

DEPARTMENT OF

PUBLIC WORKS, ROADS & INFRASTRUCTURE

LIMPOPO DEPARTMENT OF PUBLIC WORKS, ROADS AND INFRASTRUCTURE

BID NUMBER: LDPWRI-B/20110

PROVISIONAL BILL OF QUANTITIES

For the

REFURBISHMENT AND ADDITIONS AT CHAMETI HIGH SCHOOL

For the

DEPARTMENT OF EDUCATION, LIMPOPO PROVINCE

CIDB CLASS GRADING: 7GB OR HIGHER



DEPARTMENT OF

PUBLIC WORKS, ROADS & INFRASTRUCTURE

CIDB CLASS GRADING 7GB OR HIGHER

BID NUMBER: LDPWRI-B/20110 REFURBISHMENT AND ADDITIONS AT CHAMETI HIGH SCHOOL

PROCUREMENT DOCUMENT

lame of Tenderer:
CIDB CRS Number:
SIDB CR3 Nulliber
SD Registration Number:
ax Pin:
ender Amount including Vat:
CLOSING DATE AND TIME:

ISSUED BY:

DEPARTMENT OF PUBLIC WOKS, ROADS AND INFRASTRUCTURE PRIVATE BAG X9491 POLOKWANE 0700

TEL: 015 284 7000/1

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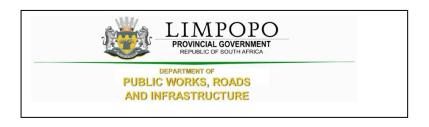
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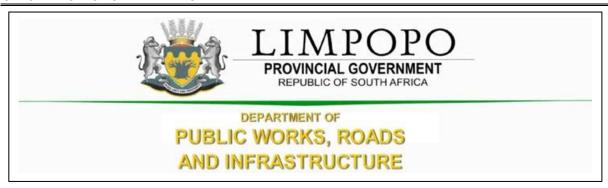
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PART A: SPECIAL NOTES TO BIDDERS



NOTES TO BIDDERS

1. NAME OF PARTIES

EMPLOYER

Limpopo Province Department of Roads & Infrastructure: Works Towers

43 Church Street

Tel: (015) 284 7000/1 Private BAG X9490

POLOKWANE

0700

Contact:

Makape P. @ 082 460 6271

Principal Agent:

Tectura International

Suite 04

76 Hans Van Rensburg

Polokwane

Tel: 015 291 4611

Contact:

Name: Timothy Nkandu

Email: Timothy@tecturai.com

Quantity Surveyor:

Pro-serve Consulting (Pty) Ltd

Irene Corporate Corner

374 Via Salara Crescent

Cnr Nellmaphius & Van Reyneveld Rd

Irene

Pretoria

SPECIAL NOTES TO TENDERERS

Tel: 012 661 3435

Contact:

Name: Duduzile Ruwuya

Email: <u>Druwuya@proservegroup.co.za</u>

Civil Engineers:

Lowflow Construction and Engineering

26 Peace St.

Arbor Park

Tzaneen

0850

Tel: 015 0040811

Contact:

Name: Tashinga Muronda Email: tashy1902@live.com

Electrical Engineers:

Takusa Consulting and Services

Fourways Office Park

Block 5, Ground Floor

Roos St and Fourways Blvd

Sandton

Tel: 010 110 8724

Contact:

Name: Kamogelo Sechoaro

Email: kamogelo@takusaconsulting.co.za

Mechanical Engineers:

Takusa Consulting and Services

Fourways Office Park

Block 5, Ground Floor

Roos St and Fourways Blvd

Sandton

Tel: 010 110 8724

Contact:

Name: Kamogelo Sechoaro

Email: kamogelo@takusaconsulting.co.za

2. SPECIAL CONTRACT DOCUMENTS

Note:

The clauses in these Special Contract Conditions form part of the contract requirements and shall have preference over any contradicting clauses in these Bills of Quantities, the preliminaries, and the Conditions of Contract.

2.1 CONTRACT DOCUMENTS

The Contract Document will consist of:

- I. The agreement shall be the JBCC Series 2000 Principal Building Agreement, prepared by the Joint Building Contracts Committee, Edition 4.1, and March 2005 amended as hereinafter described.
- II. Documents to be provided by the Contractor in terms of the requirements of these Provisional Bills of Quantities. Where reference is made to the "subcontract agreement" this is deemed to mean the "JBCC Series 2000 Nominated /Selected Sub-Contract Agreement" (March 2005 Edition)
- III. The JBCC Series 2000 Preliminaries prepared by the Joint Building Contracts Committee (May 2005 edition) amended as hereinafter described, shall be deemed to be incorporated herein.
- IV. Tenderers are referred to the above -mentioned documents for the full intent and meaning of each clause thereof. These clauses are hereinafter referred to by clause numbers and headings only, for which, such allowance must be made as may be considered necessary.
- V. Where standard clauses or alternatives are not entirely applicable to this contract such modifications, corrections or supplements as will apply are given as far as possible under each relevant clause. Where modifications or amendments as described are made, such modifications and/or amendments shall supersede any conflicting provision in the relevant clauses of the JBCC Series 2000 Preliminaries or the JBCC Series 2000 Principal Building Agreement and the tenderer shall make due allowance for whatever costs and charges he may consider necessary for the carrying out and observance of the provisions of the clauses as modified and/or amended.
- VI. Where any clause is not relevant to this specific contract such clause is marked N/A (signifying "not applicable").
- VII. "The Model Preambles for Trades" as recommended and published by the Association of South Africa Quantity Surveyors -1999 edition, shall be deemed to form part of this contract documentation. Any amendments and/or additional information is listed under the supplementary preambles at the start of each trade in the bills of quantities.
- VIII. Pricing of preliminaries The relevant clause numbers of sections A and B of the preliminaries are listed at the end of the contract preliminaries section for pricing purposes. if Alternative as

SPECIAL NOTES TO TENDERERS

set out in clause 10 of the preliminaries 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.

- IX. The **tenderer** shall allow opposite each of the items for whatever costs and charges he may consider necessary for the carrying out, complying with and due observance of the provisions, conditions, and requirements set out therein.
- X. Only priced items will be considered in respect of any adjustments to this section. Any items left unpriced will be understood to be provided for in the rates given for other items and no claim for extras arising out of the tenderer's omission to price any item will be entertained.
- XI. Notwithstanding the period stated in the JBCC form of tenders, tenderers shall hold good for a period of one hundred and eighty (180) calendars days from the date of closing of the tenderers and shall not be altered, amended, or withdrawn during that period.

2.2 QUERIES FROM BIDDERS

The pages of these bills of quantities are numbered consecutively as indexed on the first page.

The Bidder shall check the numbers of the pages and should any be missing or duplicated, or the reproduction be indistinct, or if any doubt exists as to the full intent or meaning of any description or these bills of quantities contain any obvious errors, the Bidder shall notify the Accounting Officer/ Quantity surveyor at once who shall promptly give a written directive. No liability whatsoever will be admitted in respect of errors in any BID due to the abovementioned causes.

On no account should these documents be used for placing orders for materials. Bidders do so at their own risk and shall not be reimbursed for additional costs so incurred.

2.3 ACQUAINTANCE WITH BID DOCUMENTS

By submission of a BID, the Bidder will be deemed to have acquainted himself/herself fully with the BID documents, local authority requirements and by-laws and all aspects of the work envisaged in the documents before pricing and submission of his/ her BID. The employer may appoint a principal Agent to act on his/ her behalf with full authority and obligations.

2.4 FORMS TO BE COMPLETED

The form of BID together with its appendices must be submitted with the BID.

2.5 SCOPE OF THE WORKS

The project comprises the demolishing of 10 classrooms and 4 pit toilets, and refurbishment of 13 enviro-loo toilets, and construction of medium administration, 14 classrooms, 4 waterborne toilets and 10 enviro-loo toilets, as well as related services in accordance with the drawings and specifications that will be provided to the contractor.

SPECIAL NOTES TO TENDERERS

The Contractor shall provide sufficient qualified technical staff, field staff, and safety personnel to ensure the Works under this contract be satisfactorily carried out safely and meeting the performance targets and programs. The Contractor shall also provide competent attendant(s) to monitor any works concerning the scope of works.

2.6 PROGRAMMING WITH DIRECT CONTRACTORS

Tenderers must take note that some work may be performed by independent/ direct contractors that will not form part of this contract. Tenderers, however, must make provision for these installations in their program and must provide all the necessary assistance to The Limpopo Department of Public Works, Roads and Infrastructure in completion of the said contracts.

• Any installations by specialists e.g., Security installation, loose furniture

2.7 SITE

The project is located at Chameti High School, Giyani, Mopani District in Limpopo.

2.8 CONTRACT DOCUMENTS

The contract/agreement will be based on the JBCC Series 2000 Principal Building Agreement, prepared by the Joint Building Contracts Committee, Edition 4.1, and March 2005.

Wherever reference is made to the terms "Client, Employer or Principal Agent) in the documents, it shall be deemed to mean. The Limpopo Department of Public Works, Roads, and Infrastructure or any person acting in such capacity as well as any officer to whom any power vested in terms of these conditions of the contract have been delegated to.

2.9 CONFIDENTIALITY OF BID DOCUMENTS

All the recipients of BID documents shall be whether they submit a bid or not, treat the details of these documents as confidential and their general content shall not be disclosed or discussed with third parties without the prior approval of the **Limpopo Department of Public Works**, **Roads**, and **Infrastructure**.

2.10 BID ALL INCLUSIVE

The Bidder must allow in his/ her BID for all labour, material, transport, handling, construction plant, temporary works, or method of construction where the method of payment allows for various methods of construction, value-added tax and everything else necessary for the execution and completion of the works in accordance with the BID documents

2.11 BILLS OF QUANTITIES

This Bill of Quantities is provisional and subject to be re-measured.

The Contractor / Bidder is warned that if he/ she use any quantities or specifications appearing in these Bills of Quantities for ordering materials, he/ she does so at his/ her own and no liability whatsoever shall be

SPECIAL NOTES TO TENDERERS

admitted afterward by the Employer / Limpopo Department of Public Works, Roads, and Infrastructure for such correctness of such quantities or specifications.

2.12 STAMP DUTY

If applicable, all stamp duties in connection with the contract shall be paid by the Bidder.

2.13 SIGNING OF BIDDERS

The BID must be signed by a representative of the Bidder being duly authorized to do so and Bidders are to attach a company resolution.

2.14 LODGING AND SCRUTINY OF PRICED BILLS OF QUANTITIES

The Bidder's / Contactor's attention is specifically directed to the provision that, before the contract is signed, he/ she is to submit his/ her priced Bills of Quantities with conditions of contract and cast neatly in black ink for checking. The Accounting Officer / Quantity Surveyor will duly check the priced Bills of Quantities and shall make such adjustment of individual prices and rectify discrepancies as he may consider necessary. No artificial prices shall be acceptable.

2.15 ADDITIONAL INFORMATION REQUIRED

The Employer / Limpopo Department of Public Works, Roads and Infrastructure may ask any Bidder for a clarification/s of his / her BID. Nevertheless, no Bidder will be permitted to alter his / her BID sum after the BIDs have been opened and read to other bidders, although clarification which does not change the BID may be accepted.

The Employer reserves the right to appoint a firm of public accountants to report on the financial capacity of any Bidder. The Bidder shall provide all reasonable help and information in such an investigation.

All written information submitted by the Bidder together with and in support of his / her BID shall be considered to form the basis on which the BID has been prepared and submitted.

2.16 ARITHMETICAL ERRORS

The Accounting Officer / Quantity Surveyor reserves the right to correct arithmetical or other errors in the bid document for reasons which the Accounting Officer / Quantity Surveyor will indicate, the Bidder will, in terms of Rule 14, be requested to make corrections.

2.17 IMBALANCE IN BIDDED/TENDERED RATES

In the event of there being any rate or rates which are declared to be unacceptable by the Accounting officer/Quantity Surveyor for reasons which the Accounting Officer / Quantity Surveyor will indicate, the Bidder will, in terms of Rule 14, be requested to:

a) Either justify and specify rate or rates, i.e. to give a financial breakdown on how such rate or rates were obtained or calculated, or

SPECIAL NOTES TO TENDERERS

b) Consider amending and adjusting such rate while retaining the BID sum derived under Sub-rule 15.a unchanged and fixed.

If the Accounting Officer / Quantity Surveyor requests the Bidder to adjust any unacceptable rate or rates, the Accounting Officer / Quantity Surveyor may at his / her discretion limit any such adjustment to rates in specific sections of the bills of quantities. On no account will the Accounting Officer / Quantity Surveyor permit the Bidder to use such an opportunity to re-price extensive sections of the bills of quantities, even though the BID sum remains unchanged.

2.18 ALTERATIONS TO BID DOCUMENTS

No unauthorized alteration or addition shall be made to the form of BID, to the bills of quantities or any other portion of the BID documents. If any such alteration or additions is made and if the bills of quantities of not properly completed, the BID may be rejected, and the Employer will not be bound to by such alterations.

2.19 BID QUALIFICATIONS

BIDs must be submitted strictly in accordance with the BID documents, i.e. without qualifications. Qualifications like statements of interpretation of contract documents must be avoided and any point of doubt or difficulty should be cleared with the Accounting Officer / Quantity Surveyor as early as possible during the BID period. Should any query be found to be of any influence on the BID, all other Bidders shall immediately be informed of the particulars by the Accounting Officer / Quantity Surveyor.

2.20 COSTS INCURRED BY BIDDER

The Employer shall not be responsible to pay for the expenses or losses, which may be incurred by any Bidder in the preparation of the BID or in visiting the site in connection herewith.

20.21 BID ACCEPTANCE

The Employer will not be bound to accept the lowest or any BID. No reason for the acceptance or rejection of any BID will be given.

20.22 WITHDRAWAL OF BID AFTER CLOSING DATE

The Bidder may not withdraw his BID after the time set for opening BIDs without any BID having been accepted.

Should a Bidder amend or withdraw his/her BID after the specified date and hour, but prior to his being notified of the acceptance thereof, or should a Bidder after having been notified that his/her BID has been accepted.

- (a) Give notice of his/her inability to execute the contract in terms of his BID; or
- (b) Fail to sign a contract or furnish the security within the period fixed in the BID Conditions reflected on the form of BID or any extended period fixed by the Employer; or
- (c) Fail to execute the contract;

SPECIAL NOTES TO TENDERERS

He shall pay all additional expended, damages and/or losses which the Employer may incur in calling for fresh BIDs or by paying the difference between his/her BID and a less favourable BID accepted in terms of the provisions of the last paragraph of this term: Provided that the Employer may at its discretion exempt a Bidder from the provisions of this sub-rule if he believes that the circumstances justify the exemption.

When in circumstances mentioned in the second paragraph of this item, the Employer deems it not desirable to invite fresh BID; then the Employer may accept another BID from those already received. The provisions of Rule 2.21 above, shall again apply.

2.23 METHOD OF MEASUREMENT

The Bills of Quantities have been measured in accordance with the 6th Edition of the standard system of Measuring Builders Work.

2.24 AVAILABILITY AND SUBSTITUTION OF MATERIALS

Bidders are urged to make themselves, during BID stage, thoroughly acquainted with the availability of all materials for this project as no claim for non-availability or late delivery of materials will afterward be recognized/considered.

If materials specified are not available or it seems that there will be a delay of materials, then the Bidder must notify the **Employer** at once in writing who will, at his/her discretion, attend to the matter. Once the BIDs are handed in it will be taken that all materials specified in these Bills of Quantities are available and will be delivered on-site for completion of the project within the prescribed contract period.

The Substitution will be strictly subject to the **Employer's** approval.

The **Contractor** must, as far as possible, purchase materials available in the Limpopo Province provided the quality is acceptable. Materials of inferior quality shall under no circumstances be accepted. If the **Contractor** cannot comply with these conditions, he/she must substantiate this in writing with documentary proof from suppliers.

2.25 PROPRIETARY TYPES AND TRADE NAMES

Where reference is made in these Bills of Quantities to proprietary types or names, the products, or materials, etc. referred to are to be exactly as described, the prior approval of the **Employer** must be obtained for any substitution and may be the subject to a variation order.

2.26 SABS SPECIFICATIONS

All references in these Bills of Quantities to Specifications of the Bureau of Standards shall be deemed to be a reference to the latest issues of such specifications, and any subsequent amendments thereto. All articles,

SPECIAL NOTES TO TENDERERS

materials or items described as to conform to the SABS Specification must bear the SABS mark where possible.

2.27 PERFORMANCE GUARANTEE

Where the project is over R 2 000 000.00 the Bidder must submit with this BID proof (using a letter of intent or otherwise) from his/her guarantor that his/her guarantor will issue the guarantee if the BID is accepted.

2.28 BID

While the Employer reserves the right to accept or not accept any BID, the intention is that a BID will be accepted. The successful Bidder will be appointed as the Main Contractor in terms of the JBCC Series 2000 Principal Building Agreement, prepared by the Joint Building Contracts Committee, Edition 4.1, and March 2005. Any condition submitted by the Bidders which is a variance with the provisions of the main contract will not be accepted and may render the BID liable to disqualification.

The BID shall be sealed in an envelope and endorsed as per BID form and be deposited in the BID box as per BID advert.

On no account will BIDS received after the time and date for submission of BIDs be considered and Bidders are advised that postal delays will not constitute a claim for recognition of such BIDS.

Telegraphs or telefaxed BIDS will **NOT** be considered under any circumstances.

2.29 INSPECTION OF SITE

A Compulsory site inspection will not be conducted due to COVID-19 regulations. Tenderers are, however, urged to thoroughly inspect the site, acquaint themselves with the nature and extent of the works, the site conditions about power and water supply, transport facilities, conditions of adjacent existing buildings and also access to the site, availability of working space, etc.; before submitting their BIDs as no extra cost arising out of their failure to price for the above mentioned shall be considered.

2.30 SITE OFFICE

The Contractor shall erect, maintain, and takedown on completion of the work a building for site meetings with a concrete floor, suitable roof, suitable walls, door, and four windows, with tables and chairs (not benches), all suitable to accommodate 12 persons.

It is further a condition that all work or movement of vehicles in the vicinity of this office that creates noise or nuisance during site meetings must be suspended for the duration of the site meetings.

2.31 LOCAL LABOUR

As soon as the site is handed to the Contractor, he/she will be expected to form a joint committee with the local community. This committee will ensure that all unskilled and available semi-skilled labour are employed from the community.

SPECIAL NOTES TO TENDERERS

All labour shall apply through the committee for employment on the project and the selection of these labourers shall be made by the Contractor from a list of applicants complied by the community members on the committee.

On all labour-intensive projects, at least 10% of the labourers must be employed from the local community where the project will be executed.

Labourers should be paid in accordance with the provision of the Labour Relations Act, Act 23 of 1956 and the amended Basic Conditions of Employment of 1983, or any latest available Acts.

In accordance with Government Gazette No.16095 of 19 November 1994 wages differ for different areas.

2.32 PROCEDURE OF THE WORK

The Employer reserves the right to direct the order in which the various parts of the contract will be executed should circumstances warrant such action.

2.33 VARIATIONS

Where prices are submitted by the Contractor or Nominated Sub-Contractor during the progress of the works in respect of variations or regarding a claim under the terms of the contract and even though such prices may be used in an interim certificate, it is hereby agreed that there is to be no presumption of acceptance. Should the Employer wish to accept any such prices before the issue of the final certificate, he will do so in writing.

2.34 PROVISIONAL WORK

Any increase or decrease of work measured provisionally will not be sufficient grounds for any adjustments in the tendered rates.

2.35 MONEY/BUDGET OR PROVISIONS

Whatever an amount for work is allowed in these Bills of Quantities under the term "Money/budgetary Provision" it shall be taken that such amount is for work to be carried out by Specialists, who will be ordinary domestic Sub-Contractors to the Main Contractor.

2.36 BORROW PITS

It is the responsibility of the Contractor to find the necessary borrow pits for imported filing and also to ascertain the suitability and acceptability of such filling, as no claims in this regard will be entertained afterward.

2.37 TESTS

It is the responsibility of the Contractor to carry out his/her tests during the execution of the contract to check the strength of concrete, mortar, the density of filling, etc., and only those tests as requested by the Employer will be paid for by the Client.

SPECIAL NOTES TO TENDERERS

2.38 THE CONTRACT PERIOD

The contract period shall be 20 months (exclusive of builder's holiday) from the date of site handover.

2.39 COMPLETION OF BID DOCUMENTS

Bidders shall ensure that all documents requiring completion are duly completed in ink (black), signed, and witnessed in the spaces provided.

2.40 OCCUPATIONAL HEALTH AND SAFETY

2.40.1 General

In terms of the Occupational Health and Safety Regulations promulgated on 18 July 2003, Bidders are advised that they are required to comply fully with such regulations about this project as no claims in this regard will be entertained.

2.40.2 Covid-19 Related Requirements

- Contactor must have risk assessments and plans in place.
- Procedure on how to conduct worker education on Covid-19.
- Identification and protection of Vulnerable Employees (e.g. workers above 60 years)
- Safe transport of employees.
- Screening of employees on entering workplace.
- Prevention of viral spread in the workplace.
- Provision of hand sanitisers and face masks.
- · Cleaning of surfaces and shared Equipment's.
- Shift arrangements.
- · Managing sick employees.
- Monitoring systems must be in place to ensure compliance with safety protocols.
- Contactor provide a Bi-Weekly confirmation of the status of each employee on site.

2.41 VALUE ADDED TAX

Value-added tax must be added to the contract amount in the Final Summary and all amounts, rates, etc. in the Bills of Quantities will, therefore, be exclusive of value-added tax.

2.42 PRICES ALL INCLUSIVE

The Bidder must allow in his/her BID for all labour, material, transport, handling, construction plant, temporary works, or method of constructions where the method of payment allows for various methods of construction, value-added tax and everything else necessary for the execution and completion of the works in accordance with the BID documents.

SPECIAL NOTES TO TENDERERS

2.43 PROOF OF PAYMENT OF VALUE ADDED TAX OR ANY APPLICABLE IMPORT DUTY

The Bidder is to provide proof that he/she and all his Sub-Contractors are registered at the Receiver of Revenue for VAT or any applicable import duty purposes and will submit all names of Sub-Contractors to the Employer. The Employer may submit all this information to the Receiver of Revenue.

2.44 WORKMEN'S COMPENSATION

The Contractor must provide valid proof of active registration with the workmen's compensation fund (COIDA).

2.45 CONTRACT PRICE ADJUSTMENT

The BID will be subject to Escalation and the base month will be based on the date of tender closing.

2.46 GENERAL NOTES

Should the tender be awarded to the successful tenderer, the following is to be noted:

- No works shall commence until the Health and Safety Plan has been issued by the successful tenderer and has been approved by the Department of Public Works, Roads and Infrastructure representative.
- No work shall commence on site until all CAR and PL insurances are in place
- No payment shall be made until all guarantees are in place.
- Workers employed by the Contractor will not be allowed to be seen lingering around existing facilities or disturbing classes.
- The Contractor must not render any construction activities that will affect the Client operation before informing the Employer for approval thereof.
- The Contractor's workers should be noticeable by wearing proper clothing with the company logo.

2.47 PAYMENT PROCEDURE

Payment procedure in terms of this contract shall be as follows:

- The Contractor to submit valuation by the 20th of the Month.
- The payment shall be issued to the Department of Education by the 7th of the following month, with payment being made by the 30th of that month.
- Every effort will be made to achieve payments earlier, but this cannot be guaranteed.
- Interest on late payments shall be charged at the prime rate.
- Payment for unfixed materials (Material on site) on-site shall be allowed.
- Payment for materials off-site shall only be allowed subject to written approval by the Employer, which
 will only be conditional upon the necessary cessions being in place and any other documentation
 which the Employer requests.

2.48 INFORMATION RELEVANT TO INSURANCES

The Contractor will be expected to take the following insurance with a deductible to be determined by the Contractor. In addition to the above-mentioned, the Contractor should take any other insurances relevant to the proper execution of the works.

2.49.1 CONTRACT WORKS

- Estimated Contract Amount plus 20%

2.49.2 PUBLIC LIABILITY

- R 10 000 000.00



PART T1: TENDERING PROCEDURE

T1.1 TENDER NOTICE AND INVITATION TO TENDER

The Limpopo Department of Public Works, Roads and Infrastructure invites tenders the demolishing of 10 classrooms and 4 pit toilets, and refurbishment of 13 enviro-loo toilets, and construction of medium administration, 14 classrooms, 4 waterborne toilets and 10 enviro-loo toilets, as well as related services in accordance with the drawings and specifications at Chameti High School, Giyani, Mopani District in Limpopo.

It is estimated that tenderers should have a CIDB class grading of 7GB or higher.

Only tenderers who meet the minimum requirements stated in the tender data are eligible to submit tenders.

A non-refundable tender deposit of as per Tender Advert payable in cash is required on collection of the tender documents.

Administrative queries relating to the issue of these documents may be addressed in writing to **Ms Moloto V**, **Tel. No.015 284 7142**; email: molotomv@dpw.limpopo.gov.za.

Technical queries relating to the issue of these documents may be addressed in writing to **Mr P. Makape**, **Tel. No. 082 460 6271**; email: makapep@dpw.limpopo.gov.za.

A compulsory briefing meeting with representatives of the Employer will not take place due to the Covid-19 Lockdown restrictions. However, tenderers are welcomed to make arrangements to visit the site on a non-compulsory basis at Chameti High School, Giyani, Mopani District in Limpopo.

The closing date and time for receipt of tenders are as per Tender Advert.

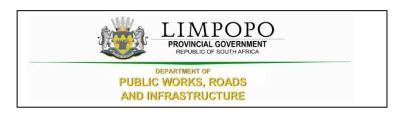
Telegraphic, telephonic, scanned documents, facsimile, e-mail, and late tenders will not be accepted.

Tenders must only be submitted on the tender documentation that is issued including priced bills of quantities.

Requirements for sealing, addressing, delivery, opening and assessment of tenders are stated in the Tenders Data.

It remains the responsibility of the bidders that the bid document reaches the tender box by the stipulated closing date and time as advertised on the tender bulletin.

T1.2TENDER DATA



T1.2 TENDER DATA

The conditions of tender are the Standard Conditions of Tender as contained in Annex F of the CIDB Standard for Uniformity in Construction Procurement (July 2015) as published in Government Gazette No 38960, Board Notice 136 of 10 July 2015. (See www.cidb.org.za).

The Standard Conditions of Tender make several preferences 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.

Clause number	Tender Data
F.1.1	The Employer is the Limpopo Department of Public Works, Roads and Infrastructure

T1.2TENDER DATA

The single-volume procurement document issued by the employer comprises of the following: Part A1: Special Notes to Bidders The Tender Part T1: Tendering procedures	
The Tender	
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 PartC1: Agreements and contract data C1.1 Form of offer and acceptance C1.2 Contract data	
The Contract PartC3: Pricing data C3.1 Pricing instructions	
The Contract PartC4: Provisional Bills of Quantities C4.1 Preliminaries C4.2 Building Works C4.3 Civil Works C4.5 Electrical Installation	
Part 5: Scope of work C5.1 Scope of work	
Part 6: EPWP Infrastructure Guideline 2015 C6.1 Data Collection Tool	
Part 7: Site information and drawings C7.1 Site information C7.2 Drawings	
F.1.3 The employer's representative is:	
Name :Makape P. Address : Department of Public Works, Roads and Infrastructure. Works Towers, 43 Chur Street. Tel :082 460 6271	ch
Email: makapep@dpw.limpopo.gov.za	
F.1.4 The language for communications is English	
F.2.1 Only those Bidders who satisfy the following eligibility criteria are eligible to submit tenders:	
1. The Bidder is a Firm.	
Bidders that satisfy the criteria stated in the tender data and the tenderer or any of his princip is not under any restriction to do business with the employer.	es

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T1.2TENDER DATA

F.2.2	Compulsory site briefing
	A compulsory site briefing meeting with representatives of the Employer will not take place due to the Covid-19 Lockdown restrictions. However, tenderers are welcomed to make arrangements to visit the site on a non-compulsory basis at Chameti High School, Giyani Mopani District in Limpopo.
F.2.3	Tenderers may request clarification of the tender documents by notifying the employer at least five (5) working days before the closing time and date stated in the Tender Advert .
F.2.4	No alternative tender offers will be considered.
F.2.5	The list of Returnable Documents identifies which of the documents a tenderer must complete when submitting a tender offer. The tenderer must submit his tender offer by completing the Returnable Documents, signing the "Offer" section in the "Form of Offer and Acceptance" and delivering the Returnable Documents back to the Department.
F.2.6	Sign the original and all copies of the tender offer where required in terms of the tender data. The employer will hold all authorized signatories liable on behalf of the tenderer. Signatories for tenderers proposing to contract as consortiums shall state which of the signatories the lead is partner whom; the employer shall hold liable for the tender offer.
F.2.7	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:
F.2.8	Location of the tender box: Department of Public Works, Roads and Infrastructure,
	Physical Address: Department of Public Works, Roads and Infrastructure. Works Towers, 43 Church Street
	Identification details : Tender reference number, Title of Tender and the closing date and time of the tender.
F.2.9	Telephonic, telegraphic, telex, facsimile or e-mailed tender offers will not be accepted.
F.2.10	Tenderers are alerted that tender offers which do not provide all the data or information requested completely and, in the form, required, may be regarded by the employer as non-responsive.
F.2.11	The closing time for submission of tender offers is as stated in the Tender Notice and Invitation to Tender.
F.2.12	The tender offer validity period is 180 Days.
F.3.1	Tenders will not be opened immediately after the closing time for tenders.
F.3.2	The tenderers will be evaluated in four stages (i) Compliance documents – refer to the list of returnable documents (Part T2) (ii) Local Content (SBD 6.2) (iii) Functionality (iv) Price and Preference (BBBEE)

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T1.2TENDER DATA

F.3.3 **Scoring Financial Offer:**

Tender offers will be scored using the following formula: $NFO = \left(\frac{Pm}{P}\right) \times 100$

Where

NFO = number of tender evaluation points awarded for the financial offer.

W1 = the percentage score given for financial offer as stated in the Notice and Invitation to Tender T1.1

Pm = the comparative offer of the most favourable tender offer. P = the comparative offer of the tender offer under consideration.

where

W1 = the number of tender evaluation points for the financial offer and equals:

- 1) 90 where the financial value inclusive of VAT of all responsive tenders received has a value above R 50 000 000; or
- 2) 80 where the financial value inclusive of VAT of one or more responsive tender offers equals or is less than R 50 000 000.

Scoring Preferences:

Up to 20 points will be awarded to the tenderer who completes the referencing schedule and who is found to be eligible for the preference claimed

The Department is not obliged to award the tender to the bidder with the highest number of tender points.

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T1.2

NOTES TO BIDDERS

1.1 CRITERIA USED FOR THE EVALUATION/ ADJUCATION OF INFRASTRUCTURE RELATED BIDS

- 1.1.1 The points are allocated as follows:
- 1.1.2 For projects above R500 000, the distribution of points is used as follows:

A. BID EVALUATION STAGE 2- LOCAL CONTENT (SBD 6.2)

- 1.2 A bid will be disqualified if the Local Content Declaration Certificate and the Annexure C (Local Content Declaration: Summary Schedule) are not submitted or fully completed and signed as part of the bid documentation.
- 1.3 This tender is subject to Regulation 8 "Local Production and Content" of the Preferential Procurement Policy Framework Act, 2017: Preferential Procurement Regulations, 2017 submitting of SBD 6.2 and its declarations is compulsory. Please note a minimum threshold of for local content and production in relation to this bid (refer to the list of Designated Items for Local Production and Content)
- 1.3.1 Evaluation in terms of the stipulated minimum threshold for local production and content. LDPWRI-B/20110 will be evaluated in terms of minimum thresholds for local content stipulated in the LDPWRI-B/20110 document. The declaration made by the BIDDER in the Declaration Certificate for Local Content and Annex C (Local Content Declaration: Summary Schedule) will be used for this purpose.
- 1.3.2 All responses that will not meet the required minimum threshold "Annexure 1 (SBD 6.2)" for local content as stipulated in the specifications will be disqualified and not evaluated further. Only Bidders that achieved the minimum threshold for local content and production will be evaluated further in terms of functionality and preference point system prescribed in the Preferential Procurement Regulations, 2017.
- 1.3.3 All Declarations for Local Content and Production must be fully completed and signed.
- **N.B** Bidders will need to meet a minimum threshold percentage for local production and content as stipulated in the Bid Document (refer to the list of Designated Items for Local Production and Content) to be further evaluated in terms of the 80/20 preference point system prescribed in the Preferential Procurement Policy Framework Act, 5/2000 and preferential procurement regulations of 2017.
- 1.2.4 The exchange rate to be used for the calculation of Local Production and Content must be the exchange rate published by the South African Reserve Bank (SARB) during the advertisement period of this **LDPWRI-B/20110.**

TENDER EVALUATION CRITERIA AND WEIGHTINGS

1.2.5 Only the South African Bureau of Standards (SABS) approved technical specification number SATS 1286:2011 will be used to calculate local content.

2.6 The Local Content (LC) expressed, as a percentage of the bid price will be calculated in accordance with the following formula:

$$LC = (1 - x/y)^* 100$$

Where

X is the imported content in Rand

Y is the quotation price in Rand excluding value added tax (VAT)

- 1. The exchange rate to be used for the calculation of local production and content must be the exchange rate published by the South African Reserve Bank (SARB) at 11:00 on Friday, 21 February 2020.
- 2. Only the South African Bureau of Standards (SANS) approved technical specification number SATS 1286:2011 must be used to calculate local content.

A. BID EVALUATION STAGE 3 - FUNCTIONALITY

NOTE: Functionality -A bidder must obtain a minimum of 70%underfunctionality to qualify for final evaluation.

Functionality	Weighting
Current Workload of Bidder	15
Current value is equal or greater than twice the maximum value of the required	
CIDB grade = 0	
Current value is greater than the maximum value of the required CIDB grade but	
less than twice the maximum value of the required CIDB grade = 5	
 Current value is within the required CIDB threshold = 10 	
 Current value is less than the minimum value of the required CIDB grade = 15 	
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 Table 1.	
NB: Completion of this table is mandatory for points to be allocated. Do not refer	
to any attachment. If no projects at the moment the tender must indicate on this	
table. Appointment letters must be attached for current projects.	
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. If Yes, please indicate the details on the table below. Please note that it is compulsory to answer the question and if the answer is yes, complete the table. If the question is not answered or the table is not completed the points will not be allocated.

Project Description	Project Start Planned		Client Name	Contact Person	
Froject Description	Value	date	end date	Chefit Name	number
	1				

Organogram, CVs, certified copies of professional registration and certified copies of qualifications must be attached for points to be allocated. NB: List the details of key staff in Table 2. Completion of this table is mandatory for points to be allocated. Project Supervisor/Site Agent Qualification Registration as professional engineer, technologist, architect, construction manager or quantity surveyor = 5 Degree in built environment = 3 National Diploma in Built environment = 1 Relevant experience in general building projects Between 2 and 5 years' experience = 5 Between 2 and 5 years' experience = 3 Less than 2 years = 1 Construction Manager Qualification Registration as professional engineer, technologist, architect, construction manager or quantity surveyor = 5 Degree in built environment = 3 National Diploma in Built environment = 1 Relevant experience in general building projects More than 5 years' experience = 5 Between 2 and 5 years' experience = 3 Less than 2 years = 1 Site Safety Officer Registration with the South African Council for Project and Construction Management Professions (SACPCMP) as a Construction Health and Safety Officer / Construction Health and Safety Manager = 5 Degree in built environment = 3 National Diploma in Built environme	Profile of key staff (the key staff must be linked to project-specific organogram).	
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Between 2 and 5 years' experience = 3	Relevant experience in general building projects	
	 More than 5 years' experience = 5 	
• Less than 2 years = 1	Between 2 and 5 years' experience = 3	
	• Less than 2 years = 1	

TENDER EVALUATION CRITERIA AND WEIGHTINGS

Table 2 Details of key staff.

			Professional	Experience:	Indicate whether
Name	Position	Qualifications	Registration	Number of	full time or part-
			(if any)	year(s)	time on this project

Experience in similar projects in the last 10 years	Weighting
Number of projects completed within CIDB grade 7 GB or higher. The grading	25
applies at the time of award of the project.	
Completed Projects must be classified as General Building (GB) works in terms of	
CIDB for points to be allocated.	
 Completed 5 or more projects = 25 	
 Completed 4 projects = 20 	
 Completed 3 projects = 15 	
 Completed 2 projects = 10 	
 Completed 1 project = 5 	
 Bidder submitted no project in CIDB grade 7 GB or higher= 0 	
NB: The details of completed projects must be entered in Table 3. Completion	
of this table is mandatory for points to be allocated. Appointment letters and	
completion certificates must be attached for points to be allocated. All	
attachments to be on appropriate letterhead and signed off by the client.	

Table 3 Details of projects completed in the last 10 years

Project Description (include type of works- GB, etc.)	Project Value	Completion Certificate attached (Yes/No)	Client Name	Contact Person (Tel)

Proposal and methodology	Weighting
Project Proposal/Method Statement	
The Bidder does not cover any aspect of the scope of work or no information	
submitted/attached = 0	
The bidder does not deal with the critical aspects of the project associated	
with the scope of work =5	
The bidder addresses the scope of work, provides a methodology to deal with	
the critical aspects of the project associated with the works =10	
Project Schedule/programme (acceptable scheduling software)	
Programme not submitted =0	20
Programme not aligned to Bill of Quantities (BOQ) = 2	
Programme is aligned to the Bill of Quantities (BOQ) =5	
Cashflow projections	
Cashflow not submitted =0	
The cash flow projections not aligned to the programme and BOQ=2	
The cash flow projections, programme and BOQ are aligned=5	

Safety, Health and Environmental Plan (SHEQ)	Weighting
The Bidder does not cover any aspect of the scope of work or no information submitted/attached =0	
The bidder does not address safety and health issues related to the works –	
i.e. there is no cognisance to the safety of the learners, teachers and workers	10
and the impact of their work on the environment=5	10
The safety, health and environment approach provided deals with the critical aspects of the project. Cognisance is taken dealing with safety of the workers, learners and teachers when conducting their works such as barricading of the	
area, conducting safety talk with the affected parties=10	
Total	100
NB: To qualify for final evaluation the bidder must obtain a minimum scor functionality	e of 70% on

NB: ADDITIONAL EVALUATION CRITERIA

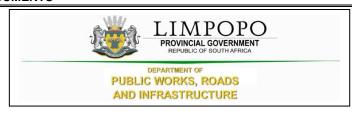
- 1. This project forms part of the Twenty-Five (25) schools programme (See table below)
- 2. Should one bidder score high points on more than three (3) projects, Bidders will be required to meet the minimum requirements as listed below to qualify for additional appointment:
 - 2.1 Bidder should have a minimum functionality score of 90 points.
 - 2.2 Bidder should have one CIDB grading level above the highest appointed level required grading.
- 3. The department reserves the right to negotiate prices in accordance with regulation 6 (80/20 preference point system for acquisition of goods or services for Rand value equal to or above R30 000 and up to R50 million) and/or 7 (90/10 preference point system for acquisition of goods or services with Rand value above R50 million) of the Preferential Procurement Regulations of 2017.
- 4. Furthermore, the Department "LDPWR&I" is not obliged to award the tender to the bidder with the highest number of tender points.

Item No	Name of school	LDPW Contract Number
1	Diphuti Primary	LDPWRI-20091
2	Kgarahara Secondary	LDPWRI-20096
3	Masikhwa Primary	LDPWRI-20092
4	Napsadi Secondary	LDPWRI-20093
5	Ngwana Makhutswe Secondary	LDPWRI-20094
6	Rasema Secondary	LDPWRI-20115
7	Seale Secondary	LDPWRI-20095
8	Mmaphuti Manamela Secondary (New Site)	LDPWRI-B/20100
9	David Scara Kutumela Primary (Modimolle RDP Settlement)	LDPWRI-B/20102
10	Matsobane Primary	LDPWRI-B/20103
11	Rakgoatha Primary	LDPWRI-B/20099
12	Dikoloi Secondary	LDPWRI-B/20097
13	Matsibe Secondary	LDPWRI-B/20101
14	Sekete Secondary	LDPWRI-B/20104
15	Suswe Primary	LDPWRI-B/2098
16	Matsuokwane Secondary	LDPWRI-B/20106

17	Rebone Secondary	LDPWRI-B/20105
18	Dikgalaopeng Secondary	LDPWRI-B/20107
19	Seboeng Primary (New Site)	LDPWRI-B/20108
20	St. Paul Secondary	LDPWRI-B/20109
21	Chameti Secondary	LDPWRI-B/20110
22	Mphakani Primary	LDPWRI-B/20112
23	Ramatimana Primary School	LDPWRI-B/20111
24	Sehonwe Primary	LDPWRI-B/20114
25	Vutivi Primary (New Site)	LDPWRI-B/20113



PART T2: RETURNABLE DOCUMENTS



T2.1: LIST OF RETURNABLE DOCUMENTS

BID EVALUATION STAGE 1- MANDATORY REQUIREMENTS

- 1. The following returnable documents and mandatory requirements are compulsory, failure to comply will be considered non-responsive, and the bid will not be evaluated any further. All returnable documents are incorporated into the bid documents.
 - SBD1: Invitation to Bid (fully completed and signed)
 - Submit a power of attorney/Certificate of Authority (fully completed and signed)
 - Record of Addenda (where applicable)
 - SBD 4: Declaration of Interest
 - SBD 6.1: Reference Points claim form in terms of the Preferential Procurement Regulations 2017 or amended.
 - SBD 6.2 Declaration Certificate for Local Production and Content
 - SBD 8: Declaration of the bidder's past SCM practices
 - SBD 9: Certificate of Bid determination
 - Declaration of Subcontracting Arrangements
 - C1.1: Form of the offer (PART C1)
 - Joint venture certificate (where applicable)
 - Bidding entity must not have any of their directors/shareholders listed on the Register of Tender Defaulters in terms of the Prevention and Combating of Corrupt Activities Act of 2004 as a person prohibited from doing business with the public sector;
 - Bidding entity must not appear on the National Treasury's list of blacklisted entities
 - Completion of the Bid Document must be done with a non-erasable black pen
 - Submission of fully completed original tender document
- 2. The following returnable documents are required for tender evaluation purposes.
 - Curriculum Vitae of all key staff allocated to this project, indicating their experience and qualifications and professional registration with various councils.
 - Certified copies (not older than 6 months from the date of certifying) of all qualifications, professional registrations, and training.
 - Letters of completion for previous or current work on appropriate letterhead and signed off by the client must be attached. The letters must detail the scope of work undertaken, project value is undertaken, date of award and completion, and the location where work was carried out.
 - Proof of ownership of the plant or confirmation of rental agreement thereof.
 - Methodology documentation, detailing the bidder's approach to executing the scope of works, risk, and environmental impact.
 - Proof of Contractor Registration issued by the Construction Industry Development Board -Compulsory.
 - Signed Preferencing Schedule, including submitting the supporting documents
 - B-BBEE Verification Certificates issued by a verification agency accredited by the South African National Accreditation System "SANAS" (In the case of a consortium and Joint venture, a Joint BBBEE certificate is required, but where sub-contracting only the BBBEE of the bidding entity is required). Or in the case of an Exempted Micro Enterprise or a Qualifying Small Enterprise, if permitted in terms of the relevant code,
 - A duly completed and valid affidavit on the relevant form obtained from the DTI website (https://www.thedti.gov.za/economic_empowerment/bee_codes.jsp). Failure to submit these documents will result in no points allocated.

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PART T2: RETURNABLE DOCUMENTS

- Copy of COIDA (Compensation for Occupational Injuries and Diseases) registration certificate, e.g. Letter of Good Standing
- A valid Tax Clearance, unique security Personal Identification Number(PIN) issued by the South African Revenue Services (where Consortium / Joint Venture / Sub- contractors / Sub-consultants are involved, each party to the association must submit a separate Valid Tax Clearance unique security personal Identification number)
- Certified copy of directors' identity documents not older than six months. No copy of a certified copy will be accepted.
- Joint Venture or Consortium submissions are eligible, Joint Venture Agreement must be notarized by the commissioner of oath.
- Submission of fully Completed and Priced Bill of Quantities

KINDLY NOTE THAT FAILURE TO SUBMIT AND OR COMPLETE THE REQUIRED DOCUMENTATION (AS PER MANDATORY REQUIREMENTS INCLUDING COMPLETION OF SBD 1, 4, 6.1, 6.2, 8 and 9) WITH THE TENDER WILL RESULT IN YOUR TENDER BEING REJECTED WITHOUT FURTHER CONSIDERATION.

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T2.2: RETURNABLE SCHEDULE

Bidders with the	Complaint		
1.	SBD 1: Invitation to Bid	Yes	No
2.	Certificate of Authority	Yes	No
3.	Record of Addenda to the tender	Yes	No
4.	Compulsory Declaration	Yes	No
5.	Preferencing schedule: Broad-based Black Economic Empowerment status	Yes	No
6.	Proposed amendments and qualifications (if applicable)	Yes	No
7.	SBD 4: Declaration of Interest	Yes	No
8.	SBD 6.1: Reference Points claim form in terms of the Preferential Procurement Regulations 2017 or amended	Yes	No
9.	SBD 6.2 Declaration Certificate for Local Production and Content	Yes	No
10.	SBD 8: Declaration of the bidder's past SCM practices	Yes	No
11.	SBD 9: Certificate of Bid determination	Yes	No
12.	Declaration of Subcontracting Arrangements	Yes	No
13.	Form of offer	Yes	No
14.	CSD (Summary)	Yes	No
15.	COIDA	Yes	No
16.	Valid tax clearance or tax pin	Yes	No
17.	Certified copy of Contractor Registration for Incorporation or of Company Registration Document	Yes	No
18.	Joint venture certificate (where applicable)	Yes	No
19.	B-BBEE Verification Certificates issued by a verification agency accredited by the South African National Accreditation System (SANAS)	Yes	No
20.	Certified copies of Qualifications, Professional registration, and Training for Key persons	Yes	No
21.	Methodology/Method statement	Yes	No
22.	Certificates or letters of completed or current similar projects, with Contactable references and on the Client's letterhead	Yes	No
23.	Certified copy of directors' identity documents	Yes	No
24.	Minimum CIDB class grading: 7GB or higher (CIDB Certificate)	Yes	No
25.	Preliminary Programme/schedule and cash flow	Yes	No
26.	Safety, Health and Environmental Plan (SHEQ)	Yes	No

PART T2: RETURNABLE DOCUMENTS

SBD1: INVITATION TO BID

PART A

YOU ARE HEREBY INVITED TO BID F	OR REQUIRE	MENTS	OF THE (NAME OF	- DEPA	RTMENT/ PUB	LIC ENTITY)		
BID NUMBER:	CLOSING	DATE:			CLOS	SING TIME:		
DESCRIPTION								
THE SUCCESSFUL BIDDER WILL BE				ITTEN	CONTRACT FO	ORM (SBD7).		
BID RESPONSE DOCUMENTS MAY E	BE DEPOSITED	IN TH	IE BID BOX					
SITUATED AT (STREET ADDRESS)								
SUPPLIER INFORMATION								
NAME OF BIDDER								
POSTAL ADDRESS								
STREET ADDRESS								
TELEPHONE NUMBER	CODE				NUMBER			
CELLPHONE NUMBER								
FACSIMILE NUMBER	CODE				NUMBER			
E-MAIL ADDRESS								
VAT REGISTRATION NUMBER								
	TCS PIN:			OR	CSD No:			
B-BBEE STATUS LEVEL	Yes				EE STATUS	☐ Yes		
VERIFICATION CERTIFICATE					L SWORN			
[TICK APPLICABLE BOX] IF YES, WHO WAS THE	☐ No			AFFIL	DAVIT	☐ No		
CERTIFICATE ISSUED BY?								
		AN A	CCOUNTING OFFIC	CFR AS	CONTEMPI A	TED IN THE (LOSE COR	PORATION
AN ACCOUNTING OFFICER AS			(CCA)	, , , , ,	0011121111271		,2002 0014	
CONTEMPLATED IN THE CLOSE CORPORATION ACT (CCA) AND			ERIFICATION AG			D BY THE	SOUTH	AFRICAN
NAME THE APPLICABLE IN THE			REDITATION SYSTE		NAS)			
TICK BOX			GISTERED AUDITO	R				
	TION TION OF	NAMI		TID AL	T /FOD Fire		UOT DE C	IDMITTED
[A B-BBEE STATUS LEVEL VERII IN ORDER TO QUALIFY FOR PRE				FIDA V	II (FUR EME	s& QSES) IVI	US I BE SU	JBIVIII I ED

PART T2: RETURNABLE DOCUMENTS

ARE YOU THE ACCREDITED REPRESENTATIVE IN SOUTH AFRICA FOR THE GOODS /SERVICES /WORKS OFFERED?	☐Yes ☐No [IF YES ENCLOSE PROOF]		ARE YOU A FOREIGN BASED SUPPLIER FOR THE GOODS /SERVICES /WORKS OFFERED?	☐Yes ☐No [IF YES ANSWER PART B:3 BELOW]
SIGNATURE OF BIDDER			DATE	
CAPACITY UNDER WHICH THIS BID IS SIGNED (Attach proof of authority to sign this bid; e.g. resolution of directors, etc.)				
TOTAL NUMBER OF ITEMS OFFERED			TOTAL BID PRICE (ALL INCLUSIVE)	
BIDDING PROCEDURE ENQUIRIES M	AY BE DIRECTED TO:	TECHN	NICAL INFORMATION MA	Y BE DIRECTED TO:
DEPARTMENT/ PUBLIC ENTITY	LDPWR&I	CONTA	ACT PERSON	Mr. P. Makape
CONTACT PERSON	Ms Moloto V.	TELEP	HONE NUMBER	082 460 6271
TELEPHONE NUMBER	015 284 7142	FACSI	MILE NUMBER	
FACSIMILE NUMBER		E-MAIL	ADDRESS	makapep@dpw.limpopo.gov.za
E-MAIL ADDRESS	molotomv@dpw.limpopo.gov.za			

PART T2: RETURNABLE DOCUMENTS

PART B: TERMS AND CONDITIONS FOR BIDDING

1				
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 ONLINE			
1.3.	BIDDERS MUST REGISTER ON THE CENTRAL SUPPLIER DATABASE (CSD) TO UPLOAD MANDATORY INFORMATION NAMELY: (BUSINESS REGISTRATION/ DIRECTORSHIP/ MEMBERSHIP/IDENTITY NUMBERS; TAX COMPLIANCE STATUS; AND BANKING INFORMATION FOR VERIFICATION PURPOSES). B-BBEE CERTIFICATE OR SWORN AFFIDAVIT FOR B-BBEE MUST BE SUBMITTED TO BIDDING INSTITUTION.			
1.4.	WHERE A BIDDER IS NOT REGISTERED ON THE CSD, MANDATORY INFORMATION NAMELY: (BUSINESS REGISTRATION/DIRECTORSHIP/ MEMBERSHIP/IDENTITY NUMBERS; TAX COMPLIANCE STATUS MAY NOT BE SUBMITTED WITH THE BID DOCUMENTATION. B-BBEE CERTIFICATE OR SWORN AFFIDAVIT FOR B-BBEE MUST BE SUBMITTED TO BIDDING INSTITUTION.			
1.5.	THIS BID IS SUBJECT TO THE PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT 2000 AND THE PREFERENTIAL PROCUREMENT REGULATIONS, 2017, THE GENERAL CONDITIONS OF CONTRACT (GCC) AND, IF APPLICABLE, ANY OTHER LEGISLATION OR SPECIAL CONDITIONS OF CONTRACT.			
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 VIEW THE TAXPAYER'S PROFILE AND TAX STATUS.			
2.3	APPLICATION FOR TAX COMPLIANCE STATUS (TCS) OR PIN MAY ALSO BE MADE VIA E-FILING. IN ORDER TO USE THIS PROVISION, TAXPAYERS WILL NEED TO REGISTER WITH SARS AS E-FILERS THROUGH THE WEBSITE WWW.SARS.GOV.ZA.			
2.4	BIDDERS MAY ALSO SUBMIT A PRINTED TCS TOGETHER WITH THE BID.			
2.5	IN BIDS WHERE CONSORTIA / JOINT VENTURES / SUB-CONTRACTORS ARE INVOLVED, EACH PARTY MUST SUBMIT A SEPARATE PROOF OF TCS / PIN / CSD NUMBER.			
2.6	WHERE NO TCS IS AVAILABLE BUT THE BIDDER IS REGISTERED ON THE CENTRAL SUPPLIER DATABASE (CSD), A CSD NUMBER MUST BE PROVIDED.			
3.	QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS			
3.1.	IS THE BIDDER A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)?			
3.2.	DOES THE BIDDER HAVE A BRANCH IN THE RSA?			
3.3.	DOES THE BIDDER HAVE A PERMANENT ESTABLISHMENT IN THE RSA? ☐ YES ☐ NO			
3.4.	DOES THE BIDDER HAVE ANY SOURCE OF INCOME IN THE RSA? ☐ YES ☐ NO			
IF TI TAX ABO	HE ANSWER IS "NO" TO ALL OF THE ABOVE, THEN, IT IS NOT A REQUIREMENT TO OBTAIN A TAX COMPLIANCE STATUS / COMPLIANCE SYSTEM PIN CODE FROM THE SOUTH AFRICAN REVENUE SERVICE (SARS) AND IF NOT REGISTER AS PER 2.3 VF.			

