest SANS 803 including all necessary accessories and installed in strict accordance to manufacturer's specifications.

## C4 EMULSION (PVA) PAINT OR EQUAL AND APPROVED

mulsion (PVA) Paint on Skimmed Plastered Slab" 3No. coats of PVA emulsion ceiling paint to latest SANS 1586 approved on 6mm thick light weight hemi-hydrate gypsum plaster on concrete slab soffit.

## **ROOF COVERING AND INSULATION:**

# ER1: EMBOSSED ROOFING SHEET (TWO SIDES)

**<u>Roofing Sheets:</u>** 0.58mm Thick concealed fixing roofing sheets manufactured from roll-formed from certified steel

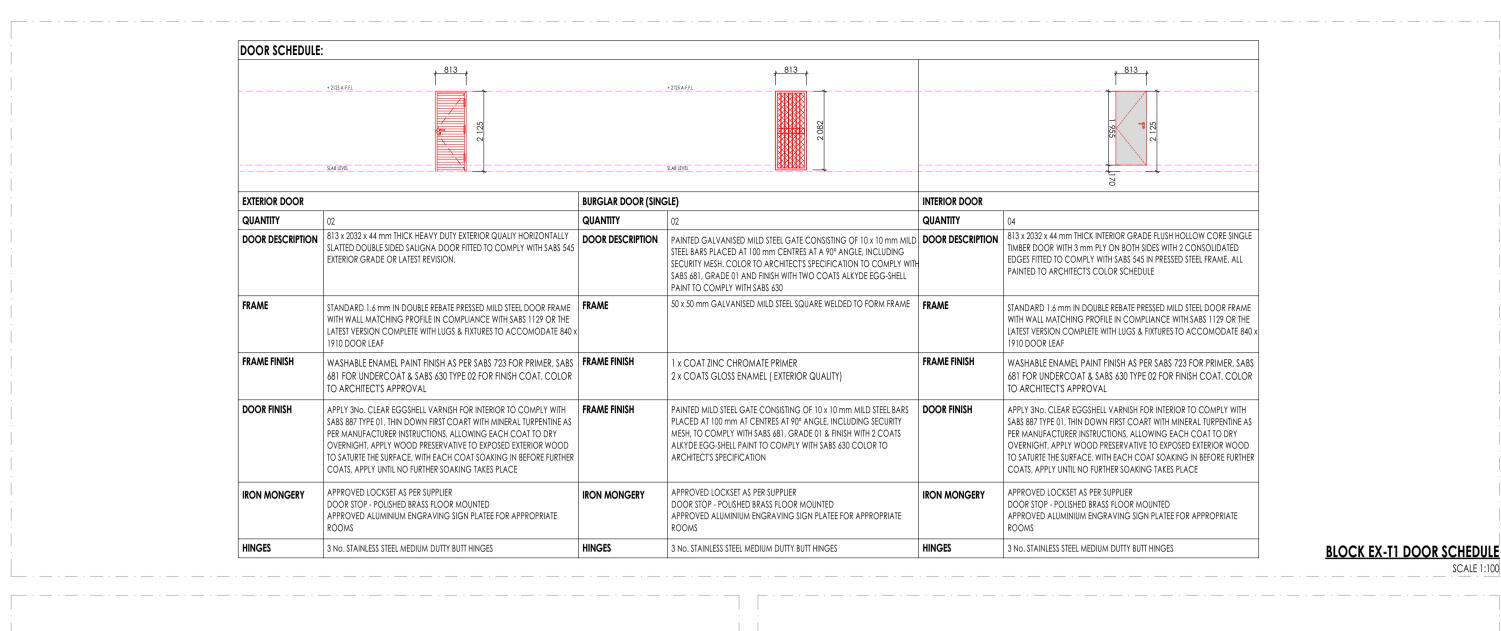
omplying with ISQ 550 (31). The profile shall have three trapezoidal ribs at 203mm centers giving a net cover of 406mm. The rib height shall be 41mm and provide capillary breaks. The male rib shall have spurs at 283mm centers to ensure a positive double interlocking action at side-laps. Each pan shall incorporate two stiffener ribs. Profiled roofsheets to be coated on both sides with "Global Coat" or "Chromadek Colour" and laid on structural timber/steel structure incorporating all necessary accessories such as flashings and eave closers in strict compliance to manufacturer's instruction

Insulation: SHALL EITHER BE: 1: where there are acoustic ceilings susspeded board, a heavy duty "Aluminium sisalation foil" shall be installed AND 2: where the steel work is exposed, a 50mm "FactoryBoard" manufactured from noncombustible glass fibres and thermo-setting resin binder supplied size 2400mm x 1200mm and 80kg/mÑ and finished with white metalized foil.