NB: FAILURE TO PROVIDE ANY OF THE ABOVE PARTICULARS MAY RENDER THE BID INVALID.

CERTIFICATE OF AUTHORITY

Indicate the status of the tenderer by ticking the appropriate box hereunder. The tenderer must complete the certificate set out below for the relevant category.

A	B	C	D	E
Company	Partnership	Joint Venture	Sole Proprietor	Close Corporation

	Α.	CERTIF	ICATE FOR	COMP	ANY							
I,				,	chairperson	of	the	board	of	direc	ctors	of
				, h	ereby confirm	that by	resolut	ion of the	board	d (copy	attach	ed)
taken	on		20,	Mr/M	rs			acting	in	the	capa	city
of				,	was authorize	ed to sig	n all do	ocuments	in cor	nnectio	n with	this
tender	and any	contract r	esulting from	it on be	half of the cor	npany.						
As witr	ness											
1												
					Chairperso	n						
2					 Date							
	В.	CERTIF	ICATE OF F	PARTN	ERSHIP							
We, the	e unders	igned, bei	ng the key pa	ırtners iı	n the business	trading	as					
hereby	autho	orize Mı	/Mrs					, acting	g in	the	capa	city
of			t	to sigr	n all docun	nents i	n con	nection	with	the te	ender	for
Contra	ct					and an	/ contra	ct resultin	g from	it on o	ur beha	alf.
NAMI	E		ADDRESS		SIGNA	ATURE		DATI	E			

NOTE: This certificate is to be completed and signed by all the key partners upon whom rests the direction of the affairs of the Partnership as a whole.

C. CERTIFICATE FOR JOINT VENTURE

We, the undersigned, a	_			_	
capacity of lead partne	•				offer for
This authorization is evidend all the partners to the Joint \		er of attorney signed	d by legally a	uthorized signa	atories of
NAME OF FIRM	ADDRESS			ING SIGNATUI & CAPACITY	RE,
D. CERTIFIC I,		confirm that I am the		of the business	s trading
2		Date			
E. CERTIFIC	ATE FOR CLOSE CO	RPORATION			
We, the undersigned asin the capacity of	hereby autho				_
tender for Contract		and any contra	act resulting f	rom it on our b	ehalf.
NAME	ADDRESS	SIGNATURE		DATE	

PART T2: RETURNABLE DOCUMENTS

NOTE: This certificate is to be completed and signed by all the key members upon whom rests the direction of the affairs of the Close Corporation as a whole

Record of Addenda to tender documents

We co tender	nfirm that the following commoffer, amending the tender d	nunications received from the Employer before the submission of this locuments, 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 spa	ce is required.
Signed	<u> </u>	Date
Name		Position
Tende	rer	

Compulsory Declaration

each partner must be co				e or a joint vent	dre, a separate declaration in respect t
Section 1: Enterprise I	Details				
Name of enterprise:					
Contact person:					
Email:					
Telephone:					
Cell no					
Fax:					
Physical address					
Postal address					
Section 2: Particular	s of compa	nies and c	lose co	rporations	
Company / Close Co				· 	
number	-				
Section 3: SARS Info	ormation				
Tax reference number	er				
VAT registration num	nber:			State No	t Registered if not registered for VAT
Section 4: CIDB regi	stration nu	mber			
Section 5: National Tr	easury Cer	tral Suppl	ier Data	base	
Supplier number					
Unique registration re	eference				
Section 6: Particulars	of principal	ls			
	the Compar	nies Act of	2008 (A	ct No. 71 of 20	sole proprietor, a director of a compan 08) or a member of a close corporatio 1984).
Full name of the prin	cipal	Identity n	number		Personal tax reference number
Attach a separate page	if necessary	1			

PART T2: RETURNABLE DOCUMENTS

Section 7: Record in the s	service of the state					
Indicate by marking the relevemenths in the service of any	vant boxes with a cross, if any of the following:	[,] principal	is currently or has	s been within the last 12		
 a member of any munic a member of any provin a member of the National Council of Proving a member of the boar municipal entity an official of any municipal 	orial legislature properties on all Assembly or the vince and of directors of any	oublic ent neaning o 999 (Act he nember of provincial p	ity or constitution of the Public Fina No. 1 of 1999) an accounting aut public entity	ent, national or provincial nal institution within the ance Management Act of thority of any national or a provincial legislature		
If any of the above boxes a	are marked, disclose the fol	lowing:				
Name of principal	Name of institution, public		Status of service (tick appropriate			
Name or principal	position held	oard or organ of state and osition held		Within the last 12 months		
*insert separate page if nece	essary					
family member: a person's sp domestic partner in a civil union or adoption Indicate by marking the relevant	y member in the service of the couse, whether in a marriage on, or child, parent, brother, sister, to boxes with a cross, if any family nonths been in the service of any all council	r in a cust, whether someone control of the following an en	such a relationship roof a principal as definowing: mployee of any prov	results from birth, marriage ned in section 5 is currently rincial department, national of		
□ a member of any provincia□ a member of the Natior	al legislature nal Assembly or the National	withir	ovincial public entity or constitutional institut thin the meaning of the Public Finance Managem at, 1999 (Act 1 of 1999)			
Council of Province	directors of any municipal entity	□ a me	ember of an accoun	mber of an accounting authority of any nation		
□ an official of any municipal			ovincial public entity mployee of Parliame	/ ent or a provincial legislature		
Name of a family member	_		e, Status of service (tick appropriate column)			
	position held		Current	Within the last 12 m		
*insert separate page if nece	essary		•			

Enterprise

PART T2: RETURNABLE DOCUMENTS Section 9: Record of termination of previous contracts with an organ of state Was any contract between the tendering entities including any of its joint venture partners terminated during the past 5 years for reasons other than the employer no longer requiring such works or the employer fails to make payment in terms of the contract. □ Yes □ No (Tick appropriate box) If yes, provide particulars (interest separate page if necessary) **Section 10: Declaration** The undersigned, who warrants that he/she is duly authorized to do so on behalf of the tendering entity confirms that the contents of this Declaration are within my knowledge, and save where stated otherwise in an attachment hereto, are to the best of my belief both true and correct, and: i) neither the name of the tendering entity or any of its principals appears on: a) the Register of Tender Defaulters established in terms of the Prevention and Combating of Corrupt Activities Act of 2004 (Act No. 12 of 2004) b) National Treasury's Database of Restricted Suppliers (see www.treasury.gov.za) ii) neither the tendering entity of any of its principals has within the last five years been convicted of fraud or corruption by a court of law (including a court outside of the Republic of South Africa); iii) any principal who is presently employed by the state has the necessary permission to undertake remunerative work outside such employment (attach permission to this declaration); iv) the tendering entity is not associated, linked or involved with any other tendering entities submitting tender offers v) has not engaged in any prohibited restrictive horizontal practices including consultation, communication, agreement, or arrangement with any competing or potential tendering entity regarding prices, geographical areas in which goods and services will be rendered, approaches to determining prices or pricing parameters, intentions to submit a tender or not, the content of the submission (specification, timing, conditions of the contract, etc.) or intention to not win a tender; vi) has no other relationship with any of the tenderers or those responsible for compiling the scope of work that could cause or be interpreted as a conflict of interest; vii) neither the tenderer or any of its principals owes municipal rates and taxes or municipal service charges to any municipality or a municipal entity and are not in arrears for more than 3 months; viii) SARS may, on an on-going basis during the term of the contract, disclose the tenderer's tax compliance status to the Employer and when called upon to do so, obtain the written consent of any subcontractors who are subcontracted to execute a portion of the contract that is entered into more than the threshold prescribed by the National Treasury, for SARS to do likewise. Signed Date Name _____ Position _____

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- Section 30(1) of the Public Service Act, 1994, prohibits an employee (person who is NOTE 2: employed in posts on the establishment of departments) from performing or engaging remunerative work outside his or her employment in the relevant department, except with the written permission of the executive authority of the department. When in operation, Section 8(2) of the Public Administration Management Act, 2014, will prohibit an employee of the public administration (i.e. organs of state and all national departments, national government components listed in Part A of Schedule 3 to the Public Service Act, provincial departments including the office of the premier listed in Schedule 1 of the Public Service Act and provincial departments listed in schedule 2 of the Public Service Act, and provincial government components listed in Part B of Schedule 3 of the Public Service Act) or persons contracted to executive authorities in accordance with the provisions of section 12A of the Public Service Act of 1994 or persons performing similar functions in organs of state from conducting business with the State or to be a director of a public or private company conducting business with the State. The offense for doing so is a fine or imprisonment for a period not exceeding 5 years or both. It is also serious misconduct which may result in the termination of employment by the employer.
- NOTE 3: Regulation 44 of Supply Chain Management regulations issued in terms of the Municipal Finance Management Act of 2003 requires that organs of state and municipal entities not award a contract to a person who is the service of the state, a director, manager or principal shareholder in the service of the state or who has been in the service of the state in the previous twelve months.
- NOTE 4: Regulation 45 of Supply Chain Management regulations requires a municipality or municipal entity to disclose in the notes to the particulars of the annual statement of any award made to a close family member in the service of the state.
- NOTE 5: Corrupt activities which give rise to an offense in terms of the Prevention and Combating of Corrupt Activities Act of 2004) include improperly influencing in any way the procurement of any contract, the fixing of the price, consideration or other amounts of money stipulated or otherwise provided for in any contract and the manipulating by any means of the award of a tender.
- NOTE 6: Section 4 of the Competition Act of 1998 prohibits restrictive horizontal practice including agreements between parties in a horizontal relationship that have the effect of substantially preventing or lessening competition, directly or indirectly fixing prices or dividing markets or constitute collusive tendering. Section 5 also prohibits restrictive vertical practices. Any restrictive practices that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties.

F. Broad-Based Black Economic Empowerment

Preferencing schedule: Broad-Based Black Economic Empowerment Status

Preamble

Section 10(b) of the Broad-Based Black Economic Empowerment Act of 2003 (Act No. 53 of 2003) states that "Every organ of state and the public entity must take into account and, as far as is reasonably possible, apply any **relevant code of good practice** issued in terms of this Act in developing and implementing a preferential procurement policy."

A number of codes of good practice have been issued in terms of Section 9(1) of the B-BBEE Act of 2003, including a generic code of good practice and various sector codes. The sector codes vary the metrics, weightings, and targets used in the generic code of good practice to establish the overall performance of an entity and its B-BBEE status. The B-BBEE status needs to be assessed in accordance with the applicable code.

1 Conditions associated with the granting of preferences

Tenderers who claim a preference shall provide proof of B-BBEE status level of contributor in accordance with the requirements of section 2 in respect of the applicable code as at the closing time for submissions, failing which their claims for preferences will be rejected.

1 Proof of B-BBEE status level of contributor

Proof of B-BBEE status level of contributor shall be by means of

- the B-BBEE status level certificate issued by an authorized body or person;
- an affidavit as prescribed by the B-BBEE Codes of Good Practice; or
- any other requirement prescribed in terms of the Broad-Based Black Economic Empowerment Act

2 Tender preferences claimed

The scoring shall be as follows:

	Status level of	Number of preference points				
B-BBEE status level of contributor	a tenderer (tick relevant level)	90/10 preference points system	80/20 preference points system			
Form not completed or non-complaint contributor		0	0			
Level 8 contributor		1	2			
Level 7 contributor		2	4			
Level 6 contributor		3	6			
Level 5 contributor		4	8			
Level 4 contributor		5	12			
Level 3 contributor		6	14			
Level 2 contributor		9	18			
Level 1 contributor		10	20			

4 Declaration

The tenderer declares that

- a) the tendering entity is a level contributor as stated in the submitted proof of B-BBEE status level of a contributor as at the closing date for submissions
- b) the tendering entity has been measured in terms of the following code (tick applicable box):
 - ☐ Generic code of good practice

PART T2: RETURNABLE DOCUMENTS

	Construction Sector Code
	Other – specify
c)	the tendering entity confirms that it will only enter into a subcontract with the Employer's prior approval and
	is not permitted to subcontract more than 25% of the total of the prices of the contract to any other enterprise that does not have an equal or higher B-BBEE status level of contributor unless the contract is a
	subcontractor to an Exempted Micro Enterprises which has the capability to execute the contract.
d)	the contents of the declarations made in terms of a) and b) above are within my knowledge and are to the
,	best of my belief both true and correct
The II	indersigned, who warrants that he/she is duly authorized to do so on behalf of the tenderer, confirms that
he/she	e understands the conditions under which such preferences are granted and confirms that the tenderer
satisfie	es the conditions about the granting of tender preferences.
Signat	ture:
Olgilai	ture.
Name	
Duly a	authorized to sign on behalf of:
Teleph	hone:
Fax:	Date:
Name	e of witness: Signature of witness:
rvaino	olynatics.
Note:	1) Failure to complete the declaration will lead to the rejection of a claim for preference.
	 Supporting documentation of the abovementioned claim for preference must be submitted with the tender submission to be eligible for a preference
	terrace cummodian to be original for a profession

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 cover letter to his tender and reference such a letter in this schedule.

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

Page	Clause or item	Proposal

Signed	 Date	
Name	 Position	
Tenderer	 	

SBD 4: DECLARATION OF INTEREST

SBD 4: DECLARATION OF INTEREST

- 1. Any legal person, including persons employed by the state¹, or persons having a kinship with persons employed by the state, including a blood relationship, may make an offer or offers in terms of this invitation to bid (includes an advertised competitive bid, a limited bid, a proposal or written price quotation). Because of possible allegations of favouritism, should the resulting bid, or part thereof, be awarded to persons employed by the state, or to persons connected with or related to them, it is required that the bidder or his/her authorized representative declare his/her position concerning the evaluating/adjudicating authority where-
 - the bidder is employed by the state; and/or
 - the legal person on whose behalf the bidding document is signed, has a relationship with persons/a person who are/is involved in the evaluation and or adjudication of the bid(s), or where it is known that such a relationship exists between the person or persons for or on whose behalf the declarant acts and persons who are involved with the evaluation and or adjudication of the bid.

2.	To give effect to the above, the following questionnaire must be com-	npleted and submitted with the bid.
2.1	1 Full Name of bidder or his or her representative:	
2.2	2 Identity Number	
2.3	The position occupied in the Company (director, trustee, sharehol	lder², member):
2.4		, -
2.5	5 Tax Reference Number:	
2.6	6 VAT Registration Number:	
2.6.	The names of all directors/trustees/shareholders/members numbers and, if applicable, employee / PERSAL numbers must	
¹"Sta	(a) any national or provincial department, national or provincial public entity Public Finance Management Act, 1999 (Act No. 1 of 1999); (b) any municipality or municipal entity; (c) provincial legislature; (d) national Assembly or the national Council of provinces; or (e) Parliament.	or constitutional institution within the meaning of the
	shareholder" means a person who owns shares in the company and is actively involved exercises control over the enterprise.	in the management of the enterprise or business and
2.7	7 Are you or any person connected with the bidder? Presently employed by the state?	YES / NO
2.7.	7.1 If so, furnish the following particulars:	
	Name of person / director / trustee / shareholder/ member: Name of state institution at which you or the person connected to the bidder is employed:	
	. ,	

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SBD 4: DECLARATION OF INTEREST

The position occupied in the state institution:	
Any other particulars:	
2.7.2 If you are presently employed by the state, did you obtain the appropriate authority to undertake remunerative work outside employment in the public sector?	YES / NO
2.7.2.1 If yes, did you attach proof of such authority to the bid document?	YES / NO
(Note: Failure to submit proof of such authority, where applicable, may result in the disqualification of the bid.	
2.7.2.2 If no, furnish reasons for non-submission of such proof:	
2.8 Did you or your spouse, or any of the company's directors / trustees/shareholders/members or their spouses conduct business with the state in the previous twelve months?	YES / NO
2.8.1 If so, furnish particulars:	
2.9 Do you, or any person connected with the bidder, have any relationship (family, friend, other) with a person employed by the state and who may be involved with the evaluation and or adjudication of this bid?	YES / NO
2.9.1 If so, furnish particulars.	
2.10 Are you, or any person connected with the bidder, aware of any relationship (family, friend, other) between any other bidder and any person employed by the state who may be involved with the evaluation and or adjudication of this bid?	YES/NO
2.10.1 If so, furnish particulars.	

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SBD 4: DECLARATION OF INTEREST

2.11.1 If so, furnish	particulars:		
3 Full details of director	s / trustees / members / sh	areholders.	
Full Name	Identity Number	Personal Income Tax Reference Number	State Employee Num Persal Number
4 DECLARATION			
I, THE UNDERSIGNED (I	NAME)		
		N PARAGRAPHS 2 and 3 AE O OR ACT AGAINST ME SH	

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SBD 4

SBD 6.1: REFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2017

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

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

1. GENERAL CONDITIONS

- 1.1 The following preference point systems are applicable to all bids:
 - the 80/20 system for requirements with a Rand value of up to 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

- a) The value of this bid is estimated to exceed/not exceed R50 000 000 (all applicable taxes included) and therefore the preference point system shall be applicable; or
- b) Either the 80/20 or 90/10 preference point system will be applicable to this tender (*delete whichever is not applicable for this tender*).
- 1.3 Points for this bid shall be awarded for:
 - (a) Price; and
 - (b) B-BBEE Status Level of Contributor.
- 1.4 The maximum points for this bid are allocated as follows:

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

1.5 Failure on the part of a bidder to submit proof of B-BBEE Status level of contributor together with the bid, will be interpreted to mean that preference points for B-BBEE status level of contribution are not claimed.

1.6 The purchaser reserves the right to require of a bidder, either before a bid is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the purchaser.

2. **DEFINITIONS**

- (a) **"B-BBEE"** means broad-based black economic empowerment as defined in section 1 of the Broad-Based Black Economic Empowerment Act;
- (b) "B-BBEE status level of contributor" means the B-BBEE status of an entity in terms of a code of good practice on black economic empowerment, issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act;
- (c) "bid" means a written offer in a prescribed or stipulated form in response to an invitation by an organ of state for the provision of goods or services, through price quotations, advertised competitive bidding processes or proposals;
- (d) "Broad-Based Black Economic Empowerment Act" means the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003);
- (e) "EME" means an Exempted Micro Enterprise in terms of a code of good practice on black economic empowerment issued in terms of section 9 (1) of the Broad-Based Black Economic Empowerment Act;
- (f) "functionality" means the ability of a tenderer to provide goods or services in accordance with specifications as set out in the tender documents.
- (g) "prices" includes all applicable taxes less all unconditional discounts;
- (h) "proof of B-BBEE status level of contributor" means:
 - 1) B-BBEE Status level certificate issued by an authorized body or person;
 - 2) A sworn affidavit as prescribed by the B-BBEE Codes of Good Practice;
 - 3) Any other requirement prescribed in terms of the B-BBEE Act;
 - (i) "QSE" means a qualifying small business enterprise in terms of a code of good practice on black economic empowerment issued in terms of section 9 (1) of the Broad-Based Black Economic Empowerment Act;
- (j) "rand value" means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes;

POINTS AWARDED FOR PRICE

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

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

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

Where

Ps = Points scored for price of bid under consideration

Pt = Price of bid under consideration

Pmin = Price of lowest acceptable bid

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

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

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

5. BID DECLARATION

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

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

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

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

BID	NUMBER	: LDPWR	I-B/20110
-----	--------	---------	-----------

7.	SUB-CONTRACTING			
7.1	Will any portion of the contract be sub-contracted?			
	(Tick applicable box)			
	YES NO			
7.1.1	If yes, indicate:			
	i) What percentage of the contract will be subcontracted			%
	ii) The name of the sub-contractor			
	iii) The B-BBEE status level of the sub-contractor			
	iv) Whether the sub-contractor is an EME or QSE			
	(Tick applicable box)			
	YES NO			
	v) Specify, by ticking the appropriate box, if subcontracting	with an ent	erprise in t	terms of
	Preferential Procurement Regulations, 2017:		о. р оо	
		1		-
De	esignated Group: An EME or QSE which is at last 51% owned	EME	QSE	
Blad	by:	√	ν	-
	ck people who are youth			1
	ck people who are women			1
	ck people with disabilities			
Blad	ck people living in rural or underdeveloped areas or townships			
Coc	perative owned by black people			
Blac	ck people who are military veterans			
	OR	1		4
	EME			4
Any	QSE			

8. DECLARATION WITH REGARD TO COMPANY/FIRM

_	
8.1	Name of company/firm:
8.2	VAT registration number:
8.3	Company registration number:
8.4	TYPE OF COMPANY/ FIRM
	 □ Partnership/Joint Venture / Consortium □ One person business/sole propriety □ Close corporation □ Company □ (Pty) Limited [TICK APPLICABLE BOX]

BID NUMBER: LDPWRI-B/20110 DESCRIBE PRINCIPAL BUSINESS ACTIVITIES 8.5 COMPANY CLASSIFICATION 8.6 Manufacturer П Supplier Professional service provider Other service providers, e.g. transporter, etc. [TICK APPLICABLE BOX] 8.7 Total number of years the company/firm has been in business:..... 8.8 I/we, the undersigned, who is / are duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the B-BBE status level of contributor indicated in paragraphs 1.4 and 6.1 of the foregoing certificate, gualifies the company/ firm for the preference(s) shown and I / we acknowledge that: i) The information furnished is true and correct: ii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form; iii) In the event of a contract being awarded as a result of points claimed as shown in paragraphs 1.4 and 6.1, the contractor may be required to furnish documentary proof to the satisfaction of the purchaser that the claims are correct; iv) If the B-BBEE status level of contributor has been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the purchaser may, in addition to any other remedy it may have -(a) disqualify the person from the bidding process; (b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct; cancel the contract and claim any damages which it has suffered as a result (c) of having to make less favourable arrangements due to such cancellation; recommend that the bidder or contractor, its shareholders and directors, or (d) only the shareholders and directors who acted on a fraudulent basis, be

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restricted by the National Treasury from obtaining business from any organ of state for a period not exceeding 10 years, after the *audi alteram partem*

(hear the other side) rule has been applied; and

(e) forward the matter for criminal prosecution.

WITNESSES	
1	
2	

SIG	GNATURE(S) OF BIDDERS(S)
DATE:	
ADDRESS	

SBD 6.2: DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT

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

Before completing this declaration, bidders must study the General Conditions, Definitions, Directives applicable in respect of Local Content as prescribed in the Preferential Procurement Regulations, 2017, the South African Bureau of Standards (SABS) approved technical specification number SATS 1286:2011 (Edition 1) and the Guidance on the Calculation of Local Content together with the Local Content Declaration Templates [Annex C (Local Content Declaration: Summary Schedule), D (Imported Content Declaration: Supporting Schedule to Annex C) and E (Local Content Declaration: Supporting Schedule to Annex C)].

1. General Conditions

- 1.1. Preferential Procurement Regulations, 2017 (Regulation 8) makes provision for the promotion of local production and content.
- 1.2. Regulation Regulation 8.(2) prescribes that in the case of designated sectors, organs of state must advertise such tenders with the specific bidding condition that only locally produced or manufactured goods, with a stipulated minimum threshold for local production and content will be considered.
- 1.3. Where necessary, for bids referred to in paragraph 1.2 above, a two-stage bidding process may be followed, where the first stage involves a minimum threshold for local production and content and the second stage price and B-BBEE.
- 1.4. A person awarded a contract in relation to a designated sector, may not sub-contract in such a manner that the local production and content of the overall value of the contract is reduced to below the stipulated minimum threshold.
- 1.5. The local content (LC) expressed as a percentage of the bid price must be calculated in accordance with the SABS approved technical specification number SATS 1286: 2011 as follows:

$$LC = \left(1 - \frac{X}{Y}\right) X 100$$

Where

x is the imported content in Rand

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

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

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

- 1.6 A bid may be disqualified if this Declaration Certificate and the Annex C (Local Content Declaration: Summary Schedule) are not submitted as part of the bid documentation;
- 2. The stipulated minimum threshold(s) for local production and content (refer to Annex A of SATS 1286:2011) for this bid is/are as follows: (Refer to "Treasury Designated sector"- Page 66 to 71)

<u>Description of services, works or goods</u>	Stipulated minimum threshold
	%
	%
	%

3. Does any portion of the services, works or goods offered have any imported content?

(Tick applicable box)

\/ E O	N.O.	
YES	NO	

3.1 If yes, the rate(s) of exchange to be used in this bid to calculate the local content as prescribed in paragraph 1.5 of the general conditions must be the rate(s) published by SARB for the specific currency at 12:00 on the date of advertisement of the bid.

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

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

Currency	Rates of exchange	
US Dollar		
Pound Sterling		
Euro		
Yen		
Other		

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

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

LOCAL CONTENT DECLARATION

(REFER TO ANNEX B OF SATS 1286:2011)

RE:	CAL CONTENT DECLARATION BY CHIEF FINANCIAL OFFICER OR OTHER LEGALLY SPONSIBLE PERSON NOMINATED IN WRITING BY THE CHIEF EXECUTIVE OR SENIOR MBER/PERSON WITH MANAGEMENT RESPONSIBILITY (CLOSE CORPORATION, RTNERSHIP OR INDIVIDUAL)
IN I	RESPECT OF BID NO.
ISS	SUED BY: (Procurement Authority / Name of Institution):
NB	
1	The obligation to complete, duly sign and submit this declaration cannot be transferred to an external authorized representative, auditor or any other third party acting on behalf of the bidder.
2	Guidance on the Calculation of Local Content together with Local Content Declaration Templates (Annex C, D and E) is accessible on http://www.thedti.gov.za/industrial_development/ip.jsp. Bidders should first complete Declaration D. After completing Declaration D, bidders should complete Declaration E and then consolidate the information on Declaration C. Declaration C should be submitted with the bid documentation at the closing date and time of the bid in order to substantiate the declaration made in paragraph (c) below. Declarations D and E should be kept by the bidders for verification purposes for a period of at least 5 years. The successful bidder is required to continuously update Declarations C, D and E with the actual values for the duration of the contract.
do	ne undersigned, (full names), hereby declare, in my capacity as
of	(name of bidder entity), the following:
(a)	The facts contained herein are within my own personal knowledge.
(b)	I have satisfied myself that
	(i) the goods/services/works to be delivered in terms of the above-specified bid comply with the minimum local content requirements as specified in the bid, and as measured in terms of SATS 1286:2011; and
(c) ⁷	The local content percentages (%) indicated below has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 4.1 above and the information contained in Declaration D and E which has been consolidated in Declaration C;

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

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

- (d) I accept that the Procurement Authority / Municipality / Municipal Entity has the right to request that the local content be verified in terms of the requirements of SATS 1286:2011.
- (e) I understand that the awarding of the bid is dependent on the accuracy of the information furnished in this application. I also understand that the submission of incorrect data, or data that are not verifiable as described in SATS 1286:2011, may result in the Procurement Authority / Institution imposing any or all of the remedies as provided for in Regulation 14 of the Preferential Procurement Regulations, 2017 promulgated under the Preferential Policy Framework Act (PPPFA), 2000 (Act No. 5 of 2000).

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

GUIDANCE DOCUMENT FOR THE CALCULATION OF LOCAL CONTENT

1. **DEFINITIONS**

Unless explicitly provided in this guideline, the definitions given in SATS 1286:2011 apply.

2. GENERAL

2.1. Introduction

This guideline provides tenderers with a detailed description of how to calculate local content of products (goods, services and works) by components/material/services and enables them to keep an updated record for verification requirements as per the SATS 1286:2011 Annexure A and B.

The guideline consists of two parts, namely:

- a written guideline; and
- three declarations that must be completed:
 - Declaration C: "Local Content Declaration Summary Schedule" (see Annexure C);
 - Declaration D: "Imported Content Declaration Supporting Schedule to Annex C" (see Annexure D); and
 - Declaration E: "Local Content Declaration Supporting Schedule to Annex C" (see Annexure E).

The guidelines and declarations should be used by tenderers when preparing a tender. A tenderer must complete Declarations D and E, and consolidate the information on Declaration C.

Annexure C must be submitted with the tender by the closing date and time as determined by the Tender Authority. The Tender Authority reserves the right to request that Declarations D and E also be submitted.

If the tender is successful, the tenderer must continuously update Declarations C, D and E with actual values for the duration of the contract.

NOTE:

Annexure A is a note to the purchaser in SATS 1286:2011; and Annexure B is the Local Content Declaration IN SATS 1286:2011.

2.2. What is local content?

According to SATS 1286:2011, the local content of a product is the tender price less the value of imported content, expressed as a percentage. It is, therefore, necessary to first compute the imported value of a product to determine the local content of a product.

2.3. Categories: Imported and Local Content

The tenderer must differentiate between imported content and local content. Imported content of a product by components/material/services is separated into two categories, namely:

- products imported directly by the tenderer; and
- products imported by a third party and supplied to the tenderer.

2.3.1. Imported Content

Identify the imported content, if any, by value for products by component/material/services. In the case of components/materials/services sourced from a South African manufacturer, agent, supplier or subcontractor (i.e. third party), obtain that information and Declaration D from the third party.

Calculate the imported content of components/materials/services to be used in the manufacture of the total quantity of the products for which the tender is to be submitted.

As stated in clause 3.2.4 of SATS 1286:2011: "If information on the origin of components, parts or materials is not available, it will be deemed to be imported content."

2.3.1.1. Imported directly by the tenderer:

When the tenderer import products directly, the onus is on the tenderer to provide evidence of any components/materials/services that were procured from a non-domestic source. The evidence should be verifiable and pertain to the tender as a whole. Typical evidence will include commercial invoices, bills of entry, etc.

When the tenderer procures imported services such as project management, design, testing, marketing, etc. and makes royalty and lease payments, such payments relating to the tender must be included when calculating imported content.

2.3.1.2. Imported by a third party and supplied to the tenderer:

When the tenderer supplies components/material/services that are imported by any third party (for example, a domestic manufacturer, agent, supplier or subcontractor in the supply chain), the onus is on the tenderer to obtain verifiable evidence from the third party.

The tenderer must obtain Declaration D from all third parties for the related tender. The third party must be requested by the tenderer to continuously update Declaration D. Typical evidence of imported content will include commercial invoices, bills of entry etc.

When a third party procures imported services such as project management, design, testing, marketing etc. and makes royalty and lease payments, such payments relating to the tender must be included when calculating imported content.

2.3.1.3. Exempt Imported Content:

Exemptions, if any, are granted by the Department of Trade and Industry(the dti). Evidence of the exemptions must be provided and included in Annexure D.

2.3.2. Local Content

Identify and calculate the local content, by value for products by components/materials/services to be used in the manufacture of the total quantity of the products.

TREASURY DESIGNATED SECTOR

Treasury Designated Sector						
Steel Construction Material						
Sectio n	Bill no	Item	Description	Unit	Qty	Local Content Threshold
Reinfor	_ cement (F	 Foundati	ons)			
3	3	10	All diameter bars	t	1	100%
2	3	11	Type 245 fabric reinforcement	m2	163	100%
3	3	10	All diameter bars	t	7	100%
3	3	11	Type 245 fabric reinforcement	m2	1003	100%
4	3	11	All diameter bars	t	1	100%
4	3	12	Type 245 fabric reinforcement	m2	67	100%
5	3	12	All diameter bars	t	2	100%
5	3	13	Type 245 fabric reinforcement	m2	305	100%
6	3	9	All diameter bars	t	0.4	100%
6	3	10	Type 245 fabric reinforcement	m2	22	100%
3	5	17	Type 245 fabric reinforcement	m2	152	100%
Brick R	 einforcem	 nent (Ma	sonry)			
2	4	9	150mm Brick Reinforcement	m	849	100%
3	4	9	150mm Brick Reinforcement	m	5292	100%
4	3	13	75mm Brick Reinforcement	m	82	100%
4	4	14	150mm Brick Reinforcement	m	1056	100%
5	4	13	75mm Brick Reinforcement	m	374	100%
5	4	14	150mm Brick Reinforcement	m	1857	100%
6	4	11	150mm Brick Reinforcement	m	357	100%
6	4	10	75mm Brick Reinforcement	m	66	100%
			Masonry cement	t	67	100%

Bill no	Item	Description	Unit	Qty	Local Content Threshold
 Structural St	eel (Iron	ımongery)			THICSHOIL
9	3	= -:-	No	2	100%
9	2	Chalkboards	No	12	100%
9	3	Stainless Steel Door stopper	No	12	100%
9	1	Stainless Steel Door stopper	No	25	100%
9	2	Stainless Steel Door stopper	No	26	100%
9	1	Stainless Steel Door stopper	No	4	100%
10	1	Steel gate to door, size 813 x 2032mm high	No	2	100%
10	1	2032mm high	No	12	100%
10	1	2400mm high	No	2	100%
7	1	Steel gate to door, size 813 x 2032mm high	No	21	100%
s					
10	2	Door Frames size 813 x 2032	No	2	100%
10	2	Door Frames size 813 x 2032	No	12	100%
10	2	Door Frames size 813 x 2032	No	10	100%
10	2	Door Frames size 813 x 2032	No	10	100%
10	1	Door Frames size 914 x 2032	No	4	100%
7	2	Door Frames size 813 x 2032	No	19	100%
nes					
	3	Window size 1143 x 1272	No	19	100%
					100%
10	5			10	100%
10	6	Window size 1022 x 900	No	3	100%
10	7	Window size 1022 x 949	No	3	100%
10	8	Window size 2000 x 1170	No	1	100%
10	9	Window size 533 x 950	No	5	100%
10	10	Window size 1511 x 1170	No	14	100%
10	2	Window size 1022 x 949	No	4	100%
7	3	Window size 1511 x 1170	No	5	100%
·ladding					
	1	Roof coverings	m2	253	100%
		•	1		100%
		• •			100%
					100%
	9 9 9 9 9 9 9 10 10 10 10 10 10 10 10 10 10 10 10 10	9 3 9 2 9 3 9 1 9 1 9 2 9 1 10 1 10 1 10 1 10 1 10 2 10 2 10 2 10	9 2 Chalkboards 9 3 Stainless Steel Door stopper 9 1 Stainless Steel Door stopper 9 2 Stainless Steel Door stopper 9 1 Stainless Steel Door stopper 9 1 Stainless Steel Door stopper 9 1 Stainless Steel Door stopper 10 1 Steel gate to door, size 813 x 2032mm high 10 1 Steel gate to door, size 813 x 2032mm high 10 1 Steel gate to door, size 1500 x 2400mm high 10 Steel gate to door, size 813 x 2032mm high 10 2 Door Frames size 813 x 2032 10 3 Door Frames size 813 x 2032 10 5 Door Frames size 813 x 2032 10 6 Window size 1143 x 1272 10 7 Window size 1143 x 1272 10 8 Window size 1022 x 949 10 8 Window size 1022 x 949 10 9 Window size 1511 x 1170 10 9 Window size 1511 x 1170 10 10 Window size 1511 x 1170 11 Roof coverings 6 1 Roof coverings 6 2 500mm girth hip	9 3 Stainless Steel Door stopper No 9 2 Chalkboards No 9 3 Stainless Steel Door stopper No 9 1 Stainless Steel Door stopper No 9 2 Stainless Steel Door stopper No 9 1 Stainless Steel Door stopper No 9 1 Stainless Steel Door stopper No 9 1 Stainless Steel Door stopper No 10 1 Steel gate to door, size 813 x 2032mm high 10 1 Steel gate to door, size 813 x No 2032mm high No 2400mm high 7 1 Steel gate to door, size 813 x No 2032mm high No 2032mm high 8	9 3 Stainless Steel Door stopper No 2 9 2 Chalkboards No 12 9 3 Stainless Steel Door stopper No 12 9 1 Stainless Steel Door stopper No 25 9 2 Stainless Steel Door stopper No 26 9 1 Stainless Steel Door stopper No 26 9 1 Stainless Steel Door stopper No 4 10 1 Steel gate to door, size 813 x 2032mm high No 12 2032mm high No 12 2032mm high 10 1 Steel gate to door, size 813 x 2032mm high No 2 10 1 Steel gate to door, size 1500 x No 2 2400mm high No 21 7 1 Steel gate to door, size 813 x 2032 No 2 2032mm high No 21 8 10 2 Door Frames size 813 x 2032 No 12 2032mm high No 12 2032mm high No 12 2032mm high No 14 2032mm high No 15 2032mm high No 10 20 Door Frames size 813 x 2032 No 10 20 Door Frames size 813 x 2032 No 10 10 2 Door Frames size 813 x 2032 No 10 10 2 Door Frames size 813 x 2032 No 10 10 10 Door Frames size 813 x 2032 No 19 No 19 No 10 No No 10 No No 10 No No No 10 No No N

<u>ا</u>	T e	1	Poof severings		1470	1000/
3	6	1	Roof coverings	m2	1479	100%
3	6	2	500mm girth ridge	m	107	100%
3	6	3	500mm girth hip	m	82	100%
3	4	14	30 x 1.2 galvanised steel roof ties	No	257	100%
4	6	1	Roof coverings	m2	101	100%
4	6	2	500mm girth ridge	m	14	100%
4	6	3	500mm girth hip	m	25	100%
4	4	19	30 x 1.2 galvanised steel roof ties	No	48	100%
5	6	1	Roof coverings	m2	441	100%
5	6	2	500mm girth ridge	m	25	100%
5	6	3	500mm girth hip	m	39	100%
5	4	19	30 x 1.2 galvanised steel roof ties	No	76	100%
6	6	1	Roof coverings	m2	37	100%
6	6	2	500mm girth ridge	m	6	100%
6	6	3	500mm girth hip	m	10	100%
6	4	17	30 x 1.2 galvanised steel roof ties	No	19	100%
Draw wire	S	l .				
3.3.1	В		0.6mm diameter galvanised draw wire	No	710	100%
4.3.1	В		0.6mm diameter galvanised draw wire	No	620	100%
5.3.1	В		0.6mm diameter galvanised draw wire	No	55	100%
6.3.1	В		0.6mm diameter galvanised draw wire	No	50	100%
Tubing co	lumn	•	•			
2	10	5	76 x 76 x 3mm x 6.54kg/m Mild steel square tubing column	kg	140	100%
3	10	5	76 x 76 x 3mm x 6.54kg/m Mild steel square tubing column	kg	880	100%
Cuttora D	aumnina an	41000			1	
•	ownpipe and				00	700/
2	13	1	100 x 100 Eaves gutters	m	60	70%
2	13	2	Extra over eaves gutter for stopped end	No	8	70%
2	13	3	Extra over eaves gutter for corner	No	25	70%
2	13	4	Extra over eave gutter for outlet	No	6	70%
2	13	5	100mm Diameter downpipe	m	21	70%
2	13	6	Extra over downpipe for offset	No	12	70%
3	13	1	100 x 100 Eaves gutters	m	308	70%
3	13	2	Extra over eaves gutter for stopped end	No	8	70%
3	13	3	Extra over eaves gutter for corner	No	129	70%
3	13	4	Extra over eave gutter for outlet	No	32	70%

3	13	5	100mm Diameter downpipe	m	111	70%
3	13	6	Extra over downpipe for offset	No	64	70%
3	13	7	Extra over downpipe for shoe	No	32	70%
4	13	1	100 x 100 Eaves gutters	m	58	70%
4	13	2	Extra over eaves gutter for	No	20	70%
7			stopped end	140	20	7070
4	13	3	Extra over eaves gutter for corner	No	43	70%
4	13	4	Extra over eave gutter for outlet	No	10	70%
4	13	5	100mm Diameter downpipe	m	35	70%
4	13	6	Extra over downpipe for offset	No	20	70%
4	13	7	Extra over downpipe for shoe	No	10	70%
5	13	1	100 x 100 Eaves gutters	m	94	70%
5	13	2	Extra over eaves gutter for stopped end	No	22	70%
5	13	3	Extra over eaves gutter for corner	No	48	70%
5	13	4	Extra over eave gutter for outlet	No	11	70%
5	13	5	100mm Diameter downpipe	m	38	70%
5	13	6	Extra over downpipe for offset	No	22	70%
5	13	7	Extra over downpipe for shoe	No	11	70%
6	13	1	100 x 100 Eaves gutters	m	23	70%
6	13	2	Extra over eaves gutter for stopped end	No	8	70%
6	13	3	Extra over eaves gutter for corner	No	17	70%
6	13	4	Extra over eave gutter for outlet	No	4	70%
6	13	5	100mm Diameter downpipe	m	14	70%
6	13	6	Extra over downpipe for offset	No	8	70%
6	13	7	Extra over downpipe for shoe		4	70%
PVC Pipe, e	tc					
2.7.1	В		16mm ² x 4 Core Cu Cables	m	40	100%
2.7.2	В		16mm ² x 2 Core Cu Cables	m	430	100%
2.7.3	В		10mm ² x 2 Core Cu Cables	m	125	100%
2.7.4	В		6mm ² x 2 Core Cu Cables	m	170	100%
2.9.1	В		16mm ² BCEW	m	40	100%
2.9.2	В		16mm ² BCEW	m	430	100%
2.9.3	В		10mm ² BCEW	m	125	100%
2.9.4	В		6mm ² BCEW	m	170	100%
3.6.1	В		20mm PVC Conduit	m	130	100%
3.6.2	В		25mm PVC Conduit	m	230	100%
3.6.3	В		20mm PVC Conduit	m	250	100%
3.6.4	В		25mm PVC Conduit	m	80	100%
3.8.1	В		2.5mm ² PVC Wiring	m	650	100%
3.8.2	В		4mm ² PVC Wiring	m	460	100%
3.8.3	В		2.5mm ² BCEW	m	650	100%

3.8.4	В		4mm ² BCEW	T m	460	100%
4.6.1	В				50	100%
4.6.1	В		20mm PVC Conduit	m	50	100%
			25mm PVC Conduit	m		
4.6.3	В		20mm PVC Conduit	m	300	100%
4.6.4	В		25mm PVC Conduit	m	200	100%
5.6.1	В		20mm PVC Conduit	m	55	100%
5.6.2	В		25mm PVC Conduit	m	5	100%
5.6.3	В		20mm PVC Conduit	m	50	100%
5.6.4	В		25mm PVC Conduit	m	10	100%
5.8.1	В		2.5mm ² PVC Wiring	m	55	100%
5.8.2	В		2.5mm ² BCEW	m	55	100%
6.6.2	В		25mm PVC Conduit	m	15	100%
6.6.3	В		20mm PVC Conduit	m	10	100%
6.8.1	В		2.5mm ² PVC Wiring	m	20	100%
6.8.3	В		2.5mm ² BCEW	m	20	100%
7.2.1	В		4mm 2 core cable	No	400	100%
7.2.2	В		2,5mm BCEW	No	400	100%
3	2	14	75mm uPVC pipe	m	195	70%
3	2	15	90mm uPVC pipe	m	535	70%
3	3	12	110mm pipe for 90 degrees plain bend	m	8	70%
3	3	13	110mm pipe for 45 degrees 110mm plain bend	m	4	70%
3	3	14	110mm pipe for 45 degrees 110mm plain bend	m	3	70%
4	3	15	160mm pipe for 90 degrees plain bend	m	3	70%
3	3	16	160mm pipe for 45 degrees plain bend	m	3	70%
3	3	17	160mm pipe for 45 degrees plain junction	m	2	70%
Transform	ers and Shu	nt React				
1.1	В		Class 1 transformer (50 KVa 11kV/400V)	No	1	70%
					1	
- '		(MV) M	otor and Associated Accessories		1	
2.1.1	В		Main Kiosk	No	1	70%
	oducts and a					
5	13	16	Sink mixer	No	1	70%
7	10	6	Bib tap	No	2	70%
2	13	8	9kg DCP Fire Extinguisher	No	4	70%
2	13	9	Hose reel	No	4	70%
5	13	18	9kg DCP Fire Extinguisher	No	4	70%
5	13	18	Hose reel	No	2	70%

3	2	26	90mm diam. Gate valve	No	2	70%
3	2	27	75mm diam. Gate valve	No	2	70%

3. ANNEXURE C

3.1. Guidelines for completing Annexure C: Local Content Declaration –Summary Schedule

Note: The paragraph numbers correspond to the numbers in Annexure C.

C1. Tender Number

Supply the tender number that is specified on the specific tender documentation.

C2. Tender description

Supply the tender description that is specified on the specific tender documentation.

C3. Designated products

Supply the details of the products that are designated in terms of this tender (i.e. buses).

C4. Tender Authority

Supply the name of the tender authority.

C5. Tendering Entity name

Provide the tendering entity name (for example, Unibody Bus Builders(Pty) Ltd).

C6. Tender Exchange Rate

Provide the exchange rate used for this tender, as per the Standard Bidding Document (SBD) and Municipal Bidding Document (MBD) 6.2.

C7. Specified local content %

Provide the specified minimum local content requirement for the tender(i.e. 80%), as per the Standard Bidding Document (SBD) and Municipal Bidding Document (MDB) 6.2.

C8. Tender item number

Provide the tender item number(s) of the products that have a local content requirement as per the tender specification.

C9. List of items

Provide a list of the item(s) corresponding with the tender item number. This may be a short description or a brand name.

Calculation of local content

C10. Tender price

Provide the unit tender price of each item excluding VAT.

C11. Exempted imported content

Provide the ZAR value of the exempted imported content for each item, if applicable. These value(s) must correspond with the value(s) of column D16 on Annexure D.

C12. Tender value net of exempted imported content

Provide the net tender value of the item, if applicable, by deducting the exempted imported content (C11) from the tender price (C10).

C13. Imported value

Provide the ZAR value of the items' imported content.

C14. Local value

Provide the local value of the item by deducting the Imported value(C13) from the net tender value (C12).

C15. Local content percentage (per item)

Provide the local content percentage of the item(s) by dividing the local value (C14) by the net tender value (C12) as per the local content formula in SATS 1286.

Tender Summary

C16. Tender quantity

Provide the tender quantity for each item number as per the tender specification.

C17. Total tender value

Provide the total tender value by multiplying the tender quantity (C16)by the tender price (C10).

C18. Total exempted imported content

Provide the total exempted imported content by multiplying the tender quantity (C16) by the exempted imported content (C11). These values must correspond with the values of column D18 on Annexure D.

C19. Total imported content

Provide the total imported content of each item by multiplying the tender quantity (C16) by the imported value (C13).

C20. Total tender value

Total tender value is the sum of the values in column C17.

C21. Total exempted imported content

Total exempted imported content is the sum of the values in columnC18. This value must correspond with the value of D19 on Annexure D.

C22. Total tender value net of exempted imported content

The total tender value net of exempt imported content is the total tender value (C20) less the total exempted imported content (C21).

C23. Total imported content

Total imported content is the sum of the values in column C19. This value must correspond with the value of D53 on Annexure D.

C24. Total local content

Total local content is the total tender value net of exempted imported content (C22) less the total imported content (C23). This value must correspond with the value of E13 on Annexure E.

C25. Average local content percentage of tender

The average local content percentage of tender is calculated by dividing total local content (C24) by the total tender value net of exempted imported content (C22).

4. ANNEXURE D

4.1. Guidelines for completing Annexure D: "Imported Content Declaration –Supporting Schedule to Annexure C"

Note: The paragraph numbers correspond to the numbers in Annexure D.

D1. Tender number

Supply the tender number that is specified on the specific tender documentation.

D2. Tender description

Supply the tender description that is specified on the specific tender documentation.

D3. Designated products

Supply the details of the products that are designated in terms of this tender (i.e. buses).

D4. Tender authority

Supply the name of the tender authority.

D5. Tendering entity name

Provide the tendering entity name (i.e. Unibody Bus Builders (Pty) Ltd).

D6. Tender exchange rate

Provide the exchange rate used for this tender, as per the Standard Bidding Document (SBD) and Municipal Bidding Document (MBD) 6.2.

Table A. Exempted Imported Content

D7. Tender item number

Provide the tender item number(s) of the product(s) that have imported content.

D8. Description of imported content

Provide a list of the exempted imported product(s), if any, as specified in the tender.

D9. Local supplier

Provide the name of the local supplier(s) supplying the imported product(s).

D10. Overseas supplier

Provide the name(s) of the overseas supplier(s) supplying the exempted imported product(s).

D11. Imported value as per commercial invoice

Provide the foreign currency value of the exempted imported product(s) disclosed in the commercial invoice accepted by the South African Revenue Service (SARS).

D12. Tender exchange rate

Provide the exchange rate used for this tender as per the Standard Bidding Document (SBD) and Municipal Bidding Document (MBD) 6.2.

D13. Local value of imports

Convert the value of the exempted imported content as per commercial invoice (D11) into the ZAR value by using the tender exchange rate(D12) disclosed in the tender documentation.

D14. Freight costs to port of entry

Provide the freight costs to the South African Port of the exempted imported item.

D15. All locally incurred landing costs and duties

Provide all landing costs including customs and excise duty for the exempted imported product(s) as stipulated in the SATS 1286:2011.

D16. Total landed costs excluding VAT

Provide the total landed costs (excluding VAT) for each item imported by adding the corresponding item values in columns D13, D14 andD15. These values must be transferred to column C11 on Annexure C.

D17. Tender quantity

Provide the tender quantity of the exempted imported products as per the tender specification.

D18. Exempted imported value

Provide the imported value for each of the exempted imported product(s) by multiplying the total landed cost (excl. VAT) (D16) by the tender quantity (D17). The values in column D18 must correspond with the values of column C18 of Annexure C.

D19. Total exempted imported value

The total exempted imported value is the sum of the values in columnD18. This total must correspond with the value of C21 on Annexure C.

Table B. Imported Directly By Tenderer

D20. Tender item numbers

Provide the tender item number(s) of the product(s) that have imported content.

D21. Description of imported content:

Provide a list of the product(s) imported directly by tender as specified in the tender documentation.

D22. Unit of measure

Provide the unit of measure for the product(s) imported directly by the tenderer.

D23. Overseas supplier

Provide the name(s) of the overseas supplier(s) supplying the imported product(s).

D24. Imported value as per commercial Invoice

Provide the foreign currency value of the product(s) imported directly by tenderer disclosed in the commercial invoice accepted by the South African Revenue Service (SARS).

D25. Tender rate of exchange

Provide the exchange rate used for this tender as per the Standard Bidding Document (SBD) and Municipal Bidding Document (MBD) 6.2.

D26. Local value of imports

Convert the value of the product(s) imported directly by the tenderer asper commercial invoice (D24) into the ZAR value by using the tender exchange rate (D25) disclosed in the tender documentation.

D27. Freight costs to port of entry

Provide the freight costs to the South African Port of the product(s)imported directly by the tenderer.

D28. All locally incurred landing costs and duties

Provide all landing costs including customs and excise duty for the product(s) imported directly by the tenderer as stipulated in the SATS1286:2011.

D29. Total landed costs excluding VAT

Provide the total landed costs (excluding VAT) for each item imported directly by the tenderer by adding the corresponding item values in columns D26, D27 and D28.

D30. Tender quantity

Provide the tender quantity of the product(s) imported directly by the tenderer as per the tender specification.

D31. Total imported value

Provide the total imported value for each of the product(s) imported directly by the tenderer by multiplying the total landed cost (excl. VAT)(D29) by the tender quantity (D30).

D32. Total imported value by tenderer

The total value of imports by the tenderer is the sum of the values in column D31.

Table C. Imported by Third Party and Supplied to the Tenderer

D33. Description of imported content

Provide a list of the product(s) imported by the third party and supplied to the tenderer as specified in the tender documentation.

D34. Unit of measure

Provide the unit of measure for the product(s) imported by the third party and supplied to tenderer as disclosed in the commercial invoice.

D35. Local supplier

Provide the name of the local supplier(s) supplying the imported product(s).

D36. Overseas supplier

Provide the name(s) of the overseas supplier(s) supplying the imported products.

D37. Imported value as per commercial invoice

Provide the foreign currency value of the product(s) imported by the third party and supplied to the tenderer disclosed in the commercial invoice accepted by SARS.

D38. Tender rate of exchange

Provide the exchange rate used for this tender as per the Standard Bidding Document (SBD) and Municipal Bidding Document (MBD) 6.2.

D39. Local value of imports

Convert the value of the product(s) imported by the third party as precommercial invoice (D37) into the ZAR value by using the tender exchange rate (D38) disclosed in the tender documentation.

D40. Freight costs to port of entry

Provide the freight costs to the South African Port of the product(s)imported by third party and supplied to the tenderer.

D41. All locally incurred landing costs and duties

Provide all landing costs including customs and excise duty for the product(s) imported by third party and supplied to the tenderer as stipulated in the SATS 1286:2011.

D42. Total landed costs excluding VAT

Provide the total landed costs (excluding VAT) for each product imported by third party and supplied to the tenderer by adding the corresponding item values in columns D39, D40 and D41.

D43. Quantity imported

Provide the quantity of each product(s) imported by third party and supplied to the tenderer for the tender.

D44. Total imported value

Provide the total imported value of the product(s) imported by third party and supplied to the tenderer by multiplying the total landed cost(D42) by the quantity imported (D43).

D45. Total imported value by third party

The total imported value from the third party is the sum of the values in column D44.

Table D. Other Foreign Currency Payments

D46. Type of payment

Provide the type of foreign currency payment. (i.e. royalty payment for use of patent, annual licence fee, etc.).

D47. Local supplier making the payment

Provide the name of the local supplier making the payment.

D48. Overseas beneficiary

Provide the name of the overseas beneficiary.

D49. Foreign currency value paid

Provide the value of the listed payment(s) in their foreign currency.