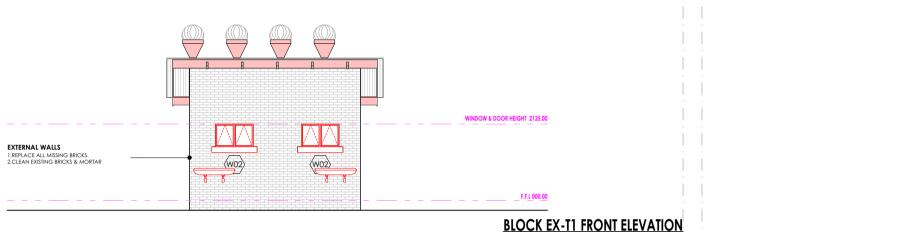
Galvanised Steel (GI) Gutter: 150mm Wide x 100mm Deep x 0.6mm Eaves Gutter of Commercial Grade Steel With Class 7275 Galvanising To Comply With SABS 934 or latest Revision Fixed To Painted Fibre Cement Fascia Board Together with standard accessories discharging into

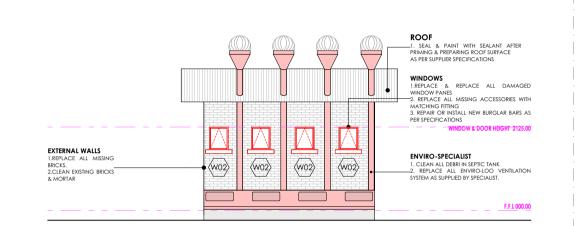
Downpipe: 110 x110 x 0.6mm Thick Commercial Grade Galvanised Steel Sheet With Class Z275 Galvanising To Comply With SABS 934 or Latest Revision to or built into walls or cast in concrete columns fixed to brickwork or steel including brackets and self-taping screws To Manufacturer Installation Instructions.

Fascia board: 250 x 10 mm Fibre- Cement Fascia/Barge Board, Screw Fixed To Truss Ends & Counter Batten With Countersunk Brass Screws. Prepare & Apply One Universal Undercoat & Two Coats Super Acrylic P.V.A.



**BLOCK EX-T1 SECTION T5** 



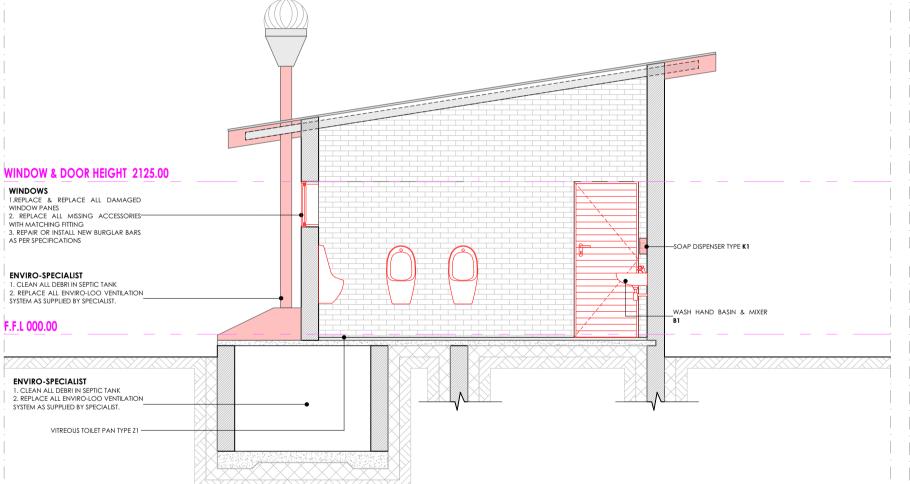


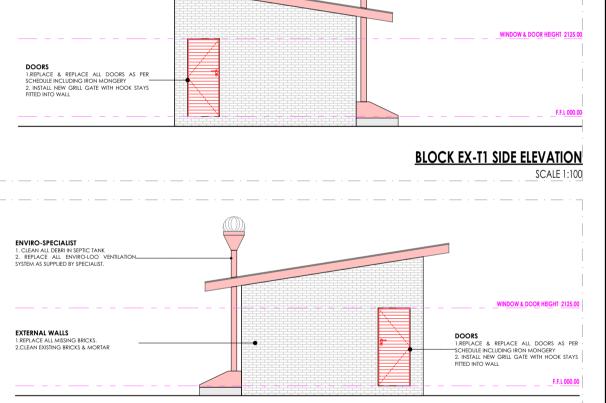
**BLOCK EX-T1 REAR ELEVATION** 

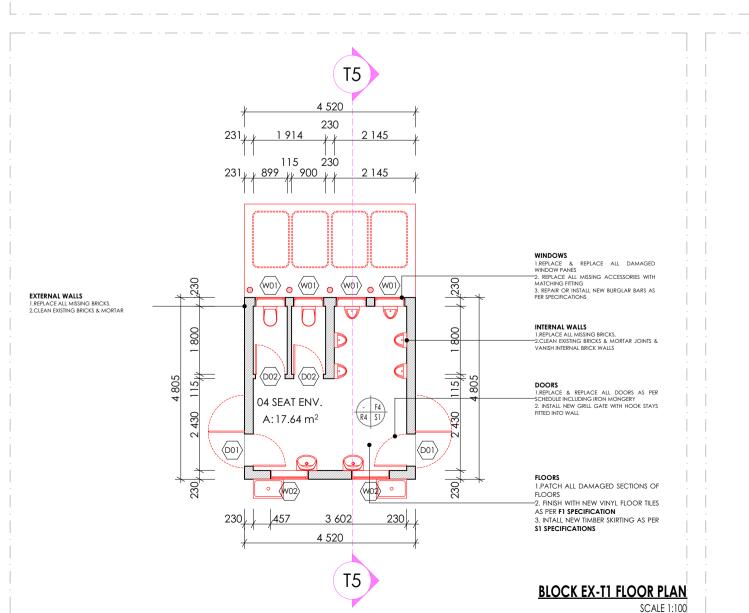
**ENVIRO-SPECIALIS** 

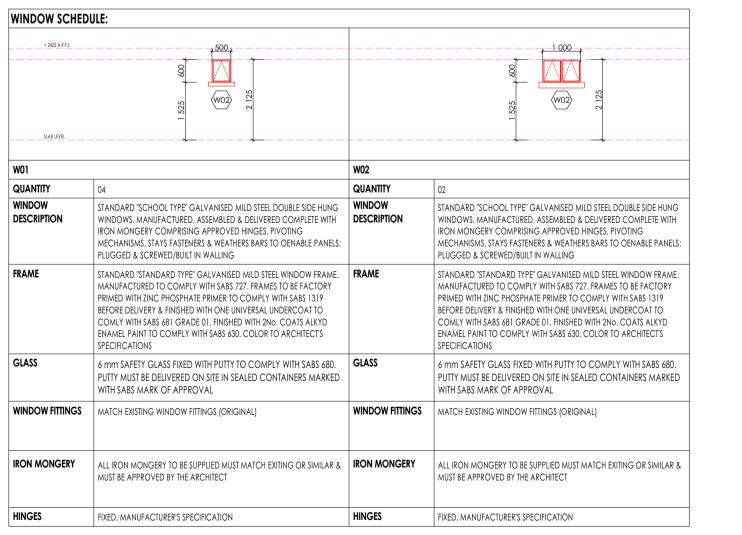
**BLOCK EX-T1 SIDE ELEVATION** 

BLOCK EX-T1 WINDOW SCHEDULE









#### **SANITARY SCHEDULE**

#### WC'S URINALS & SHOWER

#### Z1: CERAMIC STANDARD WC (CC)- CONCEALED CISTERN

Vitreous china 90° outlet WC or equal and approved top inlet closed rim back-to-wall pan, Floor Mounted to comply with SABS 497 & Fitted with "Ju Thermoset Plastic Seat" Fitted with Concealed Flushing Cistern for WC 6-7 litres adjustable with small discharge valve access pneumatic discharge val Installed with dual flush ability & complete with all necessary fittings to manufacturer's specification and applicable SABS standards. Flush valve to be fitted with

#### /itreous china 900 outlet or equal and approved, top inlet closed rim back-to-wall pan to comply with SABS 497. Fitted with Cistern Installed complete with c

# necessary fittings to manufacturer's specification and applicable SABS standards. Flush valve to be fitted with suitable extension lever.