D50. Tender rate of exchange

Provide the exchange rate used for this tender as per the Standard Bidding Document (SBD) and Municipal Bidding Document (MBD) 6.2.

D51. Local value of payments

Provide the local value of each payment by multiplying the foreign currency value paid (D49) by the tender rate of exchange (D50).

D52. Total of foreign currency payments declared by tenderer and/or third party

The total of foreign currency payments declared by tenderer and/or a third party is the sum of the values in column D51.

D53. Total of imported content and foreign currency payment

The total imported content and foreign currency payment is the sum of the values in column D32, D45 and D52. This value must correspond with the value of C23 on Annexure C.

5. ANNEXURE E

5.1. Guidelines to completing Annexure E: "Local Content Declaration-Supporting Schedule to Annexure C"

The paragraph numbers correspond to the numbers in Annexure E

E1. Tender number

Supply the tender number that is specified on the specific tender documentation.

E2. Tender description

Supply the tender description that is specified on the specific tender documentation.

E3. Designated products

Supply the details of the products that are designated in terms of this tender (for example, buses/canned vegetables).

E4. Tender authority

Supply the name of the tender authority.

E5. Tendering entity name

Provide the tendering entity name (for example, Unibody Bus Builders(Pty) Ltd) Ltd).

Local Goods, Services and Works

E6. Description of items purchased

Provide a description of the items purchased locally in the space provided.

E7. Local supplier

Provide the name of the local supplier that corresponds to the item listed in column E6.

E8. Value

Provide the total value of the item purchased in column E6.

E9. Total local products (Goods, Services and Works)

Total local products (goods, services and works) is the sum of the values in E8.

E10. Manpower costs:

Provide the total of all the labour costs accruing only to the tenderer(i.e. not the suppliers to tenderer).

E11. Factory overheads:

Provide the total of all the factory overheads including rental, depreciation and amortisation for local and imported capital goods, utility costs and consumables. (Consumables are goods used by individuals and businesses that must be replaced regularly because they wear out or are used up. Consumables can also be defined as

the components of an end product that are used up or permanently altered in the process of manufacturing, such as basic chemicals.)

E12. Administration overheads and mark-up:

Provide the total of all the administration overheads, including marketing, insurance, financing, interest and mark-up costs.

E13. Total local content:

The total local content is the sum of the values of E9, E10, E11 and E12. This total must correspond with C24 of Annexure C.

SBD 6.2: DECLARATION OF LOCAL CONTENT

							•					SATS 1286.201
						Annex	C					
Tender No. Tender descripti Designated proc											Note: VAT to be exc calculations	cluded from all
Tender Authorit	name:			F11		1		٦				
Tender Exchang Specified local c		Pula		EU		GBP	<u>'</u>					
Tender item no's	List of it	tems	Tender price - each (excl VAT)	Exempted imported value	Tender value net of exempted imported content	Imported value	Local value	Local content % (per item)	Tender Qty	Total tender value	Total exempted imported content	Total Imported content
(C8)	(C9))	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)	(C16)	(C17)	(C18)	(C19)
2-3-11	Type 245 fabric re	einforcement							163.00			
3-3-11	Type 245 fabric re	einforcement							1 003.00			
4-3-12	Type 245 fabric re	einforcement							67.00			
5-3-13	Type 245 fabric re	einforcement							305.00			
6-3-10	Type 245 fabric re	einforcement							22.00			
3-5-17 (Part C)	Type 245 fabric re	einforcement							152.00			
	All diameter bars								1.00			
	All diameter bars								7.00			
4-3-11	All diameter bars								1.00			
5-3-12	All diameter bars								2.00			
6-3-9	All diameter bars								0.40			
2-4-9	150mm Brick Rein	forcement							849			
3-4-9	150mm Brick Rein	forcement							5 292			
4-3-13	75mm Brick Reinfo	orcement							82			
4-4-14	150mm Brick Rein								1 056			
5-4-13	75mm Brick Reinfo	orcement							374			
5-4-14	150mm Brick Rein	forcement							1 857			
6-4-11	150mm Brick Rein	forcement							357	'		
6-4-10	75mm Brick Reinfo	orcement							66			
	Masonry cement								67			
Signature of ten	derer from Annex	<u>B</u>					(C22) Total		Total Exemp	ot imported content ot imported content		
											al Imported content	
_			•							(C24)	Total local content	

) T) D	ender No. ender descript											
) T) D												
) T) D												
) Т	ciiaci acseiipi	ion:									Note: VAT to be exc calculations	cluded from all
	esignated prod ender Authorit											
) T	ender Authorn											
	ender Exchang		Pula	EU	ı 🗆	GBP]				
	pecified local o			_			L	1				
					Tender value							
	Tender item no's	List of items	Tender price - each (excl VAT)	Exempted imported value	net of exempted imported content	Imported value	Local value	Local content % (per item)	Tender Qty	Total tender value	Total exempted imported content	Total Imported content
	(C8)	(C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)	(C16)	(C17)	(C18)	(C19)
	2-9-3	Door Stopper							2.00			
	3-9-2	Green Chalkboard							12.00			
	3-9-3	Door Stopper							12.00			
	4-9-1	Door Stopper							25.00			
	5-9-2	Door Stopper							26.00			
	6-9-1	Door Stopper							4.00			
	2-10-2	Door Frames size 813 x 2032mm high							2.00			
	3-10-2	Door Frames size 813 x 2032mm high							12.00			
	4-10-2	Door Frames size 813 x 2032mm high							10.00			
	5-10-2	Door Frames size 813 x 2032mm high							10.00			
	6-10-1	Door Frames size 914 x 2032mm high							4.00			
	7-7-2	Door Frames size 813 x 2032mm high							19.00			
	2-10-3	Window size 1143 x 1272mm high							19.00			
	3-10-3	Window size 1143 x 1272mm high							104.00			
	4-10-5	Window size 533 x 950mm high							10.00			
	5-10-6	Window size 1022 x 900mm high							3.00			
	5-10-7	Window size 1022 x 949mm high							3.00			
	5-10-8	Window size 2000 x 1170mm high							1.00			
	5-10-9	Window size 533 x 950mm high							5.00			
	5-10-10	Window size 1511 x 1170mm high							14.00			
	6-10-2	Window size 1022 x 949mm high							4.00			
	7-7-3	Window size 1511 x 1170mm high							5.00			
L								(C20) Tabel 4				
e	ionaturo of to-	derer from Annex B						(C20) Total t		t imported content		
3	ignature or ter	idelei IIOIII AIIIIex D					(C22) Total			ot imported content ot imported content		
							, , , , , , , , , , , , , , , , , , , ,			•	al Imported content	

					Δ							SATS 1286.2
					Anne	K C						
Tandar Na											Note: VATes he su	-l d - d £u
Tender No. Tender descript	·										Note: VAT to be exc calculations	ciuaea trom a
Designated prod											calculations	
Tender Authorit												
Tendering Entity												
Tender Exchang		Pula		EU		GBP		1				
Specified local o								-	_			
					Tender value					I		
			Tender price -	Exempted	net of			Local				
Tender item		List of items	each	imported	exempted	Imported	Local value	content %	Tender	Total tender value	Total exempted	Total Impo
no's			(excl VAT)	value	imported	value		(per item)	Qty		imported content	conten
			(exertiti)		content			(per item)				
(C8)		(C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)	(C16)	(C17)	(C18)	(C19)
2-6-1	Roof sheeting								253.00			
2-6-2	500mm girth Ridge	9							18.00			
2-6-3	500mm girth Hip								20.00			
2-4-14	30 x 1.2 galvanize	d steel roof ties							50.00			
3-6-1	Roof sheeting								1479.00			
3-6-2	500mm girth Ridge	9							107.00			
3-6-3	500mm girth Hip								82.00			
3-4-14	30 x 1.2 galvanize	d steel roof ties							257.00			
4-6-1	Roof sheeting								101.00			
4-6-2	500mm girth Ridge	9							14.00 25.00			
4-6-3 4-4-19	500mm girth Hip 30 x 1.2 galvanize	-1 -41 4 4:							48.00			
5-6-1		d Steel roof ties							441.00			
5-6-2	Roof sheeting 500mm girth Ridge								25.00			
5-6-3	500mm girth Hip	3							39.00			
5-4-19	30 x 1.2 galvanize	d steel roof ties							76.00			
6-6-1	Roof sheeting	a 0.001 1001 100							37.00			
6-6-2	500mm girth Ridge	9							6.00			
6-6-3	500mm girth Hip	-							10.00			
6-4-17	30 x 1.2 galvanize	d steel roof ties							19.00			
2-10-1		size 813 x 2032mm high							2.00			
3-10-1		size 813 x 2032mm high							12.00			ļ
5-10-1		size 1500mm x 2400mm high							2.00			
7-7-1	Steel gate to door,	size 813mm x 2032mm high							21.00			
2245 :=:	0.0 "				1						1	
		alvanized draw wire						-	710.00			
4.3.1 (Part B) 5.3.1 (Part B)		alvanized draw wire						 	620 55		1	
		alvanized draw wire alvanized draw wire			1			1	50.00		1	1
U.S.1 (Part B)	o.omm diameter g	aivai ii∠eu uraw wire			1			 	50.00		1	
2-10-5	76 x 76 x 3mm × 6	.54kg/m Mild steel square tubing column			1			 	140			
3-10-5		.54kg/m Mild steel square tubing column							880			
2 -0 5	1 X X OHIII X O							(C20) Total 1			İ	!
Signature of ten	derer from Annex	<u>B</u>								t imported content		1
_							(C22) Total			t imported content		1
							-		-		al Imported content	
										(C24	Total local content	

						•						SATS 1286.20
					Annex	K C						
Tender No.		1									Note: VAT to be exc	luded from all
Tender descript	ion:										calculations	luueu iroin ai
Designated prod											calculations	
Tender Authorit												
Tendering Entity												
Tender Exchang			Pula	EU		GBP)	1				
Specified local c												
		· 										
					Tender value							
Tender item			Tender price -	Exempted	net of	Imported		Local	Tender		Total exempted	Total Import
no's		List of items	each	imported	exempted	value	Local value	content %	Qty	Total tender value	imported content	content
			(excl VAT)	value	imported			(per item)				
(C8)		(C9)	(C10)	(C11)	content (C12)	(C13)	(C14)	(C15)	(C16)	(C17)	(C18)	(C19)
	100 x 100 Eaves g		(610)	(011)	(012)	(013)	(614)	(613)	60.00	(617)	(610)	(013)
		gutter for stopped end							8.00			
	Extra over eaves g								25.00			
2-13-4	Extra over eave g	utter for outlet							6.00			
2-13-5	100mm Diameter	downpipe							21.00			
2-13-6	Extra over downp	ipe for offset							12.00			
3-13-1	100 x 100 Eaves g	utters							308.00			
3-13-2		gutter for stopped end							8.00			
	Extra over eaves g								129.00			
	Extra over eave g								32.00			
	100mm Diameter								111.00			
	Extra over downp								64.00			
	Extra over downp	•						-	32.00			
4-13-1 4-13-2	100 x 100 Eaves g								58.00 20.00			
	Extra over eaves g	gutter for stopped end						 	43.00			
	Extra over eave g								10.00			
4-13-5	100mm Diameter								35.00			
	Extra over downp								20.00			
4-13-7	Extra over downp								10.00			
5-13-1	100 x 100 Eaves g								94.00			
		gutter for stopped end							22.00			
5-13-3	Extra over eaves g								48.00			
5-13-4	Extra over eave g	utter for outlet							11.00			
5-13-5	100mm Diameter	downpipe							38.00			
5-13-6	Extra over downp	ipe for offset							22.00			
5-13-7	Extra over downp	ipe for Shoe							11.00			
								(C20) Total t				
Signature of ten	derer from Annex	<u> </u>					(622) T			t imported content		
							(C22) Total	Tender value	net of exemp	t imported content		
										(C23) Tot	al Imported content	

						_						SATS 1286.20
					Annex	(C						
Tender No.											Note: VAT to be exc	cluded from all
Tender descrip											calculations	
Tender Author												
Tendering Entit												
Tender Exchan		Pula		EU		GBP		1				
Specified local												
					Tender value							
Tender item			der price -	Exempted	net of	Imported		Local	Tender		Total exempted	Total Importe
no's	List of items		each	imported	exempted	value	Local value	content %	Qty	Total tender value	imported content	content
		(ex	xcl VAT)	value	imported			(per item)			·	
(C8)	(C9)		(C10)	(C11)	content (C12)	(C13)	(C14)	(C15)	(C16)	(C17)	(C18)	(C19)
6-13-1	100 x 100mm seamless eaves gutters	'	(010)	(011)	(CIL)	(010)	(627)	(615)	23.00	(627)	(610)	(015)
6-13-2	Extra over eaves gutter for stopped ends								8.00			
6-13-3	Extra over eaves gutter for corner								17.00			
6-13-4	Extra over eave gutter for outlet								4.00			
6-13-5	100mm Diameter downpipe								14.00			
6-13-6	Extra over downpipe for eaves or plinths offset								8.00			
6-13-7	Extra over downpipe for shoe								4.00			
5-13-16 7-10-6	Sink mixer Bib tap								1.00 2.00			
7-10-6	ыю тар								2.00			
3-2-14	75mm uPVC pipe								195.00			
3-2-15	90mm uPVC pipe								535.00			
3-3-12	110mm pipe for 90 degrees plain bend								8.00			
3-3-13	110mm pipe for 45 degrees 110mm plain bend								4.00			
3-3-14	110mm pipe for 45 degrees 110mm plain bend								3.00			
4-3-15	160mm pipe for 90 degrees plain bend								3.00			
3-3-16	160mm pipe for 45 degrees plain bend								3.00			
3-3-17	160mm pipe for 45 degrees plain junction								2.00			
2-13-8	9kg DCP Fire Extinguisher								4.00			
2-13-9	Hose reel								4.00			
5-13-18	9kg DCP Fire Extinguisher	<u> </u>							4.00			
5-13-18	Hose reel								2.00			
3-2-26	90 mm diam. Gate valve								2.00		<u> </u>	
3-2-27	75 mm diam. Gate valve			-					2.00			
B-1.1	Class 1 transformer (25 KVa 11kV/400V)								1.00			
B-2.1.1	Main Kiosk							 	1.00			
B-2.1.1	IVIAITI INUSK								1.00		1	
L							1	(C20) Total t	tender value			1
Signature of te	nderer from Annex B									t imported content		
							(C22) Total			t imported content		
											al Imported content	
										(C24)	Total local content	l

SBD 6.2: DECLARATION OF LOCAL CONTENT

					Annex	с С						SATS 1286.20
Tender No. Tender descripti											Note: VAT to be except calculations	cluded from all
Designated proc												
Tender Authorit												
Tendering Entity Tender Exchang			Pula	EU		GBP		1				
Specified local c				20		05.	<u> </u>	1				
										_		
					Tender value							
Tender item			Tender price -	Exempted	net of	Imported		Local	Tender		Total exempted	Total Impor
no's	List	of items	each (excl VAT)	imported	exempted	value	Local value	content %	Qty	Total tender value	imported content	content
			(exci vAi)	value	imported content			(per item)				
(C8)		(C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)	(C16)	(C17)	(C18)	(C19)
B-2.7.1	16mm² 4 core cable								40.00			
B-2.7.2	16mm² 2 core cable								430.00			
B-2.7.3	10mm ² 2 core cable								125.00			
	6mm² 2 core cable								170.00			
B-2.9.1	16mm² BCEW 16mm² BCEW								40.00			
B-2.9.2 B-2.9.3	10mm² BCEW								430.00 125.00			
	6mm² BCEW								170.00			
	20mm PVC Conduit								130.00			
	25mm PVC Conduit								230.00			
	20mm PVC Conduit								250.00			
B-3.6.4	25mm PVC Conduit								80.00			
B-3.8.1	2.5mm ² PVC Wiring								650.00			
	4mm² PVC Wiring								460.00			
	2.5mm² BCEW 4mm² BCEW								650.00 460.00			
	20mm PVC Conduit								50.00			
	25mm PVC Conduit								50.00			
	20mm PVC Conduit								300.00			
B-4.6.4	25mm PVC Conduit								200.00			
	2.5mm² PVC Wiring								400.00			
B-4.8.2	4mm² PVC Wiring								30.00			
	2.5mm² BCEW 4mm² BCEW								400.00 300.00			
	20mm PVC Conduit								55.00			
	25mm PVC Conduit								5.00			
	20mm PVC Conduit								50.00			
B-5.6.4	25mm PVC Conduit								10.00			
	2.5mm² PVC Wiring	-		·		-	-		55.00		•	
	2.5mm² BCEW							1	55.00			
	25mm PVC Conduit								15.00			
	20mm PVC Conduit 2.5mm² PVC Wiring				 			+	10.00 20.00			
	2.5mm² PVC Wiring 2.5mm² BCEW							1	20.00			
	4mm 2 core cable								400.00			
	2,5mm BCEW								400.00			
					•		•	(C20) Total t				
Signature of ten	derer from Annex B									t imported conten	:	
							(C22) Total	Tender value i	net of exemp	t imported conten		
										<i>(C23)</i> Tot	al Imported content	

													SATS 1286.20
					Α	nnex D							
			11	nported Co	ntent Declaratio	n - Suppo	rting Sche	dule to An	nev C				
				iiportea eo	interne Deciaratio	п зарро	ting Sene	date to At	nex e				
D1)	Tender No.								Note: VAT to be	excluded from			
D2) D3)	Tender description Designated Prod								all calculations				
D4)	Tender Authority												
D <i>5</i>)	Tendering Entity	name:											
D6)	Tender Exchange	e Rate:	Pula		EU	R 9.00	GBP	R 12.00					
	Δ Evemnte	ed imported co	ntent					Calculation of	imported conte	nt			Summary
	A. Exempte	a imported ce	meene		I	Forign			Imported conte				Jannina, y
	Tender item no's	Description of im		Local supplier	Overseas Supplier	currency value as per Commercial Invoice	Tender Exchange Rate	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT	Tender Qty	Exempted impor
	(D7)	(D8	3)	(D9)	(D10)	(D11)	(D12)	(D13)	(D14)	(D15)	(D16)	(D17)	(D18)
										(D19)	Total exempt in		
												This total m	ust correspond wit nex C - C 21
												Ani	iex C - C 21
	B. Imported directly by the Tenderer						Calculation of	imported conte	nt			Summary	
	Tender item no's	Description of im	ported content	Unit of measure	Overseas Supplier	Forign currency value as per Commercial	Tender Rate of Exchange	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT	Tender Qty	Total imported v
	(D20)	(D2	1)	(D22)	(D23)	(D24)	(D25)	(D26)	(D27)	(D28)	(D29)	(D30)	(D31)
	(220)	(_,	(DZZ)	(523)	(524)	(523)	(1220)	(527)	(520)	(525)	(250)	(252)
										(D32) Tot	al imported valu	e by tenderer	
	C. Imported	d by a 3rd part	y and supplie	ed to the Te	nderer			Calculation of	imported conte	nt			Summary
		imported content	Unit of measure	Local supplier	Overseas Supplier	Forign currency value as per Commercial Invoice	Tender Rate of Exchange	Local value of imports	port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT	Quantity imported	Total imported v
	-	(D33)	(D34)	(D35)	(D36)	(D37)	(D38)	(D39)	(D40)	(D41)	(D42)	(D43)	(D44)
				 			 				 		
	`												
										(D45) Tota	al imported value	e by 3rd party	
	D. Other fo	oreign currency			Calculation of forei								Summary of payments
		of payment	Local supplier making the payment	Overseas beneficiary	Foreign currency value paid	Tender Rate of Exchange							Local value o payments
	((D46)	(D47)	(D48)	(D49)	(D50)							(D51)
							+						
												16	
	Signature of ton	derer from Annex B					(D5	52) Total of for	eign currency payı	nents declared	by tenderer and	l/or 3rd party	
	- gatare or terr	Annex B					(D53) Total of	imported cont	ent & foreign curr	ency payments	s - (D32), (D45) &	(D52) above	
													ust correspond wi
													ast correspond wit
	Date:											Ann	ex C - C 23

SBD 6.2: DECLARATION OF LOCAL CONTENT

							SATS 1286.2011	
				Anne	x F			
				7 111110				
		Local (Content Declar	ration - S	Supporting S	chedule to Annex C		
		Local (sometine Beeral					
(E1)	Tender No.					Note: VAT to be excluded fi	rom all	
(E2)	Tender descrip	tion:				calculations		
(E3)	Designated pro							
(E4)	Tender Authori							
(E5)	Tendering Entit	ty name:						
		Local Products (Goods, Services and Works)	Description	n of items pu	rchased	Local suppliers	Value	
				(E6)		(E7)	(E8)	
				<i>(E9)</i> Tot	tal local products (Goods, Services and Works)	R O	
	(E10)	Manpower costs	(Tenderer's manpow	er cost)			R 0	
	(511)	Fastow, overhoods	(Rental, depreciation	9 amarticati	ion utilitus oosta oo	uncumables etc.)	R O	
	(E11)	ractory overneads	(Kentai, depreciation	& amortisati	on, utility costs, co	msumables etc.)	RU	
	(E12)	Administration overh	eads and mark-up	(Marketing,	insurance, financin	g, interest etc.)	R O	
	` ´		•		,			
						(E13) Total local content	R 0	
						This total must correspond C24	d with Annex C -	
	Signature of te	nderer from Annex B						
	Date:							
	- 3							

SBD 8: DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT

SBD 8: DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES

- 1 This Standard Bidding Document must form part of all bids invited.
- It serves as a declaration to be used by institutions in ensuring that when goods and services are being procured, all reasonable steps are taken to combat the abuse of the supply chain management system.
- 3 The bid of any bidder may be disregarded if that bidder or any of its directors have
 - a. abused the institution's supply chain management system;
 - b. committed fraud or any other improper conduct concerning such system; or
 - c. failed to perform on any previous contract.
- 4 To give effect to the above, the following questionnaire must be completed and submitted with the bid.

Item	Question	Yes	No
4.1	Is the bidder or any of its directors listed on the National Treasury's Database of Restricted Suppliers as companies or persons prohibited from doing business with the public sector? (Companies or persons who are listed on this Database were informed in writing of this restriction by the Accounting Officer/Authority of the institution that imposed the restriction after the audi alteram partem rule was applied). The Database of Restricted Suppliers now resides on the National Treasury's website(www.treasury.gov.za) and can be accessed by clicking on its link at the bottom of the home page.	Yes	No□
4.1.1	If so, furnish particulars:		
4.2	Is the bidder or any of its directors listed on the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004)? The Register for Tender Defaulters can be accessed on the National Treasury's website (www.treasury.gov.za) by clicking on its link at the bottom of the home page.	Yes	No
4.2.1	If so, furnish particulars:		
4.3	Was the bidder or any of its directors convicted by a court of law (including a court outside of the Republic of South Africa) for fraud or corruption during the past five years?	Yes	No
4.3.1	If so, furnish particulars:		
4.4	Was any contract between the bidder and any organ of state terminated during the past five years on account of failure to perform on or comply with the contract?	Yes	No
4.4.1	If so, furnish particulars:		

CERTIFICATION

I, THE UNDERSIGNED (FULL NAME)CERTIFY THAT THE INFORMATION FURNISHED ON	N THIS DECLARATION FORM IS TRUE AND CORRECT
I ACCEPT THAT, IN ADDITION TO CANCELLATION ME SHOULD THIS DECLARATION PROVE TO BE F	OF A CONTRACT, ACTION MAY BE TAKEN AGAINST FALSE.
Signature	Date
Position	Name of Bidder

SBD 9: CERTIFICATE OF INDEPENDENT BID DETERMINATION

SBD 9: CERTIFICATE OF INDEPENDENT BID DETERMINATION

- 1 This Standard Bidding Document (SBD) must form part of all bids¹ invited.
- Section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, prohibits an agreement between, or concerted practice by, firms, or a decision by an association of firms, if it is between parties in a horizontal relationship and if it involves collusive bidding (or bid rigging).² Collusive bidding is a *pe* se prohibition meaning that it cannot be justified under any grounds.
- 3 Treasury Regulation 16A9 prescribes that accounting officers and accounting authorities must take all reasonable steps to prevent abuse of the supply chain management system and authorizes accounting officers and accounting authorities to:
 - a. disregard the bid of any bidder if that bidder or any of its directors have abused the institution's supply chain management system and or committed fraud or any other improper conduct concerning such system.
 - b. cancel a contract awarded to a supplier of goods and services if the supplier committed any corrupt or fraudulent act during the bidding process or the execution of that contract.
- This SBD serves as a certificate of declaration that would be used by institutions to ensure that, when bids are considered, reasonable steps are taken to prevent any form of bid-rigging.
- In order to give effect to the above, the attached Certificate of Bid Determination (SBD 9) must be completed and submitted with the bid:

SBD 9: CERTIFICATE OF INDEPENDENT BID DETERMINATION

CERTIFICATE OF INDEPENDENT BID DETERMINATION

, the undersigned, in submitting the accompanying bid:
(Bid Number and Description)
n response to the invitation for the bid made by:
Name of Institution)
lo hereby make the following statements that I certify to be true and complete in every respect:
certify, on behalf f:that:
Name of Bidder)

- 1. I have read and I understand the contents of this Certificate;
- 2. I understand that the accompanying bid will be disqualified if this Certificate is found not to be true and complete in every respect;
- 3. I am authorized by the bidder to sign this Certificate, and to submit the accompanying bid, on behalf of the bidder:
- 4. Each person whose signature appears on the accompanying bid has been authorized by the bidder to determine the terms of, and to sign the bid, on behalf of the bidder;
- 5. For this Certificate and the accompanying bid, I understand that the word "competitor" shall include any individual or organization, other than the bidder, whether or not affiliated with the bidder, who:
 - (a) has been requested to submit a bid in response to this bid invitation;
 - (b) could potentially submit a bid in response to this bid invitation, based on their qualifications, abilities or experience; and
 - (c) provides the same goods and services as the bidder and/or is in the same line of business as the bidder
- 6. The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However, communication between partners in a joint venture or consortium³ will not be construed as collusive bidding.
- 7. In particular, without limiting the generality of paragraphs 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:

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- (a) prices;
- (b) the geographical area where product or service will be rendered (market allocation)
- (c) methods, factors or formulas used to calculate prices;
- (d) the intention or decision to submit or not to submit, a bid;
- (e) the submission of a bid which does not meet the specifications and conditions of the bid: or
- (f) bidding with the intention not to win the bid.

SBD 9: CERTIFICATE OF INDEPENDENT BID DETERMINATION

- 8. In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications, and conditions or delivery particulars of the products or services to which this bid invitation relates.
- The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, before the date and time of the official bid opening or of the awarding of the contract.
- 10. I am aware that, in addition, and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

Signature	Date
Position	Name of Bidder

¹ Includes price quotations, advertised competitive bids, limited bids and proposals.

² Bid rigging (or collusive bidding) occurs when businesses, that would otherwise be expected to compete, secretly conspire to raise prices or lower the quality of goods and / or services for purchasers who wish to acquire goods and / or services through a bidding process. Bid rigging is, therefore, an agreement between competitors not to compete.

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

DECLARATION OF SUBCONTRACTING ARRANGEMENTS

DECLARATION OF SUBCONTRACTING ARRANGEMENTS

The Limpopo Department of Public Works, Roads & Infrastructure is tasked with achieving government socio-economic transformation and development initiatives through its procurement spend. The department therefore endeavours to promote such initiatives through its procurement, by means of one or a combination of the following, in terms of the Preferential Procurement Policy Framework Act (PPPFA), 2000: Preferential Procurement Regulations (PPR), 2017:

- **1.** Application of Subcontracting as a Condition of Tender, in line with the PPPFA: PPR 2017;
 - **1.1** The basis and conditions for sub-contracting as a condition of tender, is further detailed under item 1.1 below.

The Tenderer if successful in this bid offer, will be required to provide the Signed Subcontracting Agreement(s) and Supporting Documents, in line with the information detailed in this Returnable within 60 calendar days of the site handover. Failure to adhere to this will result in the immediate cancellation of the acceptance of offer (appointment letter).

Additional information to subcontracting requirement in terms of Regulations 4 or 9 PPR2017:

- i. It is the responsibility of the tenderer to select competent subcontractors that meet all the requirements of the tender. The fact that the Department/Employer may make a list of potential subcontractors available as registered on the National Treasury CSD or on a CIDB database does not result in any liability of the Department/Employer or a warranty that the listed suppliers are competent.
- **ii.** Subcontractors may not be allocated work which contradicts any regulations, regulatory body and/or compliance requirements relevant to the work being sub-contracted for i.e. requirements by CIDB Regulations, accreditations and registrations to professional / regulatory institutions in the case of professional services etc.
- **iii.** The tenderer will be responsible for all due diligence on the selected subcontractors and will be held liable for any non-performance.
- iv. With reference to the Preferential Procurement Regulations 2017, Regulation 6(5), 7(5) and 12(3); "A person awarded a contract may not subcontract more than 25% of the value of the contract to any other enterprise, that does not have an equal or higher B-BBEE status level of contributor than the person concerned."
 - "<u>Unless</u> the contract is subcontracted to an <u>EME</u> that has the capability and ability to execute the subcontract".
 - Or the tenderer may not be awarded points for B-BBEE status level of contribution.
- **v.** Tenderers are to complete and submit a Schedule of Proposed Subcontracting Arrangement(s)), also stipulating the percentage and equivalent Rand value to be subcontracted.
- **vi.** Tenderers are to provide, on award within 60 calendar days of the site handover, formal proof of Signed Subcontracting Agreement(s) together with the following documentation for each of the relevant, as a minimum:

Supporting Documents to Subcontracting Agreement/s

Certified Copy of valid B-BBEE Certificate/ Affidavit.

Copy of valid/ active CIDB registration in the case of construction work.

Copy of valid/ active registration to applicable regulatory institutions (where stipulated) in the case of professional services work.

A valid and active Tax Compliance Status Pin issued by SARS.

Submission of National Treasury Central Supplier Database (CSD) Summary Report.

Note: It is incumbent and expected that the Tenderer will apply the same due care and diligence in selecting and managing its sub-contractors / joint venture partner as would have been the case in their own appointment.

1. SUBCONTRACTING AS A CONDITION OF TENDER

	In line with the Preferential Procurement Policy Regulations 2017, Regulation 9, Subcontracting may only be to one or a combination of the following (as per National Treasury CSD and CIDB databases):
NO.	CATEGORIES FOR SUBCONTRACTING
1	A tenderer subcontracting a minimum of 30% of the value of the contract to one or a combination of the designated categories below:
1.1	An EME or QSE which is at least 51% owned by black people; or
1.2	an EME or QSE which is at least 51% owned by black people who are youth; or
1.3	an EME or QSE which is at least owned by black people who are women; or
1.4	an EME or QSE which is at least 51% owned by black people with disabilities; or
1.5	an EME or QSE which is 51% owned by black people living in rural or underdeveloped areas or townships; or
1.6	a cooperative which is at least 51% owned by black people; or
1.7	an EME or QSE which is at least 51% owned by black people who are military veterans; or
1.8	an EME or QSE.

Tenderers are formally required to allow for subcontracting of the allocated work as set out in the Scope of 30% of the Tender Value offered.

- 1.1 BASIS AND CONDITIONS FOR SUBCONTRACTING AS A CONDITION OF TENDER The basis and conditions for sub-contracting as a condition of tender is detailed as follow:
- **1.1.1** The advancement of certain designated groups in terms of Regulation 4 PPR2017;
- **1.1.2** The advancement of suppliers or enterprises in the geographical area or Province where the project site is located;
- 1.1.3 All requirements stipulated under clauses 1 and 1.1 of this Returnable, must be read in conjunction with the information documented within this Declaration on Item 3 Schedule of Proposed Subcontracting Work.

DECLARATION OF SUBCONTRACTING ARRANGEMENTS

2. SUBCONTRACTING AFTER AWARD OF TENDER

In line with the Preferential Procurement Policy Regulations 2017, Regulation 12, Subcontracting after Award, the following are contractual obligations for notification:

- **2.1** A person awarded a contract may only enter into a subcontracting arrangement with the approval of the organ of state.
- 2.2 A person awarded a contract in relation to a designated sector, may not subcontract in such a manner that the local production and content of the overall value of the contract is reduced to below the stipulated minimum threshold.
- 2.3 A person awarded a contract <u>may not subcontract more than 25%</u> of the value of the contract to any other enterprise that <u>does not have an equal or higher</u> B-BBEE status level of contributor than the person concerned, <u>unless the contract is subcontracted to an EME</u> that has the capability and ability to execute the subcontract.

NATURE AND EXTENT OF

WORK

1.

3. SCHEDULE OF PROPOSED SUBCONTRACTING WORK

VALUE

The tenderer is required to complete the table below indicating the nature and extent of work to be subcontracted and value and percentage of work to the tender amount. The total percentage of the value of work to be subcontracted must be to a minimum of 30% or more of the tender amount. Failure to comply with the 30% minimum value of the work to be subcontracted will lead to the disqualification of the tender.

SUB-CONTRACTORS CONTRACT

SUB-CONTRACTORS

PERCENTAGE (%) OF

CONTRACT VALUE

3.			
4.			
5.			
PERC	L SUBCONTRACT VALUE & ENTAGE IN RELATION TO RACT VALUE		
I, TH	E UNDERSIGNED (FULL NAME OF	AUTHORISED PERSON)	
ON E	EHALF OF (FULL NAME OF TENDE	RING ENTITY)	
		DER SUBMISSION IS FULLY COMPLIAN TED IN THIS BID IN ITS ENTIRITY.	T AND ADHERES IN FULL,
ARR		TE AND SUBMIT THIS DECLARATION O PROPOSED SUBCONTRACTING WORK JBMISSION.	
DOC	· ·	THE SIGNED SUBCONTRACTING AGRED DANCE WITH THE REQUIREMENTS OF	
CAIN			

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SAFCEC JOINT VENTURE AGREEMENT

JOINT VENTURE AGREEMENT made and entered into by and between:
of (hereafter referred to as)
of the first part;
and
of
of the second part;
<u>PREAMBLE</u>
WHEREAS the Parties have formed a Joint Venture in order to submit tenders to the
(hereafter referred to as the "works").

NOW THEREFORE, IT IS AGREED AS FOLLOWS:

1. FORMATION OF JOINT VENTURE

- 1.2 The Parties hereto agree and undertake that they will not disclose the contents of this Agreement to persons with whom they may have any dealings directly or indirectly arising from the conclusion of this Agreement and the operation and establishment of the Works.
- 1.3 Notwithstanding that the parties may be jointly and severally bound to the, should the Joint Venture be awarded the contract by the for the construction of the Works, nothing herein contained shall be interpreted as giving rise to a general partnership between the parties or limiting the rights or powers of either party to carry on its separate business for its sole benefit.

2. OBJECT AND MOTIVATION

The sole object for which this Joint Venture is established and the sole business of the Joint Venture is to negotiate for and conclude a contract for the execution of the Works and to carry out such Works to finality, all in accordance with the terms of this Agreement.

3. Profits and Losses

4 DURATION

The operation of this Agreement shall be deemed to have commenced on the Day of 200..., and shall terminate, except insofar as the provisions of Clauses 5 and 6 apply, upon the happening of any of the following events, whichever shall be earlier:

- 4.1 Award of the Contract by for the construction of the Works to an outside party or parties, or
- 4.2 In the case of contract award, at the time the contract is terminated and all rights and obligations of the parties in connection with such contract and in connection with this Agreement have ceased, but in no case before the conclusion of any maintenance period in the contract and the cancellation and/or refund of all guarantees and bonds. The Joint Venture existence shall also be deemed to continue insofar as the Joint Venture is responsible for latent defects under the contract.

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5. EXCLUSIVITY

The Parties agree and undertake in favour of each other that neither of them shall, except in accordance with the intention expressed in this agreement, be associated in any manner, either directly or indirectly, with any investigation, negotiation, tender or proposal for the performance of or incidental to the execution of the Works and including any variation by way of addition or omission from the scope of the Works or the extension to the Works, nor invest in any company, enterprise or partnership in any manner related thereto, either as previously agreed by the Management Committee in writing.

6. PRE-CONTRACT COSTS

7. MANAGEMENT COMMITTEE

- 7.1 The day-to-day affairs of the Joint Venture shall be under the control of a Management Committee which shall consist of one representative of each of the parties. Within the terms of this agreement and the contract, if awarded, each such member shall have full authority to bind the party and/or parties he represents in all matters relating to the affairs of the Joint Venture. No party to this agreement may bind the other party hereto without the prior consent of such other party, nor may the Management Committee bind the Joint Venture or any party beyond the terms of this agreement or the contract without the prior written consent of both parties. The parties hereto shall be obliged immediately upon signature of this Agreement, to appoint their representatives and the first meeting of the Management Committee will be held immediately thereafter. The parties shall be obliged at all times to maintain a representative on the Management Committee.
- 7.2 Each representative on the Management Committee shall be entitled to appoint, and from time to time remove and replace, an alternate who shall, at any meeting of the Management Committee at which the representative whom he represents is absent, be vested with all rights and powers and subject to all obligations of the representative whom he represents.
- 7.4 Meetings of the Management Committee shall take place at such times and places as the Committee shall determine, provided that the Chairman shall be obliged to convene a meeting of the Management Committee not later than 10 days after being required to do so by any one of the parties to this agreement. Not less than five days' notice of any meeting of the Management Committee shall be given to the representatives thereof and their alternates.
- 7.5 Decisions of the Management Committee shall be unanimous, provided that If the representatives or the alternates fail to agree on any decision, the meeting at which that decision is sought shall be adjourned for a period of 24 hours and should the representatives then not agree on the course of action to be taken the matter shall be referred to the Executive Board for a decision. The decision of such Executive Board shall be placed before a further adjourned meeting, which shall take place no later than 72 hours after the initial adjourned meeting and shall bin the Management Committee which shall adopt such decision without variation.
- 7.6 Subject to 7.7 below, decisions on the Management Committee may be reached telephonically, telegraphically, by facsimile or in writing.
- 7.7 Decisions of the Management Committee, whether at a meeting or otherwise, shall be recorded in written minutes which shall be distributed by the Chairman, for the time being to the members of the Management Committee not later than seven days after those decisions have been taken.

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- Such minutes shall be deemed to have been affirmed unless dissented from not later than seven days after they are deemed to have been received by the dissenter.
- 7.8 The Management Committee may, as it wishes, decide to increase the number of its members for or invite other parties to attend any of its meetings. Such co-opted members or observers shall not have a vote.
- 7.9 The Management Committee shall have the power to delegate such of its powers and duties as it may determine in the best interests of the parties.
- 7.10 No remuneration shall be paid by the Joint Venture to the parties' representatives on the Management Committee in their capacities as such.
- 7.11 The administrative function regarding the operation of the Management Committee shall be fulfilled by the Chairman.

8 POWERS OF THE MANAGEMENT COMMITTEE AND DIRECTION OF THE PROJECT MANAGER The functions, responsibilities and powers of the Management Committee shall be:

- 8.2 To formulate and dictate to the Project Manager overall policy regarding the following:
 - 8.2.1 The general day-to-day management of the affairs of the Joint Venture.
 - 8.2.2 Representation of the Joint Venture in dealing with the Resident Engineer/Engineer/Client and third parties on matters affecting the Joint Venture as a whole.
 - 8.2.3 Co-ordination of the activities of the parties.
 - 8.2.4 Preparation by agreement with the parties and supervision of the programme of the Works.
 - 8.2.5 Ensuring that the responsibility of each of the parties in regard to technical and contractual matters is preserved.
- 8.3 To make such provisions as are necessary to enable the Project Manager to perform his tasks.
- 8.4 To approve the balance sheets and accounts of the Joint Venture.
- 8.5 To approve the tender submitted by the Joint Venture and to approve or withhold approval for and amendment proposed thereto.
- 8.6 To approve the appointment of legal advisers and auditors where such appointments are necessary.
- 8.7 To determine the nature and extend of any additional duties and functions of each of the parties in relation to this Joint Venture.
- 8.8 To determine the terms and conditions of employment of personnel as well as emoluments seconded by the parties to the Joint Venture.
- 8.9 Subject to the terms and conditions of this agreement, to determine and approve: 8.9.1 The amount and type of working capital requirements of the Joint Venture.
 - 8.9.2 All borrowings, guarantees and like obligations undertaken by the parties to the Joint Venture.

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- 8.9.3 The insurance to be taken out by the Joint Venture.
- 8.9.4 The nature, method and amount of all claims.
- 8.9.5 When and in what amount to distribute dividends to the parties hereto, save that any decision in terms of which the Joint Venture will undertake further work outside of the original scope of the contract or any variation or amendment of this agreement of the contract, shall require the unanimous agreement of the parties before becoming effective and binding the Joint Venture.
- 8.9.6 The approval and appointment of all sub-contractors.

9 THE EXECUTIVE BOARD

- 9.1 The Executive Board shall consist of one representative of each of the parties who shall be the Chief Executive Officer of each Joint Venture partner or their nominated deputy but shall not be the same representative as appointed to the Management Committee in terms of Clause 7.1 hereof. The Executive Board shall be the mediation authority of the Joint Venture which shall decide on all issues which are referred to it by the Management Committee as well as on all issues where the Management Committee is not unanimous.
- 9.2 Decisions of the Executive Board, whether original decisions or decisions taken after referral from the Management Committee shall be implemented by the Management Committee as per Clause 7.5.1.
- 9.3 Decisions of the Executive Board shall be unanimous.
- 9.4 Effect shall be given to a resolution arrived at unanimously.
- 9.5 In the event of the Executive Board not being unanimous in its decision the matter is to be referred to arbitration in terms of Clause 16 hereof.
- 9.6 Subject to 9.7 as read in conjunction with 7.7 and, provided that they are unanimous, decisions of the Executive Board may be reached telephonically, telegraphically or in writing. If reached telephonically or otherwise orally such decision must be confirmed in writing within 24 hours.
- 9.7 The Minutes of meetings of the Executive Board shall be handled mutatis mutandis in the manner per Clause 7.7.
- 9.8 The administrative functions regarding the operation of the Executive Board shall be fulfilled by the Chairman of the Management Committee, who shall not be entitled to a voice or a vote at Executive Board meetings.

10 Personnel

- 10.1 The Project Manager shall be appointed as provided in Clause 8.1 hereof.
- 10.2 The person nominated to the office of Project Manager shall be subject to removal from such office by decision of the Management Committee.
- All the remuneration and emoluments of employment of the Project Manager shall be an expense of and paid by the Joint Venture, provided that a party shall be entitled by notice in writing delivered to the other parties to elect that the person to be nominated by it to fill the offices of project Manager shall be seconded to the Joint Venture in which event the remuneration and emoluments which would otherwise have been paid to such persons while filling such offices shall be paid to the member responsible for their nomination or otherwise as such member shall direct and subject to such payment being duly and promptly paid to the member or its nominee, the member will hold harmless and keep indemnified the Joint Venture and the other members from all actions, proceedings, claims and demands by such persons or otherwise howsoever in respect of such remuneration and emoluments. The remuneration and

- emoluments to be paid and allowed by the Joint Venture to the Project Manager shall be determined from time to time by the Management Committee and borne by the parties hereto in the Specified Propositions.
- 10.4 The members of the Management Committee and Executive Board and their proxies and alternates a shall not be employees of the Joint Venture and shall not be entitled to claim any salary or remuneration from the Joint Venture by virtue of such appointments unless the Management Committee shall otherwise decide in writing.

11 FINANCING

11.1 Working Capital

- 11.1.1 Banking accounts shall be opened in the name of the Joint Venture with banks and at such places as may be determined by it, and the parties shall be responsible for the payment in the Specified Properties of such sums to the credit of such baking accounts as shall from time to time be required by way of working capital for the Joint Venture.
- 11.1.2 Any amounts from time to time advanced by the parties to the Joint Venture in terms of this agreement shall be placed to the credit of their respective capital accounts in the Joint Venture.
- 11.1.3 The banking accounts referred to in sub-clause 11.1.1 hereof shall be operated, and cheques thereon shall be drawn in accordance with the instructions to the bankers in question. Withdrawals from these banking accounts shall be effected on the authority of persons nominated thereto by the Management Committee.
- 11.1.4 Should any party fail to make payment to the Joint Venture of any amount which it is obliged to pay in terms of sub-clause 11.1.1 hereof, after the expiry of a period of seven days from the date of notice requiring it to make such payment, the party to default shall be liable for payment of interest to the other parties on the amount so withheld at the rate of Prime Bank rate charged by Joint Venture Bankers per annum should such other parties have advanced the aforesaid sum.
- 11.1.5 All revenue derived by the Joint Venture from the contract shall forthwith be deposited to the credit of the banking accounts referred to in sub-Clause 1.1.1 hereof.
- 11.1.6 The amount for the time being standing to the credit of the Joint Venture's banking accounts shall be applied:
 - 11.1.6.1 In discharging the obligations of the Joint Venture in accordance with their tenor; provided that the Management Committee shall be entitled to require the payment of any liability prior to its due date if such anticipated payment will result in the allowance by the creditor in question of an advantageous discount to the Joint Venture for prompt payment;
 - 11.1.6.2 As to any surplus of funds for the time being in the said banking account, subject to the agreement of the parties as payment to the parties in the

Specified Proportions or in proportion to their participation of the time being in the Joint Venture, save that any such surplus shall first be utilised for the purpose of eliminating or reducing any disproportion in the ratios of the parties respective capital accounts.

11.2 Capital and Advances

- 11.2.1 The amount of capital required by the Joint Venture to attain its object (and which includes all loans, guarantees, indemnities, reserves) shall be determined from time to time by the Management Committee, and upon being so determined shall forthwith be contributed by the parties to the Joint Venture in the Specified Proportions.
- 11.2.2 If at any time any party to the Joint Venture shall, due to an emergency or with the consent in writing of the other parties advance any sum of money or to incur any liability on behalf of the Joint Venture over and above its due contribution to capital, then where money has been advanced, the same shall be a debt due from the Joint Venture to the party advancing the money, and shall be repayable on thirty days' notice and shall bear interest at Prime Bank rate as charged by Joint Venture's bankers per annum from date of advance to date of payment. Where a party has incurred a contingent liability on the above basis, the other parties shall, within thirty days of being requested to do so in writing, relieve such party of its obligations thereunder to the extent that the obligations of the parties are in the Specified Proportions.

12. ACCOUNTS

- 12.1 The Joint Venture shall cause proper books of account and complete records to be kept as are customary in the Republic of South Africa relating to all the assets and liabilities of the Joint Venture and expenses incurred or income received by the Joint Venture.
 - Such book and records shall not be related to the affairs of the parties individually. The said books of account and records, together with all letters, papers or writings concerning or belonging to the Joint Venture shall be kept at site and such other place from time to time as determined by the Management Committee, and each of the parties to the Joint Venture shall at all times have free access and the right to inspect and copy the same.
- 12.2 Within thirty days of the end of every quarter during the continuance of the Joint Venture, the Joint Venture shall furnish to the Management Committee all necessary documents such as balance sheets, profit and loss accounts, bank balances and comparisons with budget and forecasts of cash flow and profits as are necessary to keep the Management Committee informed of the financial affairs of the Joint Venture. Every such profit and loss account and balance sheet shall be agreed to and signed by the members of the Management Committee on behalf of the Joint Venture members, and when so signed, shall be binding on all the parties, except that if any manifest error therein be detected and pointed out by any party to the others at any time after such signature, such error shall forthwith be rectified.
- 12.3 After the completion of the contract and the release of all bonds, guarantees and obligations given for the performance of the parties in the Joint Venture, the joint Venture shall procure the preparation and auditing of a final balance sheet and profit and loss account, which shall be approved by the Management Committee, and from which the final profit and loss sustained by the Joint Venture shall be ascertained, and distributed to or contributed by the parties in proportion to their participation in the Joint Venture. This clause shall not be construed as

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prohibiting the interim distribution of profits or contribution towards losses in the discretion of the Management Committee.

13. WINDING UP

Upon the determination of the Joint Venture in accordance with the provisions of this agreement, a full and general account shall be taken of the assets and liabilities of the Joint Venture and of the transactions and dealings thereof, and with all convenient speed, such assets shall be sold and realised and the proceeds applied in paying and discharging such liabilities and the expenses of and incidental to the winding-up of the Joint Venture affairs and thereafter in paying to each Joint Venture member its share of such proceeds in the Specified Proportions. The Joint Venture members respectively undertake to do all such things as may be necessary so as to give effect to the above.

14. Breach

- 14.1 If a party ("the guilty party") shall commit a breach of any material provision of this agreement, and fail to remedy the same within a period of thirty (30) days after the receipt by it of written notice requiring it to do so, or be placed in liquidation or under judicial management, whether provisionally or finally, or propose any compromise with its creditors, the other parties ("the aggrieved parties") shall have the right, without prejudice to any of its other remedies arising from such breach, forthwith to terminate this agreement, in which event:
- 14.2 The guilty party's interest in the joint venture shall be taken over by the remaining parties. The aggrieved parties shall, in addition, have the right, if it so requires, to take over the capital account of the party in default.
 - Such capital account shall be valued on the basis of the nett assets revealed in an audited balance sheet and profit and loss account prepared as at the end of the month in which the default or other breach occurred; provided that the profit and loss account shall take into account the Joint Venture's share in the valuation of the work in progress, as shown in the Joint Venture accounts, at the date of preparation of the balance sheet and profit and loss account, after providing for any known or contemplated future losses to be incurred on the work undertaken or to be undertaken by the Joint Venture and provided further that should upon the completion of the contract or contracts, the provision for losses made in the valuation or work in progress as aforesaid prove to be incorrect, such provisions shall be adjusted. Provided the aggrieved parties have proved that the tender rates as escalated from time to time were inadequate, the guilty party shall be liable to the extent of the participation of such party for all losses incurred on the whole of the contract, including any losses incurred subsequent to the termination of the agreement in accordance with these provisions, but such party shall not be entitled to share in any profits earned subsequent to such termination.
- 14.3 The aggrieved parties shall have the right to recruit in its employment personnel seconded to the Joint Venture by the guilty party and, as a stipulation in favour of such personnel, the guilty party waives any claims it might otherwise have had against such personnel arising from their summary termination of their employment with the guilty party.
- 14.3 All plant hired by the guilty party to the Joint Venture shall remain on hire to and under the control of the aggrieved parties until the completion of the contract, or until the aggrieved parties shall release such plant from the operation of this sub-clause. Payment shall be made thereof monthly.

15. DISPUTES

- 15.1 Having regard to the high degree of good faith which must exist between the parties, the parties agree to do their utmost to ensure that the disputes between them are settled equitably and amicably and where possible without resort to arbitration.
- 15.2 In the event of any differences or dispute of whatever nature arising from this agreement (which shall include any failure to agree on any matter which requires the parties' agreement for the purposes of implementation of this agreement) or any other matter related thereto which cannot be settled by direct negotiation between the parties, such differences or dispute shall be referred to arbitration in terms of Clause 16 hereof.

16 ARBITRATION

- 16.1 Save as hereinafter provided, any dispute at any time between any of the parties hereto in regard to any matter arising out of this agreement or its interpretation or rectification shall be submitted to and decided by arbitration.
- 16.2 The arbitration referred to in 16.1 shall be held 16.2.1 At
 - 16.2.2 In a summary manner, i.e. on the basis that it shall not be necessary to observe or carry out either -
 - 16.2.2.1 the usual formalities or procedure (e.g. there shall not be any pleadings or discovery); or
 - 16.2.2.2 the strict rules of evidence.
 - 16.2.3 Immediately and with a view to its being completed within twenty-one business days after it is demanded;
 - 16.2.4 Otherwise (but subject to © (d) and (e) under the provisions of the Arbitration Act No. 42 of 1965 or the Republic of South Africa as amended from time to time).
- 16.3 The Arbitrator shall be, if the question in issue is -
 - 16.3.1 Primarily an accounting matter, an independent accountant;
 - 16.3.2 Primarily a legal matter, a practising Senior Counsel of not than five years standing as such:
 - 16.3.3 Any other matter, an independent person unanimously agreed upon between the parties and failing agreement appointed by the President for the time being of the South African Federation of Civil Engineering Contractors.

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- 16.5 The arbitrator shall decide the matters submitted to him according to what he considers just and equitable in the circumstances and, therefore, the strict rules of law need not be observed or be taken into account by him in arriving at his decision.
- 16.6 The parties irrevocably agree that the decision in those arbitration proceedings -
 - 16.6.1 shall be binding on them;
 - 16.6.2 shall be carried into effect:
 - 16.6.3 can be made an order of any court of competent jurisdiction.

17. CONFIDENTIALITY

- 17.1 All matters relating to this agreement, any negotiations and the contract for the construction of the Works resulting therefrom shall be regarded by the parties hereto as being highly confidential, and shall not be disclosed without prior written consent of the management Committee to any party, person or entity who or which is not a signatory to this Agreement, except where such disclosure is necessary for the fulfilment of this Agreement.

 No party shall at any time hereinafter use any technical information, save that in the public domain, acquired from the other parties hereto except for the purposes of fulfilment of the contract.
- 17.2 No party shall have the right to advertise, or otherwise permit, the dissemination of publicity concerning its participation in the Joint Venture unless:
 - 17.2.1 the relevant material shall make due reference to and acknowledgement of the work of the other parties;
 - 17.2.2 the relevant material shall, for its dissemination is within the control of the party in question, have been approved by the other parties, which approval shall not be unreasonably withheld.

18. ASSIGNMENT

- 18.1 No party shall cede, assign or in any other way make over any of its rights or obligations under this agreement without the written consent of the other parties except insofar as such assignment or alienation is to any wholly-owned subsidiary company of that party.
- 18.2 In the event of such assignment or alienation taking place, the initial party shall jointly and severally and in solidum guarantee the obligations or the assignee towards the remaining parties.

19 GENERAL

- 19.1 No party shall have a claim against the other parties arising out of a failure to secure the contract, except insofar as the parties are liable to bear the joint venture expenses in the Specified Proportions.
- 19.2 Any changes and supplementary provisions concerning this agreement shall require the written approval of all the parties hereto.

19.3 Variations not effective unless in writing

No variation, modification or waiver of any provision of this agreement, or consent to any departure therefrom, shall in any event be of any force or effect unless unanimous and confirmed in writing and signed by the parties; then such variation, modification, waiver or consent shall be

effective only in the specific instance and for the purpose and to the extent for which made or given.

19.4 Additions to the Joint Venture

No additional parties shall be admitted to the Joint Venture unless the parties to this agreement unanimously agree and subject to the Conditions of Contract for the Works. All sub-contractors must be approved by the Management Committee in accordance with procedures to be established by the said Committee.

19.5 Company formation

Should the parties at any time unanimously agree to form a company to take over the interest of the Joint Venture in the contact and the assets of the joint Venture, the parties undertake to enter into a Shareholders Agreement embodying insofar as it is reasonably possible and practicable the terms hereof and, in addition, including therein a provision affording each party a right of pre-emption to any shares in the company which the other may from time to time wish to dispose of. For the Works the formation of a company shall be subject to the General Conditions of Contract for the Works.

19.6 Domicilium

19.6.1	The parties hereto respectively choose domiciliumcitandi et executandi for all purposes of and in connection with this agreement as follows:						

- 19.6.2 The parties hereto shall be entitled to change their domicilium from time to time, and any such change shall only be effective upon receipt of notice in writing by the other parties of such change.
- 19.6.3 All payments to be made pursuant to this agreement, and all notices, demands or communications intended for any party, shall be made or given at such party's domicilium for the time being, and if forwarded by prepaid registered post, shall be deemed to have been made or given seven days after the date of posting unless proved to the contrary.

19.7 Currency

All amounts referred to in this agreement and all monies payable to or by the parties to the Joint Venture in connection with the Joint Venture shall be both calculated and paid in currencies from time to time and at places to be agreed by the Management Committee.

19.8 Governing Law

This agreement shall be construed in accordance with and governed by the laws of Republic of South Africa. The English language version of this agreement shall prevail.

- 19.9 All correspondence between the parties in regard to this agreement and the contract shall be in the English language.
- 19.10 Each party shall bear its own costs incurred in the preparation and negotiation of this agreement.

BID NUMBER: LDPWRI-B/20110

SAFCEC JOINT VENTURE AGREEMENT

- 19.11 This agreement over-rides any previous agreement or arrangements concluded between the parties in regard to the works and contract. Notwithstanding the provisions of Clause 19 hereof, the parties agree that any variations to the provision of this agreement and any decisions in terms of which this Joint Venture will undertake further work outside the original scope of the contract referred to earlier, shall require the unanimous agreement of the parties before becoming effective and binding on the parties.
- 19.12 In the interpretation of this agreement, works in the singular shall include the plural and vice versa as the context may require. The headings to clauses shall not be considered part thereof nor shall the words which they contain be taken into account in the interpretation of any clause.

	S DONE AND SIGNED AT20	THIS	DAY	OF
		For and behalf of:		
AS V	VITNESS:			
1.				
2.				
	S DONE AND SIGNED AT	THIS	DAY	OF
		For and behalf of:		
AS V	VITNESS:			
1.				
2.				



THE CONTRACT

109 PART C

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BID NUMBER: LDPWRI-B/20110

PART C.1

PART C.1: AGREMENT 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:

Demolishing of 10 classrooms and 4 pit toilets, and refurbishment of 13 enviro-loo toilets, and construction of medium administration, 14 classrooms, 4 waterborne toilets and 10 enviro-loo toilets as well as other related services at Chameti High 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 the 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)		
(in figures) R		
and returning one copy of this docum	ent to the tenderer before	eptance part of this form of offer and acceptance the end of the period of validity stated in the d as the contractor in the conditions of contract
Signature(s)		
Name(s)		
Capacity		
For the tenderer:		
Name & signature of witness		Date

111 C1.1 Contract Part C1: Agreement and Contract Data

PART C1.1: AGREMENT AND CONTRACT DATA

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	Contract Data
Part C3	Pricing Data
Part C4	Scope of Work

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

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

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

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

For the Employer

Signature							
Name							
Capacity							
Name and address of the organization							
Signature a	Signature and Name of Witness						
Signature							
Name							
Capacity							

112 Form of Offer and Acceptance Part C1: Agreement and Contract Data

PART C1.1: FORM OF OFFER AND ACCEPTANCE

Sched	ule of Deviations
1 Subject	
Details	
2 Subject	
Details	
3 Subject	
Details	
4 Subject	
Details	
agree to amenda returnat	duly authorized representatives signing this agreement, the <i>Employer</i> and the Tenderer or and accept the foregoing schedule of deviations as the only deviations from and ments to the documents listed in the Tender Data and addenda thereto as listed in the ble schedules, as well as any confirmation, clarification or changes to the terms of the reed by the Tenderer and the <i>Employer</i> during this process of offer and acceptance.
It is exp	ressly agreed that no other matter whether in writing, oral communication or implied
	during the period between the issue of the tender documents and the receipt by the
	tenderer of a completed signed copy of this Agreement shall have any meaning or
	effect in the contract between the parties arising from this agreement.

C1.1



C2 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.



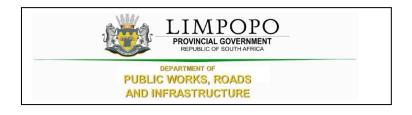
PART C3: PRICING DATA



C3.1 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 Works 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 the assessment of payment for additional work that may have to be carried out.
- The drawings listed in the Scope of Works used for the setting up of these Bills of Quantities are kept by the Main Contractor and can be viewed at any time during office hours up until the completion of the works.
- 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.

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PART C4: PROVISIONAL BILLS OF QUANTITIES



C4.1 PRELIMINARIES

		Quantity	Rate	Amount
SEC	CTION NO. 1			
BILI	L NO. 1			
PRE	ELIMINARIES NOTES			
PRE	AMBLES			
in the	E : The tenderer is referred to the relevant clauses e Model Preambles for Trades (2008 Edition) as ed by the Association of South African Quantity eyors before pricing this bill.			
<u>NOT</u>	<u>'ES</u>			
i)	The agreement is based on the JBCC Principal Building Agreement (version 4.1). The additions, deletions and alterations to the JBCC PBA and the <i>Principal Building Agreement: Contract Data</i> and these documents have been incorporated in the Contract section of this document. The tenderer is deemed to have referred to these documents for the full and meaning of each clause. The clauses are referred to by the number and heading only. Where standard clauses or options are not applicable to the contract such notifications or corrections are necessary are given under each relevant clause. Where an item is not relevant to this specific contract such item is marked. "N/A" signifying "Not Applicable".			
ii)	The Preliminaries for use with the JBCC Series 2000 Preliminaries prepared by the Joint Building Contracts Committee, edition code 2103 March 2005 and shall be deemed to be incorporated herein			
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			
	Carried Forward on No. 1		R	
Bill N	LIMINARIES & GENERAL lo. 1 minaries and General			

	Brought Forward		R	
	iv) Where standard clause or alternatives are not entirely applicable to this contract such modification, corrections or supplements as will apply are given under each relevant clause heading			
	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.			
	PRICING OF PRELIMINARIES			
	Items not priced in these Preliminaries shall be deemed to be included elsewhere in these Bills of Quantities.			
	SECTION A: JBCC PRINCIPAL BUILDING AGREEMENT - (Edition 4.1, March 2005)			
	DEFINITIONS AND INTERPRETATION (A1)			
1/1/1	Clause 1.0			
	F: T:	Item		
	OFFER, ACCEPTANCE AND PERFORMANCE OBLIGATIONS (A2)			
1/1/2	Clause 2.0			
	F: T:	Item		
	DOCUMENTS (A3)			
1/1/3	Clause 3.0			
	F: T:	Item		
	Carried Forward		R	
	Section No. 1 PRELIMINARIES & GENERAL Bill No. 1 Preliminaries and General			

	Brought Forward		R		
	DESIGN RESPOSIBILITY (A4)				
1/1/4	Clause 4.0				
	F: T:	Item			
	EMPLOYERS AGENTS (A5)				
1/1/5	Clause 5.0				
	F: T:	Item			
	SITE REPRESENTATIVE (A6)				
1/1/6	Clause 6.0				
	F: T:	Item			
	COMPLIANCE WITH LAWS AND REGULATIONS (A7)				
1/1/7	Clause 7.0				
	F: T:	Item			
	INSURANCE AND SECURITY				
	WORKS RISK (A8)				
1/1/8	Clause 8.0				
	F: T:	Item			
	INDEMNITIES (A9)				
1/1/9	Clause 9.0				
	F: V:				
	T:	Item			
	Carried Forward		R		
	Section No. 1 PRELIMINARIES & GENERAL Bill No. 1 Preliminaries and General				
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	Brought Forward		R	
	WORKS INSURANCES (A10)			ļ
1/1/10	Clause 10.0			
	F: T:	Item		
	LIABILITY INSURANCES (A11)			
1/1/11	Clause 11.0			
	F: T:	Item		
	EFFECTING INSURANCES (A12)			
1/1/12	Clause 12.0			
	F: T:	Item		
	NO CLAUSE (A13)			
1/1/13	Clause 13.0			
	F: T:	Item		
	SECURITY (A14)			
1/1/14	Clause 14.0			
	F: T:	Item		
	Carried Forward		R	
	Section No. 1 PRELIMINARIES & GENERAL			
	Bill No. 1 Preliminaries and General			

	Brought Forward		R	
	EXECUTION			
	PREPARATION FOR AND EXECUTION OF THE WORKS (A15)			
1/1/15	Clause 15.0			
	F: T:	Item		
	ACCESS TO THE WORKS (A13)			
1/1/16	Clause 16.0			
	F: T:	Item		
	CONTRACT INSTRUCTION (A17)			
1/1/17	Clause 17.0			
	F: T:	Item		
	SETTING OUT OF THE WORKS (A18)			
1/1/18	Clause 18.0			
	F: T:	Item		
	ASSIGNMENT (A19)			
1/1/19	Clause 19.0			
	F: T:	Item		
	NOMINATED SUBCONTRACTORS (A20)			
1/1/20	Clause 20.0			
	F: T:	Item		
	Carried Forward		R	
	Section No. 1 PRELIMINARIES & GENERAL Bill No. 1 Preliminaries and General			

	Brought Forward		R	
	SELECTED SUBCONTRACTORS (A21)			
1/1/21	Clause 21.0			
	F: T:	Item		
	EMPLOYERS DIRECT CONTRACTORS (A22)			
1/1/22	Clause 22.0			
	F: T:	Item		
	CONTRACTORS DOMESTIC SUBCONTRACTORS (A23)			
1/1/23	Clause 23.0			
	F: T:	Item		
	COMPLETION			
	PRACTICAL COMPLETION (A24)			
1/1/24	Clause 24.0 Contract Period: The period commencing on actual Site hand over date to the Contractor and ending on the date of Practical Completion or authorised extensions thereto including all Annual Industrial Holiday Periods, Sundays and Public Holidays.			
	F: T:	Item		
	WORKS COMPLETION (A25)			
1/1/25	Clause 25.0			
	F: T:	Item		
	Carried Forward Section No. 1 PRELIMINARIES & GENERAL Bill No. 1 Preliminaries and General		R	

	Brought Forward		R	
	FINAL COMPLETION (A26)			
1/1/26	Clause 26.0			
	F: T:	Item		
	LATENT DEFECT'S LIABILITY PERIOD (A27)			
1/1/27	Clause 27.0			
	F: T:	Item		
	SECTIONAL COMPLETION (A28)			
1/1/28	Clause 28.0			
	F: T:	Item		
	REVISION OF THE DATE FOR PRACTICAL COMPLETION (A29)			
1/1/29	Clause 29.0			
	F: T:	Item		
	PENALTY FOR LATE OR NON-COMPLETION (A30)			
1/1/30	Clause 30.0			
	F: T:	Item		
	PAYMENT			
	INTERIM PAYMENT TO THE CONTRACTOR (A31)			
1/1/31	Clause 31.0			
	F: T:	Item		
	Carried Forward		R	
	Section No. 1 PRELIMINARIES & GENERAL Bill No. 1 Preliminaries and General			

	Brought Forward		R	
	ADJUSTMENT OF THE CONTRACT VALUE (A32)			
1/1/32	Clause 32.0			
	F: T:	Item		
	RECOVERY OF EXPENSE AND/OR LOSS (A33)			
1/1/33	Clause 33.0			
	F: T:	Item		
	FINAL ACCOUNT AND FINAL PAYMENT (A34)			
1/1/34	Clause 34.0			
	F: T:	Item		
	PAYMENT TO OTHER PARTIES (A35)			
1/1/35	Clause 35.0			
	F: T:	Item		
	CANCELLATION			
	CANCELLATION BY EMPLOYER - CONTRACTOR'S DEFAULT (A36)			
1/1/36	Clause 36.0			
	F: T:	Item		
	CANCELLATION BY EMPLOYER - LOSS AND DAMAGE (A37)			
1/1/37	Clause 37.0			
	F: T:	Item		
			_	
	Carried Forward Section No. 1 PRELIMINARIES & GENERAL Bill No. 1 Preliminaries and General		R	

	Brought Forward		R		ı
	CANCELLATION BY CONTRACTOR - EMPLOYER'S DEFAULT (A38)				
1/1/38	Clause 38.0				1
	F: T:	Item			
	CANCELLATION - CESSATION OF THE WORKS (A39)				ſ
1/1/39	Clause 39.0				1
	F: T:	Item			
	CANCELLATION - CESSATION OF THE WORKS (A39)				
1/1/40	Clause 39.0				İ
	F: T:	Item			
	<u>DISPUTE</u>				1
	SETTLEMENT OF DISAGREEMENTS AND DISPUTES (A40)				
1/1/41	Clause 40.0				1
	F: T:	Item			
	SUBSTITUTE PROVISIONS				1
	STATE CLAUSES (A41)				1
1/1/42	Clause 41.0				1
	F: T:	Item			
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	Carried Forward		R		
	Section No. 1 PRELIMINARIES & GENERAL Bill No. 1 Preliminaries and General				
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	Brought Forward		R	
	SCHEDULE OF VARIABLES (A42)			
1/1/43	Clause 42.0			
	F: T:	Item		
	<u>AGREEMENT</u>			
	<u>AGREEMENT</u>			
1/1/44	Clause			
	F: T:	Item		
	Information necessary for completion of those clauses contained in the schedule which are necessary for tender purposes is given hereunder			
	CONTRACT DETAILS			
	Works Description:			
	Demolishing of 10 classrooms and 4 pit toilets, and refurbishment of 13 enviro-loo toilets, and construction of medium administration, 14 classrooms, 4 waterborne toilets and 10 enviro-loo toilets, as well as related external works.			
	Site Description:			
	Chameti High School			
	Giyani			
	Limpopo			
	Work for installation by direct contractors: TBC			
	Carried Forward		R	
	Section No. 1 PRELIMINARIES & GENERAL Bill No. 1 Preliminaries and General			

	Brought Forward		R		
•	This agreement is for a government contract: Yes				
	Date on which possession of the site is intended to be given: TBC				
	Period for the commencement of the works after the contractor takes possession of the site: 10 days				
	Completions in sections are required: No				
	Intended date of practical completion and the penalty per calender day for the works as a whole: R 4 600.00 per day				
	Contract duration : 20 months including national builder's break				
	SPECIAL COMPLETION REQUIREMENTS				
	Beneficial occupation dates: TBC				
	Tenant Installations beneficial occupation				
	F V T				
1/1/45	Arbitration rules as recommended by the Association of Arbitrators (SA)				
	F V T	Item			
1/1/46	The law applicable to this agreement shall be that of South Africa				
	F V T	Item			
	Carried Forward Section No. 1		R		
	PRELIMINARIES & GENERAL				
	Bill No. 1 Preliminaries and General				
				i I	

	Brought Forward		R	
	INSURANCES			
1/1/47	Contract works insurance to be effected by: Contractor			
	For the amount of: The Contract Sum plus 20% with deductible of R20 000.00			
	Notwithstanding the provisions of Clause 41.3.2, the first amount deductible will be for the Contractor's account			
	SASRIA insurance required:			
	F:T:	Item		
1/1/48	Public liability insurance to be effected by Contractor For the amount of: R 10 000 000.00 With a deductible of: R 10 000.00 per claim			
	F: T:	Item		
	DOCUMENT			
	Waivers of contractors lien is required: Yes			
	Number of construction document copies to be supplied free of charge: 3			
	Number of days for submission of priced documents: TBA			
	Notwithstanding the provisions of the above clause, no payments will be certified unless the priced documents are agreed with the Quantity Surveyors.			
	JBCC Engineering General Conditions are to be included in the documents: No			
	Alternative if contract value is not adjusted using Contract Price Adjustment Provision: N/A			
	Tender Price is requested for Fixed Rates.			
	Carried Forward		R	
	Section No. 1 PRELIMINARIES & GENERAL Bill No. 1 Preliminaries and General			

Brought Forward	R		
Details of changes made to the provision of			
JBCC standard documentation:			
The Contractor shall issue a Tax Invoice immediately to			
enable the Employer to process payment.			
Carried Forward	R		
Section No. 1			
PRELIMINARIES & GENERAL Bill No. 1			
Preliminaries and General			
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	Brought Forward		R	
	SECTION B: PRELIMINARIES]
	Definition and interpretation (B1)			ı
1/1/49	Definition and interpretation (B1.1 - B1.6.5)			1
	F: T:	Item		
	Documents (B2)			ı
1/1/50	Checking of documents (B2.1)			ı
	F: T:	Item		
1/1/51	These bills of quantities contain pages and annexures as indexed on the flyleaf			
	The items in these bills of quantities are to be read and priced in conjunction with the descriptions regarded as amplified by the Model Preambles for Trades as recommended and published by the Association of South African Quantity Surveyors, 2008 edition, and no claim arising from brevity of description of items fully described in the said Model Preambles for Trades will be entertained.			
	F: T:	Item]
1/1/52	Provisional bills of quantities (B2.2)			1
	F: T:	Item		1
1/1/53	Availability of construction documentation for contracts based on provisional bills of quantities (B2.3)			1
	F: T:	Item		1
1/1/54	Interests of agents (B2.4)			ı
	F: T:	Item		
	0			
	Carried Forward Section No. 1 PRELIMINARIES & GENERAL Bill No. 1 Preliminaries and General		R	

LIMPOPO DEPARTMENT OF EDUCATION UPGRADES AND ADDITIONS AT CHAMETI HIGH SCHOOL

	Brought Forward		R	
1/1/55	Priced documents (B2.5)			
	F: T:	Item		
1/1/56	Tender submission (B2.6)			
	F: T:	Item		
1/1/57	Notwithstanding anything contained in this clause tenders shall be valid for a period of 180 days from the closing date of tenders			
	F: T:	Item		
	The site (B3)			
1/1/58	Defined works area (B3.1)			
	F: T:	Item		
1/1/59	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 at the official site briefing meeting. Site Meeting Date: TBC The meeting will be held at: TBC Tenderers are advise to arrive at least one hour earlier for the briefing meeting in order to avoid delays related to locating the venue.			
	F: T:	Item		
1/1/60	Inspection of the site (B3.3)			
	F: T:	ltem		
	Carried Forward Section No. 1 PRELIMINARIES & GENERAL Bill No. 1 Preliminaries and General		R	

LIMPOPO DEPARTMENT OF EDUCATION UPGRADES AND ADDITIONS AT CHAMETI HIGH SCHOOL

				 _
	Brought Forward		R	
1/1/61	A compulsory briefing meeting with representatives of the Employer will not take place due to the Covid-19 Lockdown restrictions. However, tenderers are welcomed to make arrangements to visit the site on a non-compulsory basis at the Chameti High School			
	F: T:	Item		
1/1/62	Existing premises occupied (B3.4)			ı
	F: T:	Item		
1/1/63	Previous work - dimensional accuracy (B3.5)			İ
	F: T:	Item		
1/1/64	Previous work - defects (B3.6)			İ
	F: T:	Item		
1/1/65	Services - known (B3.7)			İ
	F: T:	Item		
1/1/66	Services - unknown (B3.8)			1
	<u>F</u> :V:	14		İ
	T:	Item		Ì
1/1/67	Protection of trees etc (B3.9)			İ
	F: T:	Item		1
1/1/68	Articles of value (B3.10)			ı
	F: V:			1
	T:	Item		1
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	Carried Forward Section No. 1		R	Ī
	PRELIMINARIES & GENERAL Bill No. 1			ı
	Preliminaries and General			ı

	Brought Forward		R	
1/1/69	Inspection of adjoining properties etc (B3.11)			<u> </u>
	F:			
	T:	Item		
	Management of contract (B4)			
1/1/70	Management of the works (B4.1)			
	The contractor is to submit with his tender a synopsis of the proposed management team envisaged for this project.			
	F: T:	Item		
1/1/71	Programme for the works			
	The contractor is to submit with his tender a detailed program outlining the envisaged programming of the works			
	F: T:	Item		
1/1/72	Progress meetings (B4.3)			
	F: T:	Item		
1/1/73	Technical meetings (B4.4)			
	F: T:	Item		
	Samples and shop drawings and manufacturer's instructions (B5)			
1/1/74	Samples of materials (B5.1)			
	F:V:			
	T:	Item		
	Carried Forward		R	
	Section No. 1			
	PRELIMINARIES & GENERAL Bill No. 1			
	Preliminaries and General			

	Brought Forward		R	
1/1/75	Workmanship samples (B5.2)			
	F: T:	Item		
1/1/76	Shop drawings (B5.3)			
	F: T:	Item		
	Temporary works and plant (B6)			
1/1/77	Deposits and fees (B6.1)			
	F: T:	Item		
1/1/78	Enclosure of the works (B6.2)			
	F: T:	Item		
1/1/79	Advertising (B6.3)			
	F: T:	Item		
1/1/80	Plant, equipment, sheds and offices (B6.4)			
	F: T:	Item		
1/1/81	Main notice board (B6.5)			
	Provision shall be made for 1 set of Professional boards			
	Lettering shall include 1 logo not exceeding 200 x 200mm per consultant and contractor all in colour and 1 Limpopo Department of Education chromadek signage board that must be 2 x 4m.			
	F: T:	Item		
	1	non		
	Carried Forward		R	
	Section No. 1 PRELIMINARIES & GENERAL Bill No. 1 Preliminaries and General			

LIMPOPO DEPARTMENT OF EDUCATION UPGRADES AND ADDITIONS AT CHAMETI HIGH SCHOOL

	Brought Forward		R	
1/1/82	Subcontractors notice board (B6.6)			
	F: V:			
	T:	Item		
	Temporary services (B7)			
1/1/83	Location (B7.1)			
	F: V:			
	T:	Item		
1/1/84	Water (B7.2)			
	Alternative A			
	F: V:			
	T:	Item		
1/1/85	Electricity (B7.3)			
	Alternative A			
	F: V:	Itara		
	T:	Item		
1/1/86	Telecommunication equipment (B7.4)			
	Alternative A			
	F: V:			
	T:	Item		
1/1/87	Ablution facilities (B7.5)			
	Alternative A			
	F: V:			
	T:	Item		
	Prime cost amounts (B8)			
1/1/88	Responsibility for prime cost amounts (B8.1)			
	F: V:	14		
	T:	Item		
	Section No. 1		R	
	PRELIMINARIES & GENERAL			
	Bill No. 1 Preliminaries and General			
		1		

	Brought Forward		R	
	Attendance on N/S Subcontractors (B9)			
1/1/89	General attendance (B9.1)			
	F: T:	Item		
1/1/00		itom		
1/1/90	Special attendance (B9.2)			
	F: T:	Item		
1/1/91	Commissioning - Fuel, water and power (B9.3)			
	<u>F</u> :V:	.,		
	T:	Item		
	Financial aspects (B10)			
1/1/92	Statutory taxes, duties and levies (B10.1)			
	F: T:	Item		
1/1/93	Provision for Value Added Tax (VAT) is made in the Final Summary			
	F: T:	Item		
1/1/94	Payment of preliminaries (B10.2)			
	F: T:	Item		
1/1/95	Adjustment of preliminaries (B10.3)			
	<u>F</u> :			
	T:	Item		
1/1/96	Payment certificate cash flow (B10.4)			
	F: T:	Item		
	Carried Forward		R	
	Section No. 1 PRELIMINARIES & GENERAL			
	Bill No. 1 Preliminaries and General			

LIMPOPO DEPARTMENT OF EDUCATION UPGRADES AND ADDITIONS AT CHAMETI HIGH SCHOOL

	Brought Forward		R	
1/1/97	Contractor information supply (B10.5)			ļ
	F: V:			
	T:	Item		
	General (B11)			
1/1/98	Protection of works (B11.1)			
	<u>F</u> :			
	T:	Item		
1/1/99	Protection/isolation of existing/sectionally occupied works (B11.2)			
	F:V:	Item		
	T:	item		
1/1/100	Site security (B11.3)			
	F: T:	Item		
1/1/101	Notice before covering work (B11.4)			
	F: V:	Itom		
	T:	Item		
1/1/102	Disturbance (B11.5)			
	F: V: T:	Item		
4/4/400		ltom		
1/1/103	Works cleaning and clearing (B11.6)			
	F: T:	Item		
1/1/104	Vermin (B11.7)			
	F: V:			
	T:	Item		
1/1/105	Overhand work (B11.8)			
	F: V:	Itom		
	T:	Item		
			_	\vdash
	Carried Forward Section No. 1		R	
	PRELIMINARIES & GENERAL Bill No. 1			
	Preliminaries and General			

	Brought Forward		R	
	Schedule of variables (B12)			Ī
1/1/106	Pre-tender information (B12.1)			ı
	F: T:	Item		
	Information necessary for elections and completion of those clauses contained in the schedule which are necessary for tender purposes is given hereunder. Where no information is given it shall mean that either no details or specific requirements are available or that the clause is not relevant to this specific contract			
1/1/107	12.1.1 Provisional bills of quantities (B2.2) The quantities are provisional: Yes			
	F: T:	Item		
1/1/108	12.1.2 Availability of construction documentation (B2.3) Construction documentation is not complete: Yes			
	F: T:	Item		
1/1/109	12.1.3 Interest of agents (B2.4)			ı
	F: T:	Item		1
1/1/110	12.1.4 Defined works area (B3.1)			1
	F: T:	Item		
1/1/111	12.1.5 Geotechnical investigation (B3.2)			1
	F: T:	Item		
1/1/112	12.1.6 Existing premises occupied (B3.4)			1
	F: T:	Item		
	Carried Forward			
	Section No. 1 PRELIMINARIES & GENERAL Bill No. 1 Preliminaries and General		R	

LIMPOPO DEPARTMENT OF EDUCATION UPGRADES AND ADDITIONS AT CHAMETI HIGH SCHOOL

	Brought Forward		R	
1/1/113	12.1.7 Services - known (B3.7)			
	F: T:	Item		
1/1/114	12.1.8 Protection of trees (B3.9)			
	F: T:	Item		
1/1/115	12.1.9 Inspection of adjoining properties (B3.11)			
	F: T:	Item		
1/1/116	12.1.10 Enclosure of the works (B6.2)			
	F: V:	Item		
1/1/117	12.1.11 Offices (B6.4.3)			
	F: T:	Item		
1/1/118	12.1.12 Main notice board (B6.5)			
	Provision shall be made for 1 set of Professional boards			
	Lettering shall include 1 logo not exceeding 200 x 200mm per consultant and contractor all in colour and 1 Limpopo Department of Education chromadek signage board that must be 2 x 4m.			
	F: T:	Item		
1/1/119	12.1.13 Subcontractors notice board (B6.6) A notice board is required: Yes			
	F: V:	Item		
	Carried Forward		R	
	Section No. 1 PRELIMINARIES & GENERAL Bill No. 1 Preliminaries and General			

	Brought Forward		R	
1/1/120	12.1.14 Water (B7.2) Alternative Selected: A			
	The contractor shall make provision for water connection requirements that will enable them to carry out works around the site. The contractor shall apply for all necessary supply connections requirements with the Local Authority. Should the local authority refuse services supply to site, the contractor shall connect to any other existing services pointed to him by the Principal Agent in the same manner that the Local authority would have supplied services to site ie in compliance with the specifications of the Local authority.			
	F: T:	Item		
1/1/121	12.1.15 Electricity (B7.3) Alternative selected: A			
	The contractor shall make provision for electrical power connection requirements that will enable them to carry out works around the site. The contractor shall apply for all necessary supply connections requirements with the Local authority. The contractor shall connect to any other existing services pointed to him by the Principal Agent in the same manner that the Local authority would have supplied services to site ie in compliance wit the specifications of the Local authority.			
	F: T:	Item		
	Carried Forward		R	
	Section No. 1 PRELIMINARIES & GENERAL Bill No. 1 Preliminaries and General			

	Brought Forward		R	
1/1/122	12.1.16 Telecommunications (B7.4) Alternative selected: A			
	The contractor shall make provision for telephone connection requirements that will enable them to carry out works around the site. The contractor shall apply for all necessary supply connections requirements with the relevant Agency. Should the Agency refuse services supply to site, the contractor shall connect to any other existing services pointed to him by the Principal Agent in the same manner that the Agency would have supplied services to site ie in compliance wit the specifications of the Agency.			
	F: T:	Item		
1/1/123	12.1.17 Ablution facilities (B7.5) Alternative selected: A			
	The contractor shall make provision for sewer connection requirements that will enable them to carry out works around the site. The contractor shall apply for all necessary supply connections requirements with the Local authority. The contractor shall connect to any other existing services pointed to him by the Principal Agent in the same manner that the Local authority would have supplied services to site ie in compliance wit the specifications of the Local authority.			
	F: T:	Item		
1/1/124	12.1.8 Special attendance (B9.2)			
	F: T:	Item		
1/1/125	12.1.19 Protection of the works (B11.1)			
	F: T:	Item		
	Carried Forward		R	
	Section No. 1 PRELIMINARIES & GENERAL Bill No. 1 Preliminaries and General			

	Brought Forward		R		1
1/1/126	12.1.20 Protection of existing/sectionally occupied works (B11.2) Protection is required: Yes				
	The contractor shall conduct an as built survey (photographic and written) prior to commencing works. All damage caused by the Contractor during the contract shall be rectified at the Contractors cost.				
	F: T:	Item			
1/1/127	12.1.21 Disturbance (B11.5)				ı
	F: T:	Item			
1/1/128	Post tender information (B12.2)				ı
	F: T:	Item			1
1/1/129	12.2.1 Payment of preliminaries Alternative selected: (A or B)				1
	F: T:	Item			
1/1/130	12.2.2 Adjustment of preliminaries Alternative selected: (A or B)				1
	F: T:	Item			
1/1/131	12.2.3 Additional agreed preliminaries items				1
	F: T:				ı
		Item			1
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	Carried Forward		R		ı
	Section No. 1 PRELIMINARIES & GENERAL Bill No. 1 Preliminaries and General				
		1	ı	i l	

	Brought Forward		R	
	SECTION C: SPECIFIC PRELIMINARIES			
1/1/132	GUARANTEE			
	Where guarantees are called for, the contractor shall obtain a written guarantee, addressed to the employer, from the firm supplying the materials and/or doing the work and shall deliver same to the principal agent on the certified completion of the contract. The guarantee shall state that workmanship, materials and installation are guaranteed for a specified period from the date of certified completion of the contract, and that any defects that may arise during the specified period shall be made good at the expense of the firm supplying the materials and/or doing the work, upon written notice from the principal agent to do so. This guarantee will not be enforced if the work is damaged by structural defects in the building in which case the responsibility for replacement shall rest entirely with the contractor unless found to be as a result of a design fault.			
	T:	Item		
1/1/133	SHOP DRAWINGS			
	The contractor and/or nominated/selected sub- contractor shall prepare and submit, at his own expense, three (3) copies of shop drawings of all fabricated work, working or setting out drawings shop details and schedules to the principal agent for approval prior to commencement of manufacture. Correction of shop drawings shall not constitute a change in scope of work unless the contractor notifies the Principal Agent in writing within seven (7) calender days and shall not proceed with fabrication until so authorised by the principal agent			
	F: V:			
	T:	Item		
	Carried Forward		R	
	Section No. 1 PRELIMINARIES & GENERAL Bill No. 1 Preliminaries and General			

	Brought Forward		R	
1/1/134	SAMPLES			
	Samples are physical examples furnished by the contractor to illustrate materials, equipment or workmanship and to establish standards by which the work will be judged. The contractor shall furnish without delay such samples and "mock ups" as may be called for by the Principal Agent, who may reject all material and workmanship not corresponding with the approved samples.			
	Samples must be submitted in duplicate or as instructed and must allow a reasonable time for their consideration.			
	Samples must be properly labelled with the project name and location, contractor's name, the type, finish composition of materials date of submission and the contract document reference in which the project is identified.			
	F: T:	Item		
1/1/135	SITE INSTRUCTIONS			
	Site instructions issued are to be recorded in triplicate in a site instruction book which is to be maintained on site by the contractor.			
	Site instructions to the various sub-contractors may be issued only by the Principal Agent and must be issued via the contractor.			
	Copies of all site instructions issued are to be submitted for the principal agent and the quantity surveyors within two (2) days of issue.			
	F: T:	Item		
	Carried Forward		R	
	Section No. 1 PRELIMINARIES & GENERAL Bill No. 1 Preliminaries and General			

	Brought Forward		R	
1/1/136	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 authorised in writing, prior to the execution thereof, that costs for such overtime are to be borne by the employer.			
	F: T:	Item		
1/1/137	CO-OPERATION OF CONTRACTOR FOR COST	itom		
	It is specifically agreed that the contractor accepts the obligation of assisting the professional consultants in implementing proper cost control in an effort to prevent the final building cost from exceeding the budget.			
	It is specifically agreed that the professionals and the contractor will endeavour to agree and sign off variations within sixty days of them arising.			
	F: T:	Item		
1/1/138	SITE LEVELS			
	Before commencement of the works, the contractor shall carry out and provide the principal agent, for approval, a survey of the existing site levels in sufficient details to enable the preparation of a final account.			
	F: T·	Item		
1/1/139	PROPRIETARY BRANDED PRODUCTS			
	The contractor shall take delivery of, handle, store, use apply and/or fix all proprietary branded products in strict accordance with the manufacturers' instruction after consultation with the manufacturer's authorised representative			
	F: T:	Item		
	Carried Forward		R	
	Section No. 1 PRELIMINARIES & GENERAL Bill No. 1 Preliminaries and General			

	Brought Forward		R		
1/1/140	AS BUILT DRAWINGS			1	
	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. F:	Item			
4 /4 /4 44		ltom			
1/1/141	In terms of the Occupational Health and Safety Regulations promulgated on 18 July 2003 and any latest editions/amendments, it will be expected from the contractor to comply fully with and adhere to all such regulations pertaining to this project as no claims in this regard will be entertained.				
	F: V: T:	Item			
1/1/142	COVID-19 RELATED ITEMS				
	In terms of the latest Covid-19 regulations and requirements, it will be expected from the contractor to comply fully with and adhere to all such regulations pertaining to this project as no claims in this regard will be entertained.				
	F:	Item			
	Carried to Final Summary		R		
	Section No. 1 PRELIMINARIES & GENERAL Bill No. 1 Preliminaries and General				



C4.2 BUILDING WORKS

Item No		Quantity	Rate	Amount
	SECTION NO. 2			
	BILL NO. 1			
	DEMOLITIONS AND ALTERATIONS			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Subterranean water			
	No subterranean water is expected			
	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			
	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 necessary multiple handling of material			
	Carried Forward Section No. 2		R	
	2 CLASSROOM BLOCK Bill No. 1			
	Demolitions and Alterations			

Brought Forward	R	
<u>Testing</u>		
Prices for filling are to include for all necessary density tests in accordance with SABS 1200D		
Existing structures		
In taking down and removing existing work, the utmost care shall be taken to prevent any structural or other damage to the remaining portions on the building and the Contractor shall provide all shoring, needling, strutting, etc. to ensure the stability of all structures during the alteration work, Any damage to the structure and/or building as well as the rectification of same will be for the contractor's account		
Services		
Special care shall be exercised during the progress of the work to ensure that electrical installation, water supply pipes, telephone and other services which may be encountered are not interfered with and notice shall be given to the Representative/Agent if any disconnection or alterations become necessary.		
Dust and noise		
The Contractor is to take all necessary precautions to the satisfaction of the Representative/Agent to prevent any nuisance from the dust and /or noise whilst carrying out the work.		
<u>Disposal of debris</u>		
The Contractor shall be responsible for the removal from site of all materials, debris and rubbish resulting from the work which removal is deemed to be included in the rates unless otherwise stated.		
Rates for taking out and removing doors and frames shall include for removing door stops, cabin hooks, etc and making good floor and wall finishes to match existing		
Making good of finishes shall include making good of the brick and concrete surfaces onto which the new finishes are applied, where necessary		
Carried Forward	R	
Section No. 2 2 CLASSROOM BLOCK Bill No. 1 Demolitions and Alterations		

		II I
Temporary support to openings through existing walls		
Making openings, altering openings in existing walls and removing lintels above existing openings shall be done with the utmost care to prevent any structural damage. All necessary supports, propping, shoring, needling, strutting, turning pieces, etc. to walls openings is deemed to be included in the contractor's rates.		
Electrical and Mechanical		
Where items include for taking down electrical and mechanical fittings the disconnection and making safe electrically is deemed to be included.		
GENERAL NOTES TO TENDERERS		
Tenderers are to inspect the drawings issued with these Bills of Quantities and to satisfy themselves with the nature and the requirements of the Contract works. Failure to do so will be the complete responsibility of the Tenderer and no claims whatsoever will be entertained in this regard.		
Tenderers are to read the descriptions, which are intended as a means of identifying various facets of the work, in conjunction with the drawings. Tenderers shall allow for all costs in connection with the various items taking full cognisance of both the drawings and the Bills of Quantities.		
Tenderers shall notify the Quantity Surveyor in writing of any discrepancies encountered upon which clarification will be given by the Quantity Surveyor in writing to the Tenderer. Failure to do so will be the complete responsibility of the Tenderer and no claims whatsoever will be entertained in this regard		
Carried Forward Section No. 2 2 CLASSROOM BLOCK Bill No. 1 Demolitions and Alterations		R

	Brought Forward			R	
	Tenderers are to note that setting out of the works will be the complete responsibility of the Tenderer and they should therefore acquaint themselves with the site boundaries, site co-ordinates, datum levels etc. Failure to do so will be the complete responsibility of the Tenderer and no claims whatsoever will be entertained in this regard. Tenderers are to note that all items with ZERO quantities are Rate Only items and should be priced as such.				
	Tenderers are to note that there might be specified suppliers to be used for certain trades as per the annexure to this tender document. Tenderers should familiarise themselves with the suppliers on the list and ensure to allow for accordingly. Failure to do so will be the complete responsibility of the Tenderer and no claims whatsoever will be entertained in this regard. Tenderers are to fully acquaint themselves with the construction period and shall allow for any night shift if required. Failure to do so will be the complete responsibility of the Tenderer and no claims whatsoever will be entertained in this regard.				
	REMOVAL OF EXISTING WORK				
	Taking down and removing roofs, floors, panelling, ceilings, partitions, tc				
2/1/1	Timber trusses and purlins	m2	211		
	Taking out and removing sundry joinery work				
2/1/2	Timber skirting from brickwork	m			
	Corried Equipment to Common of Continue No.				
	Carried Forward to Summary of Section No. Section No. 2 2 CLASSROOM BLOCK Bill No. 1 Demolitions and Alterations			R	<u> </u>

Item No		Quantity	Rate	Amount
	BILL NO. 2			
	EARTHWORKS (PROVISIONAL)			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.			
	GENERAL NOTES TO TENDERERS			
	General notes, described in Bill No.1, shall equally apply to this Bill.			
	NOTES			
	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			
	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			
	Excavations measured in successive depths of 2m.			
	SITE CLEARANCE ETC			
	Carried Forward		R	
	Section No. 2 2 CLASSROOM BLOCK Bill No. 2 Earthworks			

	Brought Forwar	rd		R	
	Site clearance				
2/2/1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc	m2	243		
	Carried Forwar	rd		R	
	Section No. 2 2 CLASSROOM BLOCK Bill No. 2 Earthworks				

	Brought Forward			R	
	EXCAVATIONS				
	Excavation in earth not exceeding 2m deep				
2/2/2	Trenches	m3	54		
	Extra over excavations in earth to trenches and holes for				
2/2/3	Excavation in soft rock	m3	5		
2/2/4	Excavation in hard rock	m3	3		
	CARTING AWAY OF EXCAVATED MATERIAL				
	Note:				
	Description 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.				
2/2/5	Extra over all excavation for carting away surplus material from excavation and / or stockpile on site to a dumping site to be located by the Contractor	m3	29		
	RISK OF COLLAPSE OF EXCAVATIONS				
	Risk of collapse to side of excavation in earth not exceeding 1,5m deep				
2/2/6	Trenches and holes	m2	154		
	FILLING, ETC.				
	Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO density in layers not exceeding 150mm thick				
2/2/7	Backfilling to trenches, holes, etc	m3	27		
2/2/8	Under floors, steps, pavings, etc	m3	114		
	Carried Forward			R	
	Section No. 2 2 CLASSROOM BLOCK Bill No. 2 Earthworks				

	Brought Forward			R	Τ
	Imported gravel filling (G7) stabilise with 2-3% cement compacted to 93% Mod AASHTO density in layers not exceeding 150mm thick				
2/2/9	Backfilling to trenches, holes, etc	m3	8		
2/2/10	Under floors, steps, pavings, etc	m3	24		
	Filling supplied by the Contractor under floors, trenches, etc.				
2/2/11	Sub-base filling (G5) from excavations under solid floors, steps, etc. compacted to 95% modified AASHTO density in layers not exceeding 150mm thick	m3	24		
	COMPACTION OF SURFACES				
2/2/12	Prepare ground surface by scarifying sub-grade, rip and re-compact 150mm to 90% modified AASHTO density	m2	216		
	WEED KILLERS, INSECTICIDES, TERMITES, etc.				
	Protection against termites, ants, etc				
2/2/13	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m2	216		
2/2/14	To bottom and sides of excavated trenches, Holes, etc.	m2	208		
	Carried Forward to Summary of Section No. Section No. 2 2 CLASSROOM BLOCK Bill No. 2 Earthworks			R	

Item No		Quantity	Rate	Amount
	BILL NO. 3			
	CONCRETE, FORMWORK AND REINFORCEMENT			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.			
	Cost of tests			
	The costs of making, storing and testing of concrete test cubes as required under clause 7, "Tests" of SANS 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 principal agent. The testing shall be undertaken by an independent firm or institution nominated by the contractor to the approval of the principal agent. (Test cubes are measured separately)			
	<u>Formwork</u>			
	Descriptions of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before 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.			
	Carried Forward Section No. 2 2 CLASSROOM BLOCK Bill No. 3 Concrete,Formwork and Reinforcement		R	

Brought Forward	R	
Formwork to soffits of solid slabs, etc. shall be deemed		
to be to slabs not exceeding 250mm thick unless		
otherwise described. Formwork to soffits of slabs,		
beams, etc. shall be deemed to be propped up		
exceeding 1,5m and not exceeding 3,5m high		
unless otherwise described.		
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".		
The Tenderer is to note that for the "off-shutter"		
concrete finish shall be in accordance with the		
architectural specification 616 CON-140: Smooth + fair		
finish:-		
Degree of accuracy: I		
Finish: Smooth and even		
Form facing material to produce a smooth, hard,		
uniform texture on the concrete		
Steel faced formwork. Joints grout-tight.		
Panels shall be as large as practicable and		
arranged in a regular pattern as a feature of the		
surface		
Formwork tie holes: to the approval of the architect		
Repair imperfections: not allowed. Tie bolt holes		
shall be patched		
Not permitted: blowholes, small fins, bulges,		
irregularities, voids, honeycombing, segregation		
and other large defects.		
Concrete surfaces: No further treatment to form		
a smooth finish of uniform texture, appearance		
and colour		
Structural Concrete		
Tenderers are referred to the Structural Engineer's -		
Standard Specifications which should be read before		
pricing this trade in particular, but also the other trades.		
The use of extenders, fly-ash, etc. are clearly described		
on this drawing.		
Carried Forward	R	
Section No. 2		
2 CLASSROOM BLOCK		
Bill No. 3		
Concrete,Formwork and Reinforcement	1	

	Brought Forward			R	
	GENERAL NOTES TO TENDERERS				
	General notes, described in Bill No.1, shall equally apply to this Bill.				
	UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES				
	15Mpa/19mm concrete				
2/3/1	Blinding	m3	3		
	REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACE				
	25MPa/19mm Concrete				
2/3/2	Strip footings	m3	13		
	REINFORCED CONCRETE CAST IN FORMWORK				
	20Mpa/19mm concrete				
2/3/3	Concrete Apron cast to fall etc,	m3	5		
	25MPa/19mm Concrete				
2/3/4	Surface beds cast in panels	m3	21		
	TEST BLOCKS				
	Notes:				
	Concrete strength test cubes, label and send to an approved laboratory for testing, pay all charges and submit report to the Regional Representative. Only successful tests will be paid for (Provisional)				
2/3/5	Making and testing 150 x 150 x 150mm concrete strength test cube (Provisional)	No	3		
	SUNDRIES TO CONCRETE				
	Carried Forward			R	
	Section No. 2 2 CLASSROOM BLOCK Bill No. 3 Concrete,Formwork and Reinforcement				

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	Brought Forward			K		
	Surface treatment					
2/3/6	Power float top surface of concrete surface bed to a true and even level finish	m2	216			
	ROUGH FORMWORK (DEGREE OF ACCURACY II)					
	Rough formwork to sides					
2/3/7	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	106			
	MOVEMENTS JOINTS ETC,					
	Saw cuts Joints					
2/3/8	3 x 30mm In saw cut joints in floors	m	36			
	Expansion joints					
2/3/9	10mm soft board or similar approved between concrete and brick wall	m	53			
	REINFORCEMENT (PROVISIONAL)					
	High and mild tensile steel reinforcement to structural concrete work					
2/3/10	All diameter bars	t	1			
	Fabric reinforcement:					
2/3/11	Type 245 fabric reinforcement in concrete surface beds, slabs, etc.	m2	163			
	Carried Forward to Summary of Section No.			R		
	Section No. 2					\vdash
	2 CLASSROOM BLOCK Bill No. 3					
	Concrete,Formwork and Reinforcement					

Item No		Quantity	Rate	Amount
	BILL NO. 4			
	MASONRY			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.			
	GENERAL NOTES TO TENDERERS			
	General notes, described in Bill No.1, shall equally apply to this Bill.			
	Sizes in descriptions			
	Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick			
	Hollow walls etc			
	Descriptions of hollow walls shall be deemed to include leaving every fifth perpend of the bottom course of the external skin open as a weep hole. Walls in two skins described as "bagged and sealed" shall be deemed to include having the outer face of the inner skin bagged with 1:6 cement and sand mixture and sealed with two coats "Brickseal" bitumen emulsion waterproofing coating.			
	Face bricks			
	Bricks shall be ordered timeously to obtain uniformity in size and colour			
	Carried Forward		R	
	Section No. 2 2 CLASSROOM BLOCK Bill No. 4 Masonry			

Brought Forward	R		
<u>Pointing</u>			
Descriptions of recessed pointing to fair face brickwork			
and face brickwork shall be deemed to include square			
recessed, hollow recessed, weathered pointing, etc			
Carried Forward	R		
Section No. 2 2 CLASSROOM BLOCK			
Bill No. 4 Masonry			
J			

	Brought Forward			R	—
	BRICKWORK IN FOUNDATION				
	Brickwork in 73mm burnt clay masonry units class NFP in Class II mortar, laid in stretcher bond with 10mm flush joints				
2/4/1	One brick wall	m2	58		
	SUPERSTRUCTURE BRICKWORK				
	Brickwork of NFP brick in class II mortar laid in stretcher bond with 10mm flush joints				
2/4/2	One brick wall	m2	173		
2/4/3	Half brick wall, in beamfilling	m2	8		
	FACE BRICKWORK				
	Bricks shall be ordered timeously to obtain uniformity in size and colour				
	"Corobrick" face bricks (Colour: TBC) with PC sum amount of R 4 500.00 per thousand bricks delivered to site (excluding VAT) manufactured in accordance with SANS 227-2007, bedded and jointed in Class II mortar and pointed with recessed 6mm joints in both directions				
2/4/4	Extra over brickwork for face brickwork in foundations (Provisional)	m2	116		
2/4/5	Extra over brickwork for face brickwork in superstructure	m2	151		
2/4/6	Extra over brickwork for face brickwork in brick-on-edge header course lintel	m	23		
2/4/7	Extra over brickwork for face brickwork in brick-on-edge header course sills, bedded in mortar and set slightly sloped	m	22		
2/4/8	Extra over brickwork for face brickwork in beamfilling	m2	8		
	BRICKWORK SUNDRIES				
	Carried Forward			R	—
	Section No. 2 2 CLASSROOM BLOCK Bill No. 4 Masonry			,	

	Brought Forward			R	
	Brickwork reinforcement				
2/4/9	150mm Wide reinforcement built in horizontally.	m	849		
	"Allied concrete" or similar approved prestressed fabricated lintels				
2/4/10	100 x 70mm Lintels in lengths not exceeding 3m	m	27		
2/4/11	175 x 70mm Lintels in lengths not exceeding 3m	m	2		
	Turning pieces				
2/4/12	110mm Wide turning piece to flat brick lintels	m	23		
	Air bricks etc				
2/4/13	Set of 2 240 x 155mm Terracota air bricks as per architects specification	No	2		
	Fair cutting to face brickwork				
	Roof ties				
2/4/14	30 x 1.2mm galvanised steel strapping, built into wall for 5 courses and minimum 800mm to be fixed to trusses	No	50		
	MOVEMENTS JOINTS ETC,				
	Expansion joints				
2/4/15	30mm softboard between vertical brick surfaces not exceeding 300mm wide	m2	11		
	Carried Forward to Summary of Section No. Section No. 2 2 CLASSROOM BLOCK Bill No. 4 Masonry			R	
	,				

Item No			Quantity	Rate	Amount
	BILL NO. 5				
	WATERPROOFING				
	PREAMBLES				
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.				
	SUPPLEMENTARY PREAMBLES				
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.				
	GENERAL NOTES TO TENDERERS				
	General notes, described in Bill No.1, shall equally apply to this Bill.				
	DAMP PROOFING OF WALLS AND FLOORS				
	One layer of 375 micron "Consol Plastic Brikgrip DPC" embossed damp proof course				
2/5/1	Under walls	m2	2		
2/5/2	Under cills, etc.	m2	5		
	One layer of 250 micron "USB Green" or similar approved dampproof membrane sealed at laps with PVC self -adhesive tape				
2/5/3	Under surface beds.	m2	216		
	JOINTS SEALANTS, ETC.				
	Mastic grey polysulphide sealing compound including raking out of joints filler as necessary				
2/5/4	3 x 30mm In saw cut joints in floors	m	36		
2/5/5	10mm Isolation Joints between surface bed concrete and brick wall	m	53		
	Carried Forward to Summary of Section No. Section No. 2			R	
	2 CLASSROOM BLOCK Bill No. 5 Waterproofing				

Item No		(Quantity	Rate	Amount
	BILL NO. 6				
	ROOF COVERINGS				
	PREAMBLES				
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.				
	SUPPLEMENTARY PREAMBLES				
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.				
	GENERAL NOTES TO TENDERERS				
	General notes, described in Bill No.1, shall equally apply to this Bill.				
	ROOF SHEETING				
	Similar Approved				
	0.6mm thick "Brownbuilt Klip-lok light Industrial" galvanised troughed roof sheeting with "Chromadek - Traffic Green" finish on one side, and 0.6mm galvanised steel accessories fixed to timber purlins or rails fixed in strict accordance to the manufacturer's instructions and fixed by an approved erector. A written and approved five (5) year guarantee of water-tightness shall be issued after approval of roofs by the manufacturer				
2/6/1	Roof sheeting pitch not exceeding 25 degrees	m2	253		
2/6/2	550mm girth Ridge capping, 3 times bent and notched on site to suit roof profile	m	18		
2/6/3	550mm girth Hip capping, 3 times bent and notched on site to suit roof profile.	m	20		
	Carried Forward Section No. 2 2 CLASSROOM BLOCK Bill No. 6			R	
	Roof Coverings				

	Brought Forward		R	
	ROOF AND WALL INSULATION			
	Similar Approved			
	Sisalation "Bubble Foil" aluminium foil binded insulation			
2/6/4	135mm thick Insulation laid over purlins (at approximately 750mm centres), fixed concurrent with sheeting with and including galvanised steel accessories m2	253		
	Carried Forward to Summary of Section No. Section No. 2		R	
	2 CLASSROOM BLOCK Bill No. 6			
	Roof Coverings			