Z3: CERAMIC PARAPLEGIC WC (CC)- CONCEALED CISTERN Vitreous china 900 outlet WC or equal and approved top inlet closed rim back-to-wall pan, Floor Mounted to comply with \$AB\$ 497 & Fitted with "Ja; Thermoset Plastic Seat". Fitted with Concealed Flushing Cistern for WC 6-7 litres adjustable with small discharge valve access pneumatic discharge valve Installed with dual flush ability & complete with all necessary fittings to manufacturer's specification and applicable SABS standards. Flush valve to be fitted with

# suitable extension lever, blank flush plate & offset push button for paraplegic access

#### Vitreous china 900 outlet, back inlet pan to comply with SABS 497. Fitted complete with Back inlet exposed flush-valve complete with all necessary fittings as per manufacturer's specifications and applicable SABS standards. Flush valve to be fitted with suitable extension lever.

**Z5: CERAMIC STANDARD WC (CC)** Vitreous china 900 outlet, back inlet pan to comply with SABS 497. Fitted complete with matching 7 litre pushbutton top dual flush cistern fitted with quality

approved heavy duty thermoset lid, seat and complete with all necessary fittings as per manufacturer's specifications and applicable SABS standards. 74: CERAMIC WALL HUNG URINAL wall hang bowl urinal to comply with SABS 497. Supplied with suitable 38mmCP domical grating, CP top inlet spreader an

mm thick Enamelled steel shower tray size 900x900x160 mm manufactured with anti slip pattern, with rounded internal corners, and 38 mm BSP grated waste

fitting in corner position fitted with Shower set and complying with SABS 226 comprising of approved:

• Glazed Shower Cubicle with access door as per standard supply from manufacturer and sized to fit space configuration

Overhead shower arm with wall flange.

 Chrome Plated Shower Head with ball jointed connector • Chrome Plated Bath/shower diverter mixer-wall type with sliding wall flanges and concealed connections adjustable from 178 mm to 203 mm centres. Shower

#### tray to be recessed 50 mm into a 100mm high concrete plinth with exposed plinth face tiled. **WASH-HAND BASIN**

**B1: WHB & MIXER TAP** eous china size 560 x 415mm rounded 'Tuscany', OR EQUAL AND APPROVE basin to comply with SABS 497 with single tapho configuration supplied with integrated overflow and chainstay hole through the centre semi-punched supplied with a 'Tuscany' pedestal and fitted with 1N 'Cobra Watertech' 15mm chrome pushbutton demand pillar tap with flanged backnut (code KM2.102) metering tap, 309-32 CP anti-theft plug with spindle, 308 pasin waste, 365/40 CP Bottle Trap, mounting kit and angle valves.

#2: DISABLED BASIN 420mm semi rounded lavatory basin to comply with SABS 497, in two tap hole configuration fitted with; 2 No.chrome plated Elbow action pillar-tap, with 1/4 turn ceramic disc head and blue & Red indicators water applications and flanged backnut, chrome plated waste, chrome plated 32 mn tanding overflow tube, chrome plated Bottle Trap supplied with all necessary pipe connections. Fixed with concealed wall bracket in accordance to the

B3: WHITE GLAZED PORCELAIN WHB (VANITY) ramic fireclay size 450x350mm oval self-rimming vanity basin to comply with SABS 497 in one tap hole configuration supplied without overflow and fitted with 1No. chrome plated tap with flanged backnut (code KM2.102) metering tap, mounting kit and angle valves 400mm long flexible inlets and chrome plated bottle trap supplied with all necessary pipe connections. Basin mounted on cabinet or vanity slab with silicon sealant between contact areas in stric

#### **B4: SMALL BASIN & 2 TAPSTRAY & SHOWER SET (FOR WORKSHOPS)** Vitreous china size 455x290mm wash basin to comply with SABS 497 in 2-tap hole configuration supplied with integrated overflow and chainstay hole with; 2Nc pillar taps, chrome plated anti-theft plug with spindle plug, slotted basin waste, chrome plated Bottle Trap, mounting kit and angle valves with 400mm lor

flexible inlets supplied with all necessary pipe connections. All brackets and fixing accessories in strict accordance to the manufacturer's specifications. B5: H/DUTY BASIN \$.1No. TAP (FOR LABS)