Item No		Quantity	Rate	Amount
	BILL NO. 7			
	CARPENTRY AND JOINERY			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.			
	GENERAL NOTES TO TENDERERS			
	General notes, described in Bill No.1, shall equally apply to this Bill.			
	Joinery			
	Descriptions of frames shall be deemed to include frames, transoms, mullions, rails, etc.			
	Descriptions of hardwood joinery shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete.			
	<u>Fixing</u>			
	Items described as nailed shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete			
	Decorative laminate finish			
	Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish			
	<u>Timber</u>			
	All softwood to be South African Pine			
	Carried Forward		R	
	Section No. 2 2 CLASSROOM BLOCK Bill No. 7			
	Carpentry and Joinery			

Brought Forward	R	
<u>Descriptions</u>		li
Items described as "bolted" shall be deemed to exclude the bolts and include the holes unless otherwise described.		
Where the fixing of members is not stated it shall mean the nailing of one timber member to another.		
The term "planted on" shall mean the nailing of one timber member to another		
The term "screwed on" shall mean the countersunk screwing of one timber member to another.		
The term "screwed on and pelleted" shall mean the screwing of one timber member to another with the heads of screw sunk and pelleted.		
The term "plugged" shall mean the countersunk screwing of a timber member to and including plastic plugs in brickwork or concrete.		
The term "plugged and pelleted" shall mean the screwing of a timber member to and including plastic plugs in brickwork or concrete with heads of screw sunk and pelleted.		
Shelving, etc. described as screwed to steel must be fixed from underside and prices are to include for countersunk drilling through the steel for screw fixing.		
Descriptions of floors, ceilings, joinery, etc. shall be deemed to include for all square cutting		
Descriptions of items given in linear metre shall be deemed to include for mitres, stopped ends, fitted intersections, etc.		
Descriptions of rounded angles, rebates, grooves, chamfers, moulded edges, etc. shall be deemed to include for angles, ends, etc.		
Carried Forward	R	
Section No. 2 2 CLASSROOM BLOCK Bill No. 7		
Carpentry and Joinery		

	Brought Forward			R	
	ROOFS, ETC				
	Plate nailed timber roof truss construction				
	The following is applicable in respect of roof trusses:				
	All timber to be sawn softwood in accordance with V4 or M4 as defined in SABS 563 or SABS 1245.				
	Metal connector plates shall have a minimum yield strength of 228 MPa and a minimum ultimate tensile strength of 330 Mpa with hot-dip galvanised finish.				
	All joints to be close fitted butt joints.				
	Trusses shall be designed by a registered supplier of prefabricated trusses who shall issue an Engineers Certificate upon completion of the installation.				
	The dimensions in the descriptions of the trusses are nominal and actual measurements are to be obtained on site before design or fabrication commences.				
	Tenderers must study the roof plan and sections as attached to the back of these bills of quantities and must obtain prices from a qualified and registered roof truss supplier as no claims in this regard will be entertained.				
	Roof trusses				
2/7/1	Design, supply, take delivery, temporary store, hoist in position and erect plate nailed timber roof trusses, purlins, gang boarding, temporary and permanent bracing, etc (measured on plan)	m2	211		
	Sawn softwood				
2/7/2	38 x 114mm Wall plates	m	60		
	<u>Sundries</u>				
2/7/3	Two coats creosote on sawn timbers	m2	22		
	Similar Approved				
	Carried Forward			R	
	Section No. 2 2 CLASSROOM BLOCK Bill No. 7 Carpentry and Joinery				

	Brought Forward			R	
	"Everite FC77" Fascia and badge boards				
2/7/4	15 x 225mm Pressed fibre cement fascia boards, fixed to supports and roof timbers with one brass screw at maximum 750mm centres, including standard aluminium half round cover strips at all joints, as per architect's specification	m	60		
	DOORS ETC				
	44mm thick solid R&F panel meranti timber doors with masonite backing with 15 horizontal slates on both sides hung to steel frames				
2/7/5	813 x 2032mm single door	No	2		
	WINDOWS				
	Similar Approved				
	"Nutec" fibre cement window cills				
2/7/6	150mm x 15mm thick fibre cement Window sill set flat and slightly projecting, with window sill lug screwed to underside of sill at 400mm centres, minimum of 75mm from end of window sill and bedded in 1:4 cement sand mortar with plastic slip joints at end of sills at plaster reveals and projecting from finished face of wall, all as				
	per manufacturer's recommendations	m	22		
	Carried Forward to Summary of Section No. Section No. 2			R	<u> </u>
	2 CLASSROOM BLOCK Bill No. 7				
	Carpentry and Joinery				

Item No		Quantity	Rate	Amount
	BILL NO. 8			
	CEILINGS, PARTITIONS AND ACCESS FLOORING			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.			
	GENERAL NOTES TO TENDERERS			
	General notes, described in Bill No.1, shall equally apply to this Bill.			
	<u>Fixing</u>			
	Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 500mm centres, and where described as "bolted", the bolts have been given elsewhere.			
	Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins, or to be shot-pinned, to brickwork or concrete			
	Ceilings & Bulkheads			
	Unless otherwise described ceilings shall be deemed to be horizontal			
	Steel components			
	All steel components for ceilings, partitions, etc are to be galvanised in accordance with SANS 121			
	Carried Forward		R	
	Section No. 2 2 CLASSROOM BLOCK Bill No. 8			
	Ceilings,Partitions and Access Flooring			

	Brought Forward		R	_
	Proprietary suspended ceilings			
	Hangers, suspension grids, "lay-in" panels, etc are to be in accordance with the manufacturers' recommendations			
	Where electrical light fittings, diffusers, panels etc are units of the same dimensions as the suspension grid described and allowance must be made in the rates accordingly for their support inclusive of any flexibility in setting out that may be required (ceiling panels have not been deducted and pricing is to take cognisance thereof)			
	Suspension systems			
	Where suspensions of ceilings require a sub-grid, the tenderer should include in his rates for the sub-grid. The design of the sub-grid support is not specified, the tenderer is to obtain the necessary requirements and recommendations for a safe installation from the board and suspension system manufacturer to the satisfaction of the structural engineer.			
	NAILED UP CEILINGS			
	FIBRE - CEMENT BOARDS			
	Similar Approved			
	6mm "Everite Nutec" Fibre-cement boards, jointed with and including galvanised H-type primed pressed steel jointing strips, including brandering as per architect's specifications			
2/8/1	2400 x 1200mm x 6mm Horizontal ceilings, fixed to and including 38 x 38mm sawn softwood brandering at maximum 400mm centres using 38mm long galvanised nails	143		
	CORNICES			
	Similar Approved			
	"Rhino" plasterboard cornice			
2/8/2	75mm Coved cornice, plugged to brickwork	99		
	Carried Forward		Ь	_
	Section No. 2 2 CLASSROOM BLOCK Bill No. 8 Ceilings,Partitions and Access Flooring		R	

	Brought Forward		R	
	CEILING INSULATION			
	Insulation			
2/8/3	125mm thick Glass wool insulation blanket closely fitted and laid on top of ceiling panels, all in strict accordance with the manufacturer's specifications. m2	143		
	Carried Forward to Summary of Section No. Section No. 2 2 CLASSROOM BLOCK Bill No. 8 Ceilings, Partitions and Access Flooring		R	

Item No		Quantity	Rate	Amount
	BILL NO. 9			
	IRONMONGERY			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.			
	GENERAL NOTES TO TENDERERS			
	General notes, described in Bill No.1, shall equally apply to this Bill.			
	Where ironmongery is described as plugged, prices are to include for screwing to and including approved patent plugs in concrete or brickwork with plaster or tiled finish, etc.			
	Proprietary items			
	Where applicable the manufacturers' names or product catalogue titles are given in sub-headings preceding the items			
	Prices are to be based on the specific products/articles specified. If tenderers wish to offer alternative products/articles for certain items, these items are to be clearly marked and the alternative specification given with supporting brochures etc clarifying the features of the products/articles offered			
	On request returnable samples are to be provided to the principal agent for consideration			
	Carried Forward		R	
	Section No. 2 2 CLASSROOM BLOCK Bill No. 9 Ironmongery			

	Brought Forward			R	
	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 AN Anodised natural AS Anodised silver AB Anodised bronze AG Anodised gold ABL Anodised black PB Polished brass PL Polished and lacquered PT Epoxy coated SD Sanded				
	Rates The tenderer is to price for supply, taking delivery of,				
	storing and fixing of the ironmongery listed below.				
	PINNING BOARDS, WRITING BOARDS, PROJECTION SCREENS, etc.				
	Approved				
2/9/1	White magnetic boards 4000mm x 1200mm high with aluminium frame plugged @ 1100mm above floor level on centre of the wall	No	2		
	Swing type Green Chalkboard to comply with CKS- 36-1980 or equivalent code of practice, complete with chalk rail as one unit strictly in accordance to manufacturers instructions				
2/9/2	Overall size 4000 wide x 1250mm high consisting of one chalkboard 1800mm wide, two chalkboards 900mm wide and 2000 x 1250mm high two swing type chalkboards, fixed 900mm high from finished floor level	No	2		
	SUNDRIES				
	Carried Forward Section No. 2 2 CLASSROOM BLOCK Bill No. 9 Ironmongery			R	

	Brought Forward		R	
	Approved			
2/9/3	"CZ8730SC" Door stop or similarly approved to wall or floors No	2		
	Carried Forward to Summary of Section No.		R	
	Section No. 2 2 CLASSROOM BLOCK Bill No. 9			
	Ironmongery			

Item No		Quantity	Rate	Amount
	BILL NO. 10			
	METALWORK			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.			
	GENERAL NOTES TO TENDERERS			
	General notes, described in Bill No.1, shall equally apply to this Bill.			
	ALUMINIUM			
	The contractor is to make due allowance in his prices for complying with the following requirements.			
	SPECIFICATIONS			
	User Note:			
	Glazing			
	All Safety glazing material (individual panes) are to conform to all standards as stipulated in SANS 10400 Part N and SANS 10137 and any additional Engineer Specifications or relevant SANS glazing regulations not stipulated in this document. All tenderers are referred to the drawings for the glazing specification.			
	<u>Ironmongery</u>			
	All rates for windows, shopfronts and doors etc. must include for the supply, taking delivery or/and installation of the ironmongery to be specified.			
	Carried Forward Section No. 2		R	
	2 CLASSROOM BLOCK Bill No. 10 Metalwork			

Brought	Forward	R	
<u>Actuators</u>			
All rates for shopfronts with actuators to include supply and installation of actuators as specified	or the		
Scaffolding			
All scaffolding should be provided by the contractor and no claims/ qualifications will be accepted.			
<u>Protection</u>			
With this tender, the glazing sub-contractor must a statement concerning protection that will be protection to finishes and components until Practical Components to include specific references to the method removal of such protection. All tenderers to include cost of protection in tenderers.	ovided etion. of		
Installation			
All measurements to be checked on site prior to ordering and manufacturing.			
Aluminium sections and shop drawings to be accept Architect prior to manufacturing.	repted		
Allow for water and weather proof polysulphide s to approved specifications all around frame junct plaster and other materials.			
<u>Profiles</u>			
Tenderers to provide typical details of proposed aluminium section to be used in the design.			
Structural Silicone			
Tenderers to allow a 10 year guarantee on all powdercoating.			
Preliminary and Shop Drawings:			
The contractor shall submit preliminary design design design basic system sections for the Architect's approval.			
Carried	Forward	R	
Section No. 2 2 CLASSROOM BLOCK Bill No. 10 Metalwork			

Brought Forward	F	
After approval and prior to fabrication detailed shop drawings shall be prepared and submitted to the Architect for approval.		
Fixing:		
The contractor is to take special note of all fixing details of all aluminium elements and must allow in his price for properly securing the aluminium sections to the structure with and including all necessary steel brackets, rails, timber grounds and sub-frames, including all necessary holing and bolting, etc. This fixing is to be adequately spaced and securely fixed to ensure total stiffness of the door frames, windows, etc. as no sagging causing improper functioning of the windows and doors will be accepted.		
<u>Deflection of structure:</u>		
The contractor is advised to make adequate provision for the design deflection of the structure.		
Tolerances:		
Sizes are approximate only and measurements on site must be taken before fabrication. Due allowance must be made for tolerances in accordance with the Architect's details.		
Protection:		
The contractor will be required to protect his work during the course of construction, which protection shall be adequate for the purpose and to the full approval of the Architect.		
Such protection shall only be removed after a written instruction from the Architect.		
Cleaning:		
All work must be cleaned down upon completion. Glazing as installed will not be accepted as clean glass and the contractor must allow for polishing glass as and when instructed by the Architect.		
Note: All windows and doors should be read in conjunction with window and door schedules		
Carried Forward	F	
Section No. 2 2 CLASSROOM BLOCK Bill No. 10 Metalwork		

Brought Forward	R	
		<u></u>
Carried Forward	R	
Section No. 2 2 CLASSROOM BLOCK Bill No. 10		
Metalwork		

	Brought Forward			R	
	WELDED SCREENS, GATES, ETC.				
	Welded MS gate consisting of 50 x 50 x 2.5mm rectangular tubing section frame with 45 degrees mitre at corners, bolted to reveals with 10mm (10M) rawlbolts and welded with 50 x 50 x 5mm mild steel to walls, with 50 x 50 x 2.5mm mild steel rectangular tube gate leaf with 45 degree mitre at corners and two 50 x 50 x 2.5mm horizontal sections, with 12 x 12mm mild steel vertical style solid square bars at 100mm c/c, including 3x pair of 20mm diameter bullet-hinges per gate, with "Solid blesbok" 460/313 four lever lockset with rebate set, including welding, bolting, holes, bolts etc., all complete as per the architect's specifications				
2/10/1	Steel gate to door, size 813mm x 2032mm high	No	2		
	PRESSED STEEL DOOR FRAMES				
	1.2mm thick Single rebated frame suitable for one brick walls, complete with lugs and base ties, with red oxide primer factory finish by manufacturer				
2/10/2	813 x 2032mm single door	No	2		
	WINDOWS FRAMES, etc.				
	Standard mild steel school type Top-hung open out window frame (with brass fittings), with burglar bars to opening and fixed sections, consisting of 10mm diameter mild steel round bars to standard NBP2 pattern, welded at intersections and window frames, all as per architect's specification				
2/10/3	Window size 1143 x 1272mm high	No	19		
	ALUMINIUM WINDOWS, DOORS, ETC				
	304/VEM 320G expanded metal mesh size 1200mm x 2400mm manufactured in accordance with SANS 190-1:1983 fixed to 76 x 50mm timber purlins using 40x 0.5mm hat channels @ 400mm centres with 12 x 20mm tac screws.				
2/10/4	In Ceiling voids	m2	114		
	Carried Forward			R	
	Section No. 2 2 CLASSROOM BLOCK Bill No. 10 Metalwork				

	Brought Forward		R	
	STEEL COLUMNS AND BEAMS			
	Welded columns and beams in single lengths with flat section bearer and connection plates bolted and welded to			
2/10/5	76 x 76 x 3mm x 6.54kg/m Mild steel square tubing column kg	140		
	Carried Forward to Summary of Section No.		R	
	Section No. 2 2 CLASSROOM BLOCK Bill No. 10 Metalwork			
	IVIELAIWUIK			

Item No			Quantity	Rate	Amount
	BILL NO. 11				
	PLASTERING				
	PREAMBLES				
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.				
	SUPPLEMENTARY PREAMBLES				
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.				
	GENERAL NOTES TO TENDERERS				
	General notes, described in Bill No.1, shall equally apply to this Bill.				
	<u>SCREEDS</u>				
	Granolithic screed on concrete, worked down to a true and even surface with a wood trowel				
2/11/1	30mm Thick on floors	m2	30		
	INTERNAL PLASTER				
	One coat smooth 1:5 cement sand plaster on brickwork to receive finish				
2/11/2	On brick walls	m2	191		
2/11/3	On narrow widths	m2	19		
	CORNER PROTECTORS, DIVIDING STRIPS, ETC				
2/11/4	Aluminium straight edge M-trim suitable for under- screed fixing in vinyl/ceramic, etc. installed as per manufactures recommendation and specification.	m	2		
	Carried Forward to Summary of Section No.			R	
	Section No. 2 2 CLASSROOM BLOCK Bill No. 11				
	Plastering				

Item No		Quantity	Rate	Amount
	BILL NO. 12			
	TILING			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.			
	Pricing			
	Prices are to included for the following: Cutting, handling, labour, adhesive etc.			
	<u>Fixing</u>			
	Tiling described as "fixed with adhesive on power floated concrete" shall be deemed to include for approved tiling key-coat.			
	Ceramic, porcelain, marble and granite tiles are to be fixed, grouted and pointed with suitable adhesives and grouts, as recommended by the Architect. Costs are hereby deemed to include the cost of this requirement.			
	Payment for work that is deemed measurable, in respect of the conditions of contract, and which comprises cutting, leaving, or forming, rectangular holes and notches through tiling is hereby deemed to apply only to holes and notches that do not exceed 600mm girth. Those exceeding 600mm in girth are hereby deemed to be "square cutting", which is hereby deemed to be part of the work description for that type of tiling and is not measurable as a separate item of work.			
	<u>Wastage</u>			
	Tile wastage in excess of 10% will be for the tenderer's account.			
	Carried Forward		R	
	Section No. 2 2 CLASSROOM BLOCK Bill No. 12 Tiling			

	Brought Forward			R	
	GENERAL NOTES TO TENDERERS				
	General notes, described in Bill No. 1, shall equally apply to this Bill.				
	<u>Note</u>				
	All scaffolding should be provided by the contractor and no claims/qualifications will be accepted.				
	FLOOR TILING				
	420 x 420 x 11.5mm Thick non-slip ceramic tiles (P.C allowance of R 200.00/m2 excludes V.A.T. but includes delivery to site), includes waste, laying, supply and fixing with an approved adhesive and jointing in waterproof cementetious grout				
2/12/1	On floors	m2	120		
2/12/2	75mm high skirting	m	63		
	ATTIC STOCK				
2/12/3	420 x 420 x 11.5mm Thick non-slip ceramic tiles (P.C allowance of R 200.00/m2 excludes V.A.T. but includes delivery to site)	m2	12		
	SUNDRIES				
	10mm aluminium straight edge trim				
2/12/4	Dividing strip between tiles and door frames	m	2		
	Comind Francisco Communication				
	Carried Forward to Summary of Section No. Section No. 2 2 CLASSROOM BLOCK Bill No. 12 Tiling			R	

Item No		Quantity	Rate	Amount
	BILL NO. 13			
	PLUMBING AND DRAINAGE (PROVISIONAL)			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.			
	uPVC pipes and fittings:			
	Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings			
	uPVC pressure pipes and fittings:			
	Pipes for water supply shall be of the class stated			
	Excavations:			
	No claim for excavation in material other than "earth" will be entertained unless the contractor has timeously notified the quantity surveyor thereof prior to backfilling, and has obtained, in writing, authorised classification thereof.			
	"Intermediate material" and " hard rock" shall be as defined in "Earthworks".			
	Quantities of all excavations, carting away excavated material and backfilling are calculated on the nett extent to be formed, or filled, in accordance with drawings and specifications, and the Contractor is to allow in his prices for any bulking.			
	Classes of excavation shall be as S.A.B.S 1200D clause 3.1.2.			
	Carried Forward		R	
	Section No. 2 2 CLASSROOM BLOCK Bill No. 13 Plumbing and Drainage			

	Brought Forward			R	
	Laying, backfilling, bedding, etc., of pipes:				
	Pipes shall be laid and bedded, and trenches shall be carefully backfilled, in accordance with the specific instructions				
	GENERAL NOTES TO TENDERERS				
	General notes, described in Bill No.1, shall equally apply to this Bill.				
	RAINWATER GOODS				
	Similar Approved				
	<u>Gutters</u>				
2/13/1	100 x 100 x 0.6mm thick Ogee profile eaves gutter aluminium box gutter, fixed with and including fixing clips to fascia boards	m	60		
2/13/2	Extra over eaves gutter for stopped end	No	8		
2/13/3	Extra over eaves gutter for corner	No	25		
2/13/4	Extra over eaves gutter for outlet	No	6		
	Rainwater downpipes				
2/13/5	100mm diameter x 0.6mm thick rainwater downpipe with Chromadek finish (Colour: TBC), fixed with and including brackets to wall face, with brackets spaced as per manufacturer's recommendations, and with downpipes spaced as per engineer's specification	m	21		
2/13/6	Extra over downpipe for offset	No	12		
2/13/7	Extra over downpipe for shoe	No	6		
	SANITARY FITTINGS				
	Refer to sanitary schedule drawing for full description of abbreviations				
	FIRE FIGHTING EQUIPMENT				
	Carried Forward			D	
	Section No. 2 2 CLASSROOM BLOCK Bill No. 13 Plumbing and Drainage			R	

	Brought Forward		R	
	Extinguishers including initial charge and setting up in position:			
2/13/8	9kg dry chemical powder fire extinguisher No	4		
2/13/9	Fire hose reel with 30m plastic hose, chromium plated stopcock, shut-off nozzle and wall bracket No	4		
	Carried Forward to Summary of Section No.		R	
	Section No. 2 2 CLASSROOM BLOCK			<u></u>
	Bill No. 13 Plumbing and Drainage			
				ı

Item No		Quantity	Rate	Amount
	BILL NO. 14			
	<u>GLAZING</u>			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.			
	GENERAL NOTES TO TENDERERS			
	General notes, described in Bill No. 1, shall equally apply to this Bill.			
	Note:			
	All glazing to comply with SABS 1263 Part 3:1998. Light and ventilation to comply with Part O if NBR 0400			
	GLASS TO STEEL WITH PUTTY			
	5mm clear floated glass fixed glazing putty			
2/14/1	Panes exceeding 0.1m2 and not exceeding 0.5m2 m2	28		
	Carried Forward to Summary of Section No.		R	
	Section No. 2 2 CLASSROOM BLOCK Bill No. 14			
	Glazing			

Item No			Quantity	Rate	Amount
	BILL NO. 15				
	PAINTWORK				
	PREAMBLES				
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.				
	SUPPLEMENTARY PREAMBLES				
	Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.				
	GENERAL NOTES TO TENDERERS				
	General notes, described in Bill No. 1, shall equally apply to this Bill.				
	PAINTWORK ETC TO NEW WORK				
	FIBRE CEMENT				
	Prepare and apply one coat universal undercoat and two coats Super Acrylic PVA paint or similar approved, colour to be confirmed by architect				
2/15/1	On internal ceilings and cornices	m2	151		
2/15/2	Fibre cement fascias boards not exceeding 300mm high or wide painted on both side	m	60		
	FLOATED PLASTER INTERNAL WALLS				
	Prepare and apply one coat merit universal undercoat and two coats Super Acrylic PVA paint or similar approved, colour to be confirmed by architect				
2/15/3	Plastered walls	m2	191		
	METAL SURFACES				
	Carried Forward Section No. 2 2 CLASSROOM BLOCK			R	
	Bill No. 15 Paintwork				

	Brought Forward			R	Γ
	Prepare and apply one coat Duraphos, one coat universal under coat and two coats gloss enamel paint, colour to be confirmed by architect				
2/15/4	On gates, grilles, burglar screens, balustrades, etc (both sides measured on full flat area)	m2	8		
2/15/5	On window frames	m2	28		
2/15/6	On door frames	m2	3		
2/15/7	On mild steel columns, beams, etc	m2	6		
2/15/8	On gutters	m	60		
2/15/9	On downpipes	m	21		
	WOOD				
	Prepare and paint three coats clear varnish:				
2/15/10	On door	m2	7		
					_
	Carried Forward to Summary of Section No. Section No. 2			R	
	2 CLASSROOM BLOCK Bill No. 15				
	Paintwork				

LIMPOPO DEPARTMENT OF EDUCATION UPGRADES AND ADDITIONS AT CHAMETI HIGH SCHOOL

	SECTION SUMMARY			
Bill No	<u>SESTION COMMERNIA</u>	Page No		Amount
2/1	Demolitions and Alterations	2/4		
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2/6	Roof Coverings	2/19		
2/7	Carpentry and Joinery	2/23		
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	Carried to Final Summary		R	
	Section No. 2 2 CLASSROOM BLOCK			
			l	

Item No		Quantity	Rate	Amount
	SECTION NO. 3			
	BILL NO. 1			
	DEMOLITIONS AND ALTERATIONS			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Subterranean water			
	No subterranean water is expected			
	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			
	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 necessary multiple handling of material			
	Carried Forward		R	
	Section No. 3 3 CLASSROOM BLOCK X 4 Bill No. 1 Demolitions and Alterations			
	Demolitions and Alterations			

Brought Forward	R	
Testing		
Prices for filling are to include for all necessary density tests in accordance with SABS 1200D		
Existing structures		
In taking down and removing existing work, the utmost care shall be taken to prevent any structural or other damage to the remaining portions on the building and the Contractor shall provide all shoring, needling, strutting, etc. to ensure the stability of all structures during the alteration work, Any damage to the structure and/or building as well as the rectification of same will be for the contractor's account		
<u>Services</u>		
Special care shall be exercised during the progress of the work to ensure that electrical installation, water supply pipes, telephone and other services which may be encountered are not interfered with and notice shall be given to the Representative/Agent if any disconnection or alterations become necessary.		
<u>Dust and noise</u>		
The Contractor is to take all necessary precautions to the satisfaction of the Representative/Agent to prevent any nuisance from the dust and /or noise whilst carrying out the work.		
Disposal of debris		
The Contractor shall be responsible for the removal from site of all materials, debris and rubbish resulting from the work which removal is deemed to be included in the rates unless otherwise stated.		
Rates for taking out and removing doors and frames shall include for removing door stops, cabin hooks, etc and making good floor and wall finishes to match existing		
Making good of finishes shall include making good of the brick and concrete surfaces onto which the new finishes are applied, where necessary		
Carried Forward	R	
Section No. 3 3 CLASSROOM BLOCK X 4 Bill No. 1		
Demolitions and Alterations		

Brought Forward	R	
Temporary support to openings through existing walls		
Making openings, altering openings in existing walls and removing lintels above existing openings shall be done with the utmost care to prevent any structural damage. All necessary supports, propping, shoring, needling, strutting, turning pieces, etc. to walls openings is deemed to be included in the contractor's rates.		
Electrical and Mechanical		
Where items include for taking down electrical and mechanical fittings the disconnection and making safe electrically is deemed to be included.		
GENERAL NOTES TO TENDERERS		
Tenderers are to inspect the drawings issued with these Bills of Quantities and to satisfy themselves with the nature and the requirements of the Contract works. Failure to do so will be the complete responsibility of the Tenderer and no claims whatsoever will be entertained in this regard.		
Tenderers are to read the descriptions, which are intended as a means of identifying various facets of the work, in conjunction with the drawings. Tenderers shall allow for all costs in connection with the various items taking full cognisance of both the drawings and the Bills of Quantities.		
Tenderers shall notify the Quantity Surveyor in writing of any discrepancies encountered upon which clarification will be given by the Quantity Surveyor in writing to the Tenderer. Failure to do so will be the complete responsibility of the Tenderer and no claims whatsoever will be entertained in this regard		
Carried Forward Section No. 3 3 CLASSROOM BLOCK X 4 Bill No. 1	R	
Demolitions and Alterations		

	Brought Forward			R		
	Tenderers are to note that setting out of the works will be the complete responsibility of the Tenderer and they should therefore acquaint themselves with the site boundaries, site co-ordinates, datum levels etc. Failure to do so will be the complete responsibility of the Tenderer and no claims whatsoever will be entertained in this regard. Tenderers are to note that all items with ZERO					
	quantities are Rate Only items and should be priced as such.					
	Tenderers are to note that there might be specified suppliers to be used for certain trades as per the annexure to this tender document. Tenderers should familiarise themselves with the suppliers on the list and ensure to allow for accordingly. Failure to do so will be the complete responsibility of the Tenderer and no claims whatsoever will be entertained in this regard.					
	Tenderers are to fully acquaint themselves with the construction period and shall allow for any night shift if required. Failure to do so will be the complete responsibility of the Tenderer and no claims whatsoever will be entertained in this regard.					
	REMOVAL OF EXISTING WORK					
	<u>Taking down and removing roofs, floors, panelling, ceilings, partitions, tc</u>					
3/1/1	Timber trusses and purlins	m2	1 232			
	Taking out and removing sundry joinery work					
3/1/2	Timber skirting from brickwork	m				
	Carried Forward to Summary of Section No.			R		
	Section No. 3 3 CLASSROOM BLOCK X 4					
	Bill No. 1 Demolitions and Alterations					
					1	1

Item No		Quantity	Rate	Amount
	BILL NO. 2			
	EARTHWORKS (PROVISIONAL)			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.			
	GENERAL NOTES TO TENDERERS			
	General notes, described in Bill No.1, shall equally apply to this Bill.			
	NOTES			
	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			
	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			
	Excavations measured in successive depths of 2m.			
	SITE CLEARANCE ETC			
	Carried Forward		R	
	Section No. 3 3 CLASSROOM BLOCK X 4 Bill No. 2 Earthworks			

	Brought Forward		R	-
	Site clearance			
3/2/1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc m2	1 426		
	Carried Forward Section No. 3 3 CLASSROOM BLOCK X 4 Bill No. 2 Earthworks		R	_
	Laithworks			

	Brought Forward			R	
	EXCAVATIONS				•
	Excavation in earth not exceeding 2m deep				
3/2/2	Trenches	m3	339		
	Extra over excavations in earth to trenches and holes for				
3/2/3	Excavation in soft rock	m3	34		
3/2/4	Excavation in hard rock	m3	17		
	CARTING AWAY OF EXCAVATED MATERIAL				
	Note:				
	Description 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.				
3/2/5	Extra over all excavation for carting away surplus material from excavation and / or stockpile on site to a dumping site to be located by the Contractor	m3	185		
	RISK OF COLLAPSE OF EXCAVATIONS				
	Risk of collapse to side of excavation in earth not exceeding 1,5m deep				
3/2/6	Trenches and holes	m2	968		
	FILLING, ETC.				
	Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO density in layers not exceeding 150mm thick				
3/2/7	Backfilling to trenches, holes, etc	m3	171		
3/2/8	Under floors, steps, pavings, etc	m3	686		
	Carried Forward			R	
	Section No. 3 3 CLASSROOM BLOCK X 4 Bill No. 2 Earthworks				

			R		
Imported gravel filling (G7) stabilise with 2-3% cement compacted to 93% Mod AASHTO density in layers not exceeding 150mm thick					
Backfilling to trenches, holes, etc	m3	51			
Under floors, steps, pavings, etc	m3	150			
Filling supplied by the Contractor under floors, trenches, etc.					
Sub-base filling (G5) from excavations under solid floors, steps, etc. compacted to 95% modified AASHTO density in layers not exceeding 150mm thick	m3	150			
COMPACTION OF SURFACES					
Prepare ground surface by scarifying sub-grade, rip and re-compact 150mm to 90% modified AASHTO density	m2	1 284			
WEED KILLERS, INSECTICIDES, TERMITES, etc.					
Protection against termites, ants, etc					
Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m2	1 284			
To bottom and sides of excavated trenches, Holes, etc.	m2	1 307			
Carried Forward to Summary of Section No. Section No. 3 3 CLASSROOM BLOCK X 4 Bill No. 2 Earthworks			R		
	COMPACTION OF SURFACES Prepare ground surface by scarifying sub-grade, rip and re-compact 150mm to 90% modified AASHTO density WEED KILLERS, INSECTICIDES, TERMITES, etc. Protection against termites, ants, etc Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming To bottom and sides of excavated trenches, Holes, etc. Carried Forward to Summary of Section No. Section No. 3 3 CLASSROOM BLOCK X 4 Bill No. 2	COMPACTION OF SURFACES Prepare ground surface by scarifying sub-grade, rip and re-compact 150mm to 90% modified AASHTO density MEED KILLERS, INSECTICIDES, TERMITES, etc. Protection against termites, ants, etc Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming To bottom and sides of excavated trenches, Holes, etc. Carried Forward to Summary of Section No. Section No. 3 3 CLASSROOM BLOCK X 4 Bill No. 2	COMPACTION OF SURFACES Prepare ground surface by scarifying sub-grade, rip and re-compact 150mm to 90% modified AASHTO density m2 WEED KILLERS, INSECTICIDES, TERMITES, etc. Protection against termites, ants, etc Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming m2 1 284 To bottom and sides of excavated trenches, Holes, etc. m2 1 307 Carried Forward to Summary of Section No. Section No. 3 3 CLASSROOM BLOCK X 4 Bill No. 2	COMPACTION OF SURFACES Prepare ground surface by scarifying sub-grade, rip and re-compact 150mm to 90% modified AASHTO density m2 1 284 WEED KILLERS, INSECTICIDES, TERMITES, etc. Protection against termites, ants, etc Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming m2 1 284 To bottom and sides of excavated trenches, Holes, etc. m2 1 307 Carried Forward to Summary of Section No. 8 Section No. 3 3 CLASSROOM BLOCK X 4 Bill No. 2	density in layers not exceeding 150mm thick m3 150 COMPACTION OF SURFACES Prepare ground surface by scarifying sub-grade, rip and re-compact 150mm to 90% modified AASHTO density m2 1 284 WEED KILLERS, INSECTICIDES, TERMITES, etc. Protection against termites, ants, etc Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming m2 1 284 To bottom and sides of excavated trenches, Holes, etc. m2 1 307 Carried Forward to Summary of Section No. Section No. 3 3 CLASSROOM BLOCK X 4 Bill No. 2

Item No		Quantity	Rate	Amount
	BILL NO. 3			
	CONCRETE, FORMWORK AND REINFORCEMENT			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.			
	Cost of tests			
	The costs of making, storing and testing of concrete test cubes as required under clause 7, "Tests" of SANS 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 principal agent. The testing shall be undertaken by an independent firm or institution nominated by the contractor to the approval of the principal agent. (Test cubes are measured separately)			
	<u>Formwork</u>			
	Descriptions of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before 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.			
	Carried Forward Section No. 3 3 CLASSROOM BLOCK X 4 Bill No. 3 Concrete,Formwork and Reinforcement		R	

Brought Forward	R	
Formwork to soffits of solid slabs, etc. shall be deemed to be to slabs not exceeding 250mm thick unless otherwise described. Formwork to soffits of slabs, beams, etc. shall be deemed to be propped up exceeding 1,5m and not exceeding 3,5m high unless otherwise described.		
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".		
The Tenderer is to note that for the "off-shutter" concrete finish shall be in accordance with the architectural specification 616 CON-140: Smooth + fair finish:-		
 Degree of accuracy: I Finish: Smooth and even Form facing material to produce a smooth, hard, uniform texture on the concrete Steel faced formwork. Joints grout-tight. Panels shall be as large as practicable and arranged in a regular pattern as a feature of the surface Formwork tie holes: to the approval of the architect Repair imperfections: not allowed. Tie bolt holes shall be patched Not permitted: blowholes, small fins, bulges, irregularities, voids, honeycombing, segregation and other large defects. Concrete surfaces: No further treatment to form 		
a smooth finish of uniform texture, appearance and colour		
Structural Concrete Tenderers are referred to the Structural Engineer's - Standard Specifications which should be read before pricing this trade in particular, but also the other trades. The use of extenders, fly-ash, etc. are clearly described on this drawing.		
Carried Forward	R	
Section No. 3 3 CLASSROOM BLOCK X 4 Bill No. 3		
Concrete,Formwork and Reinforcement		

	Brought Forward			R	Τ
	GENERAL NOTES TO TENDERERS				
	General notes, described in Bill No.1, shall equally apply to this Bill.				
	UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES				
	15Mpa/19mm concrete				
3/3/1	Blinding	m3	17		
	REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACE				
	25MPa/19mm Concrete				
3/3/2	Strip footings	m3	85		
	REINFORCED CONCRETE CAST IN FORMWORK				
	20Mpa/19mm concrete				
3/3/3	Concrete Apron cast to fall etc,	m3	28		
	25MPa/19mm Concrete				
3/3/4	Surface beds cast in panels	m3	130		
	TEST BLOCKS				
	Notes:				
	Concrete strength test cubes, label and send to an approved laboratory for testing, pay all charges and submit report to the Regional Representative. Only successful tests will be paid for (Provisional)				
3/3/5	Making and testing 150 x 150 x 150mm concrete strength test cube (Provisional)	No	18		
	SUNDRIES TO CONCRETE				
	Carried Forward			R	T
	Section No. 3 3 CLASSROOM BLOCK X 4 Bill No. 3 Concrete,Formwork and Reinforcement				

						_
,	Brought Forward			R		
	Surface treatment					
3/3/6	Power float top surface of concrete surface bed to a true and even level finish	m2	1 284			
	ROUGH FORMWORK (DEGREE OF ACCURACY II)					
	Rough formwork to sides					
3/3/7	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	563			
	MOVEMENTS JOINTS ETC,					
	Saw cuts Joints					
3/3/8	3 x 30mm In saw cut joints in floors	m	208			
	Expansion joints					
3/3/9	10mm soft board or similar approved between concrete and brick wall	m	282			
	REINFORCEMENT (PROVISIONAL)					
	High and mild tensile steel reinforcement to structural concrete work					
3/3/10	All diameter bars	t	7			
	Fabric reinforcement:					
3/3/11	Type 245 fabric reinforcement in concrete surface beds, slabs, etc.	m2	1 003			
						\vdash
	Carried Forward to Summary of Section No. Section No. 3			R		<u> </u>
	3 CLASSROOM BLOCK X 4					
	Bill No. 3 Concrete,Formwork and Reinforcement					
				1	I	

Item No		Quantity	Rate	Amount
	BILL NO. 4			
	MASONRY			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.			
	GENERAL NOTES TO TENDERERS			
	General notes, described in Bill No.1, shall equally apply to this Bill.			
	Sizes in descriptions			
	Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick			
	Hollow walls etc			
	Descriptions of hollow walls shall be deemed to include leaving every fifth perpend of the bottom course of the external skin open as a weep hole. Walls in two skins described as "bagged and sealed" shall be deemed to include having the outer face of the inner skin bagged with 1:6 cement and sand mixture and sealed with two coats "Brickseal" bitumen emulsion waterproofing coating.			
	Face bricks			
	Bricks shall be ordered timeously to obtain uniformity in size and colour			
	Carried Forward		R	
	Section No. 3 3 CLASSROOM BLOCK X 4 Bill No. 4 Masonry			

Brought Forward	R	
Pointing		
Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc		
Carried Forward	R	
Section No. 3 3 CLASSROOM BLOCK X 4 Bill No. 4 Masonry		

	Brought Forward			R	
	BRICKWORK IN FOUNDATION				
	Brickwork in 73mm burnt clay masonry units class NFP in Class II mortar, laid in stretcher bond with 10mm flush joints				
3/4/1	One brick wall	m2	363		
	SUPERSTRUCTURE BRICKWORK				
	Brickwork of NFP brick in class II mortar laid in stretcher bond with 10mm flush joints				
3/4/2	One brick wall	m2	1 073		
3/4/3	Half brick wall, in beamfilling	m2	45		
	Mass brickwork in regular piers of NFP brick in class II mortar laid in stretcher bond				
	FACE BRICKWORK				
	Bricks shall be ordered timeously to obtain uniformity in size and colour				
	"Corobrick" face bricks (Colour: TBC) with PC sum amount of R 4 500.00 per thousand bricks delivered to site (excluding VAT) manufactured in accordance with SANS 227-2007, bedded and jointed in Class II mortar and pointed with recessed 6mm joints in both directions				
3/4/4	Extra over brickwork for face brickwork in foundations (Provisional)	m2	726		
3/4/5	Extra over brickwork for face brickwork in superstructure	m2	816		
3/4/6	Extra over brickwork for face brickwork in brick-on-edge header course lintel	m	128		
3/4/7	Extra over brickwork for face brickwork in brick-on-edge header course sills, bedded in mortar and set slightly sloped	m	119		
3/4/8	Extra over brickwork for face brickwork in beamfilling	m2	45		
	BRICKWORK SUNDRIES				
	Carried Forward			R	
	Section No. 3 3 CLASSROOM BLOCK X 4 Bill No. 4 Masonry				

	Brought Forward			R	
	Brickwork reinforcement				
3/4/9	150mm Wide reinforcement built in horizontally.	m	5 292		
	"Allied concrete" or similar approved prestressed fabricated lintels				
3/4/10	100 x 70mm Lintels in lengths not exceeding 3m	m	150		
3/4/11	175 x 70mm Lintels in lengths not exceeding 3m	m	13		
	Turning pieces				
3/4/12	110mm Wide turning piece to flat brick lintels	m	128		
	Air bricks etc				
3/4/13	Set of 2 240 x 155mm Terracota air bricks as per architects specification	No	12		
	Fair cutting to face brickwork				
	Roof ties				
3/4/14	30 x 1.2mm galvanised steel strapping, built into wall for 5 courses and minimum 800mm to be fixed to trusses	No	257		
	MOVEMENTS JOINTS ETC,				
	Expansion joints				
3/4/15	30mm softboard between vertical brick surfaces not exceeding 300mm wide	m2	71		
	Carried Forward to Summary of Section No. Section No. 3 3 CLASSROOM BLOCK X 4 Bill No. 4			R	
	Masonry				

Item No			Quantity	Rate	Amount
	BILL NO. 5				
	WATERPROOFING				
	PREAMBLES				
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.				
	SUPPLEMENTARY PREAMBLES				
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.				
	GENERAL NOTES TO TENDERERS				
	General notes, described in Bill No.1, shall equally apply to this Bill.				
	DAMP PROOFING OF WALLS AND FLOORS				
	One layer of 375 micron "Consol Plastic Brikgrip DPC" embossed damp proof course				
3/5/1	Under walls	m2	10		
3/5/2	Under cills, etc.	m2	26		
	One layer of 250 micron "USB Green" or similar approved dampproof membrane sealed at laps with PVC self -adhesive tape				
3/5/3	Under surface beds.	m2	1 284		
	JOINTS SEALANTS, ETC.				
	Mastic grey polysulphide sealing compound including raking out of joints filler as necessary				
3/5/4	3 x 30mm In saw cut joints in floors	m	208		
3/5/5	10mm Isolation Joints between surface bed concrete and brick wall	m	282		
	Carried Forward to Summary of Section No. Section No. 3			R	
	3 CLASSROOM BLOCK X 4 Bill No. 5 Waterproofing				

Item No			Quantity	Rate	Amount
	BILL NO. 6				
	ROOF COVERINGS				
	PREAMBLES				
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.				
	SUPPLEMENTARY PREAMBLES				
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.				
	GENERAL NOTES TO TENDERERS				
	General notes, described in Bill No.1, shall equally apply to this Bill.				
	ROOF SHEETING				
	Similar Approved				
	0.6mm thick "Brownbuilt Klip-lok light Industrial" galvanised troughed roof sheeting with "Chromadek - Traffic Green" finish on one side, and 0.6mm galvanised steel accessories fixed to timber purlins or rails fixed in strict accordance to the manufacturer's instructions and fixed by an approved erector. A written and approved five (5) year guarantee of water-tightness shall be issued after approval of roofs by the manufacturer				
3/6/1	Roof sheeting pitch not exceeding 25 degrees	m2	1 479		
3/6/2	550mm girth Ridge capping, 3 times bent and notched on site to suit roof profile	m	107		
3/6/3	550mm girth Hip capping, 3 times bent and notched on site to suit roof profile.	m	82		
	Carried Forward Section No. 3 3 CLASSROOM BLOCK X 4			R	
	Bill No. 6 Roof Coverings				

	Brought Forward		R	
	ROOF AND WALL INSULATION			
	Similar Approved			
	Sisalation "Bubble Foil" aluminium foil binded insulation			
3/6/4	135mm thick Insulation laid over purlins (at approximately 750mm centres), fixed concurrent with sheeting with and including galvanised steel accessories m2	1 479		
	Carried Forward to Summary of Section No. Section No. 3		R	
	3 CLASSROOM BLOCK X 4 Bill No. 6 Roof Coverings			
	3			

Item No		Quantity	Rate	Amount
	BILL NO. 7			
	CARPENTRY AND JOINERY			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.			
	GENERAL NOTES TO TENDERERS			
	General notes, described in Bill No.1, shall equally apply to this Bill.			
	<u>Joinery</u>			
	Descriptions of frames shall be deemed to include frames, transoms, mullions, rails, etc.			
	Descriptions of hardwood joinery shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete.			
	<u>Fixing</u>			
	Items described as nailed shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete			
	Decorative laminate finish			
	Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish			
	<u>Timber</u>			
	All softwood to be South African Pine			
	Carried Forward		R	
	Section No. 3 3 CLASSROOM BLOCK X 4 Bill No. 7 Carpentry and Joinery			

Brought Forward	R	
<u>Descriptions</u>		
Items described as "bolted" shall be deemed to exclude the bolts and include the holes unless otherwise described.		
Where the fixing of members is not stated it shall mean the nailing of one timber member to another.		
The term "planted on" shall mean the nailing of one timber member to another		
The term "screwed on" shall mean the countersunk screwing of one timber member to another.		
The term "screwed on and pelleted" shall mean the screwing of one timber member to another with the heads of screw sunk and pelleted.		
The term "plugged" shall mean the countersunk screwing of a timber member to and including plastic plugs in brickwork or concrete.		
The term "plugged and pelleted" shall mean the screwing of a timber member to and including plastic plugs in brickwork or concrete with heads of screw sunk and pelleted.		
Shelving, etc. described as screwed to steel must be fixed from underside and prices are to include for countersunk drilling through the steel for screw fixing.		
Descriptions of floors, ceilings, joinery, etc. shall be deemed to include for all square cutting		
Descriptions of items given in linear metre shall be deemed to include for mitres, stopped ends, fitted intersections, etc.		
Descriptions of rounded angles, rebates, grooves, chamfers, moulded edges, etc. shall be deemed to include for angles, ends, etc.		
Carried Forward	R	
Section No. 3 3 CLASSROOM BLOCK X 4 Bill No. 7		
Carpentry and Joinery		

	Brought Forward			R	Γ
	ROOFS, ETC				
	Plate nailed timber roof truss construction				
	The following is applicable in respect of roof trusses:				
	All timber to be sawn softwood in accordance with V4 or M4 as defined in SABS 563 or SABS 1245.				
	Metal connector plates shall have a minimum yield strength of 228 MPa and a minimum ultimate tensile strength of 330 Mpa with hot-dip galvanised finish.				
	All joints to be close fitted butt joints.				
	Trusses shall be designed by a registered supplier of prefabricated trusses who shall issue an Engineers Certificate upon completion of the installation.				
	The dimensions in the descriptions of the trusses are nominal and actual measurements are to be obtained on site before design or fabrication commences.				
	Tenderers must study the roof plan and sections as attached to the back of these bills of quantities and must obtain prices from a qualified and registered roof truss supplier as no claims in this regard will be entertained.				
	Roof trusses				
3/7/1	Design, supply, take delivery, temporary store, hoist in position and erect plate nailed timber roof trusses, purlins, gang boarding, temporary and permanent bracing, etc (measured on plan)	m2	1 232		
	Sawn softwood				
3/7/2	38 x 114mm Wall plates	m	308		
	<u>Sundries</u>				
3/7/3	Two coats creosote on sawn timbers	m2	114		
	Similar Approved				
	Carried Forward			R	
	Section No. 3 3 CLASSROOM BLOCK X 4 Bill No. 7 Carpentry and Joinery				

	Brought Forward			R	_
	"Everite FC77" Fascia and badge boards				
3/7/4	15 x 225mm Pressed fibre cement fascia boards, fixed to supports and roof timbers with one brass screw at maximum 750mm centres, including standard aluminium half round cover strips at all joints, as per architect's specification	m	308		
	DOORS ETC				
	44mm thick solid R&F panel meranti timber doors with masonite backing with 15 horizontal slates on both sides hung to steel frames				
3/7/5	813 x 2032mm single door	No	12		
	WINDOWS				
	Similar Approved				
	"Nutec" fibre cement window cills				
3/7/6	150mm x 15mm thick fibre cement Window sill set flat and slightly projecting, with window sill lug screwed to underside of sill at 400mm centres, minimum of 75mm from end of window sill and bedded in 1:4 cement sand mortar with plastic slip joints at end of sills at plaster reveals and projecting from finished face of wall, all as per manufacturer's recommendations.	m	119		
	per manufacturer's recommendations	m	119		
	Carried Forward to Summary of Section No. Section No. 3			R	_
	3 CLASSROOM BLOCK X 4 Bill No. 7				
	Carpentry and Joinery				

Item No		Quantity	Rate	Amount
	BILL NO. 8			
	CEILINGS, PARTITIONS AND ACCESS FLOORING			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.			
	GENERAL NOTES TO TENDERERS			
	General notes, described in Bill No.1, shall equally apply to this Bill.			
	<u>Fixing</u>			
	Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 500mm centres, and where described as "bolted", the bolts have been given elsewhere.			
	Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins, or to be shot-pinned, to brickwork or concrete			
	Ceilings & Bulkheads			
	Unless otherwise described ceilings shall be deemed to be horizontal			
	Steel components			
	All steel components for ceilings, partitions, etc are to be galvanised in accordance with SANS 121			
	Carried Forward		R	
	Section No. 3 3 CLASSROOM BLOCK X 4 Bill No. 8			
	Ceilings,Partitions and Access Flooring			

	Brought Forward			R	
	Proprietary suspended ceilings				
	Hangers, suspension grids, "lay-in" panels, etc are to be in accordance with the manufacturers' recommendations				
	Where electrical light fittings, diffusers, panels etc are units of the same dimensions as the suspension grid described and allowance must be made in the rates accordingly for their support inclusive of any flexibility in setting out that may be required (ceiling panels have not been deducted and pricing is to take cognisance thereof)				
	Suspension systems				
	Where suspensions of ceilings require a sub-grid, the tenderer should include in his rates for the sub-grid. The design of the sub-grid support is not specified, the tenderer is to obtain the necessary requirements and recommendations for a safe installation from the board and suspension system manufacturer to the satisfaction of the structural engineer.				
	NAILED UP CEILINGS				
	FIBRE - CEMENT BOARDS				
	Similar Approved				
	6mm "Everite Nutec" Fibre-cement boards, jointed with and including galvanised H-type primed pressed steel jointing strips, including brandering as per architect's specifications				
3/8/1	2400 x 1200mm x 6mm Horizontal ceilings, fixed to and including 38 x 38mm sawn softwood brandering at maximum 400mm centres using 38mm long galvanised nails	m2	916		
	CORNICES				
	Similar Approved				
	"Rhino" plasterboard cornice				
3/8/2	75mm Coved cornice, plugged to brickwork	m	605		
	Carried Forward			R	
	Section No. 3 3 CLASSROOM BLOCK X 4 Bill No. 8 Ceilings,Partitions and Access Flooring			Κ.	