Ceramic life clay 500400 min recrangular heavy duty basin in one taphole configuration to comply with SABS 497 and RHS hole plugged and fitted with; 1No. pillar tap, Chrome Plated anti-theft plug with spindle plug, slotted basin waste, chrome plated Bottle Trap, mounting kit and angle valves with 400mm long flexible inlets supplied with all necessary pipe connections. Fitted to wall using 2No. Semi-concealed cast iron brackets in accordance to the manufacturer

B6: MEDIC BASIN & FITTINGS (SICK BAY)

Virteous china 510 x 42umm semi rounded lavatory basin to comply with SABS 497, in two tap hole configuration fitted with; 2 No.chrome plated Elbow action pillar-tap, with . turn ceramic disc head and blue & Red indicators water applications and flanged backnut, chrome plated waste, chrome plated 32mn standing overflow tube, chrome plated Bottle Trap supplied with all necessary pipe connections. Fixed with concealed wall bracket in accordance to the manufacturer's specifications.

Paper towel dispenser K8 and bin type K3.

accordance to manufacture's specifications.

• Splashback comprising 2no. rows of wall tile finish type R5 as per finishes schedule

Combination of sanitaryware, accessories and general fittings comprising of:

and grout in compliance to manufacturer's specifications and government standard specifications. Installation heights as indicated in the drawings.

#### X1: STAINLESS STEEL SINK

Stainless steel 1000 x 457mm inset single end bowl with recessed drainage ledge and folded edges. Bowl to be fitted to kitchen cupboard (cupboard elsew measured), Grade 304 (18/10) Stainless Steel sink to comply with SABS 906 fitted with: Approved Sink mixer- wall type, chrome plated swivel Outlet, adjustab and supplied with suitable assesories in accordance to manufacturer's specifications. Sink installation height = 900mm AFFL.

Stainless steel 1500 x 457mm inset double end bowl with recessed drainage ledge and folded edges. Bowl to be fitted to kitchen cupboard (cupboar elsewhere measured), Grade 304 (18/10) Stainless Steel sink to comply with SABS 906 fitted with: Approved Sink mixer- wall tape, with chrome plated overarm swivel Outlet, adjustable wall flanges and supplied with suitable acesories in accordance to manufacturer's specifications. Sink installation height = 900mm AFFI Ceramic fireclay 435 x 335 x 180 mm rectangular laboratory sink without overflow, with a centre end waste outlet, fitted to the wall on two semi-concealed

brackets supplied with all necessary accessories (all to be acid resistant

x 500mm Inset washtrough, manufactured from grade 18/10 SS, stainless steel with radiused internal corners and provision for a 40mm dia, outlet, Fitte with Approved 2No. CP bibtaps - plain extended chrome plated, complete with sliding wall flanges, Un-slotted sink waste with back nut, plug with stirrup, cha and stay. CP, 'P' trap, with deep seal and cleaning eye. Rough brass. Sink installation height = 900mm AFFL. Cut out size 535 x 425mm.

X5: DOUBLE WASH TROUGH (inset) & 2 no. TAPS x 553 x 260mm Double bowl wall hung washtub manufactured from grade 304 (18/10) SS, radiused internal corners and provision for a 40mm dia. outle fitted with: Approved 2no wall type bibtaps, with Swivel Outlet, adjustable wall flanges and exposed adjustable connections. CP. Un-slotted sink waste with bac nut and plug with stirrup. CP, Double drain black rubber deep seal 'P'-Trap. Sink mounted on 2no. 25mm square SS gallow brackets, front leg and adjustable fo

## SANITARY ACCESSORIES

ndard stainless steel toilet roll holder (2 roll) 153mm width x 270mm high 275mm depth Toilet Roll Holder manufactured from 18/10 Stainless Steel, surface Sa finish, including screws and dowels and all other necessary accessories in accordance to manufacturer's specifications.

646 full thick clear float glass silver-backed mirror, size 450x900mm height with polished bevelled edges 4 times holed for and fixed, with chromium plated domi headed mirror screws K3: SS WASTE BIN

328W x 826H x 203D Waste bin manufactured From 18/10 Stainless steel, Surface Satin Finish, Material Thickness 1,5mm, including Screws, dowels and all necessar

accessories in accordance to manufacturer's specifications.

x 320mm x 600mm Plastic Sanitary Pedal Bin with capacity of 100 Liners per pack Complete with all necessary accessories and installed in accordance to manufacturer's specifications. K5: SOAP HOLDER

Single semi-recessed ceramic soap dish Complete with all necessary accessories and installed in accordance to manufacturer's specifications.

Stainless steel 914 x 90 x 32mm diameter wall (rear) grab rail, in satin polished finish complete with SS fixing screws and plastic wall plugs. Installed as per manufacturer's instructions. K7: GRAB RAILS (RIGHT/LEFT HAND)-PARAPLEGIC

#### Stainless steel 1016 x 90 x 32mm diameter right/left hand side toilet grab rail with 450mm high centre flange, in satin polished finish complete with SS fixing screw and plastic wall plugs. Installed as per manufacturer's instructions.

350mmWx365mmHx230mmD tear and dry paper hand towel dispenser in stainless steel. Complete with screws, locking key, and all necessary accessories ar installed in accordance to manufacturer's specifications.

115W x 270H x 110D Stailess steel Hands Free soap dispenser. Complete with screws, locking key, and all necessary accessories and installed in accordance manufacturer's specifications. 820mm Wide x 220mm High x 90mm High Aluminium Multi-rack Hat and Coat Hook in multi-track two Hooks Configuration With Anodised Silver Finish Comple

K11: HAND DRYER (Hands free)

55mm dia. Polished 900mm long towel rail complete with all necessary accessories in accordance to manufacturer's specifications. Installation height as pe K13: SHOWER CURTAIN RAIL (straight)

## 20mm dia. standard chromium plated shower curtain rail 1300mm long with flanged ends and screws CP fixing height as per PA's drawing.

GENERAL FIXTURES

K9: SOAP DISPENSER/DISH- WALL MOUNTED

200mm wide uPVC Door Protector manufactured in high impact resistant rigid uPVC (Colour Grey) and cut to suit door width from 3m length, installed strictly in accordance to manufacturer's specifications. Installation height 900mm above FFL, or as specified.

Pull down PVC screen size 2440 x 1850mm (viewing area 2340 x 1750mm) with wall-mounted code SCO400 Keystone Brackets Adjustable Set of 2, size 300mm. To

be supplied complete with all accessories, and fitted in strict accordance with manufactures instructions. G3: PINBOARD 1500W X 1000H Pinboard size 1000mm H x 1500mm W comprising of laminated soft board core pinning material beaded all round with anodised aluminium channel surrour mitred at the corners. To be fitted complete with fixing brackets, screws and wall plugs at 900mm above floor level.

Pinboard size 1200mm H x 3000mm W comprising of laminated soft board core pinning material beaded all round with anodised aluminium channel surrour mitred at the corners. To be fitted complete with fixing brackets, screws and wall plugs at 900mm above floor level

G5: WINDOW NORMAL BLINDS(vertical fabric) 27 mm vertical deco blinds with anodised aluminium headrail fitted with colour coordinated insert. All runners o be wheeled and fitted with individual clut mechanism. All runners to be connected by stainless steel links. Tilt mechanism to be operated by a nylon ball chain with a reduction gear inside a fully enclose cap. Blinds to be face fixed (fixed over the window opening) by means of concealed type fixing brackets.

G6: FLOOR DRAIN Cast iron flat type full-flow outlets size 110 mm diameter with centre bolt, , including connections to downpipes.

#### **G7: SS FLOOR EXPANSION JOINT COVER** Co-extruded heavy-duty stainless steel movement joint strip, with polyurethane infill (colour grey). To be installed within the tile surface over the 20mm expansion joints, in accordance to the manufacturer's specifications.

accordance with the manufacturer's instructions

G8: CHALKBOARDS- GREEN SURFACE COLOUR system 1000 standard WRITEBOARD or EQUAL & APPROVED vitreous enamelled steel utility school chalkboards wall-mounted size 4800mm x 1140mm hig manufactured in accordance with SABS Standard CKS 36/2004 Edition 4 and suitable for Class 1: Heavy Duty applications, as defined therein. Enamel steel Util chalk board surfaces to be matt and finely structured, olive green in colour (Vitrex Colour Reference - Chalk Board Green LM1797/2), supplied complete with ntegral anodised aluminium chalk rail (ACR), fixing components and secured in position to brickwork. The Chalk boards are to be fixed in position strictly





CONTRACTOR

PRO IECT NUMBER

AUTOCAD

LDPW - PROF/16002/G11