		Brought Forward		R	
	SUNDRIES				
	Extra over for Trap Doors				
3/8/3	Extra over ceiling for 600 x 600mm trap 50mm wrought softwood rebated framin 38mm sawn softwood cross brander coceiling board and fitted flush in opening	g, with one 38 x vered with	12		
	Section No. 3 3 CLASSROOM BLOCK X 4 Bill No. 8 Ceilings,Partitions and Access Flooring	Carried Forward		R	
	g-,				

	Brought Forward		R		
	CEILING INSULATION				
	<u>Insulation</u>				
3/8/4	125mm thick Glass wool insulation blanket closely fitted and laid on top of ceiling panels, all in strict accordance with the manufacturer's specifications. m2	916			
	Carried Forward to Summary of Section No. Section No. 3 3 CLASSROOM BLOCK X 4 Bill No. 8 Ceilings, Partitions and Access Flooring		R		
		1			I

Item No		Quantity	Rate	Amount
	BILL NO. 9			
	IRONMONGERY			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.			
	GENERAL NOTES TO TENDERERS			
	General notes, described in Bill No.1, shall equally apply to this Bill.			
	Where ironmongery is described as plugged, prices are to include for screwing to and including approved patent plugs in concrete or brickwork with plaster or tiled finish, etc.			
	Proprietary items			
	Where applicable the manufacturers' names or product catalogue titles are given in sub-headings preceding the items			
	Prices are to be based on the specific products/articles specified. If tenderers wish to offer alternative products/articles for certain items, these items are to be clearly marked and the alternative specification given with supporting brochures etc clarifying the features of the products/articles offered			
	On request returnable samples are to be provided to the principal agent for consideration			
	Carried Forward		R	
	Section No. 3 3 CLASSROOM BLOCK X 4 Bill No. 9 Ironmongery			

	Brought Forward			R	
	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 AN Anodised natural AS Anodised silver AB Anodised bronze AG Anodised gold ABL Anodised black PB Polished brass PL Polished and lacquered PT Epoxy coated SD Sanded				
	Rates The tenderer is to price for supply, taking delivery of,				
	storing and fixing of the ironmongery listed below.				
	PINNING BOARDS, WRITING BOARDS, PROJECTION SCREENS, etc.				
	<u>Approved</u>				
3/9/1	White magnetic boards 4000mm x 1200mm high with aluminium frame plugged @ 1100mm above floor level on centre of the wall	No	24		
	Swing type Green Chalkboard to comply with CKS- 36-1980 or equivalent code of practice, complete with chalk rail as one unit strictly in accordance to manufacturers instructions				
3/9/2	Overall size 4000 wide x 1250mm high consisting of one chalkboard 1800mm wide, two chalkboards 900mm wide and 2000 x 1250mm high two swing type chalkboards, fixed 900mm high from finished floor level	No	12		
	SUNDRIES				
	Carried Forward Section No. 3 3 CLASSROOM BLOCK X 4 Bill No. 9 Ironmongery			R	

	Brought Forward		R	_
	<u>Approved</u>			
3/9/3	"CZ8730SC" Door stop or similarly approved to wall or floors No	12		
				_
	Carried Forward to Summary of Section No. Section No. 3 3 CLASSROOM BLOCK X 4		R	=
	Bill No. 9 Ironmongery			

Item No		Quantity	Rate	Amount
	BILL NO. 10			
	METALWORK			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.			
	GENERAL NOTES TO TENDERERS			
	General notes, described in Bill No.1, shall equally apply to this Bill.			
	ALUMINIUM			
	The contractor is to make due allowance in his prices for complying with the following requirements.			
	SPECIFICATIONS			
	User Note:			
	Glazing			
	All Safety glazing material (individual panes) are to conform to all standards as stipulated in SANS 10400 Part N and SANS 10137 and any additional Engineer Specifications or relevant SANS glazing regulations not stipulated in this document. All tenderers are referred to the drawings for the glazing specification.			
	Ironmongery			
	All rates for windows, shopfronts and doors etc. must include for the supply, taking delivery or/and installation of the ironmongery to be specified.			
	Carried Forward		R	
	Section No. 3 3 CLASSROOM BLOCK X 4 Bill No. 10 Metalwork			

	Brought Forward	R	
<u>Actuators</u>			
All rates for shopfronts with actuator supply and installation of actuators			
<u>Scaffolding</u>			
All scaffolding should be provided be contractor and no claims/ qualification accepted.			
Protection			
With this tender, the glazing sub-cor a statement concerning protection to to finishes and components until Pra This to include specific references to removal of such protection. All tenderers to include cost of protection	hat will be provided actical Completion. o the method of		
<u>Installation</u>			
All measurements to be checked or ordering and manufacturing.	site prior to		
Aluminium sections and shop drawing by Architect prior to manufacturing.	ngs to be accepted		
Allow for water and weather proof p to approved specifications all around plaster and other materials.			
<u>Profiles</u>			
Tenderers to provide typical details aluminium section to be used in the			
Structural Silicone			
Tenderers to allow a 10 year guaran powdercoating.	ntee on all		
Preliminary and Shop Drawings:			
The contractor shall submit prelimin showing basic system sections for t approval.			
	Carried Forward	R	
Section No. 3 3 CLASSROOM BLOCK X 4 Bill No. 10			

	Brought Forward	R	
After approval and prior to fabrication drawings shall be prepared and substructive for approval.			
Fixing:			
The contractor is to take special note of all aluminium elements and must properly securing the aluminium sec with and including all necessary steetimber grounds and sub-frames, including and bolting, etc. This fixing is spaced and securely fixed to ensure door frames, windows, etc. as no satimproper functioning of the windows accepted.	allow in his price for tions to the structure el brackets, rails, uding all necessary to be adequately total stiffness of the gging causing		
<u>Deflection of structure:</u>			
The contractor is advised to make a for the design deflection of the struct			
Tolerances:			
Sizes are approximate only and meanust be taken before fabrication. Dube made for tolerances in accordance Architect's details.	e allowance must		
Protection:			
The contractor will be required to prothe course of construction, which proadequate for the purpose and to the Architect.	otection shall be		
Such protection shall only be remove instruction from the Architect.	ed after a written		
Cleaning:			
All work must be cleaned down upor Glazing as installed will not be accepted and the contractor must allow for polywhen instructed by the Architect.	oted as clean glass		
Note: All windows and doors should conjunction with window and door so			
	Carried Forward	R	
Section No. 3 3 CLASSROOM BLOCK X 4 Bill No. 10 Metalwork			

Brought Forward	R		
Carried Forward	R		
Section No. 3			
3 CLASSROOM BLOCK X 4 Bill No. 10			
Metalwork			
		, .	

	Brought Forward			R	—
	WELDED SCREENS, GATES, ETC.				
	Welded MS gate consisting of 50 x 50 x 2.5mm rectangular tubing section frame with 45 degrees mitre at corners, bolted to reveals with 10mm (10M) rawlbolts and welded with 50 x 50 x 5mm mild steel to walls, with 50 x 50 x 2.5mm mild steel rectangular tube gate leaf with 45 degree mitre at corners and two 50 x 50 x 2.5mm horizontal sections, with 12 x 12mm mild steel vertical style solid square bars at 100mm c/c, including 3x pair of 20mm diameter bullet-hinges per gate, with "Solid blesbok" 460/313 four lever lockset with rebate set, including welding, bolting, holes, bolts etc., all complete as per the architect's specifications				
3/10/1	Steel gate to door, size 813mm x 2032mm high	No	12		
	PRESSED STEEL DOOR FRAMES				
	1.2mm thick Single rebated frame suitable for one brick walls, complete with lugs and base ties, with red oxide primer factory finish by manufacturer				
3/10/2	813 x 2032mm single door	No	12		
	WINDOWS FRAMES, etc.				
	Standard mild steel school type Top-hung open out window frame (with brass fittings), with burglar bars to opening and fixed sections, consisting of 10mm diameter mild steel round bars to standard NBP2 pattern, welded at intersections and window frames, all as per architect's specification				
3/10/3	Window size 1143 x 1272mm high	No	104		
	ALUMINIUM WINDOWS, DOORS, ETC				
	304/VEM 320G expanded metal mesh size 1200mm x 2400mm manufactured in accordance with SANS 190-1:1983 fixed to 76 x 50mm timber purlins using 40x 0.5mm hat channels @ 400mm centres with 12 x 20mm tac screws.				
3/10/4	In Ceiling voids	m2	760		
	Carried Forward			R	
	Section No. 3 3 CLASSROOM BLOCK X 4 Bill No. 10 Metalwork				

	Brought Forward			R	
	STEEL COLUMNS AND BEAMS				
	Welded columns and beams in single lengths with flat section bearer and connection plates bolted and welded to				
3/10/5	76 x 76 x 3mm x 6.54kg/m Mild steel square tubing column	kg	880		
	Carried Forward to Summary of Section No. Section No. 3 3 CLASSROOM BLOCK X 4			R	
	Bill No. 10 Metalwork				

Item No			Quantity	Rate	Amount
	BILL NO. 11				
	PLASTERING				
	PREAMBLES				
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.				
	SUPPLEMENTARY PREAMBLES				
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.				
	GENERAL NOTES TO TENDERERS				
	General notes, described in Bill No.1, shall equally apply to this Bill.				
	<u>SCREEDS</u>				
	Granolithic screed on concrete, worked down to a true and even surface with a wood trowel				
3/11/1	30mm Thick on floors	m2	166		
	INTERNAL PLASTER				
	One coat smooth 1:5 cement sand plaster on brickwork to receive finish				
3/11/2	On brick walls	m2	1 138		
3/11/3	On narrow widths	m2	114		
	CORNER PROTECTORS, DIVIDING STRIPS, ETC				
3/11/4	Aluminium straight edge M-trim suitable for under- screed fixing in vinyl/ceramic, etc. installed as per manufactures recommendation and specification.	m	10		
	Carried Forward to Summary of Section No.			R	
	Section No. 3 3 CLASSROOM BLOCK X 4 Bill No. 11				
	Plastering				

Item No		Quantity	Rate	Amount
_	BILL NO. 12			
	TILING			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.			
	Pricing			
	Prices are to included for the following: Cutting, handling, labour, adhesive etc.			
	<u>Fixing</u>			
	Tiling described as "fixed with adhesive on power floated concrete" shall be deemed to include for approved tiling key-coat.			
	Ceramic, porcelain, marble and granite tiles are to be fixed, grouted and pointed with suitable adhesives and grouts, as recommended by the Architect. Costs are hereby deemed to include the cost of this requirement.			
	Payment for work that is deemed measurable, in respect of the conditions of contract, and which comprises cutting, leaving, or forming, rectangular holes and notches through tiling is hereby deemed to apply only to holes and notches that do not exceed 600mm girth. Those exceeding 600mm in girth are hereby deemed to be "square cutting", which is hereby deemed to be part of the work description for that type of tiling and is not measurable as a separate item of work.			
	<u>Wastage</u>			
	Tile wastage in excess of 10% will be for the tenderer's account.			
	Carried Forward		R	
	Section No. 3 3 CLASSROOM BLOCK X 4 Bill No. 12 Tiling			

GENERAL NOTES TO TENDERERS General notes, described in Bill No. 1, shall equally apply to this Bill. Note All scaffolding should be provided by the contractor and no claims/qualifications will be accepted. WALL TLING 150 x 150 x 6mm ceramic tiles (PC allowance of R 120.00/m2 excludes V.A.T. but includes delivery to site), includes waste, laying, supply and fixing with an approved adhesive and jointing white grout all as per manufacturers specifications FLOOR TILING 420 x 420 x 11.5mm Thick non-slip ceramic tiles (P.C allowance of R 200.00/m2 excludes V.A.T. but includes delivery to site), includes waste, laying, supply and fixing with an approved adhesive and jointing in waterproof cementetious grout 3/12/1 On floors m2 800 3/12/2 75mm high skirting m 392 ATTIC STOCK 3/12/3 420 x 420 x 11.5mm Thick non-slip ceramic tiles (P.C allowance of R 200.00/m2 excludes V.A.T. but includes delivery to site) SUNDRIES 10mm aluminium straight edge trim Jividing strip between tiles and door frames m 10	
apply to this Bill. Note All scaffolding should be provided by the contractor and no claims/qualifications will be accepted. WALL TILING 150 x 150 x 6mm ceramic tiles (PC allowance of R 120.00/m2 excludes V.A.T. but includes delivery to site), includes waste, laying, supply and fixing with an approved adhesive and jointing white grout all as per manufacturers specifications FLOOR TILING 420 x 420 x 11.5mm Thick non-slip ceramic tiles (P.C allowance of R 200.00/m2 excludes V.A.T. but includes delivery to site), includes waste, laying, supply and fixing with an approved adhesive and jointing in waterproof cementetious grout 3/12/1 On floors m2 800 ATTIC STOCK 3/12/2 420 x 420 x 11.5mm Thick non-slip ceramic tiles (P.C allowance of R 200.00/m2 excludes V.A.T. but includes delivery to site) in m2 800 SUNDRIES 10mm aluminium straight edge trim	
All scaffolding should be provided by the contractor and no claims/qualifications will be accepted. WALL TILING 150 x 150 x 6mm ceramic tiles (PC allowance of R 120.00/m2 excludes V.A.T. but includes delivery to site), includes waste, laying, supply and fixing with an approved adhesive and jointing white grout all as per manufacturers specifications FLOOR TILING 420 x 420 x 11.5mm Thick non-slip ceramic tiles (P.C allowance of R 200.00/m2 excludes V.A.T. but includes delivery to site), includes waste, laying, supply and fixing with an approved adhesive and jointing in waterproof cementetious grout 3/12/1 On floors m2 800 ATTIC STOCK 3/12/2 420 x 420 x 11.5mm Thick non-slip ceramic tiles (P.C allowance of R 200.00/m2 excludes V.A.T. but includes delivery to site) m2 80 SUNDRIES 10mm aluminium straight edge trim	
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3/12/3 420 x 420 x 11.5mm Thick non-slip ceramic tiles (P.C allowance of R 200.00/m2 excludes V.A.T. but includes delivery to site) SUNDRIES 10mm aluminium straight edge trim	
allowance of R 200.00/m2 excludes V.A.T. but includes delivery to site) m2 80 SUNDRIES 10mm aluminium straight edge trim	
10mm aluminium straight edge trim	
3/12/4 Dividing strip between tiles and door frames m 10	
Carried Forward to Summary of Section No.	
Section No. 3 3 CLASSROOM BLOCK X 4 Bill No. 12 Tiling	

Item No		Quantity	Rate	Amount
	BILL NO. 13			
	PLUMBING AND DRAINAGE (PROVISIONAL)			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.			
	uPVC pipes and fittings:			
	Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings			
	uPVC pressure pipes and fittings:			
	Pipes for water supply shall be of the class stated			
	Excavations:			
	No claim for excavation in material other than "earth" will be entertained unless the contractor has timeously notified the quantity surveyor thereof prior to backfilling, and has obtained, in writing, authorised classification thereof.			
	"Intermediate material" and " hard rock" shall be as defined in "Earthworks".			
	Quantities of all excavations, carting away excavated material and backfilling are calculated on the nett extent to be formed, or filled, in accordance with drawings and specifications, and the Contractor is to allow in his prices for any bulking.			
	Classes of excavation shall be as S.A.B.S 1200D clause 3.1.2.			
	Carried Forward		R	
	Section No. 3 3 CLASSROOM BLOCK X 4 Bill No. 13 Plumbing and Drainage			

	Brought Forward			R	Τ
	Laying, backfilling, bedding, etc., of pipes:				
	Pipes shall be laid and bedded, and trenches shall be carefully backfilled, in accordance with the specific instructions				
	GENERAL NOTES TO TENDERERS				
	General notes, described in Bill No.1, shall equally apply to this Bill.				
	RAINWATER GOODS				
	Similar Approved				
	<u>Gutters</u>				
3/13/1	100 x 100 x 0.6mm thick Ogee profile eaves gutter aluminium box gutter, fixed with and including fixing clips to fascia boards	m	308		
3/13/2	Extra over eaves gutter for stopped end	No	8		
3/13/3	Extra over eaves gutter for corner	No	129		
3/13/4	Extra over eaves gutter for outlet	No	32		
	Rainwater downpipes				
3/13/5	100mm diameter x 0.6mm thick rainwater downpipe with Chromadek finish (Colour: TBC), fixed with and including brackets to wall face, with brackets spaced as per manufacturer's recommendations, and with		444		
	downpipes spaced as per engineer's specification	m	111		
3/13/6	Extra over downpipe for offset	No	64		
3/13/7	Extra over downpipe for shoe	No	32		
	SANITARY FITTINGS				
	Refer to sanitary schedule drawing for full description of abbreviations				
	Carried Forward to Summary of Section No. Section No. 3 3 CLASSROOM BLOCK X 4			R	+
	Bill No. 13 Plumbing and Drainage				

Item No		Quantity	Rate	Amount
	BILL NO. 14			
	GLAZING			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.			
	GENERAL NOTES TO TENDERERS			
	General notes, described in Bill No. 1, shall equally apply to this Bill.			
	Note:			
	All glazing to comply with SABS 1263 Part 3:1998. Light and ventilation to comply with Part O if NBR 0400			
	GLASS TO STEEL WITH PUTTY			
	5mm clear floated glass fixed glazing putty			
3/14/1	Panes exceeding 0.1m2 and not exceeding 0.5m2 m2	151		
	Carried Forward to Summary of Section No.		R	
	Section No. 3 3 CLASSROOM BLOCK X 4 Bill No. 14			
	Glazing			

Item No			Quantity	Rate	Amount
	BILL NO. 15				
	PAINTWORK				
	PREAMBLES				
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.				
	SUPPLEMENTARY PREAMBLES				
	Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.				
	GENERAL NOTES TO TENDERERS				
	General notes, described in Bill No. 1, shall equally apply to this Bill.				
	PAINTWORK ETC TO NEW WORK				
	FIBRE CEMENT				
	Prepare and apply one coat universal undercoat and two coats Super Acrylic PVA paint or similar approved, colour to be confirmed by architect				
3/15/1	On internal ceilings and cornices	m2	969		
3/15/2	Fibre cement fascias boards not exceeding 300mm high or wide painted on both side	m	308		
	FLOATED PLASTER INTERNAL WALLS				
	Prepare and apply one coat merit universal undercoat and two coats Super Acrylic PVA paint or similar approved, colour to be confirmed by architect				
3/15/3	Plastered walls	m2	1 138		
	METAL SURFACES				
	Carried Forward			R	
	Section No. 3 3 CLASSROOM BLOCK X 4 Bill No. 15 Paintwork				

	Brought Forward			R	Π
	Prepare and apply one coat Duraphos, one coat universal under coat and two coats gloss enamel paint, colour to be confirmed by architect				
3/15/4	On gates, grilles, burglar screens, balustrades, etc (both sides measured on full flat area)	m2	45		
3/15/5	On window frames	m2	151		
3/15/6	On door frames	m2	15		
3/15/7	On mild steel columns, beams, etc	m2	40		
3/15/8	On gutters	m	308		
3/15/9	On downpipes	m	114		
	WOOD				
	Prepare and paint three coats clear varnish:				
3/15/10	On door	m2	39		
					+
	Carried Forward to Summary of Section No. Section No. 3			R	+
	3 CLASSROOM BLOCK X 4 Bill No. 15				
	Paintwork				

LIMPOPO DEPARTMENT OF EDUCATION UPGRADES AND ADDITIONS AT CHAMETI HIGH SCHOOL

	SECTION SUMMARY		<u> </u>	
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	Carried to Final Summary		R	
	Section No. 3 3 CLASSROOM BLOCK X 4			
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Item No		Quantity	Rate	Amount
	SECTION NO. 4			
	BILL NO. 1			
	DEMOLITIONS AND ALTERATIONS			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Subterranean water			
	No subterranean water is expected			
	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			
	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 necessary multiple handling of material			
	Carried Forward		R	
	Section No. 4 10 SEATS ENVIROLOO TOILET BLOCK Bill No. 1 Demolitions and Alterations			

Brought Forward	R	
Testing		
Prices for filling are to include for all necessary density tests in accordance with SABS 1200D		
Existing structures		
In taking down and removing existing work, the utmost care shall be taken to prevent any structural or other damage to the remaining portions on the building and the Contractor shall provide all shoring, needling, strutting, etc. to ensure the stability of all structures during the alteration work, Any damage to the structure and/or building as well as the rectification of same will be for the contractor's account		
Services		
Special care shall be exercised during the progress of the work to ensure that electrical installation, water supply pipes, telephone and other services which may be encountered are not interfered with and notice shall be given to the Representative/Agent if any disconnection or alterations become necessary.		
<u>Dust and noise</u>		
The Contractor is to take all necessary precautions to the satisfaction of the Representative/Agent to prevent any nuisance from the dust and /or noise whilst carrying out the work.		
<u>Disposal of debris</u>		
The Contractor shall be responsible for the removal from site of all materials, debris and rubbish resulting from the work which removal is deemed to be included in the rates unless otherwise stated.		
Rates for taking out and removing doors and frames shall include for removing door stops, cabin hooks, etc and making good floor and wall finishes to match existing		
Making good of finishes shall include making good of the brick and concrete surfaces onto which the new finishes are applied, where necessary		
Carried Forward	R	
Section No. 4 10 SEATS ENVIROLOO TOILET BLOCK Bill No. 1		
Demolitions and Alterations		

Brought Forward	R	
Temporary support to openings through existing walls		
Making openings, altering openings in existing walls and removing lintels above existing openings shall be done with the utmost care to prevent any structural damage. All necessary supports, propping, shoring, needling, strutting, turning pieces, etc. to walls openings is deemed to be included in the contractor's rates.		
Electrical and Mechanical		
Where items include for taking down electrical and mechanical fittings the disconnection and making safe electrically is deemed to be included.		
GENERAL NOTES TO TENDERERS		
Tenderers are to inspect the drawings issued with these Bills of Quantities and to satisfy themselves with the nature and the requirements of the Contract works. Failure to do so will be the complete responsibility of the Tenderer and no claims whatsoever will be entertained in this regard.		
Tenderers are to read the descriptions, which are intended as a means of identifying various facets of the work, in conjunction with the drawings. Tenderers shall allow for all costs in connection with the various items taking full cognisance of both the drawings and the Bills of Quantities.		
Tenderers shall notify the Quantity Surveyor in writing of any discrepancies encountered upon which clarification will be given by the Quantity Surveyor in writing to the Tenderer. Failure to do so will be the complete responsibility of the Tenderer and no claims whatsoever will be entertained in this regard		
Carried Forward	R	
Section No. 4 10 SEATS ENVIROLOO TOILET BLOCK Bill No. 1		
Demolitions and Alterations		

	Brought Forward			R	
	Tenderers are to note that setting out of the works will be the complete responsibility of the Tenderer and they should therefore acquaint themselves with the site boundaries, site co-ordinates, datum levels etc. Failure to do so will be the complete responsibility of the Tenderer and no claims whatsoever will be entertained in this regard. Tenderers are to note that all items with ZERO quantities are Rate Only items and should be priced as				
	Tenderers are to note that there might be specified suppliers to be used for certain trades as per the annexure to this tender document. Tenderers should familiarise themselves with the suppliers on the list and ensure to allow for accordingly. Failure to do so will be the complete responsibility of the Tenderer and no claims whatsoever will be entertained in this regard. Tenderers are to fully acquaint themselves with the construction period and shall allow for any night shift if required. Failure to do so will be the complete responsibility of the Tenderer and no claims whatsoever				
	will be entertained in this regard. REMOVAL OF EXISTING WORK				
	<u>Taking down and removing roofs, floors, panelling, ceilings, partitions, tc</u>				
4/1/1	Timber trusses and purlins	m2	84		
	Taking out and removing sundry joinery work				
4/1/2	Timber skirting from brickwork	m			
	Carried Forward to Summary of Section No.			R	
	Section No. 4 10 SEATS ENVIROLOO TOILET BLOCK Bill No. 1				
	Demolitions and Alterations				

Item No		Quantity	Rate	Amount
	BILL NO. 2			
	EARTHWORKS (PROVISIONAL)			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.			
	GENERAL NOTES TO TENDERERS			
	General notes, described in Bill No.1, shall equally apply to this Bill.			
	NOTES			
	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			
	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			
	Excavations measured in successive depths of 2m.			
	SITE CLEARANCE ETC			
	Carried Forward		R	
	Section No. 4 10 SEATS ENVIROLOO TOILET BLOCK Bill No. 2 Earthworks			

	Brought Forward			R	
	Site clearance				
4/2/1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc	m2	181		
	Section No. 4 10 SEATS ENVIROLOO TOILET BLOCK Bill No. 2 Earthworks			R	

	Brought Forward			R	
	EXCAVATIONS				
	Excavation in earth not exceeding 2m deep				
4/2/2	Trenches	m3	45		
4/2/3	Holes	m3	50		
	Extra over excavations in earth to trenches and holes for				
4/2/4	Excavation in soft rock	m3	9		
4/2/5	Excavation in hard rock	m3	5		
4/2/6	Back excavation of vertical sides of excavation in earth for working space including backfilling compacted to 93% Mod AASHTO density Exceeding 1,5m and not exceeding 3,0m deep for placing and removing formwork to walls etc 500mm away from excavated face	m2	67		
	CARTING AWAY OF EXCAVATED MATERIAL				
	Note:				
	Description 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.				
4/2/7	Extra over all excavation for carting away surplus material from excavation and / or stockpile on site to a dumping site to be located by the Contractor	m3	74		
	RISK OF COLLAPSE OF EXCAVATIONS				
	Risk of collapse to side of excavation in earth not exceeding 1,5m deep				
4/2/8	Trenches and holes	m2	195		
	FILLING, ETC.				
	Carried Forward			R	
	Section No. 4 10 SEATS ENVIROLOO TOILET BLOCK Bill No. 2 Earthworks				

	Brought Forward			R	
	Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO density in layers not exceeding 150mm thick				
4/2/9	Backfilling to trenches, holes, etc	m3	23		
4/2/10	Under floors, steps, pavings, etc	m3	57		
	Imported gravel filling (G7) stabilise with 2-3% cement compacted to 93% Mod AASHTO density in layers not exceeding 150mm thick				
4/2/11	Backfilling to trenches, holes, etc	m3	7		
4/2/12	Under floors, steps, pavings, etc	m3	8		
	Filling supplied by the Contractor under floors, trenches, etc.				
4/2/13	Sub-base filling (G5) from excavations under solid floors, steps, etc. compacted to 95% modified AASHTO density in layers not exceeding 150mm thick	m3	10		
	COMPACTION OF SURFACES				
4/2/14	Prepare ground surface by scarifying sub-grade, rip and re-compact 150mm to 90% modified AASHTO density	m2	148		
	WEED KILLERS, INSECTICIDES, TERMITES, etc.				
	Protection against termites, ants, etc				
4/2/15	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m2	123		
4/2/16	To bottom and sides of excavated trenches, Holes, etc.	m2	264		
	Outside 14 O 15 15 15			_	T
	Carried Forward to Summary of Section No. Section No. 4			R	\vdash
	10 SEATS ENVIROLOO TOILET BLOCK Bill No. 2 Earthworks				
	Laitiworks				

Item No		Quantity	Rate	Amount
	BILL NO. 3			
	CONCRETE, FORMWORK AND REINFORCEMENT			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.			
	Cost of tests			
	The costs of making, storing and testing of concrete test cubes as required under clause 7, "Tests" of SANS 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 principal agent. The testing shall be undertaken by an independent firm or institution nominated by the contractor to the approval of the principal agent. (Test cubes are measured separately)			
	<u>Formwork</u>			
	Descriptions of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before 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.			
	Section No. 4 10 SEATS ENVIROLOO TOILET BLOCK Bill No. 3		R	
	Concrete,Formwork and Reinforcement			

P		ı
Brought Forward	R	
Formwork to soffits of solid slabs, etc. shall be deemed to be to slabs not exceeding 250mm thick unless otherwise described. Formwork to soffits of slabs, beams, etc. shall be deemed to be propped up exceeding 1,5m and not exceeding 3,5m high unless otherwise described. 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".		
The Tenderer is to note that for the "off-shutter" concrete finish shall be in accordance with the architectural specification 616 CON-140: Smooth + fair finish:-		
 Degree of accuracy: I Finish: Smooth and even Form facing material to produce a smooth, hard, uniform texture on the concrete Steel faced formwork. Joints grout-tight. Panels shall be as large as practicable and arranged in a regular pattern as a feature of the 		
surface Formwork tie holes: to the approval of the architect Repair imperfections: not allowed. Tie bolt holes shall be patched Not permitted: blowholes, small fins, bulges, irregularities, voids, honeycombing, segregation and other large defects. Concrete surfaces: No further treatment to form		
a smooth finish of uniform texture, appearance and colour		
Structural Concrete		
Tenderers are referred to the Structural Engineer's - Standard Specifications which should be read before pricing this trade in particular, but also the other trades. The use of extenders, fly-ash, etc. are clearly described on this drawing.		
Carried Forward	R	
Section No. 4 10 SEATS ENVIROLOO TOILET BLOCK Bill No. 3 Congrete Formwork and Beinforcement		
Concrete,Formwork and Reinforcement		

	Brought Forward			R	$\overline{\mathbf{I}}$
	GENERAL NOTES TO TENDERERS				
	General notes, described in Bill No.1, shall equally apply to this Bill.				
	UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES				
	15Mpa/19mm concrete				
4/3/1	Blinding	m3	2		
	REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACE				
	25MPa/19mm Concrete				
4/3/2	Strip footings	m3	11		
	REINFORCED CONCRETE CAST IN FORMWORK				
	20Mpa/19mm concrete				
4/3/3	Concrete Apron cast to fall etc,	m3	6		
	25MPa/19mm Concrete				
4/3/4	Surface beds cast in panels	m3	10		
4/3/5	Slabs including beams and inverted beams	m3	2		
	TEST BLOCKS				
	Notes:				
	Concrete strength test cubes, label and send to an approved laboratory for testing, pay all charges and submit report to the Regional Representative. Only successful tests will be paid for (Provisional)				
4/3/6	Making and testing 150 x 150 x 150mm concrete strength test cube (Provisional)	No	3		
	SUNDRIES TO CONCRETE				
	Carried Forward			R	
	Section No. 4 10 SEATS ENVIROLOO TOILET BLOCK Bill No. 3 Concrete,Formwork and Reinforcement				

	Brought Forward			R	
	Surface treatment				
4/3/7	Power float top surface of concrete surface bed to a true and even level finish	m2	149		
	ROUGH FORMWORK (DEGREE OF ACCURACY II)				
	Rough formwork to sides				
4/3/8	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	174		
	Rough formwork to soffits				
4/3/9	Flat slabs not exceeding 250mm thick, propped up not exceeding 3,5m high from bearing level	m2	26		
	Carried Forward			R	
	Section No. 4 10 SEATS ENVIROLOO TOILET BLOCK			K	
	Bill No. 3 Concrete,Formwork and Reinforcement				

	Brought Forward			R		
	MOVEMENTS JOINTS ETC,					
	Expansion joints					
4/3/10	10mm soft board or similar approved between concrete and brick wall	m	84			
	REINFORCEMENT (PROVISIONAL)					
	High and mild tensile steel reinforcement to structural concrete work					
4/3/11	All diameter bars	t	1			
	Fabric reinforcement:					
4/3/12	Type 245 fabric reinforcement in concrete surface beds, slabs, etc.	m2	67			
	Carried Forward to Summary of Section No.			R		
	Carried Forward to Summary of Section No. Section No. 4			K		
	10 SEATS ENVIROLOO TOILET BLOCK Bill No. 3 Concrete,Formwork and Reinforcement					
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Item No		Quantity	Rate	Amount
	BILL NO. 4			
	MASONRY			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.			
	GENERAL NOTES TO TENDERERS			
	General notes, described in Bill No.1, shall equally apply to this Bill.			
	Sizes in descriptions			
	Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick			
	Hollow walls etc			
	Descriptions of hollow walls shall be deemed to include leaving every fifth perpend of the bottom course of the external skin open as a weep hole. Walls in two skins described as "bagged and sealed" shall be deemed to include having the outer face of the inner skin bagged with 1:6 cement and sand mixture and sealed with two coats "Brickseal" bitumen emulsion waterproofing coating.			
	Face bricks			
	Bricks shall be ordered timeously to obtain uniformity in size and colour			
	Carried Forward		R	
	Section No. 4 10 SEATS ENVIROLOO TOILET BLOCK Bill No. 4 Masonry			

Brought Forward	R	
<u>Pointing</u>		
Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc		
Carried Forward Section No. 4 10 SEATS ENVIROLOO TOILET BLOCK Bill No. 4 Masonry	R	
massin j		

	Brought Forward			R	
	BRICKWORK IN FOUNDATION				
	Brickwork in 73mm burnt clay masonry units class NFP in Class II mortar, laid in stretcher bond with 10mm flush joints				
4/4/1	One brick wall	m2	48		
	SUPERSTRUCTURE BRICKWORK				
	Brickwork of NFP brick in class II mortar laid in stretcher bond with 10mm flush joints				
4/4/2	One brick wall	m2	260		
4/4/3	Half brick wall	m2	28		
4/4/4	Half brick wall, in beamfilling	m2	15		
	Mass brickwork in regular piers of NFP brick in class II mortar laid in stretcher bond				
4/4/5	340 x 230mm Brick Piers	m3	1		
4/4/6	360 x 230mm Brick Piers	m3	1		
	FACE BRICKWORK				
	Bricks shall be ordered timeously to obtain uniformity in size and colour				
	"Corobrick" face bricks (Colour: TBC) with PC sum amount of R 4 500.00 per thousand bricks delivered to site (excluding VAT) manufactured in accordance with SANS 227-2007, bedded and jointed in Class II mortar and pointed with recessed 6mm joints in both directions				
4/4/7	Extra over brickwork for face brickwork in foundations (Provisional)	m2	96		
4/4/8	Extra over brickwork for face brickwork in superstructure	m2	214		
4/4/9	Extra over brickwork for face brickwork in brick-on-edge header course lintel	m	9		
	Carried Forward			R	
	Section No. 4 10 SEATS ENVIROLOO TOILET BLOCK Bill No. 4 Masonry				

	Brought Forward			R		
4/4/10	Extra over brickwork for face brickwork in brick-on-edge header course sills, bedded in mortar and set slightly sloped	m	5			
4/4/11	Extra over brickwork for face brickwork to piers	m2	33			
4/4/12	Extra over brickwork for face brickwork in beamfilling	m2	15			
	BRICKWORK SUNDRIES					
	Brickwork reinforcement					
4/4/13	75mm Wide reinforcement built in horizontally	m	82			
4/4/14	150mm Wide reinforcement built in horizontally.	m	1 056			
	"Allied concrete" or similar approved prestressed fabricated lintels					
4/4/15	100 x 70mm Lintels in lengths not exceeding 3m	m	8			
4/4/16	175 x 70mm Lintels in lengths not exceeding 3m	m	29			
	<u>Turning pieces</u>					
4/4/17	110mm Wide turning piece to flat brick lintels	m	27			
	Air bricks etc					
4/4/18	Set of 2 240 x 155mm Terracota air bricks as per architects specification	No	5			
	Roof ties					
4/4/19	30 x 1.2mm galvanised steel strapping, built into wall for 5 courses and minimum 800mm to be fixed to trusses	No	48			
	MOVEMENTS JOINTS ETC,					
	Expansion joints					
4/4/20	30mm softboard between vertical brick surfaces not exceeding 300mm wide	m2	9			
						<u> </u>
	Carried Forward to Summary of Section No.			R		<u>_</u>
	Section No. 4 10 SEATS ENVIROLOO TOILET BLOCK Bill No. 4 Masonry					
						J

Item No			Quantity	Rate	Amount
	BILL NO. 5				
	WATERPROOFING				
	PREAMBLES				
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.				
	SUPPLEMENTARY PREAMBLES				
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.				
	GENERAL NOTES TO TENDERERS				
	General notes, described in Bill No.1, shall equally apply to this Bill.				
	DAMP PROOFING OF WALLS AND FLOORS				
	One layer of 375 micron "Consol Plastic Brikgrip DPC" embossed damp proof course				
4/5/1	Under walls	m2	3		
4/5/2	Under cills, etc.	m2	1		
	One layer of 250 micron "USB Green" or similar approved dampproof membrane sealed at laps with PVC self -adhesive tape				
4/5/3	Under surface beds.	m2	123		
	JOINTS SEALANTS, ETC.				
	Mastic grey polysulphide sealing compound including raking out of joints filler as necessary				
4/5/4	10mm Isolation Joints between surface bed concrete and brick wall	m	84		
	Carried Forward to Summary of Section No.			R	
	Section No. 4 10 SEATS ENVIROLOO TOILET BLOCK Bill No. 5 Waterproofing				

Item No		C	uantity	Rate	Amount
	BILL NO. 6				
	ROOF COVERINGS				
	PREAMBLES				
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.				
	SUPPLEMENTARY PREAMBLES				
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.				
	GENERAL NOTES TO TENDERERS				
	General notes, described in Bill No.1, shall equally apply to this Bill.				
	ROOF SHEETING				
	Similar Approved				
	0.6mm thick "Brownbuilt Klip-lok light Industrial" galvanised troughed roof sheeting with "Chromadek - Traffic Green" finish on one side, and 0.6mm galvanised steel accessories fixed to timber purlins or rails fixed in strict accordance to the manufacturer's instructions and fixed by an approved erector. A written and approved five (5) year guarantee of water-tightness shall be issued after approval of roofs by the manufacturer				
4/6/1	Roof sheeting pitch not exceeding 25 degrees	m2	101		
4/6/2	550mm girth Ridge capping, 3 times bent and notched on site to suit roof profile	m	14		
4/6/3	550mm girth Hip capping, 3 times bent and notched on site to suit roof profile.	m	25		
	Carried Forward			R	
	Section No. 4 10 SEATS ENVIROLOO TOILET BLOCK Bill No. 6 Roof Coverings				

	Brought Forward			R	
	ROOF AND WALL INSULATION				
	Similar Approved				
	Sisalation "Bubble Foil" aluminium foil binded insulation				
4/6/4	135mm thick Insulation laid over purlins (at approximately 750mm centres), fixed concurrent with sheeting with and including galvanised steel accessories	m2	101		
	Carried Forward to Summary of Section No.			R	
	Section No. 4 10 SEATS ENVIROLOO TOILET BLOCK Bill No. 6				
	Roof Coverings				

Item No		Quantity	Rate	Amount
	BILL NO. 7			
	CARPENTRY AND JOINERY			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.			
	GENERAL NOTES TO TENDERERS			
	General notes, described in Bill No.1, shall equally apply to this Bill.			
	<u>Joinery</u>			
	Descriptions of frames shall be deemed to include frames, transoms, mullions, rails, etc.			
	Descriptions of hardwood joinery shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete.			
	<u>Fixing</u>			
	Items described as nailed shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete			
	Decorative laminate finish			
	Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish			
	<u>Timber</u>			
	All softwood to be South African Pine			
	Carried Forward		R	
	Section No. 4 10 SEATS ENVIROLOO TOILET BLOCK Bill No. 7			
	Carpentry and Joinery			

Brought Forward	R	
<u>Descriptions</u>		
Items described as "bolted" shall be deemed to exclude the bolts and include the holes unless otherwise described.		
Where the fixing of members is not stated it shall mean the nailing of one timber member to another.		
The term "planted on" shall mean the nailing of one timber member to another		
The term "screwed on" shall mean the countersunk screwing of one timber member to another.		
The term "screwed on and pelleted" shall mean the screwing of one timber member to another with the heads of screw sunk and pelleted.		
The term "plugged" shall mean the countersunk screwing of a timber member to and including plastic plugs in brickwork or concrete.		
The term "plugged and pelleted" shall mean the screwing of a timber member to and including plastic plugs in brickwork or concrete with heads of screw sunk and pelleted.		
Shelving, etc. described as screwed to steel must be fixed from underside and prices are to include for countersunk drilling through the steel for screw fixing.		
Descriptions of floors, ceilings, joinery, etc. shall be deemed to include for all square cutting		
Descriptions of items given in linear metre shall be deemed to include for mitres, stopped ends, fitted intersections, etc.		
Descriptions of rounded angles, rebates, grooves, chamfers, moulded edges, etc. shall be deemed to include for angles, ends, etc.		
Carried Forward	R	
Section No. 4 10 SEATS ENVIROLOO TOILET BLOCK Bill No. 7		
Carpentry and Joinery		

	Brought Forward			R	<u> </u>
	ROOFS, ETC				
	Plate nailed timber roof truss construction				
	The following is applicable in respect of roof trusses:				
	All timber to be sawn softwood in accordance with V4 or M4 as defined in SABS 563 or SABS 1245.				
	Metal connector plates shall have a minimum yield strength of 228 MPa and a minimum ultimate tensile strength of 330 Mpa with hot-dip galvanised finish.				
	All joints to be close fitted butt joints.				
	Trusses shall be designed by a registered supplier of prefabricated trusses who shall issue an Engineers Certificate upon completion of the installation.				
	The dimensions in the descriptions of the trusses are nominal and actual measurements are to be obtained on site before design or fabrication commences.				
	Tenderers must study the roof plan and sections as attached to the back of these bills of quantities and must obtain prices from a qualified and registered roof truss supplier as no claims in this regard will be entertained.				
	Roof trusses				
4/7/1	Design, supply, take delivery, temporary store, hoist in position and erect plate nailed timber roof trusses, purlins, gang boarding, temporary and permanent bracing, etc (measured on plan)	m2	84		
	Sawn softwood				
4/7/2	38 x 114mm Wall plates	m	58		
	<u>Sundries</u>				
4/7/3	Two coats creosote on sawn timbers	m2	21		
	Similar Approved				
					
	Carried Forward			R	
	Section No. 4 10 SEATS ENVIROLOO TOILET BLOCK Bill No. 7 Carpentry and Joinery				

	Brought Forward			R		
	"Everite FC77" Fascia and badge boards				ľ	ļ
4/7/4	15 x 225mm Pressed fibre cement fascia boards, fixed to supports and roof timbers with one brass screw at maximum 750mm centres, including standard aluminium half round cover strips at all joints, as per architect's specification	m	58			
	DOORS ETC					
	44mm thick solid R&F panel meranti timber doors with masonite backing with 15 horizontal slates on both sides hung to steel frames					
4/7/5	813 x 2032mm single door	No	15			
4/7/6	914 x 2032mm single door	No	10			
	WINDOWS					
	Similar Approved					
	"Nutec" fibre cement window cills					
4/7/7	150mm x 15mm thick fibre cement Window sill set flat and slightly projecting, with window sill lug screwed to underside of sill at 400mm centres, minimum of 75mm from end of window sill and bedded in 1:4 cement sand mortar with plastic slip joints at end of sills at plaster reveals and projecting from finished face of wall, all as per manufacturer's recommendations	m	5			
	Carried Forward to Summary of Section No. Section No. 4 10 SEATS ENVIROLOO TOILET BLOCK Bill No. 7 Carpentry and Joinery			R		

Item No		Quantity	Rate	Amount
	BILL NO. 8			
	CEILINGS, PARTITIONS AND ACCESS FLOORING			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.			
	GENERAL NOTES TO TENDERERS			
	General notes, described in Bill No.1, shall equally apply to this Bill.			
	<u>Fixing</u>			
	Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 500mm centres, and where described as "bolted", the bolts have been given elsewhere.			
	Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins, or to be shot-pinned, to brickwork or concrete			
	Ceilings & Bulkheads			
	Unless otherwise described ceilings shall be deemed to be horizontal			
	Steel components			
	All steel components for ceilings, partitions, etc are to be galvanised in accordance with SANS 121			
	Carried Forward		R	
	Section No. 4 10 SEATS ENVIROLOO TOILET BLOCK Bill No. 8			
	Ceilings,Partitions and Access Flooring			

	Brought Forward			R	
	Proprietary suspended ceilings				
	Hangers, suspension grids, "lay-in" panels, etc are to be in accordance with the manufacturers' recommendations				
	Where electrical light fittings, diffusers, panels etc are units of the same dimensions as the suspension grid described and allowance must be made in the rates accordingly for their support inclusive of any flexibility in setting out that may be required (ceiling panels have not been deducted and pricing is to take cognisance thereof)				
	Suspension systems				
	Where suspensions of ceilings require a sub-grid, the tenderer should include in his rates for the sub-grid. The design of the sub-grid support is not specified, the tenderer is to obtain the necessary requirements and recommendations for a safe installation from the board and suspension system manufacturer to the satisfaction of the structural engineer.				
	NAILED UP CEILINGS				
	FIBRE - CEMENT BOARDS				
	Similar Approved				
	6mm "Everite Nutec" Fibre-cement boards, jointed with and including galvanised H-type primed pressed steel jointing strips, including brandering as per architect's specifications				
4/8/1	2400 x 1200mm x 6mm Horizontal ceilings, fixed to and including 38 x 38mm sawn softwood brandering at maximum 400mm centres using 38mm long galvanised nails	m2	42		
	CORNICES				
	Similar Approved				
	"Rhino" plasterboard cornice				
4/8/2	75mm Coved cornice, plugged to brickwork	m	95		
	Carried Forward			R	
	Section No. 4 10 SEATS ENVIROLOO TOILET BLOCK Bill No. 8 Ceilings,Partitions and Access Flooring			K	

	Brought Forward			R	
	SUNDRIES				
	Extra over for Trap Doors				
4/8/3	Extra over ceiling for 600 x 600mm trap door of 38 x 50mm wrought softwood rebated framing, with one 38 x 38mm sawn softwood cross brander covered with ceiling board and fitted flush in opening	No	5		
	Carried Forward Section No. 4 10 SEATS ENVIROLOO TOILET BLOCK Bill No. 8 Ceilings,Partitions and Access Flooring			R	

	Brought Forward		R	
	CEILING INSULATION			
	<u>Insulation</u>			
4/8/4	125mm thick Glass wool insulation blanket closely fitted and laid on top of ceiling panels, all in strict accordance with the manufacturer's specifications. m2	42		
	Carried Forward to Summary of Section No.		R	
	Section No. 4 10 SEATS ENVIROLOO TOILET BLOCK			
	Bill No. 8			
	Ceilings,Partitions and Access Flooring			

Item No		Quantity	Rate	Amount
	BILL NO. 9			
	IRONMONGERY			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.			
	GENERAL NOTES TO TENDERERS			
	General notes, described in Bill No.1, shall equally apply to this Bill.			
	Where ironmongery is described as plugged, prices are to include for screwing to and including approved patent plugs in concrete or brickwork with plaster or tiled finish, etc.			
	Proprietary items			
	Where applicable the manufacturers' names or product catalogue titles are given in sub-headings preceding the items			
	Prices are to be based on the specific products/articles specified. If tenderers wish to offer alternative products/articles for certain items, these items are to be clearly marked and the alternative specification given with supporting brochures etc clarifying the features of the products/articles offered			
	On request returnable samples are to be provided to the principal agent for consideration			
	Carried Forward		R	
	Section No. 4 10 SEATS ENVIROLOO TOILET BLOCK Bill No. 9 Ironmongery			

	Brought Forward			R	
	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 AN Anodised natural AS Anodised silver AB Anodised bronze AG Anodised gold ABL Anodised black PB Polished brass PL Polished and lacquered PT Epoxy coated SD Sanded Rates The tenderer is to price for supply, taking delivery of, storing and fixing of the ironmongery listed below. SUNDRIES				
	<u>Approved</u>				
4/9/1	"CZ8730SC" Door stop or similarly approved to wall or floors	No	25		
	Carried Forward to Summary of Section No. Section No. 4 10 SEATS ENVIROLOO TOILET BLOCK Bill No. 9 Ironmongery			R	

Item No		Quantity	Rate	Amount
	BILL NO. 10			
	METALWORK			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.			
	GENERAL NOTES TO TENDERERS			
	General notes, described in Bill No.1, shall equally apply to this Bill.			
	ALUMINIUM			
	The contractor is to make due allowance in his prices for complying with the following requirements.			
	SPECIFICATIONS			
	User Note:			
	Glazing			
	All Safety glazing material (individual panes) are to conform to all standards as stipulated in SANS 10400 Part N and SANS 10137 and any additional Engineer Specifications or relevant SANS glazing regulations not stipulated in this document. All tenderers are referred to the drawings for the glazing specification.			
	Ironmongery			
	All rates for windows, shopfronts and doors etc. must include for the supply, taking delivery or/and installation of the ironmongery to be specified.			
	Carried Forward		R	
	Section No. 4 10 SEATS ENVIROLOO TOILET BLOCK Bill No. 10 Metalwork			

	Brought Forward	R	
Actuators			
All rates for shopfronts with actu supply and installation of actuato			
<u>Scaffolding</u>			
All scaffolding should be provide contractor and no claims/ qualific accepted.			
<u>Protection</u>			
With this tender, the glazing sub a statement concerning protection to finishes and components until This to include specific reference removal of such protection. All tenderers to include cost of p	on that will be provided Practical Completion. es to the method of		
<u>Installation</u>			
All measurements to be checked ordering and manufacturing.	I on site prior to		
Aluminium sections and shop dra by Architect prior to manufacturi			
Allow for water and weather proc to approved specifications all arc plaster and other materials.			
<u>Profiles</u>			
Tenderers to provide typical deta aluminium section to be used in			
Structural Silicone			
Tenderers to allow a 10 year gua powdercoating.	arantee on all		
Preliminary and Shop Drawing	<u>ıs:</u>		
The contractor shall submit preling showing basic system sections fapproval.			
	Carried Forward	R	
Section No. 4 10 SEATS ENVIROLOO TOILET Bill No. 10 Metalwork	BLOCK		

В	rought Forward	R	
After approval and prior to fabrication deta drawings shall be prepared and submitted Architect for approval.			
Fixing:			
The contractor is to take special note of a of all aluminium elements and must allow properly securing the aluminium sections with and including all necessary steel bratimber grounds and sub-frames, including holing and bolting, etc. This fixing is to be spaced and securely fixed to ensure total door frames, windows, etc. as no sagging improper functioning of the windows and accepted.	in his price for to the structure ckets, rails, all necessary adequately stiffness of the causing		
<u>Deflection of structure:</u>			
The contractor is advised to make adequator the design deflection of the structure.	ate provision		
Tolerances:			
Sizes are approximate only and measure must be taken before fabrication. Due allobe made for tolerances in accordance with Architect's details.	owance must		
Protection:			
The contractor will be required to protect the course of construction, which protection adequate for the purpose and to the full a Architect.	on shall be		
Such protection shall only be removed affinstruction from the Architect.	ter a written		
Cleaning:			
All work must be cleaned down upon com Glazing as installed will not be accepted a and the contractor must allow for polishing when instructed by the Architect.	as clean glass		
Note: All windows and doors should be reconjunction with window and door schedu			
	Carried Forward	R	
Section No. 4 10 SEATS ENVIROLOO TOILET BLOCK Bill No. 10 Metalwork			

Brought Forward	R	
Carried Forward Section No. 4	R	
10 SEATS ENVIROLOO TOILET BLOCK Bill No. 10		
Metalwork		

	Brought Forward			R	
	WELDED SCREENS, GATES, ETC.				
	Welded MS gate consisting of 50 x 50 x 2.5mm rectangular tubing section frame with 45 degrees mitre at corners, bolted to reveals with 10mm (10M) rawlbolts and welded with 50 x 50 x 5mm mild steel to walls, with 50 x 50 x 2.5mm mild steel rectangular tube gate leaf with 45 degree mitre at corners and two 50 x 50 x 2.5mm horizontal sections, with 12 x 12mm mild steel vertical style solid square bars at 100mm c/c, including 3x pair of 20mm diameter bullet-hinges per gate, with "Solid blesbok" 460/313 four lever lockset with rebate set, including welding, bolting, holes, bolts etc., all complete as per the architect's specifications				
4/10/1	Steel gate to door, size 813mm x 2032mm high	No	5		
	PRESSED STEEL DOOR FRAMES				
	1.2mm thick Single rebated frame suitable for half brick walls, complete with lugs and base ties, with red oxide primer factory finish by manufacturer				
4/10/2	813 x 2032mm single door	No	10		
	1.2mm thick Single rebated frame suitable for one brick walls, complete with lugs and base ties, with red oxide primer factory finish by manufacturer				
4/10/3	813 x 2032mm single door	No	5		
4/10/4	914 x 2032mm single door	No	10		
	WINDOWS FRAMES, etc.				
	Standard mild steel school type Top-hung open out window frame (with brass fittings), with burglar bars to opening and fixed sections, consisting of 10mm diameter mild steel round bars to standard NBP2 pattern, welded at intersections and window frames, all as per architect's specification				
4/10/5	Window size 533 x 950mm high	No	10		
	Carried Forward to Summary of Section No. Section No. 4			R	<u> </u>
	10 SEATS ENVIROLOO TOILET BLOCK Bill No. 10 Metalwork				

Item No			Quantity	Rate	Amount
	BILL NO. 11				
	PLASTERING				
	PREAMBLES				
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.				
	SUPPLEMENTARY PREAMBLES				
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.				
	GENERAL NOTES TO TENDERERS				
	General notes, described in Bill No.1, shall equally apply to this Bill.				
	SCREEDS				
	1:4 Cement sand screed on concrete, worked down to a true and even surface with a steel trowel				
4/11/1	30mm Thick on floors and landings	m2	67		
4/11/2	30mm Thick to falls and currents	m2	7		
	INTERNAL PLASTER				
	One coat smooth 1:5 cement sand plaster on brickwork to receive finish				
4/11/3	On brick walls	m2	234		
4/11/4	On narrow widths	m2	23		
	CORNER PROTECTORS, DIVIDING STRIPS, ETC				
4/11/5	Aluminium straight edge M-trim suitable for underscreed fixing in vinyl/ceramic, etc. installed as per manufactures recommendation and specification.	m	4		
	Carried Forward to Summary of Section No.			R	
	Section No. 4 10 SEATS ENVIROLOO TOILET BLOCK Bill No. 11 Plastering				

Item No		Quantity	Rate	Amount
	BILL NO. 12			
	TILING			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.			
	Pricing			
	Prices are to included for the following: Cutting, handling, labour, adhesive etc.			
	<u>Fixing</u>			
	Tiling described as "fixed with adhesive on power floated concrete" shall be deemed to include for approved tiling key-coat.			
	Ceramic, porcelain, marble and granite tiles are to be fixed, grouted and pointed with suitable adhesives and grouts, as recommended by the Architect. Costs are hereby deemed to include the cost of this requirement.			
	Payment for work that is deemed measurable, in respect of the conditions of contract, and which comprises cutting, leaving, or forming, rectangular holes and notches through tiling is hereby deemed to apply only to holes and notches that do not exceed 600mm girth. Those exceeding 600mm in girth are hereby deemed to be "square cutting", which is hereby deemed to be part of the work description for that type of tiling and is not measurable as a separate item of work.			
	<u>Wastage</u>			
	Tile wastage in excess of 10% will be for the tenderer's account.			
	Carried Forward		R	
	Section No. 4 10 SEATS ENVIROLOO TOILET BLOCK Bill No. 12 Tiling			

	Brought Forward			R	
	GENERAL NOTES TO TENDERERS				
	General notes, described in Bill No. 1, shall equally apply to this Bill.				
	<u>Note</u>				
	All scaffolding should be provided by the contractor and no claims/qualifications will be accepted.				
	WALL TILING				
	150 x 150 x 6mm ceramic tiles (PC allowance of R 120.00/m2 excludes V.A.T. but includes delivery to site), includes waste, laying, supply and fixing with an approved adhesive and jointing white grout all as per manufacturers specifications				
4/12/1	Plastered walls	m2	139		
4/12/2	On narrow widths	m2	14		
4/12/3	Splash backs	m2	2		
	FLOOR TILING				
	420 x 420 x 11.5mm Thick non-slip ceramic tiles (P.C allowance of R 200.00/m2 excludes V.A.T. but includes delivery to site), includes waste, laying, supply and fixing with an approved adhesive and jointing in waterproof cementetious grout				
4/12/4	On floors	m2	74		
4/12/5	75mm high skirting	m	182		
	ATTIC STOCK				
4/12/6	150 x 150 x mm ceramic tiles(PC allowance of R 120.00/m2 excludes V.A.T. but includes delivery to site)	m2	14		
4/12/7	420 x 420 x 11.5mm Thick non-slip ceramic tiles (P.C allowance of R 200.00/m2 excludes V.A.T. but includes delivery to site)	m2	7		
	SUNDRIES				
					_
	Carried Forward			R	
	Section No. 4 10 SEATS ENVIROLOO TOILET BLOCK Bill No. 12 Tiling				

	Brought Forward		R	
	10mm aluminium straight edge trim			
4/12/8	Dividing strip between tiles and door frames m	4		
	Carried Forward to Summary of Section No.		R	
	Section No. 4			
	10 SEATS ENVIROLOO TOILET BLOCK Bill No. 12			
	Tiling			

Item No		Quantity	Rate	Amount
	BILL NO. 13			
	PLUMBING AND DRAINAGE (PROVISIONAL)			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.			
	uPVC pipes and fittings:			
	Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings			
	uPVC pressure pipes and fittings:			
	Pipes for water supply shall be of the class stated			
	Excavations:			
	No claim for excavation in material other than "earth" will be entertained unless the contractor has timeously notified the quantity surveyor thereof prior to backfilling, and has obtained, in writing, authorised classification thereof.			
	"Intermediate material" and " hard rock" shall be as defined in "Earthworks".			
	Quantities of all excavations, carting away excavated material and backfilling are calculated on the nett extent to be formed, or filled, in accordance with drawings and specifications, and the Contractor is to allow in his prices for any bulking.			
	Classes of excavation shall be as S.A.B.S 1200D clause 3.1.2.			
	Carried Forward		R	
	Section No. 4 10 SEATS ENVIROLOO TOILET BLOCK Bill No. 13 Plumbing and Drainage			

	Brought Forward			R	
	Laying, backfilling, bedding, etc., of pipes:				
	Pipes shall be laid and bedded, and trenches shall be carefully backfilled, in accordance with the specific instructions				
	GENERAL NOTES TO TENDERERS				
	General notes, described in Bill No.1, shall equally apply to this Bill.				
	RAINWATER GOODS				
	Similar Approved				
	<u>Gutters</u>				
4/13/1	100 x 100 x 0.6mm thick Ogee profile eaves gutter aluminium box gutter, fixed with and including fixing clips to fascia boards	m	58		
4/13/2	Extra over eaves gutter for stopped end	No	20		
4/13/3	Extra over eaves gutter for corner	No	43		
4/13/4	Extra over eaves gutter for outlet	No	10		
	Rainwater downpipes				
4/13/5	100mm diameter x 0.6mm thick rainwater downpipe with Chromadek finish (Colour: TBC), fixed with and including brackets to wall face, with brackets spaced as per manufacturer's recommendations, and with downpipes spaced as per engineer's specification	m	35		
4/13/6	Extra over downpipe for offset	No	20		
4/13/7	Extra over downpipe for shoe	No	10		
	SANITARY FITTINGS				
	Refer to sanitary schedule drawing for full description of abbreviations				
	WASH HAND BASINS				
	Comical Formuland				
	Section No. 4 10 SEATS ENVIROLOO TOILET BLOCK Bill No. 13 Plumbing and Drainage			R	

	Brought Forward			R	_
	Similar Approved				
	Vaal Sanitaryware "Hibiscus" vitreous china basin with three semi-punched holes tap holes, including integrated overflow, including chain stay hole through the centre semi-punched tap hole, supplied with plug and chain, hung to walls (PC allowance of R450.00/no excludes V.A.T. but includes delivery to site), includes waste, supply and fixing				
4/13/8	WHB, installed complete	No	5		
	Carried Forward Section No. 4 10 SEATS ENVIROLOO TOILET BLOCK Bill No. 13			R	
	Plumbing and Drainage				

	Brought Forward			R	Τ
	WATER CLOSET				
	Similar Approved				
	Vaal Sanitaryware "Daisy" semi-close coupled water closet comprising double flap heavy duty thermoplastic seat rim pan and matching 9 litre cistern complete with lid, fitments and flush pipe elbow (PC allowance of R2 800.00/no excludes V.A.T. but includes delivery to site), includes waste, supply and fixing				
4/13/9	WC, installed complete	No	10		
	<u>URINALS</u>				
	Similar Approved				
	Vaal Sanitaryware "Lavatera" vitreous china wall hung urinal with top inlet including 38mm chrome plated domical grating, including Cobra "Junior Flushmaster" exposed chrome plated flush valve, including offset urinal flush pipe, chrome plated bottle trap and parallel nipple (PC allowance of R4 950.00/no excludes V.A.T. but includes delivery to site), includes supply and fixing				
4/13/10	Urinal, installed complete	No	15		
	CHROME PLATED WASTE UNIONS, ETC. (Supply & Fit)				
4/13/11	32mm Basin waste union	No	5		
	TOILET ROLL HOLDER				
	To be approved by Architect				
4/13/12	130 x 560 x 130mm mild steel vandal proof Toilet paper roll holder (Colour: White), plugged and screwed to walls				
		No	10		
	SOAP DISPENSER				
	Carried Forward			R	
	Section No. 4 10 SEATS ENVIROLOO TOILET BLOCK Bill No. 13 Plumbing and Drainage				

	Brought Forward		R	
	To be approved by Architect			
4/13/13	110 x 170 x 35mm high plastic Soap dispenser (Colour: White and transparent), with lever button and pump, plugged and screwed to wall	2		
	PAPER TOWEL DISPENSER			
	To be approved by Architect			
4/13/14	360 x 380 x 240mm high lockable auto-cut (reflex) plastic Paper towel dispenser (Colour: White), plugged and screwed to wall	2		
	Carried Forward to Summary of Section No.		R	
	Section No. 4 10 SEATS ENVIROLOO TOILET BLOCK Bill No. 13 Plumbing and Drainage			

Item No		Qu	antity	Rate	Amount
	BILL NO. 14				
	GLAZING				
	PREAMBLES				
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.				
	SUPPLEMENTARY PREAMBLES				
	Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.				
	GENERAL NOTES TO TENDERERS				
	General notes, described in Bill No. 1, shall equally apply to this Bill.				
	Note:				
	All glazing to comply with SABS 1263 Part 3:1998. Light and ventilation to comply with Part O if NBR 0400				
	GLASS TO STEEL WITH PUTTY				
	6mm obscure floated glass fixed glazing putty				
4/14/1	Panes exceeding 0.5m2 and not exceeding 2.0m2	m2	5		
	TOPS, SHELVES, DOORS, MIRROR ETC				
	6mm Polished plate float glass mirrors with square polished edges plugged with chrome plated detachable screws or similarly approved				
4/14/2	Mirror 400 x 600 mm high	No	5		
	Carried Forward to Summary of Section No.			R	
	Section No. 4 10 SEATS ENVIROLOO TOILET BLOCK Bill No. 14				

Item No			Quantity	Rate	Amount
	BILL NO. 15				
	<u>PAINTWORK</u>				
	PREAMBLES				
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.				
	SUPPLEMENTARY PREAMBLES				
	Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.				
	GENERAL NOTES TO TENDERERS				
	General notes, described in Bill No. 1, shall equally apply to this Bill.				
	PAINTWORK ETC TO NEW WORK				
	FIBRE CEMENT				
	Prepare and apply one coat universal undercoat and two coats Super Acrylic PVA paint or similar approved, colour to be confirmed by architect				
4/15/1	On internal ceilings and cornices	m2	52		
4/15/2	Fibre cement fascias boards not exceeding 300mm high or wide painted on both side	m	58		
	Prepare and apply one coat alkali resistant sealer and two coats mat enamel paint, colour to be confirmed by architect				
4/15/3	Fiber cement window sill not exceeding 300mm high or wide	m	5		
	FLOATED PLASTER INTERNAL WALLS				
	Carried Forward			R	
	Section No. 4 10 SEATS ENVIROLOO TOILET BLOCK Bill No. 15 Paintwork				

	Brought Forward			R	Π
	Prepare and apply one coat merit universal undercoat and two coats Super Acrylic PVA paint or similar approved, colour to be confirmed by architect				
4/15/4	Plastered walls	m2	234		
	METAL SURFACES				
	Prepare and apply one coat Duraphos, one coat universal under coat and two coats gloss enamel paint, colour to be confirmed by architect				
4/15/5	On gates, grilles, burglar screens, balustrades, etc (both sides measured on full flat area)	m2	19		
4/15/6	On window frames	m2	5		
4/15/7	On door frames	m2	32		
4/15/8	On gutters	m	58		
4/15/9	On downpipes	m	36		
	WOOD				
	Prepare and apply one coat universal undercoat and two coats acrylic PVA, colour to be confirmed by architect				
4/15/10	On door	m2	70		
	Prepare and paint three coats clear varnish:				
4/15/11	On door	m2	16		
	Carried Forward to Summary of Section No. Section No. 4 10 SEATS ENVIROLOO TOILET BLOCK Bill No. 15 Paintwork			R	
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LIMPOPO DEPARTMENT OF EDUCATION UPGRADES AND ADDITIONS AT CHAMETI HIGH SCHOOL

	SECTION SUMMARY			
Bill No		Page No		Amount
4/1	Demolitions and Alterations	4/4		
4/2	Earthworks	4/8		
4/3	Concrete,Formwork and Reinforcement	4/13		
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4/6	Roof Coverings	4/20		
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4/8	Ceilings,Partitions and Access Flooring	4/28		
4/9	Ironmongery	4/30		
4/10	Metalwork	4/35		
4/11	Plastering	4/36		
4/12	Tiling	4/39		
4/13	Plumbing and Drainage	4/44		
4/14	Glazing	4/45		
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	Carried to Final Summary		R	
	Section No. 4			
	10 SEATS ENVIROLOO TOILET BLOCK			

Item No		Quantity	Rate	Amount
	SECTION NO. 5			
	BILL NO. 1			
	DEMOLITIONS AND ALTERATIONS			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Subterranean water			
	No subterranean water is expected			
	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			
	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 necessary multiple handling of material			
	Carried Forward		R	
	Section No. 5 MEDIUM ADMINISTRATION BLOCK Bill No. 1 Demolitions and Alterations			
	Demonuona and Alterations			

Brought Forward	R	
Testing		
Prices for filling are to include for all necessary density tests in accordance with SABS 1200D		
Existing structures		
In taking down and removing existing work, the utmost care shall be taken to prevent any structural or other damage to the remaining portions on the building and the Contractor shall provide all shoring, needling, strutting, etc. to ensure the stability of all structures during the alteration work, Any damage to the structure and/or building as well as the rectification of same will be for the contractor's account		
Services		
Special care shall be exercised during the progress of the work to ensure that electrical installation, water supply pipes, telephone and other services which may be encountered are not interfered with and notice shall be given to the Representative/Agent if any disconnection or alterations become necessary.		
Dust and noise		
The Contractor is to take all necessary precautions to the satisfaction of the Representative/Agent to prevent any nuisance from the dust and /or noise whilst carrying out the work.		
<u>Disposal of debris</u>		
The Contractor shall be responsible for the removal from site of all materials, debris and rubbish resulting from the work which removal is deemed to be included in the rates unless otherwise stated.		
Rates for taking out and removing doors and frames shall include for removing door stops, cabin hooks, etc and making good floor and wall finishes to match existing		
Making good of finishes shall include making good of the brick and concrete surfaces onto which the new finishes are applied, where necessary		
Carried Forward	R	
Section No. 5 MEDIUM ADMINISTRATION BLOCK Bill No. 1		

Brought Forward	R	
Temporary support to openings through existing walls		
Making openings, altering openings in existing walls and removing lintels above existing openings shall be done with the utmost care to prevent any structural damage. All necessary supports, propping, shoring, needling, strutting, turning pieces, etc. to walls openings is deemed to be included in the contractor's rates.		
Electrical and Mechanical		
Where items include for taking down electrical and mechanical fittings the disconnection and making safe electrically is deemed to be included.		
GENERAL NOTES TO TENDERERS		
Tenderers are to inspect the drawings issued with these Bills of Quantities and to satisfy themselves with the nature and the requirements of the Contract works. Failure to do so will be the complete responsibility of the Tenderer and no claims whatsoever will be entertained in this regard.		
Tenderers are to read the descriptions, which are intended as a means of identifying various facets of the work, in conjunction with the drawings. Tenderers shall allow for all costs in connection with the various items taking full cognisance of both the drawings and the Bills of Quantities.		
Tenderers shall notify the Quantity Surveyor in writing of any discrepancies encountered upon which clarification will be given by the Quantity Surveyor in writing to the Tenderer. Failure to do so will be the complete responsibility of the Tenderer and no claims whatsoever will be entertained in this regard		
Section No. 5 MEDIUM ADMINISTRATION BLOCK	R	
Bill No. 1 Demolitions and Alterations		

	Brought Forward			R	_
	Tenderers are to note that setting out of the works will be the complete responsibility of the Tenderer and they should therefore acquaint themselves with the site boundaries, site co-ordinates, datum levels etc. Failure to do so will be the complete responsibility of the Tenderer and no claims whatsoever will be entertained in this regard. Tenderers are to note that all items with ZERO quantities are Rate Only items and should be priced as such.				
	Tenderers are to note that there might be specified suppliers to be used for certain trades as per the annexure to this tender document. Tenderers should familiarise themselves with the suppliers on the list and ensure to allow for accordingly. Failure to do so will be the complete responsibility of the Tenderer and no claims whatsoever will be entertained in this regard. Tenderers are to fully acquaint themselves with the construction period and shall allow for any night shift if required. Failure to do so will be the complete responsibility of the Tenderer and no claims whatsoever will be entertained in this regard. REMOVAL OF EXISTING WORK				
	Taking down and removing roofs, floors, panelling, ceilings, partitions, tc				
5/1/1	Timber trusses and purlins	m2	367		
	Taking out and removing sundry joinery work				
5/1/2	Timber skirting from brickwork	m			
	Corried Femiliard to Cumman of Costion No.				
	Carried Forward to Summary of Section No. Section No. 5 MEDIUM ADMINISTRATION BLOCK Bill No. 1 Demolitions and Alterations			R	

Item No		Quantity	Rate	Amount
	BILL NO. 2			
	EARTHWORKS (PROVISIONAL)			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.			
	GENERAL NOTES TO TENDERERS			
	General notes, described in Bill No.1, shall equally apply to this Bill.			
	NOTES			
	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			
	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			
	Excavations measured in successive depths of 2m.			
	SITE CLEARANCE ETC			
	Carried Forward		R	
	Section No. 5 MEDIUM ADMINISTRATION BLOCK Bill No. 2 Earthworks			

	Brought Forward			R	
	Site clearance	Ī			
5/2/1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc	m2	435		
	EXCAVATIONS				
	Excavation in earth not exceeding 2m deep				
5/2/2	Trenches	m3	109		
	Extra over excavations in earth to trenches and holes for				
5/2/3	Excavation in soft rock	m3	11		
5/2/4	Excavation in hard rock	m3	5		
	Back excavation of vertical sides of excavation in earth for working space including backfilling compacted to 93% Mod AASHTO density				
	CARTING AWAY OF EXCAVATED MATERIAL				
	Note:				
	Description 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.				
5/2/5	Extra over all excavation for carting away surplus material from excavation and / or stockpile on site to a dumping site to be located by the Contractor	m3	62		
	RISK OF COLLAPSE OF EXCAVATIONS				
	Risk of collapse to side of excavation in earth not exceeding 1,5m deep				
5/2/6	Trenches and holes	m2	335		
	FILLING, ETC.				
	Carried Forward			R	
	Section No. 5 MEDIUM ADMINISTRATION BLOCK Bill No. 2 Earthworks				

	Brought Forward			R	_
	Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO density in layers not exceeding 150mm thick				
5/2/7	Backfilling to trenches, holes, etc	m3	53		
5/2/8	Under floors, steps, pavings, etc	m3	237		
	Imported gravel filling (G7) stabilise with 2-3% cement compacted to 93% Mod AASHTO density in layers not exceeding 150mm thick				
5/2/9	Backfilling to trenches, holes, etc	m3	16		
5/2/10	Under floors, steps, pavings, etc	m3	46		
	Filling supplied by the Contractor under floors, trenches, etc.				
5/2/11	Sub-base filling (G5) from excavations under solid floors, steps, etc. compacted to 95% modified AASHTO density in layers not exceeding 150mm thick	m3	46		
	COMPACTION OF SURFACES				
5/2/12	Prepare ground surface by scarifying sub-grade, rip and re-compact 150mm to 90% modified AASHTO density	m2	484		
	WEED KILLERS, INSECTICIDES, TERMITES, etc.				
	Protection against termites, ants, etc				
5/2/13	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m2	484		
5/2/14	To bottom and sides of excavated trenches, Holes, etc.	m2	444		
					_
	Carried Forward to Summary of Section No. Section No. 5 MEDIUM ADMINISTRATION BLOCK Bill No. 2 Earthworks			R	=

Item No		Quantity	Rate	Amount
_	BILL NO. 3			
	CONCRETE, FORMWORK AND REINFORCEMENT			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.			
	Cost of tests			
	The costs of making, storing and testing of concrete test cubes as required under clause 7, "Tests" of SANS 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 principal agent. The testing shall be undertaken by an independent firm or institution nominated by the contractor to the approval of the principal agent. (Test cubes are measured separately)			
	<u>Formwork</u>			
	Descriptions of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before 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.			
	Carried Forward		R	
	Section No. 5 MEDIUM ADMINISTRATION BLOCK Bill No. 3			
	Concrete,Formwork and Reinforcement			

Brought Forward	R	
Formwork to soffits of solid slabs, etc. shall be deemed to be to slabs not exceeding 250mm thick unless otherwise described. Formwork to soffits of slabs, beams, etc. shall be deemed to be propped up exceeding 1,5m and not exceeding 3,5m high unless otherwise described. 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".		
The Tenderer is to note that for the "off-shutter" concrete finish shall be in accordance with the architectural specification 616 CON-140: Smooth + fair finish:-		
Degree of accuracy: I Finish: Smooth and even Form facing material to produce a smooth, hard, uniform texture on the concrete Steel faced formwork. Joints grout-tight. Panels shall be as large as practicable and arranged in a regular pattern as a feature of the surface		
 Formwork tie holes: to the approval of the architect Repair imperfections: not allowed. Tie bolt holes shall be patched Not permitted: blowholes, small fins, bulges, irregularities, voids, honeycombing, segregation and other large defects. Concrete surfaces: No further treatment to form a smooth finish of uniform texture, appearance and colour 		
Structural Concrete		
Tenderers are referred to the Structural Engineer's - Standard Specifications which should be read before pricing this trade in particular, but also the other trades. The use of extenders, fly-ash, etc. are clearly described on this drawing.		
Carried Forward	R	
Section No. 5 MEDIUM ADMINISTRATION BLOCK Bill No. 3		

	Brought Forward			R	
	GENERAL NOTES TO TENDERERS				
	General notes, described in Bill No.1, shall equally apply to this Bill.				
	UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES				
	15Mpa/19mm concrete				
5/3/1	Blinding	m3	5		
	REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACE				
	25MPa/19mm Concrete				
5/3/2	Strip footings	m3	27		
	REINFORCED CONCRETE CAST IN FORMWORK				
	20Mpa/19mm concrete				
5/3/3	Concrete Apron cast to fall etc,	m3	18		
	25MPa/19mm Concrete				
5/3/4	Surface beds cast in panels	m3	40		
5/3/5	Slabs including beams and inverted beams	m3	1		
	TEST BLOCKS				
	Notes:				
	Concrete strength test cubes, label and send to an approved laboratory for testing, pay all charges and submit report to the Regional Representative. Only successful tests will be paid for (Provisional)				
5/3/6	Making and testing 150 x 150 x 150mm concrete strength test cube (Provisional)	No	179		
	SUNDRIES TO CONCRETE				
	Carried Forward			R	
	Section No. 5 MEDIUM ADMINISTRATION BLOCK Bill No. 3 Concrete,Formwork and Reinforcement				

	Brought Forward			R	Π
	Surface treatment				
5/3/7	Power float top surface of concrete surface bed to a true and even level finish	m2	489		
	ROUGH FORMWORK (DEGREE OF ACCURACY II)				
	Rough formwork to sides				
5/3/8	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	277		
	Rough formwork to soffits				
5/3/9	Flat slabs not exceeding 250mm thick, propped up not exceeding 3,5m high from bearing level	m2	5		
	MOVEMENTS JOINTS ETC,				
	Saw cuts Joints				
5/3/10	3 x 30mm In saw cut joints in floors	m	19		
	Expansion joints				
5/3/11	10mm soft board or similar approved between concrete and brick wall	m	87		
	REINFORCEMENT (PROVISIONAL)				
	High and mild tensile steel reinforcement to structural concrete work				
5/3/12	All diameter bars	t	2		
	Fabric reinforcement:				
5/3/13	Type 245 fabric reinforcement in concrete surface beds, slabs, etc.	m2	305		
	Carried Femulard to Summary of Section No.			R	\Box
	Carried Forward to Summary of Section No. Section No. 5			K	+
	MEDIUM ADMINISTRATION BLOCK Bill No. 3				
	Concrete,Formwork and Reinforcement				

Item No		Quantity	Rate	Amount
	BILL NO. 4			
	MASONRY			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.			
	GENERAL NOTES TO TENDERERS			
	General notes, described in Bill No.1, shall equally apply to this Bill.			
	Sizes in descriptions			
	Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick			
	Hollow walls etc			
	Descriptions of hollow walls shall be deemed to include leaving every fifth perpend of the bottom course of the external skin open as a weep hole. Walls in two skins described as "bagged and sealed" shall be deemed to include having the outer face of the inner skin bagged with 1:6 cement and sand mixture and sealed with two coats "Brickseal" bitumen emulsion waterproofing coating.			
	Face bricks			
	Bricks shall be ordered timeously to obtain uniformity in size and colour			
	Carried Forward		R	
	Section No. 5 MEDIUM ADMINISTRATION BLOCK Bill No. 4 Masonry			

	Brought F	orward		R	
	<u>Pointing</u>				
	Descriptions of recessed pointing to fair face brick and face brickwork shall be deemed to include sq recessed, hollow recessed, weathered pointing, et	uare			
	BRICKWORK IN FOUNDATION				
	Brickwork in 73mm burnt clay masonry units of NFP in Class II mortar, laid in stretcher bond with 10mm flush joints				
5/4/1	One brick wall	m2	126		
	SUPERSTRUCTURE BRICKWORK				
	Brickwork of NFP brick in class II mortar laid in stretcher bond with 10mm flush joints	<u>n</u>			
5/4/2	One brick wall	m2	377		
5/4/3	Half brick wall	m2	127		
5/4/4	Half brick wall, in beamfilling	m2	14		
	Mass brickwork in regular piers of NFP brick in class II mortar laid in stretcher bond	<u>1</u>			
5/4/5	340 x 230mm Brick Piers	m3	1		
5/4/6	360 x 230mm Brick Piers	m3	1		
	FACE BRICKWORK				
	Bricks shall be ordered timeously to obtain uniforr size and colour	nity in			
	"Corobrick" face bricks (Colour: TBC) with PC amount of R 4 500.00 per thousand bricks delit to site (excluding VAT) manufactured in according to SANS 227-2007, bedded and jointed in Clamortar and pointed with recessed 6mm joints both directions	vered dance ass II			
5/4/7	Extra over brickwork for face brickwork in foundati (Provisional)	ons m2	252		
	Carried I Section No. 5 MEDIUM ADMINISTRATION BLOCK Bill No. 4 Masonry	Forward		R	

LIMPOPO DEPARTMENT OF EDUCATION UPGRADES AND ADDITIONS AT CHAMETI HIGH SCHOOL

	Brought Forward			R	
5/4/8	Extra over brickwork for face brickwork in superstructure	m2	256		
5/4/9	Extra over brickwork for face brickwork in brick-on-edge header course lintel	m	41		
5/4/10	Extra over brickwork for face brickwork in brick-on-edge header course sills, bedded in mortar and set slightly sloped	m	32		
5/4/11	Extra over brickwork for face brickwork to piers	m2	27		
5/4/12	Extra over brickwork for face brickwork in beamfilling	m2	14		
	BRICKWORK SUNDRIES				
	Brickwork reinforcement				
5/4/13	75mm Wide reinforcement built in horizontally	m	374		
5/4/14	150mm Wide reinforcement built in horizontally.	m	1 857		
	"Allied concrete" or similar approved prestressed fabricated lintels				
5/4/15	100 x 70mm Lintels in lengths not exceeding 3m	m	43		
5/4/16	175 x 70mm Lintels in lengths not exceeding 3m	m	33		
	Turning pieces				
5/4/17	110mm Wide turning piece to flat brick lintels	m	57		
	Air bricks etc				
5/4/18	Set of 2 240 x 155mm Terracota air bricks as per architects specification	No	4		
	Fair cutting to face brickwork				
	Roof ties				
5/4/19	30 x 1.2mm galvanised steel strapping, built into wall for 5 courses and minimum 800mm to be fixed to trusses	No	76		
	MOVEMENTS JOINTS ETC,				
	Carried Forward Section No. 5			R	
	MEDIUM ADMINISTRATION BLOCK Bill No. 4 Masonry				

	Brought Forward		R	
	Expansion joints			
5/4/20	30mm softboard between vertical brick surfaces not exceeding 300mm wide m2	18		
	Carried Forward to Summary of Section No. Section No. 5		R	<u> </u>
	MEDIUM ADMINISTRATION BLOCK Bill No. 4 Masonry			
	iviasorii y			

BILL NO. 5				
WATERPROOFING				
PREAMBLES				
NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.				
SUPPLEMENTARY PREAMBLES				
Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.				
GENERAL NOTES TO TENDERERS				
General notes, described in Bill No.1, shall equally apply to this Bill.				
DAMP PROOFING OF WALLS AND FLOORS				
One layer of 375 micron "Consol Plastic Brikgrip DPC" embossed damp proof course				
Under walls	m2	3		
Under cills, etc.	m2	7		
One layer of 250 micron "USB Green" or similar approved dampproof membrane sealed at laps with PVC self -adhesive tape				
Under surface beds.	m2	484		
JOINTS SEALANTS, ETC.				
Mastic grey polysulphide sealing compound including raking out of joints filler as necessary				
3 x 30mm In saw cut joints in floors	m	19		
10mm Isolation Joints between surface bed concrete and brick wall	m	87		
Carried Forward to Summary of Section No.			R	
MEDIUM ADMINISTRATION BLOCK Bill No. 5				
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill. SUPPLEMENTARY PREAMBLES Supplementary preamble items described in Bill No. 1, shall equally apply to this bill. GENERAL NOTES TO TENDERERS General notes, described in Bill No.1, shall equally apply to this Bill. DAMP PROOFING OF WALLS AND FLOORS One layer of 375 micron "Consol Plastic Brikgrip DPC" embossed damp proof course Under walls Under cills, etc. One layer of 250 micron "USB Green" or similar approved dampproof membrane sealed at laps with PVC self -adhesive tape Under surface beds. JOINTS SEALANTS, ETC. Mastic grey polysulphide sealing compound including raking out of joints filler as necessary 3 x 30mm In saw cut joints in floors 10mm Isolation Joints between surface bed concrete and brick wall Carried Forward to Summary of Section No. Section No. 5 MEDIUM ADMINISTRATION BLOCK	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill. SUPPLEMENTARY PREAMBLES Supplementary preamble items described in Bill No. 1, shall equally apply to this bill. GENERAL NOTES TO TENDERERS General notes, described in Bill No.1, shall equally apply to this Bill. DAMP PROOFING OF WALLS AND FLOORS One layer of 375 micron "Consol Plastic Brikgrip DPC" embossed damp proof course Under walls m2 Under cills, etc. m2 One layer of 250 micron "USB Green" or similar approved dampproof membrane sealed at laps with PVC self-adhesive tape Under surface beds. m2 JOINTS SEALANTS, ETC. Mastic grey polysulphide sealing compound including raking out of joints filler as necessary 3 x 30mm In saw cut joints in floors m 10mm Isolation Joints between surface bed concrete and brick wall m Carried Forward to Summary of Section No. Section No. 5 MEDIUM ADMINISTRATION BLOCK Bill No. 5	NOTE : The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill. SUPPLEMENTARY PREAMBLES Supplementary preamble items described in Bill No. 1, shall equally apply to this bill. GENERAL NOTES TO TENDERERS General notes, described in Bill No.1, shall equally apply to this Bill. DAMP PROOFING OF WALLS AND FLOORS One layer of 375 micron "Consol Plastic Brikgrip DPC" embossed damp proof course Under walls m2 3 Under cills, etc. m2 7 One layer of 250 micron "USB Green" or similar approved dampproof membrane sealed at laps with PVC self -adhesive tape Under surface beds. m2 484 JOINTS SEALANTS, ETC. Mastic grey polysulphide sealing compound including raking out of joints filler as necessary 3 x 30mm In saw cut joints in floors m 19 10mm Isolation Joints between surface bed concrete and brick wall m 87 Carried Forward to Summary of Section No. Section No. 5 MEDIUM ADMINISTRATION BLOCK Bill No. 5	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill. SUPPLEMENTARY PREAMBLES Supplementary preamble items described in Bill No. 1, shall equally apply to this bill. GENERAL NOTES TO TENDERERS General notes, described in Bill No.1, shall equally apply to this Bill. DAMP PROOFING OF WALLS AND FLOORS One layer of 375 micron "Consol Plastic Brikgrip DPC" embossed damp proof course Under walls m2 3 Under cills, etc. m2 7 One layer of 250 micron "USB Green" or similar approved dampproof membrane sealed at laps with PVC self-adhesive tape Under surface beds. m2 484 JOINTS SEALANTS, ETC. Mastic grey polysulphide sealing compound including raking out of joints filler as necessary 3 x 30mm In saw cut joints in floors m 19 10mm Isolation Joints between surface bed concrete and brick wall m 87 Carried Forward to Summary of Section No. Section No. 5 MEDIUM ADMINISTRATION BLOCK BILL MILLS AND FLOORS BEDIUM ADMINISTRATION BLOCK BILL MILLS AND FLOORS We set to the Association Administration and sistency as a section No. S

Item No			Quantity	Rate	Amount
	BILL NO. 6				
	ROOF COVERINGS				
	PREAMBLES				
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.				
	SUPPLEMENTARY PREAMBLES				
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.				
	GENERAL NOTES TO TENDERERS				
	General notes, described in Bill No.1, shall equally apply to this Bill.				
	ROOF SHEETING				
	Similar Approved				
	0.6mm thick "Brownbuilt Klip-lok light Industrial" galvanised troughed roof sheeting with "Chromadek - Traffic Green" finish on one side, and 0.6mm galvanised steel accessories fixed to timber purlins or rails fixed in strict accordance to the manufacturer's instructions and fixed by an approved erector. A written and approved five (5) year guarantee of water-tightness shall be issued after approval of roofs by the manufacturer				
5/6/1	Roof sheeting pitch not exceeding 25 degrees	m2	441		
5/6/2	550mm girth Ridge capping, 3 times bent and notched on site to suit roof profile	m	25		
5/6/3	550mm girth Hip capping, 3 times bent and notched on site to suit roof profile.	m	39		
5/6/4	550mm girth close cut and mitred Valley gutter, 4 times bent and including soakers, etc	m	9		
	Carried Forward Section No. 5			R	
	MEDIUM ADMINISTRATION BLOCK Bill No. 6 Roof Coverings				

	Brought Forward		R	
	ROOF AND WALL INSULATION			
	Similar Approved			
	Sisalation "Bubble Foil" aluminium foil binded insulation			
5/6/5	135mm thick Insulation laid over purlins (at approximately 750mm centres), fixed concurrent with sheeting with and including galvanised steel accessories	n2 441		
	Carried Forward to Summary of Section No.		R	
	Section No. 5 MEDIUM ADMINISTRATION BLOCK Bill No. 6			
	Roof Coverings			

Item No		Quantity	Rate	Amount
	BILL NO. 7			
	CARPENTRY AND JOINERY			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.			
	GENERAL NOTES TO TENDERERS			
	General notes, described in Bill No.1, shall equally apply to this Bill.			
	<u>Joinery</u>			
	Descriptions of frames shall be deemed to include frames, transoms, mullions, rails, etc.			
	Descriptions of hardwood joinery shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete.			
	<u>Fixing</u>			
	Items described as nailed shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete			
	Decorative laminate finish			
	Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish			
	<u>Timber</u>			
	All softwood to be South African Pine			
	Carried Forward		R	
	Section No. 5 MEDIUM ADMINISTRATION BLOCK Bill No. 7			
	Carpentry and Joinery			

Brought Forward	R	
<u>Descriptions</u>		
Items described as "bolted" shall be deemed to exclude the bolts and include the holes unless otherwise described.		
Where the fixing of members is not stated it shall mean the nailing of one timber member to another.		
The term "planted on" shall mean the nailing of one timber member to another		
The term "screwed on" shall mean the countersunk screwing of one timber member to another.		
The term "screwed on and pelleted" shall mean the screwing of one timber member to another with the heads of screw sunk and pelleted.		
The term "plugged" shall mean the countersunk screwing of a timber member to and including plastic plugs in brickwork or concrete.		
The term "plugged and pelleted" shall mean the screwing of a timber member to and including plastic plugs in brickwork or concrete with heads of screw sunk and pelleted.		
Shelving, etc. described as screwed to steel must be fixed from underside and prices are to include for countersunk drilling through the steel for screw fixing.		
Descriptions of floors, ceilings, joinery, etc. shall be deemed to include for all square cutting		
Descriptions of items given in linear metre shall be deemed to include for mitres, stopped ends, fitted intersections, etc.		
Descriptions of rounded angles, rebates, grooves, chamfers, moulded edges, etc. shall be deemed to include for angles, ends, etc.		
ROOFS, ETC		
Carried Forward	R	
Section No. 5 MEDIUM ADMINISTRATION BLOCK Bill No. 7		
Carpentry and Joinery		

	Brought	Forward		R	_
	Plate nailed timber roof truss construction				
	The following is applicable in respect of roof truss	es:			
	All timber to be sawn softwood in accordance with M4 as defined in SABS 563 or SABS 1245.	n V4 or			
	Metal connector plates shall have a minimum yiel strength of 228 MPa and a minimum ultimate tenstrength of 330 Mpa with hot-dip galvanised finish	sile			
	All joints to be close fitted butt joints.				
	Trusses shall be designed by a registered sup of prefabricated trusses who shall issue an Engineers Certificate upon completion of the installation.	pplier			
	The dimensions in the descriptions of the trus are nominal and actual measurements are to be obtained on site before design or fabrication commences.				
	Tenderers must study the roof plan and section attached to the back of these bills of quantities must obtain prices from a qualified and regist roof truss supplier as no claims in this regard be entertained.	s and ered			
	Roof trusses				
5/7/1	Design, supply, take delivery, temporary store, ho position and erect plate nailed timber roof trusses purlins, gang boarding, temporary and permanent bracing, etc (measured on plan)	,	367		
	Sawn softwood				
5/7/2	38 x 114mm Wall plates	m	92		
	Sundries				
5/7/3	Two coats creosote on sawn timbers	m2	34		
	Similar Approved				
					_
	Carried	Forward		R	
	Section No. 5 MEDIUM ADMINISTRATION BLOCK Bill No. 7 Carpentry and Joinery				

	Brought Forward			R	
	"Everite FC77" Fascia and badge boards				
5/7/4	15 x 225mm Pressed fibre cement fascia boards, fixed to supports and roof timbers with one brass screw at maximum 750mm centres, including standard aluminium half round cover strips at all joints, as per architect's specification	m	94		
	DOORS ETC				
	44mm thick solid R&F panel meranti timber doors with masonite backing with 15 horizontal slates on both sides hung to steel frames				
5/7/5	813 x 2032mm single door	No	12		
5/7/6	914 x 2032mm single door	No	10		
5/7/7	1500 x 2400mm double door	No	2		
	WINDOWS				
	Similar Approved				
	"Nutec" fibre cement window cills				
5/7/8	150mm x 15mm thick fibre cement Window sill set flat and slightly projecting, with window sill lug screwed to underside of sill at 400mm centres, minimum of 75mm from end of window sill and bedded in 1:4 cement sand mortar with plastic slip joints at end of sills at plaster reveals and projecting from finished face of wall, all as per manufacturer's recommendations	m	32		
	Carried Forward to Summary of Section No. Section No. 5 MEDIUM ADMINISTRATION BLOCK Bill No. 7 Carpentry and Joinery			R	

em lo		Quantity	Rate	Amount
	BILL NO. 8			
	CEILINGS, PARTITIONS AND ACCESS FLOORING			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.			
	GENERAL NOTES TO TENDERERS			
	General notes, described in Bill No.1, shall equally apply to this Bill.			
	<u>Fixing</u>			
	Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 500mm centres, and where described as "bolted", the bolts have been given elsewhere.			
	Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins, or to be shot-pinned, to brickwork or concrete			
	Ceilings & Bulkheads			
	Unless otherwise described ceilings shall be deemed to be horizontal			
	Steel components			
	All steel components for ceilings, partitions, etc are to be galvanised in accordance with SANS 121			
	Carried Forward		R	
	Section No. 5 MEDIUM ADMINISTRATION BLOCK Bill No. 8			
	Ceilings,Partitions and Access Flooring			

	Brought Forward			R	
	Proprietary suspended ceilings				
	Hangers, suspension grids, "lay-in" panels, etc are to be in accordance with the manufacturers' recommendations				
	Where electrical light fittings, diffusers, panels etc are units of the same dimensions as the suspension grid described and allowance must be made in the rates accordingly for their support inclusive of any flexibility in setting out that may be required (ceiling panels have not been deducted and pricing is to take cognisance thereof)				
	Suspension systems				
	Where suspensions of ceilings require a sub-grid, the tenderer should include in his rates for the sub-grid. The design of the sub-grid support is not specified, the tenderer is to obtain the necessary requirements and recommendations for a safe installation from the board and suspension system manufacturer to the satisfaction of the structural engineer.				
	NAILED UP CEILINGS				
	FIBRE - CEMENT BOARDS				
	Similar Approved				
	6mm "Everite Nutec" Fibre-cement boards, jointed with and including galvanised H-type primed pressed steel jointing strips, including brandering as per architect's specifications				
5/8/1	2400 x 1200mm x 6mm Horizontal ceilings, fixed to and including 38 x 38mm sawn softwood brandering at maximum 400mm centres using 38mm long galvanised nails	m2	284		
	CORNICES				
	Similar Approved				
	"Rhino" plasterboard cornice				
5/8/2	75mm Coved cornice, plugged to brickwork	m	254		
	Carried Forward			R	
	Section No. 5 MEDIUM ADMINISTRATION BLOCK Bill No. 8 Ceilings,Partitions and Access Flooring			K	

	Brought Forward			R	Τ
	<u>SUNDRIES</u>				
	Extra over for Trap Doors				
5/8/3	Extra over ceiling for 600 x 600mm trap door of 38 x 50mm wrought softwood rebated framing, with one 38 x 38mm sawn softwood cross brander covered with ceiling board and fitted flush in opening	No	2		
	CEILING INSULATION				
	Insulation				
5/8/4	125mm thick Glass wool insulation blanket closely fitted and laid on top of ceiling panels, all in strict accordance with the manufacturer's specifications.	m2	284		
	Comind Formand to Commence of Continue			5	+
	Carried Forward to Summary of Section No. Section No. 5			R	+
	MEDIUM ADMINISTRATION BLOCK Bill No. 8 Ceilings,Partitions and Access Flooring				
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Item No		Quantity	Rate	Amount
	BILL NO. 9			
	IRONMONGERY			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.			
	GENERAL NOTES TO TENDERERS			
	General notes, described in Bill No.1, shall equally apply to this Bill.			
	Where ironmongery is described as plugged, prices are to include for screwing to and including approved patent plugs in concrete or brickwork with plaster or tiled finish, etc.			
	Proprietary items			
	Where applicable the manufacturers' names or product catalogue titles are given in sub-headings preceding the items			
	Prices are to be based on the specific products/articles specified. If tenderers wish to offer alternative products/articles for certain items, these items are to be clearly marked and the alternative specification given with supporting brochures etc clarifying the features of the products/articles offered			
	On request returnable samples are to be provided to the principal agent for consideration			
	Carried Forward		R	
	Section No. 5 MEDIUM ADMINISTRATION BLOCK Bill No. 9			
	Ironmongery			

	Brought Forward			R	
	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 AN Anodised natural AS Anodised silver AB Anodised bronze AG Anodised gold ABL Anodised black PB Polished brass PL Polished and lacquered PT Epoxy coated SD Sanded				
	Rates				
	The tenderer is to price for supply, taking delivery of, storing and fixing of the ironmongery listed below.				
	PINNING BOARDS, WRITING BOARDS, PROJECTION SCREENS, etc.				
	Approved				
5/9/1	White magnetic boards 3000mm x 1200mm high with aluminium frame plugged @ 1100mm above floor level on centre of the wall	No	5		
	SUNDRIES				
	Approved				
5/9/2	"CZ8730SC" Door stop or similarly approved to wall or floors	No	26		
					_
	Carried Forward to Summary of Section No. Section No. 5			R	<u> </u>
	MEDIUM ADMINISTRATION BLOCK Bill No. 9 Ironmongery				
				l	

Item No		Quantity	Rate	Amount
	BILL NO. 10			
	METALWORK			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.			
	GENERAL NOTES TO TENDERERS			
	General notes, described in Bill No.1, shall equally apply to this Bill.			
	ALUMINIUM			
	The contractor is to make due allowance in his prices for complying with the following requirements.			
	SPECIFICATIONS			
	User Note:			
	Glazing			
	All Safety glazing material (individual panes) are to conform to all standards as stipulated in SANS 10400 Part N and SANS 10137 and any additional Engineer Specifications or relevant SANS glazing regulations not stipulated in this document. All tenderers are referred to the drawings for the glazing specification.			
	Ironmongery			
	All rates for windows, shopfronts and doors etc. must include for the supply, taking delivery or/and installation of the ironmongery to be specified.			
	Carried Forward		R	
	Section No. 5 MEDIUM ADMINISTRATION BLOCK Bill No. 10 Metalwork		K	

	Brought Forward	R	
<u>Actuators</u>			
All rates for shopfronts with actuators supply and installation of actuators a			
<u>Scaffolding</u>			
All scaffolding should be provided by contractor and no claims/ qualificatio accepted.			
<u>Protection</u>			
With this tender, the glazing sub-con a statement concerning protection the to finishes and components until Pra This to include specific references to removal of such protection. All tenderers to include cost of protection.	at will be provided ctical Completion. the method of		
<u>Installation</u>			
All measurements to be checked on ordering and manufacturing.	site prior to		
Aluminium sections and shop drawin by Architect prior to manufacturing.	gs to be accepted		
Allow for water and weather proof poto approved specifications all around plaster and other materials.			
<u>Profiles</u>			
Tenderers to provide typical details of aluminium section to be used in the			
Structural Silicone			
Tenderers to allow a 10 year guaran powdercoating.	tee on all		
Preliminary and Shop Drawings:			
The contractor shall submit prelimina showing basic system sections for thapproval.			
	Carried Forward	R	
Section No. 5 MEDIUM ADMINISTRATION BLOCK Bill No. 10	ζ		

Brought Forward	R	
After approval and prior to fabrication detailed shop drawings shall be prepared and submitted to the Architect for approval.		
Fixing:		
The contractor is to take special note of all fixing details of all aluminium elements and must allow in his price for properly securing the aluminium sections to the structure with and including all necessary steel brackets, rails, timber grounds and sub-frames, including all necessary holing and bolting, etc. This fixing is to be adequately spaced and securely fixed to ensure total stiffness of the door frames, windows, etc. as no sagging causing improper functioning of the windows and doors will be accepted.		
<u>Deflection of structure:</u>		
The contractor is advised to make adequate provision for the design deflection of the structure.		
Tolerances:		
Sizes are approximate only and measurements on site must be taken before fabrication. Due allowance must be made for tolerances in accordance with the Architect's details.		
Protection:		
The contractor will be required to protect his work during the course of construction, which protection shall be adequate for the purpose and to the full approval of the Architect.		
Such protection shall only be removed after a written instruction from the Architect.		
Cleaning:		
All work must be cleaned down upon completion. Glazing as installed will not be accepted as clean glass and the contractor must allow for polishing glass as and when instructed by the Architect.		
Note: All windows and doors should be read in conjunction with window and door schedules		
Carried Forward	R	
Section No. 5 MEDIUM ADMINISTRATION BLOCK Bill No. 10 Metalwork		

		Brought Forward			R	
	WELDED SCREENS, GATES, ETC	<u>:</u>				
	Welded MS gate consisting of 50 x 50 rectangular tubing section frame with mitre at corners, bolted to reveals with rawlbolts and welded with 50 x 50 x 50 to walls, with 50 x 50 x 2.5mm mild section tube gate leaf with 45 degree mitre at two 50 x 50 x 2.5mm horizontal section 12mm mild steel vertical style solid section 100mm c/c, including 3x pair of 20mm bullet-hinges per gate, with "Solid ble four lever lockset with rebate set, including, holes, bolts etc., all complete architect's specifications	h 45 degrees th 10mm (10M) 5mm mild steel teel rectangular t corners and ons, with 12 x equare bars at m diameter esbok" 460/313				
5/10/1	Steel gate to door, size 1500mm x 2400	Omm high	No	2		
	PRESSED STEEL DOOR FRAMES	<u>.</u>				
	1.2mm thick Single rebated frame su brick walls, complete with lugs and be red oxide primer factory finish by ma	oase ties, with				
5/10/2	813 x 2032mm single door		No	10		
	1.2mm thick Single rebated frame subrick walls, complete with lugs and be red oxide primer factory finish by ma	oase ties, with				
5/10/3	813 x 2032mm single door		No	2		
5/10/4	914 x 2032mm single door		No	10		
5/10/5	1500 x 2400mm double door		No	2		
	WINDOWS FRAMES, etc.					
5/40/6	Standard mild steel school type Top- window frame (with brass fittings), w to opening and fixed sections, consist diameter mild steel round bars to state pattern, welded at intersections and all as per architect's specification	rith burglar bars sting of 10mm undard NBP2 window frames,	Nia	2		
5/10/6	Window size 1022 x 900mm high		No	3		
	Section No. 5	Carried Forward			R	
	MEDIUM ADMINISTRATION BLOCK Bill No. 10 Metalwork					

	Brought Forward			R	
5/10/7	Window size 1022 x 949mm high	No	3		
5/10/8	Window size 2000 x 1170mm high	No	1		
5/10/9	Window size 533 x 950mm high	No	5		
5/10/10	Window size 1511 x 1170mm high	No	14		
	ALUMINIUM WINDOWS, DOORS, ETC				
	Extruded aluminium door frame in configuration with glazed double doors, with laminated safety glass accordingly to ISO 9001:200 Quality Management Standards, including installation of ironmongery, actuators, smoke seal around door frame and all necessary framework, doors, spandrels panels, sealants, closure pieces, gaskets etc, all complete to architect's approval and as per architect's drawings and specifications				
5/10/11	Size 1500mm x 2100mm	No	2		
	304/VEM 320G expanded metal mesh size 1200mm x 2400mm manufactured in accordance with SANS 190-1:1983 fixed to 76 x 50mm timber purlins using 40x 0.5mm hat channels @ 400mm centres with 12 x 20mm tac screws.				
5/10/12	In Ceiling voids	m2	284		
	Carried Forward to Summary of Section No. Section No. 5 MEDIUM ADMINISTRATION BLOCK Bill No. 10			R	
	Bill No. 10 Metalwork				

Item No			Quantity	Rate	Amount
	BILL NO. 11				
	PLASTERING				
	PREAMBLES				
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.				
	SUPPLEMENTARY PREAMBLES				
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.				
	GENERAL NOTES TO TENDERERS				
	General notes, described in Bill No.1, shall equally apply to this Bill.				
	SCREEDS				
	1:4 Cement sand screed on concrete, worked down to a true and even surface with a steel trowel				
5/11/1	30mm Thick on floors and landings	m2	173		
5/11/2	30mm Thick to falls and currents	m2	17		
	INTERNAL PLASTER				
	One coat smooth 1:5 cement sand plaster on brickwork to receive finish				
5/11/3	On brick walls	m2	692		
5/11/4	On narrow widths	m2	69		
	CORNER PROTECTORS, DIVIDING STRIPS, ETC				
5/11/5	Aluminium straight edge M-trim suitable for under- screed fixing in vinyl/ceramic, etc. installed as per manufactures recommendation and specification.	m	6		
	Carried Forward			R	
	Section No. 5 MEDIUM ADMINISTRATION BLOCK Bill No. 11 Plastering				

	Brought Forward			R	
5/11/6	38 x 1.2mm Aluminium retro-fit similar approved corner protector installed as per manufactures recommendation and specification.	m	24		
	Carried Forward to Summary of Section No.			R	
	Section No. 5 MEDIUM ADMINISTRATION BLOCK Bill No. 11 Plastering				

Item No		Quantity	Rate	Amount
	BILL NO. 12			
	TILING			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.			
	Pricing			
	Prices are to included for the following: Cutting, handling, labour, adhesive etc.			
	<u>Fixing</u>			
	Tiling described as "fixed with adhesive on power floated concrete" shall be deemed to include for approved tiling key-coat.			
	Ceramic, porcelain, marble and granite tiles are to be fixed, grouted and pointed with suitable adhesives and grouts, as recommended by the Architect. Costs are hereby deemed to include the cost of this requirement.			
	Payment for work that is deemed measurable, in respect of the conditions of contract, and which comprises cutting, leaving, or forming, rectangular holes and notches through tiling is hereby deemed to apply only to holes and notches that do not exceed 600mm girth. Those exceeding 600mm in girth are hereby deemed to be "square cutting", which is hereby deemed to be part of the work description for that type of tiling and is not measurable as a separate item of work.			
	<u>Wastage</u>			
	Tile wastage in excess of 10% will be for the tenderer's account.			
	Carried Forward		R	
	Section No. 5 MEDIUM ADMINISTRATION BLOCK Bill No. 12 Tiling			

	Brought Forward			R	
	GENERAL NOTES TO TENDERERS				
	General notes, described in Bill No. 1, shall equally apply to this Bill.				
	<u>Note</u>				
	All scaffolding should be provided by the contractor and no claims/qualifications will be accepted.				
	WALL TILING				
	150 x 150 x 6mm ceramic tiles (PC allowance of R 120.00/m2 excludes V.A.T. but includes delivery to site), includes waste, laying, supply and fixing with an approved adhesive and jointing white grout all as per manufacturers specifications				
5/12/1	Plastered walls	m2	162		
5/12/2	On narrow widths	m2	16		
5/12/3	Splash backs	m2	1		
	FLOOR TILING				
	420 x 420 x 11.5mm Thick non-slip ceramic tiles (P.C allowance of R 200.00/m2 excludes V.A.T. but includes delivery to site), includes waste, laying, supply and fixing with an approved adhesive and jointing in waterproof cementetious grout				
5/12/4	On floors	m2	408		
5/12/5	75mm high skirting	m	372		
	ATTIC STOCK				
5/12/6	150 x 150 x mm ceramic tiles(PC allowance of R 120.00/m2 excludes V.A.T. but includes delivery to site)	m2	16		
5/12/7	420 x 420 x 11.5mm Thick non-slip ceramic tiles (P.C allowance of R 200.00/m2 excludes V.A.T. but includes delivery to site)	m2	39		
	SUNDRIES				
					_
	Carried Forward			R	
	Section No. 5 MEDIUM ADMINISTRATION BLOCK Bill No. 12 Tiling				

	Brought Forward		R	1
	10mm aluminium straight edge trim			l
5/12/8	Dividing strip between tiles and door frames m	9		ĺ
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	Carried Forward to Summary of Section No.		R	
	Section No. 5 MEDIUM ADMINISTRATION BLOCK			
	Bill No. 12 Tiling			İ
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em o		Quantity	Rate	Amount
	BILL NO. 13			
	PLUMBING AND DRAINAGE (PROVISIONAL)			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.			
	uPVC pipes and fittings:			
	Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings			
	uPVC pressure pipes and fittings:			
	Pipes for water supply shall be of the class stated			
	Excavations:			
	No claim for excavation in material other than "earth" will be entertained unless the contractor has timeously notified the quantity surveyor thereof prior to backfilling, and has obtained, in writing, authorised classification thereof.			
	"Intermediate material" and " hard rock" shall be as defined in "Earthworks".			
	Quantities of all excavations, carting away excavated material and backfilling are calculated on the nett extent to be formed, or filled, in accordance with drawings and specifications, and the Contractor is to allow in his prices for any bulking.			
	Classes of excavation shall be as S.A.B.S 1200D clause 3.1.2.			
	Carried Forward		R	
	Section No. 5 MEDIUM ADMINISTRATION BLOCK Bill No. 13 Plumbing and Drainage			

	Brought Forward			R	
	Laying, backfilling, bedding, etc., of pipes:		ľ		
	Pipes shall be laid and bedded, and trenches shall be carefully backfilled, in accordance with the specific instructions				
	GENERAL NOTES TO TENDERERS				
	General notes, described in Bill No.1, shall equally apply to this Bill.				
	RAINWATER GOODS				
	Similar Approved				
	<u>Gutters</u>				
5/13/1	100 x 100 x 0.6mm thick Ogee profile eaves gutter aluminium box gutter, fixed with and including fixing clips to fascia boards	m	94		
5/13/2	Extra over eaves gutter for stopped end	No	22		
5/13/3	Extra over eaves gutter for corner	No	48		
5/13/4	Extra over eaves gutter for outlet	No	11		
	Rainwater downpipes				
5/13/5	100mm diameter x 0.6mm thick rainwater downpipe with Chromadek finish (Colour: TBC), fixed with and including brackets to wall face, with brackets spaced as per manufacturer's recommendations, and with downpipes spaced as per engineer's specification	m	38		
5/13/6	Extra over downpipe for offset	No	22		
5/13/7	Extra over downpipe for shoe	No	11		
	SANITARY FITTINGS				
	Refer to sanitary schedule drawing for full description of abbreviations				
	WASH HAND BASINS				
	Carried Forward			R	
	Section No. 5 MEDIUM ADMINISTRATION BLOCK Bill No. 13 Plumbing and Drainage				

	Brough	nt Forward		R
	Similar Approved			
	Vaal Sanitaryware "Hibiscus" vitreous china with three semi-punched holes tap holes, in integrated overflow, including chain stay ho through the centre semi-punched tap hole, s with plug and chain, hung to walls (PC allow R450.00/no excludes V.A.T. but includes del site), includes waste, supply and fixing	cluding le supplied vance of		
5/13/8	WHB, installed complete	No	3	
	WATER CLOSET			
	Similar Approved			
	Vaal Sanitaryware "Daisy" semi-close coupled closet comprising double flap heavy duty thermoplastic seat rim pan and matching 9 leastern complete with lid, fitments and flush elbow (PC allowance of R2 800.00/no exclude V.A.T. but includes delivery to site), includes supply and fixing	itre pipe les		
5/13/9	WC, installed complete	No	2	
	SINKS, etc.			
	Stainless steel single bowl sink including in supports and legs (PC allowance of R1500.0 excludes V.A.T. but includes delivery to site includes waste, supply and fixing	0/no		
5/13/10	Stainless steel Sink, complete.	No	1	
	CHROME PLATED WASTE UNIONS, ETC (Supply & Fit)	<u>:.</u>		
5/13/11	32mm Basin waste union	No	3	
5/13/12	38mm Sink waste union	No	1	
	TOILET ROLL HOLDER			
	Carrie	d Forward		R
	Section No. 5 MEDIUM ADMINISTRATION BLOCK Bill No. 13 Plumbing and Drainage			

	Brought Forward			R	Τ
	To be approved by Architect				
5/13/13	130 x 560 x 130mm mild steel vandal proof Toilet paper roll holder (Colour: White), plugged and screwed to walls	No	2		
	SOAP DISPENSER				
	To be approved by Architect				
5/13/14	110 x 170 x 35mm high plastic Soap dispenser (Colour: White and transparent), with lever button and pump, plugged and screwed to wall	No	1		
	PAPER TOWEL DISPENSER				
	To be approved by Architect				
5/13/15	360 x 380 x 240mm high lockable auto-cut (reflex) plastic Paper towel dispenser (Colour: White), plugged and screwed to wall	No	1		
	TAPS, VALVES, ETC				
	Similar Approved				
5/13/16	15mm Cobra Watertech chrome plated single tap hole Sink mixer with overarm swivel sprout (Code: 3396ST)	No	1		
	FIRE FIGHTING EQUIPMENT				
	Extinguishers including initial charge and setting up in position:				
5/13/17	9kg dry chemical powder fire extinguisher	No	4		
5/13/18	Fire hose reel with 30m plastic hose, chromium plated stopcock, shut-off nozzle and wall bracket	No	2		
					<u> </u>
	Carried Forward to Summary of Section No.			R	
	Section No. 5 MEDIUM ADMINISTRATION BLOCK Bill No. 13				
	Plumbing and Drainage				

Item No			Quantity	Rate	Amount
	BILL NO. 14				
	GLAZING				
	PREAMBLES				
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.				
	SUPPLEMENTARY PREAMBLES				
	Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.				
	GENERAL NOTES TO TENDERERS				
	General notes, described in Bill No. 1, shall equally apply to this Bill.				
	Note:				
	All glazing to comply with SABS 1263 Part 3:1998. Light and ventilation to comply with Part O if NBR 0400				
	GLASS TO STEEL WITH PUTTY				
	5mm clear floated glass fixed glazing putty				
5/14/1	Panes not exceeding 0.1m2	m2	33		
	6mm obscure floated glass fixed glazing putty				
5/14/2	Panes exceeding 0.5m2 and not exceeding 2.0m2	m2	3		
	TOPS, SHELVES, DOORS, MIRROR ETC				
	6mm Polished plate float glass mirrors with square polished edges plugged with chrome plated detachable screws or similarly approved				
5/14/3	Mirror 400 x 600 mm high	No	3		
	Carried Forward to Summary of Section No.			R	
	Section No. 5 MEDIUM ADMINISTRATION BLOCK Bill No. 14 Glazing			K	

tem No			Quantity	Rate	Amount
	BILL NO. 15				
	PAINTWORK				
	PREAMBLES				
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.				
	SUPPLEMENTARY PREAMBLES				
	Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.				
	GENERAL NOTES TO TENDERERS				
	General notes, described in Bill No. 1, shall equally apply to this Bill.				
	PAINTWORK ETC TO NEW WORK				
	FIBRE CEMENT				
	Prepare and apply one coat universal undercoat and two coats Super Acrylic PVA paint or similar approved, colour to be confirmed by architect				
/15/1	On internal ceilings and cornices	m2	305		
/15/2	Fibre cement fascias boards not exceeding 300mm high or wide painted on both side	m	94		
	Prepare and apply one coat alkali resistant sealer and two coats mat enamel paint, colour to be confirmed by architect				
/15/3	Fiber cement window sill not exceeding 300mm high or wide	m	32		
	FLOATED PLASTER INTERNAL WALLS				
	Carried Forward			R	
	Section No. 5			ĸ	

	Brought Forward			R	Π
	Prepare and apply one coat merit universal undercoat and two coats Super Acrylic PVA paint or similar approved, colour to be confirmed by architect				
5/15/4	Plastered walls	m2	692		
	METAL SURFACES				
	Prepare and apply one coat Duraphos, one coat universal under coat and two coats gloss enamel paint, colour to be confirmed by architect				
5/15/5	On gates, grilles, burglar screens, balustrades, etc (both sides measured on full flat area)	m2	29		
5/15/6	On window frames	m2	35		
5/15/7	On door frames	m2	34		
5/15/8	On gutters	m	94		
5/15/9	On downpipes	m	39		
	WOOD				
	Prepare and apply one coat universal undercoat and two coats acrylic PVA, colour to be confirmed by architect				
5/15/10	On door	m2	76		
	Prepare and paint three coats clear varnish:				
5/15/11	On door	m2	27		
					+
	Carried Forward to Summary of Section No. Section No. 5			R	
	MEDIUM ADMINISTRATION BLOCK Bill No. 15 Paintwork				

LIMPOPO DEPARTMENT OF EDUCATION UPGRADES AND ADDITIONS AT CHAMETI HIGH SCHOOL

	SECTION SUMMARY			
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5/2	Earthworks	5/7		
5/3	Concrete,Formwork and Reinforcement	5/11		
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5/6	Roof Coverings	5/18		
5/7	Carpentry and Joinery	5/22		
5/8	Ceilings,Partitions and Access Flooring	5/25		
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	Carried to Final Summary		R	
	Section No. 5 MEDIUM ADMINISTRATION BLOCK			

Item No		Quantity	Rate	Amount
	SECTION NO. 6			
	BILL NO. 1			
	DEMOLITIONS AND ALTERATIONS			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Subterranean water			
	No subterranean water is expected			
	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			
	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 necessary multiple handling of material			
	Carried Forward		R	
	Section No. 6 4 SEATS WATERBORNE TOILET BLOCK Bill No. 1 Demolitions and Alterations			
	25			

Brought Forwa	ard R	
Testing		
Prices for filling are to include for all necessary density tests in accordance with SABS 1200D		
Existing structures		
In taking down and removing existing work, the utmost care shall be taken to prevent any structural or other damage to the remaining portions on the building and the Contractor shall provide all shoring, needling, strutting, etc. to ensure the stability of all structures during the alteration work, Any damage to the structure and/or building as well as the rectification of same will be for the contractor's account		
Services		
Special care shall be exercised during the progress of the work to ensure that electrical installation, water supply pipes, telephone and other services which may be encountered are not interfered with and notice shall be given to the Representative/Agent if any disconnection or alterations become necessary.		
Dust and noise		
The Contractor is to take all necessary precautions to the satisfaction of the Representative/Agent to prevent any nuisance from the dust and /or noise whilst carrying out the work.	3	
<u>Disposal of debris</u>		
The Contractor shall be responsible for the removal from site of all materials, debris and rubbish resulting from the work which removal is deemed to be included in the rates unless otherwise stated.		
Rates for taking out and removing doors and frames shall include for removing door stops, cabin hooks, etc and making good floor and wall finishes to match existing		
Making good of finishes shall include making good of the brick and concrete surfaces onto which the new finishes are applied, where necessary		
Carried Forwa	ard R	
Section No. 6 4 SEATS WATERBORNE TOILET BLOCK Bill No. 1		

Brought Forward	R	
Temporary support to openings through existing walls		
Making openings, altering openings in existing walls and removing lintels above existing openings shall be done with the utmost care to prevent any structural damage. All necessary supports, propping, shoring, needling, strutting, turning pieces, etc. to walls openings is deemed to be included in the contractor's rates.		
Electrical and Mechanical		
Where items include for taking down electrical and mechanical fittings the disconnection and making safe electrically is deemed to be included.		
GENERAL NOTES TO TENDERERS		
Tenderers are to inspect the drawings issued with these Bills of Quantities and to satisfy themselves with the nature and the requirements of the Contract works. Failure to do so will be the complete responsibility of the Tenderer and no claims whatsoever will be entertained in this regard.		
Tenderers are to read the descriptions, which are intended as a means of identifying various facets of the work, in conjunction with the drawings. Tenderers shall allow for all costs in connection with the various items taking full cognisance of both the drawings and the Bills of Quantities.		
Tenderers shall notify the Quantity Surveyor in writing of any discrepancies encountered upon which clarification will be given by the Quantity Surveyor in writing to the Tenderer. Failure to do so will be the complete responsibility of the Tenderer and no claims whatsoever will be entertained in this regard		
Carried Forward	R	
Section No. 6 4 SEATS WATERBORNE TOILET BLOCK Bill No. 1		
Demolitions and Alterations		

	Brought Forward			R	
	Tenderers are to note that setting out of the works will be the complete responsibility of the Tenderer and they should therefore acquaint themselves with the site boundaries, site co-ordinates, datum levels etc. Failure to do so will be the complete responsibility of the Tenderer and no claims whatsoever will be entertained in this regard. Tenderers are to note that all items with ZERO				
	quantities are Rate Only items and should be priced as such.				
	Tenderers are to note that there might be specified suppliers to be used for certain trades as per the annexure to this tender document. Tenderers should familiarise themselves with the suppliers on the list and ensure to allow for accordingly. Failure to do so will be the complete responsibility of the Tenderer and no claims whatsoever will be entertained in this regard.				
	Tenderers are to fully acquaint themselves with the construction period and shall allow for any night shift if required. Failure to do so will be the complete responsibility of the Tenderer and no claims whatsoever will be entertained in this regard.				
	REMOVAL OF EXISTING WORK				
	Taking down and removing roofs, floors, panelling, ceilings, partitions, tc				
6/1/1	Timber trusses and purlins	m2	31		
	Taking out and removing sundry joinery work				
6/1/2	Timber skirting from brickwork	m			
					<u></u>
	Carried Forward to Summary of Section No.			R	
	Section No. 6 4 SEATS WATERBORNE TOILET BLOCK Bill No. 1				
	Demolitions and Alterations				

Item No		Quantity	Rate	Amount
	BILL NO. 2			
	EARTHWORKS (PROVISIONAL)			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.			
	GENERAL NOTES TO TENDERERS			
	General notes, described in Bill No.1, shall equally apply to this Bill.			
	NOTES			
	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			
	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			
	Excavations measured in successive depths of 2m.			
	SITE CLEARANCE ETC			
	Carried Forward		R	
	Section No. 6 4 SEATS WATERBORNE TOILET BLOCK Bill No. 2 Earthworks			

	Brought Forward			R	
	Site clearance				
6/2/1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc	m2	55		
	EXCAVATIONS				
	Excavation in earth not exceeding 2m deep				
6/2/2	Trenches	m3	18		
	Extra over excavations in earth to trenches and holes for				
6/2/3	Excavation in soft rock	m3	2		
6/2/4	Excavation in hard rock	m3	1		
	CARTING AWAY OF EXCAVATED MATERIAL				
	Note:				
	Description 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.				
6/2/5	Extra over all excavation for carting away surplus material from excavation and / or stockpile on site to a dumping site to be located by the Contractor	m3	11		
	RISK OF COLLAPSE OF EXCAVATIONS				
	Risk of collapse to side of excavation in earth not exceeding 1,5m deep				
6/2/6	Trenches and holes	m2	63		
	FILLING, ETC.				
	Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO density in layers not exceeding 150mm thick				
6/2/7	Backfilling to trenches, holes, etc	m3	8		
	Carried Forward			R	
	Section No. 6 4 SEATS WATERBORNE TOILET BLOCK Bill No. 2 Earthworks				

	Brought Forward			R	
6/2/8	Under floors, steps, pavings, etc	m3	20		
	Imported gravel filling (G7) stabilise with 2-3% cement compacted to 93% Mod AASHTO density in layers not exceeding 150mm thick				
6/2/9	Backfilling to trenches, holes, etc	m3	3		
6/2/10	Under floors, steps, pavings, etc	m3	3		
	Filling supplied by the Contractor under floors, trenches, etc.				
6/2/11	Sub-base filling (G5) from excavations under solid floors, steps, etc. compacted to 95% modified AASHTO density in layers not exceeding 150mm thick	m3	3		
	COMPACTION OF SURFACES				
6/2/12	Prepare ground surface by scarifying sub-grade, rip and re-compact 150mm to 90% modified AASHTO density	m2	44		
	WEED KILLERS, INSECTICIDES, TERMITES, etc.				
	Protection against termites, ants, etc				
6/2/13	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m2	44		
6/2/14	To bottom and sides of excavated trenches, Holes, etc.	m2	81		
	Carried Forward to Summary of Section No. Section No. 6			R	
	4 SEATS WATERBORNE TOILET BLOCK Bill No. 2 Earthworks				
	Eartiworks				

Item No		Quantity	Rate	Amount
	BILL NO. 3			
	CONCRETE, FORMWORK AND REINFORCEMENT			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.			
	Cost of tests			
	The costs of making, storing and testing of concrete test cubes as required under clause 7, "Tests" of SANS 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 principal agent. The testing shall be undertaken by an independent firm or institution nominated by the contractor to the approval of the principal agent. (Test cubes are measured separately)			
	<u>Formwork</u>			
	Descriptions of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before 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.			
			_	
	Section No. 6 4 SEATS WATERBORNE TOILET BLOCK Bill No. 3 Concrete,Formwork and Reinforcement		R	

Brought Forward	R	
Formwork to soffits of solid slabs, etc. shall be deemed		
to be to slabs not exceeding 250mm thick unless		
otherwise described. Formwork to soffits of slabs,		
beams, etc. shall be deemed to be propped up		
exceeding 1,5m and not exceeding 3,5m high		
unless otherwise described.		
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".		
The Tenderer is to note that for the "off-shutter"		
concrete finish shall be in accordance with the		
architectural specification 616 CON-140: Smooth + fair		
finish:-		
· Degree of accuracy: I		
· Finish: Smooth and even		
· Form facing material to produce a smooth, hard,		
uniform texture on the concrete		
· Steel faced formwork. Joints grout-tight.		
Panels shall be as large as practicable and		
arranged in a regular pattern as a feature of the		
surface		
Formwork tie holes: to the approval of the		
architect		
Repair imperfections: not allowed. Tie bolt holes shall be patched		
Not permitted: blowholes, small fins, bulges,		
irregularities, voids, honeycombing, segregation		
and other large defects.		
Concrete surfaces: No further treatment to form		
a smooth finish of uniform texture, appearance		
and colour		
Structural Concrete		
Tenderers are referred to the Structural Engineer's -		
Standard Specifications which should be read before		
pricing this trade in particular, but also the other trades.		
The use of extenders, fly-ash, etc. are clearly described		
on this drawing.		
Carried Forward	R	
Section No. 6		
4 SEATS WATERBORNE TOILET BLOCK		
Bill No. 3		

	Brought Forward			R	Γ
	GENERAL NOTES TO TENDERERS				
	General notes, described in Bill No.1, shall equally apply to this Bill.				
	UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES				
	15Mpa/19mm concrete				
6/3/1	Blinding	m3	1		
	REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACE				
	25MPa/19mm Concrete				
6/3/2	Strip footings	m3	5		
	REINFORCED CONCRETE CAST IN FORMWORK				
	20Mpa/19mm concrete				
6/3/3	Concrete Apron cast to fall etc,	m3	2		
	25MPa/19mm Concrete				
6/3/4	Surface beds cast in panels	m3	3		
	TEST BLOCKS				
	Notes:				
	Concrete strength test cubes, label and send to an approved laboratory for testing, pay all charges and submit report to the Regional Representative. Only successful tests will be paid for (Provisional)				
6/3/5	Making and testing 150 x 150 x 150mm concrete strength test cube (Provisional)	No	1		
	SUNDRIES TO CONCRETE				
	Carried Forward			R	
	Section No. 6 4 SEATS WATERBORNE TOILET BLOCK Bill No. 3 Concrete,Formwork and Reinforcement			, iv	

	Brought Forward			R	Τ
	Surface treatment				
6/3/6	Power float top surface of concrete surface bed to a true and even level finish	m2	44		
	ROUGH FORMWORK (DEGREE OF ACCURACY II)				
	Rough formwork to sides				
6/3/7	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	45		
	MOVEMENTS JOINTS ETC,				
	Expansion joints				
6/3/8	10mm soft board or similar approved between concrete and brick wall	m	22		
	REINFORCEMENT (PROVISIONAL)				
	High and mild tensile steel reinforcement to structural concrete work				
6/3/9	All diameter bars	t	0.4		
	Fabric reinforcement:				
6/3/10	Type 245 fabric reinforcement in concrete surface beds, slabs, etc.	m2	22		
	Carried Forward to Summary of Section No.			R	
	Section No. 6 4 SEATS WATERBORNE TOILET BLOCK				
	Bill No. 3 Concrete,Formwork and Reinforcement				

Item No		Quantity	Rate	Amount
	BILL NO. 4			
	MASONRY			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.			
	GENERAL NOTES TO TENDERERS			
	General notes, described in Bill No.1, shall equally apply to this Bill.			
	Sizes in descriptions			
	Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick			
	Hollow walls etc			
	Descriptions of hollow walls shall be deemed to include leaving every fifth perpend of the bottom course of the external skin open as a weep hole. Walls in two skins described as "bagged and sealed" shall be deemed to include having the outer face of the inner skin bagged with 1:6 cement and sand mixture and sealed with two coats "Brickseal" bitumen emulsion waterproofing coating.			
	Face bricks			
	Bricks shall be ordered timeously to obtain uniformity in size and colour			
	Carried Forward		R	
	Section No. 6 4 SEATS WATERBORNE TOILET BLOCK Bill No. 4 Masonry			

	Brought Forward			R	Τ
	Pointing				
	Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc				
	BRICKWORK IN FOUNDATION				
	Brickwork in 73mm burnt clay masonry units class NFP in Class II mortar, laid in stretcher bond with 10mm flush joints				
6/4/1	One brick wall	m2	24		
	SUPERSTRUCTURE BRICKWORK				
	Brickwork of NFP brick in class II mortar laid in stretcher bond with 10mm flush joints				
6/4/2	One brick wall	m2	74		
6/4/3	Half brick wall	m2	22		
6/4/4	Half brick wall, in beamfilling	m2	3		
	Mass brickwork in regular piers of NFP brick in class II mortar laid in stretcher bond				
	FACE BRICKWORK				
	Bricks shall be ordered timeously to obtain uniformity in size and colour				
	"Corobrick" face bricks (Colour: TBC) with PC sum amount of R 4 500.00 per thousand bricks delivered to site (excluding VAT) manufactured in accordance with SANS 227-2007, bedded and jointed in Class II mortar and pointed with recessed 6mm joints in both directions				
6/4/5	Extra over brickwork for face brickwork in foundations (Provisional)	m2	47		
6/4/6	Extra over brickwork for face brickwork in superstructure	m2	64		
6/4/7	Extra over brickwork for face brickwork in brick-on-edge header course lintel	m	4		
	Carried Forward			R	
	Section No. 6 4 SEATS WATERBORNE TOILET BLOCK Bill No. 4 Masonry				

	Brought Forward			R	
6/4/8	Extra over brickwork for face brickwork in brick-on-edge header course sills, bedded in mortar and set slightly sloped	m	4		
6/4/9	Extra over brickwork for face brickwork in beamfilling	m2	3		
	BRICKWORK SUNDRIES				
	Brickwork reinforcement				
6/4/10	75mm Wide reinforcement built in horizontally	m	66		
6/4/11	150mm Wide reinforcement built in horizontally.	m	357		
	"Allied concrete" or similar approved prestressed fabricated lintels				
6/4/12	100 x 70mm Lintels in lengths not exceeding 3m	m	5		
6/4/13	175 x 70mm Lintels in lengths not exceeding 3m	m	5		
	Turning pieces				
6/4/14	110mm Wide turning piece to flat brick lintels	m	8		
	Air bricks etc				
6/4/15	Set of 2 240 x 155mm Terracota air bricks as per architects specification	No	2		
	Fair cutting to face brickwork				
6/4/16	Fair raking cutting at gables	m	23		
	Roof ties				
6/4/17	30 x 1.2mm galvanised steel strapping, built into wall for 5 courses and minimum 800mm to be fixed to trusses	No	19		
	MOVEMENTS JOINTS ETC,				
	Expansion joints				
6/4/18	30mm softboard between vertical brick surfaces not exceeding 300mm wide	m2	4		
	Carried Forward to Summary of Section No. Section No. 6			R	<u> </u>
	4 SEATS WATERBORNE TOILET BLOCK Bill No. 4 Masonry				

Item No			Quantity	Rate	Amount
	BILL NO. 5				
	WATERPROOFING				
	PREAMBLES				
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.				
	SUPPLEMENTARY PREAMBLES				
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.				
	GENERAL NOTES TO TENDERERS				
	General notes, described in Bill No.1, shall equally apply to this Bill.				
	DAMP PROOFING OF WALLS AND FLOORS				
	One layer of 375 micron "Consol Plastic Brikgrip DPC" embossed damp proof course				
6/5/1	Under walls	m2	1		
6/5/2	Under cills, etc.	m2	1		
	One layer of 250 micron "USB Green" or similar approved dampproof membrane sealed at laps with PVC self -adhesive tape				
6/5/3	Under surface beds.	m2	44		
	JOINTS SEALANTS, ETC.				
	Mastic grey polysulphide sealing compound including raking out of joints filler as necessary				
6/5/4	10mm Isolation Joints between surface bed concrete and brick wall	m	22		
	Carried Forward to Summary of Section No.			R	
	Section No. 6 4 SEATS WATERBORNE TOILET BLOCK Bill No. 5				
	Waterproofing				

Item No			Quantity	Rate	Amount
	BILL NO. 6				
	ROOF COVERINGS				
	PREAMBLES				
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.				
	SUPPLEMENTARY PREAMBLES				
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.				
	GENERAL NOTES TO TENDERERS				
	General notes, described in Bill No.1, shall equally apply to this Bill.				
	ROOF SHEETING				
	Similar Approved				
	0.6mm thick "Brownbuilt Klip-lok light Industrial" galvanised troughed roof sheeting with "Chromadek - Traffic Green" finish on one side, and 0.6mm galvanised steel accessories fixed to timber purlins or rails fixed in strict accordance to the manufacturer's instructions and fixed by an approved erector. A written and approved five (5) year guarantee of water-tightness shall be issued after approval of roofs by the manufacturer				
6/6/1	Roof sheeting pitch not exceeding 25 degrees	m2	37		
6/6/2	550mm girth Ridge capping, 3 times bent and notched on site to suit roof profile	m	6		
6/6/3	550mm girth Hip capping, 3 times bent and notched on site to suit roof profile.	m	10		
	LOUVRES				
	Similar Approved				
	Carried Forward			R	
	Section No. 6 4 SEATS WATERBORNE TOILET BLOCK Bill No. 6 Roof Coverings				

	Brought Forward			R	
	NTY Steelworks purpose-made louvre panels fixed to timber purlins including watertight heading joints, necessary sealing strips, fixing accessories etc., pre-painted to match roof sheeting				
6/6/4	Steel triangular louvre, 1600 x 600mm high overall	No	2		
	ROOF AND WALL INSULATION				
	Similar Approved				
	Sisalation "Bubble Foil" aluminium foil binded insulation				
6/6/5	135mm thick Insulation laid over purlins (at approximately 750mm centres), fixed concurrent with sheeting with and including galvanised steel accessories	m2	37		
	Carried Forward to Summary of Section No.			R	
	Section No. 6 4 SEATS WATERBORNE TOILET BLOCK				
	Bill No. 6 Roof Coverings				

Item No		Quantity	Rate	Amount
	BILL NO. 7			
	CARPENTRY AND JOINERY			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.			
	GENERAL NOTES TO TENDERERS			
	General notes, described in Bill No.1, shall equally apply to this Bill.			
	Joinery			
	Descriptions of frames shall be deemed to include frames, transoms, mullions, rails, etc.			
	Descriptions of hardwood joinery shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete.			
	<u>Fixing</u>			
	Items described as nailed shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete			
	Decorative laminate finish			
	Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish			
	<u>Timber</u>			
	All softwood to be South African Pine			
	Carried Forward		R	
	Section No. 6 4 SEATS WATERBORNE TOILET BLOCK Bill No. 7			
	Carpentry and Joinery			

	Brought Forward	R	
<u>D</u>	<u>Descriptions</u>		
th	ems described as "bolted" shall be deemed to exclude ne bolts and include the holes unless otherwise escribed.		
	Where the fixing of members is not stated it shall mean ne nailing of one timber member to another.		
	he term "planted on" shall mean the nailing of one mber member to another		
	The term "screwed on" shall mean the countersunk crewing of one timber member to another.		
sc	The term "screwed on and pelleted" shall mean the crewing of one timber member to another with the eads of screw sunk and pelleted.		
sc	The term "plugged" shall mean the countersunk crewing of a timber member to and including plastic lugs in brickwork or concrete.		
so pl	The term "plugged and pelleted" shall mean the crewing of a timber member to and including plastic lugs in brickwork or concrete with heads of screw sunk nd pelleted.		
fix	Shelving, etc. described as screwed to steel must be xed from underside and prices are to include for ountersunk drilling through the steel for screw fixing.		
	Descriptions of floors, ceilings, joinery, etc. shall be eemed to include for all square cutting		
de	Descriptions of items given in linear metre shall be eemed to include for mitres, stopped ends, fitted ntersections, etc.		
ch	Descriptions of rounded angles, rebates, grooves, hamfers, moulded edges, etc. shall be deemed to nolude for angles, ends, etc.		
<u>R</u>	ROOFS, ETC		
4 Bi	Carried Forward Section No. 6 SEATS WATERBORNE TOILET BLOCK Sill No. 7 Carried Forward	R	

	Brought Forward			R	
	Plate nailed timber roof truss construction				
	The following is applicable in respect of roof trusses:				
	All timber to be sawn softwood in accordance with V4 or M4 as defined in SABS 563 or SABS 1245.				
	Metal connector plates shall have a minimum yield strength of 228 MPa and a minimum ultimate tensile strength of 330 Mpa with hot-dip galvanised finish.				
	All joints to be close fitted butt joints.				
	Trusses shall be designed by a registered supplier of prefabricated trusses who shall issue an Engineers Certificate upon completion of the installation.				
	The dimensions in the descriptions of the trusses are nominal and actual measurements are to be obtained on site before design or fabrication commences.				
	Tenderers must study the roof plan and sections as attached to the back of these bills of quantities and must obtain prices from a qualified and registered roof truss supplier as no claims in this regard will be entertained.				
	Roof trusses				
6/7/1	Design, supply, take delivery, temporary store, hoist in position and erect plate nailed timber roof trusses, purlins, gang boarding, temporary and permanent bracing, etc (measured on plan)	m2	31		
	Sawn softwood				
6/7/2	38 x 114mm Wall plates	m	22		
	<u>Sundries</u>				
6/7/3	Two coats creosote on sawn timbers	m2	8		
	Similar Approved				
	Carried Forward			R	
	Section No. 6 4 SEATS WATERBORNE TOILET BLOCK Bill No. 7 Carpentry and Joinery				

	Brought Forward			R	
	"Everite FC77" Fascia and badge boards				
6/7/4	15 x 225mm Pressed fibre cement fascia boards, fixed to supports and roof timbers with one brass screw at maximum 750mm centres, including standard aluminium half round cover strips at all joints, as per architect's specification	m	23		
6/7/5	15 x 80 x 300mm fibre cement barge board	m	23		
	DOORS ETC				
	44mm thick solid R&F panel meranti timber doors with masonite backing with 15 horizontal slates on both sides hung to steel frames				
6/7/6	914 x 2032mm single door	No	4		
	WINDOWS				
	Similar Approved				
	"Nutec" fibre cement window cills				
6/7/7	150mm x 15mm thick fibre cement Window sill set flat and slightly projecting, with window sill lug screwed to underside of sill at 400mm centres, minimum of 75mm from end of window sill and bedded in 1:4 cement sand mortar with plastic slip joints at end of sills at plaster reveals and projecting from finished face of wall, all as per manufacturer's recommendations	m	4		
				-	
	Carried Forward to Summary of Section No. Section No. 6			R	
	4 SEATS WATERBORNE TOILET BLOCK Bill No. 7				
	Carpentry and Joinery				

em lo		Quantity	Rate	Amount
	BILL NO. 8			
	CEILINGS, PARTITIONS AND ACCESS FLOORING			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.			
	GENERAL NOTES TO TENDERERS			
	General notes, described in Bill No.1, shall equally apply to this Bill.			
	<u>Fixing</u>			
	Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 500mm centres, and where described as "bolted", the bolts have been given elsewhere.			
	Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins, or to be shot-pinned, to brickwork or concrete			
	Ceilings & Bulkheads			
	Unless otherwise described ceilings shall be deemed to be horizontal			
	Steel components			
	All steel components for ceilings, partitions, etc are to be galvanised in accordance with SANS 121			
	Carried Forward		R	
	Section No. 6 4 SEATS WATERBORNE TOILET BLOCK Bill No. 8			
	Ceilings,Partitions and Access Flooring			

	Brought Forward			R	
	Proprietary suspended ceilings				
	Hangers, suspension grids, "lay-in" panels, etc are to be in accordance with the manufacturers' recommendations				
	Where electrical light fittings, diffusers, panels etc are units of the same dimensions as the suspension grid described and allowance must be made in the rates accordingly for their support inclusive of any flexibility in setting out that may be required (ceiling panels have not been deducted and pricing is to take cognisance thereof)				
	Suspension systems				
	Where suspensions of ceilings require a sub-grid, the tenderer should include in his rates for the sub-grid. The design of the sub-grid support is not specified, the tenderer is to obtain the necessary requirements and recommendations for a safe installation from the board and suspension system manufacturer to the satisfaction of the structural engineer.				
	NAILED UP CEILINGS				
	FIBRE - CEMENT BOARDS				
	Similar Approved				
	6mm "Everite Nutec" Fibre-cement boards, jointed with and including galvanised H-type primed pressed steel jointing strips, including brandering as per architect's specifications				
6/8/1	2400 x 1200mm x 6mm Horizontal ceilings, fixed to and including 38 x 38mm sawn softwood brandering at maximum 400mm centres using 38mm long galvanised nails	m2	14		
	CORNICES				
	Similar Approved				
	"Rhino" plasterboard cornice				
6/8/2	75mm Coved cornice, plugged to brickwork	m	16		
	Carried Forward			R	
	Section No. 6 4 SEATS WATERBORNE TOILET BLOCK Bill No. 8				
	Ceilings,Partitions and Access Flooring				

	Brought Forward			R	
	SUNDRIES				
	Extra over for Trap Doors				
6/8/3	Extra over ceiling for 600 x 600mm trap door of 38 x 50mm wrought softwood rebated framing, with one 38 x 38mm sawn softwood cross brander covered with ceiling board and fitted flush in opening	No	1		
	CEILING INSULATION				
	<u>Insulation</u>				
6/8/4	125mm thick Glass wool insulation blanket closely fitted and laid on top of ceiling panels, all in strict accordance with the manufacturer's specifications.	m2	14		
					_
	Carried Forward to Summary of Section No.			R	
	Section No. 6 4 SEATS WATERBORNE TOILET BLOCK Bill No. 8				
	Ceilings, Partitions and Access Flooring				

Item No		Quantity	Rate	Amount
	BILL NO. 9			
	IRONMONGERY			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.			
	GENERAL NOTES TO TENDERERS			
	General notes, described in Bill No.1, shall equally apply to this Bill.			
	Where ironmongery is described as plugged, prices are to include for screwing to and including approved patent plugs in concrete or brickwork with plaster or tiled finish, etc.			
	Proprietary items			
	Where applicable the manufacturers' names or product catalogue titles are given in sub-headings preceding the items			
	Prices are to be based on the specific products/articles specified. If tenderers wish to offer alternative products/articles for certain items, these items are to be clearly marked and the alternative specification given with supporting brochures etc clarifying the features of the products/articles offered			
	On request returnable samples are to be provided to the principal agent for consideration			
	Carried Forward		R	
	Section No. 6 4 SEATS WATERBORNE TOILET BLOCK Bill No. 9 Ironmongery			

	Brought Forward		R	
	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 AN Anodised natural AS Anodised silver AB Anodised bronze AG Anodised black PB Polished brass PL Polished and lacquered PT Epoxy coated SD Sanded Rates The tenderer is to price for supply, taking delivery of, storing and fixing of the ironmongery listed below. SUNDRIES			
	<u>Approved</u>			
6/9/1	"CZ8730SC" Door stop or similarly approved to wall or floors No	4		
	Carried Forward to Summary of Section No.		R	
	Section No. 6 4 SEATS WATERBORNE TOILET BLOCK Bill No. 9 Ironmongery			

Item No		Quantity	Rate	Amount
	BILL NO. 10			
	METALWORK			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.			
	GENERAL NOTES TO TENDERERS			
	General notes, described in Bill No.1, shall equally apply to this Bill.			
	ALUMINIUM			
	The contractor is to make due allowance in his prices for complying with the following requirements.			
	SPECIFICATIONS			
	User Note:			
	Glazing			
	All Safety glazing material (individual panes) are to conform to all standards as stipulated in SANS 10400 Part N and SANS 10137 and any additional Engineer Specifications or relevant SANS glazing regulations not stipulated in this document. All tenderers are referred to the drawings for the glazing specification.			
	Ironmongery			
	All rates for windows, shopfronts and doors etc. must include for the supply, taking delivery or/and installation of the ironmongery to be specified.			
	Carried Forward		R	
	Section No. 6 4 SEATS WATERBORNE TOILET BLOCK Bill No. 10 Metalwork			

	Brought Forward	R	
Actuators			
All rates for shopfronts with actual supply and installation of actuato			
<u>Scaffolding</u>			
All scaffolding should be provided contractor and no claims/ qualific accepted.			
<u>Protection</u>			
With this tender, the glazing sub- a statement concerning protectio to finishes and components until This to include specific reference removal of such protection. All tenderers to include cost of pr	n that will be provided Practical Completion. s to the method of		
<u>Installation</u>			
All measurements to be checked ordering and manufacturing.	on site prior to		
Aluminium sections and shop dra by Architect prior to manufacturin			
Allow for water and weather proc to approved specifications all aro plaster and other materials.			
<u>Profiles</u>			
Tenderers to provide typical deta aluminium section to be used in t			
Structural Silicone			
Tenderers to allow a 10 year gua powdercoating.	rantee on all		
Preliminary and Shop Drawing	<u>s:</u>		
The contractor shall submit prelir showing basic system sections for approval.			
	Carried Forward	R	
Section No. 6 4 SEATS WATERBORNE TOILE Bill No. 10	T BLOCK		

Brought Forward	R	
After approval and prior to fabrication detailed shop drawings shall be prepared and submitted to the Architect for approval.		
Fixing:		
The contractor is to take special note of all fixing details of all aluminium elements and must allow in his price for properly securing the aluminium sections to the structure with and including all necessary steel brackets, rails, timber grounds and sub-frames, including all necessary holing and bolting, etc. This fixing is to be adequately spaced and securely fixed to ensure total stiffness of the door frames, windows, etc. as no sagging causing improper functioning of the windows and doors will be accepted.		
<u>Deflection of structure:</u>		
The contractor is advised to make adequate provision for the design deflection of the structure.		
Tolerances:		
Sizes are approximate only and measurements on site must be taken before fabrication. Due allowance must be made for tolerances in accordance with the Architect's details.		
Protection:		
The contractor will be required to protect his work during the course of construction, which protection shall be adequate for the purpose and to the full approval of the Architect.		
Such protection shall only be removed after a written instruction from the Architect.		
Cleaning:		
All work must be cleaned down upon completion. Glazing as installed will not be accepted as clean glass and the contractor must allow for polishing glass as and when instructed by the Architect.		
Note: All windows and doors should be read in conjunction with window and door schedules		
Carried Forward	R	
Section No. 6 4 SEATS WATERBORNE TOILET BLOCK Bill No. 10 Metalwork		

	Brought Forward			R	
	PRESSED STEEL DOOR FRAMES				
	1.2mm thick Single rebated frame suitable for one brick walls, complete with lugs and base ties, with red oxide primer factory finish by manufacturer				
6/10/1	914 x 2032mm single door	No	4		
	WINDOWS FRAMES, etc.				
	Standard mild steel school type Top-hung open out window frame (with brass fittings), with burglar bars to opening and fixed sections, consisting of 10mm diameter mild steel round bars to standard NBP2 pattern, welded at intersections and window frames, all as per architect's specification				
6/10/2	Window size 1022 x 949mm high	No	4		
	Carried Forward to Summary of Section No. Section No. 6			R	
	4 SEATS WATERBORNE TOILET BLOCK Bill No. 10 Metalwork				
			I	II	I

Item No			Quantity	Rate	Amount
	BILL NO. 11				
	PLASTERING				
	PREAMBLES				
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.				
	SUPPLEMENTARY PREAMBLES				
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.				
	GENERAL NOTES TO TENDERERS				
	General notes, described in Bill No.1, shall equally apply to this Bill.				
	SCREEDS				
	1:4 Cement sand screed on concrete, worked down to a true and even surface with a steel trowel				
6/11/1	30mm Thick on floors and landings	m2	33		
6/11/2	30mm Thick to falls and currents	m2	3		
	Granolithic screed on concrete, worked down to a true and even surface with a wood trowel				
	INTERNAL PLASTER				
	One coat smooth 1:5 cement sand plaster on brickwork to receive finish				
6/11/3	On brick walls	m2	115		
6/11/4	On narrow widths	m2	12		
	Carried Forward			R	
	Section No. 6 4 SEATS WATERBORNE TOILET BLOCK Bill No. 11			K	
	Plastering				

	Brought Forward		R	
	CORNER PROTECTORS, DIVIDING STRIPS, ETC			
6/11/5	Aluminium straight edge M-trim suitable for underscreed fixing in vinyl/ceramic, etc. installed as per manufactures recommendation and specification.	m 2		
	Carried Forward to Summary of Section No. Section No. 6 4 SEATS WATERBORNE TOILET BLOCK		R	_
	Bill No. 11 Plastering			

Item No		Quantity	Rate	Amount
	BILL NO. 12			
	TILING			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.			
	Pricing			
	Prices are to included for the following: Cutting, handling, labour, adhesive etc.			
	<u>Fixing</u>			
	Tiling described as "fixed with adhesive on power floated concrete" shall be deemed to include for approved tiling key-coat.			
	Ceramic, porcelain, marble and granite tiles are to be fixed, grouted and pointed with suitable adhesives and grouts, as recommended by the Architect. Costs are hereby deemed to include the cost of this requirement.			
	Payment for work that is deemed measurable, in respect of the conditions of contract, and which comprises cutting, leaving, or forming, rectangular holes and notches through tiling is hereby deemed to apply only to holes and notches that do not exceed 600mm girth. Those exceeding 600mm in girth are hereby deemed to be "square cutting", which is hereby deemed to be part of the work description for that type of tiling and is not measurable as a separate item of work.			
	<u>Wastage</u>			
	Tile wastage in excess of 10% will be for the tenderer's account.			
	Carried Forward		R	
	Section No. 6 4 SEATS WATERBORNE TOILET BLOCK Bill No. 12 Tiling			

	Brought Forward			R	Π
	GENERAL NOTES TO TENDERERS				
	General notes, described in Bill No. 1, shall equally apply to this Bill.				
	<u>Note</u>				
	All scaffolding should be provided by the contractor and no claims/qualifications will be accepted.				
	WALL TILING				
	150 x 150 x 6mm ceramic tiles (PC allowance of R 120.00/m2 excludes V.A.T. but includes delivery to site), includes waste, laying, supply and fixing with an approved adhesive and jointing white grout all as per manufacturers specifications				
6/12/1	Plastered walls	m2	62		
6/12/2	On narrow widths	m2	6		
6/12/3	Splash backs	m2	1		
	FLOOR TILING				
	420 x 420 x 11.5mm Thick non-slip ceramic tiles (P.C allowance of R 200.00/m2 excludes V.A.T. but includes delivery to site), includes waste, laying, supply and fixing with an approved adhesive and jointing in waterproof cementetious grout				
6/12/4	On floors	m2	37		
6/12/5	75mm high skirting	m	81		
	ATTIC STOCK				
6/12/6	150 x 150 x mm ceramic tiles(PC allowance of R 120.00/m2 excludes V.A.T. but includes delivery to site)	m2	6		
6/12/7	420 x 420 x 11.5mm Thick non-slip ceramic tiles (P.C allowance of R 200.00/m2 excludes V.A.T. but includes delivery to site)	m2	3		
	Carried Forward to Summary of Section No.			R	
	Section No. 6 4 SEATS WATERBORNE TOILET BLOCK Bill No. 12 Tiling				

m o		Quantity	Rate	Amount
	BILL NO. 13			
	PLUMBING AND DRAINAGE (PROVISIONAL)			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.			
	uPVC pipes and fittings:			
	Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings			
	uPVC pressure pipes and fittings:			
	Pipes for water supply shall be of the class stated			
	Excavations:			
	No claim for excavation in material other than "earth" will be entertained unless the contractor has timeously notified the quantity surveyor thereof prior to backfilling, and has obtained, in writing, authorised classification thereof.			
	"Intermediate material" and " hard rock" shall be as defined in "Earthworks".			
	Quantities of all excavations, carting away excavated material and backfilling are calculated on the nett extent to be formed, or filled, in accordance with drawings and specifications, and the Contractor is to allow in his prices for any bulking.			
	Classes of excavation shall be as S.A.B.S 1200D clause 3.1.2.			
	Carried Forward		R	
	Section No. 6 4 SEATS WATERBORNE TOILET BLOCK Bill No. 13 Plumbing and Drainage			

	Brought Forward			R	
	Laying, backfilling, bedding, etc., of pipes:				
	Pipes shall be laid and bedded, and trenches shall be carefully backfilled, in accordance with the specific instructions				
	GENERAL NOTES TO TENDERERS				
	General notes, described in Bill No.1, shall equally apply to this Bill.				
	RAINWATER GOODS				
	Similar Approved				
	<u>Gutters</u>				
6/13/1	100 x 100 x 0.6mm thick Ogee profile eaves gutter aluminium box gutter, fixed with and including fixing clips to fascia boards	m	23		
6/13/2	Extra over eaves gutter for stopped end	No	8		
6/13/3	Extra over eaves gutter for corner	No	17		
6/13/4	Extra over eaves gutter for outlet	No	4		
	Rainwater downpipes				
6/13/5	100mm diameter x 0.6mm thick rainwater downpipe with Chromadek finish (Colour: TBC), fixed with and including brackets to wall face, with brackets spaced as per manufacturer's recommendations, and with downpipes spaced as per engineer's specification	m	14		
6/13/6	Extra over downpipe for offset	No	8		
6/13/7	Extra over downpipe for shoe	No	4		
	SANITARY FITTINGS				
	Refer to sanitary schedule drawing for full description of abbreviations				
	WASH HAND BASINS				
					\vdash
	Carried Forward Section No. 6			R	
	4 SEATS WATERBORNE TOILET BLOCK Bill No. 13 Plumbing and Drainage				

	Brought Forward			R	
	Similar Approved				
	Vaal Sanitaryware "Hibiscus" vitreous china basin with three semi-punched holes tap holes, including integrated overflow, including chain stay hole through the centre semi-punched tap hole, supplied with plug and chain, hung to walls (PC allowance of R450.00/no excludes V.A.T. but includes delivery to site), includes waste, supply and fixing				
6/13/8	WHB, installed complete	No	4		
	WATER CLOSET				
	Similar Approved				
	Vaal Sanitaryware "Daisy" semi-close coupled water closet comprising double flap heavy duty thermoplastic seat rim pan and matching 9 litre cistern complete with lid, fitments and flush pipe elbow (PC allowance of R2 800.00/no excludes V.A.T. but includes delivery to site), includes waste, supply and fixing				
6/13/9	WC, installed complete	No	4		
	CHROME PLATED WASTE UNIONS, ETC. (Supply & Fit)				
6/13/10	32mm Basin waste union	No	4		
	TOILET ROLL HOLDER				
	To be approved by Architect				
6/13/11	130 x 560 x 130mm mild steel vandal proof Toilet paper roll holder (Colour: White), plugged and screwed to walls				
	Wallo	No	4		
	SOAP DISPENSER				
	To be approved by Architect				
6/13/12	110 x 170 x 35mm high plastic Soap dispenser (Colour: White and transparent), with lever button and pump, plugged and screwed to wall	No	1		
	Carried Forward			R	
	Section No. 6 4 SEATS WATERBORNE TOILET BLOCK Bill No. 13 Plumbing and Drainage				

	Brought Forward		R	
	PAPER TOWEL DISPENSER			
	To be approved by Architect			
6/13/13	360 x 380 x 240mm high lockable auto-cut (reflex) plastic Paper towel dispenser (Colour: White), plugged and screwed to wall	1		
	Carried Forward to Summary of Section No. Section No. 6		R	_
	4 SEATS WATERBORNE TOILET BLOCK Bill No. 13 Plumbing and Drainage			

Item No		Qu	antity	Rate	Amount
	BILL NO. 14				
	GLAZING				
	PREAMBLES				
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.				
	SUPPLEMENTARY PREAMBLES				
	Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.				
	GENERAL NOTES TO TENDERERS				
	General notes, described in Bill No. 1, shall equally apply to this Bill.				
	Note:				
	All glazing to comply with SABS 1263 Part 3:1998. Light and ventilation to comply with Part O if NBR 0400				
	GLASS TO STEEL WITH PUTTY				
	5mm clear floated glass fixed glazing putty				
6/14/1	Panes not exceeding 0.1m2	m2	4		
	TOPS, SHELVES, DOORS, MIRROR ETC				
	6mm Polished plate float glass mirrors with square polished edges plugged with chrome plated detachable screws or similarly approved				
6/14/2	Mirror 400 x 600 mm high	No	4		
	Carried Forward to Summary of Section No.			R	
	Section No. 6 4 SEATS WATERBORNE TOILET BLOCK Bill No. 14				

tem No			Quantity	Rate	Amount
	BILL NO. 15				
	PAINTWORK				
	PREAMBLES				
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.				
	SUPPLEMENTARY PREAMBLES				
	Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.				
	GENERAL NOTES TO TENDERERS				
	General notes, described in Bill No. 1, shall equally apply to this Bill.				
	PAINTWORK ETC TO NEW WORK				
	FIBRE CEMENT				
	Prepare and apply one coat universal undercoat and two coats Super Acrylic PVA paint or similar approved, colour to be confirmed by architect				
/15/1	On internal ceilings and cornices	m2	16		
/15/2	Fibre cement fascias boards not exceeding 300mm high or wide painted on both side	m	46		
	Prepare and apply one coat alkali resistant sealer and two coats mat enamel paint, colour to be confirmed by architect				
/15/3	Fiber cement window sill not exceeding 300mm high or wide	m	4		
	FLOATED PLASTER INTERNAL WALLS				
	Carried Forward			R	
	Section No. 6 4 SEATS WATERBORNE TOILET BLOCK Bill No. 15				

	Brought Forward			R	Π
	Prepare and apply one coat merit universal undercoat and two coats Super Acrylic PVA paint or similar approved, colour to be confirmed by architect				
6/15/4	Plastered walls	m2	115		
	METAL SURFACES				
	Prepare and apply one coat Duraphos, one coat universal under coat and two coats gloss enamel paint, colour to be confirmed by architect				
6/15/5	On window frames	m2	4		
6/15/6	On door frames	m2	5		
6/15/7	On gutters	m	23		
6/15/8	On downpipes	m	14		
	WOOD				
	Prepare and apply one coat universal undercoat and two coats acrylic PVA, colour to be confirmed by architect				
6/15/9	On door	m2	15		
					_
	Carried Forward to Summary of Section No.			R	<u></u>
	Section No. 6 4 SEATS WATERBORNE TOILET BLOCK Bill No. 15				
	Paintwork				

LIMPOPO DEPARTMENT OF EDUCATION UPGRADES AND ADDITIONS AT CHAMETI HIGH SCHOOL

	SECTION SUMMARY	<u> </u>	<u> </u>	
Bill No	DESTIGN COMMENT	Page No		Amount
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6/2	Earthworks	6/7		
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	Carried to Final Summary		R	
	Section No. 6			
	4 SEATS WATERBORNE TOILET BLOCK			

Item No		Quantity	Rate	Amount
	SECTION NO. 7			
	BILL NO. 1			
	DEMOLITIONS AND ALTERATIONS			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Subterranean water			
	No subterranean water is expected			
	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			
	<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 necessary multiple handling of material			
	Carried Forward Section No. 7		R	
	DEMOLISH (10 CLASSROOMS & 4 PIT TOILETS) & RE Bill No. 1 Demolitions and Alterations			

Brought Forward	R	
Testing		
Prices for filling are to include for all necessary density tests in accordance with SABS 1200D		
Existing structures		
In taking down and removing existing work, the utmost care shall be taken to prevent any structural or other damage to the remaining portions on the building and the Contractor shall provide all shoring, needling, strutting, etc. to ensure the stability of all structures during the alteration work, Any damage to the structure and/or building as well as the rectification of same will be for the contractor's account		
<u>Services</u>		
Special care shall be exercised during the progress of the work to ensure that electrical installation, water supply pipes, telephone and other services which may be encountered are not interfered with and notice shall be given to the Representative/Agent if any disconnection or alterations become necessary.		
<u>Dust and noise</u>		
The Contractor is to take all necessary precautions to the satisfaction of the Representative/Agent to prevent any nuisance from the dust and /or noise whilst carrying out the work.		
<u>Disposal of debris</u>		
The Contractor shall be responsible for the removal from site of all materials, debris and rubbish resulting from the work which removal is deemed to be included in the rates unless otherwise stated.		
Rates for taking out and removing doors and frames shall include for removing door stops, cabin hooks, etc and making good floor and wall finishes to match existing		
Making good of finishes shall include making good of the brick and concrete surfaces onto which the new finishes are applied, where necessary		
Carried Forward	R	
Section No. 7 DEMOLISH (10 CLASSROOMS & 4 PIT TOILETS) & RE Bill No. 1		

Brought Forward	R	
Temporary support to openings through existing walls		
Making openings, altering openings in existing walls and removing lintels above existing openings shall be done with the utmost care to prevent any structural damage. All necessary supports, propping, shoring, needling, strutting, turning pieces, etc. to walls openings is deemed to be included in the contractor's rates.		
Electrical and Mechanical		
Where items include for taking down electrical and mechanical fittings the disconnection and making safe electrically is deemed to be included.		
GENERAL NOTES TO TENDERERS		
Tenderers are to inspect the drawings issued with these Bills of Quantities and to satisfy themselves with the nature and the requirements of the Contract works. Failure to do so will be the complete responsibility of the Tenderer and no claims whatsoever will be entertained in this regard.		
Tenderers are to read the descriptions, which are intended as a means of identifying various facets of the work, in conjunction with the drawings. Tenderers shall allow for all costs in connection with the various items taking full cognisance of both the drawings and the Bills of Quantities.		
Tenderers shall notify the Quantity Surveyor in writing of any discrepancies encountered upon which clarification will be given by the Quantity Surveyor in writing to the Tenderer. Failure to do so will be the complete responsibility of the Tenderer and no claims whatsoever will be entertained in this regard		
Openied Farmand		
Section No. 7 DEMOLISH (10 CLASSROOMS & 4 PIT TOILETS) & RE Bill No. 1	R	
Demolitions and Alterations		

	Brought Forward			R	
	Tenderers are to note that setting out of the works will be the complete responsibility of the Tenderer and they should therefore acquaint themselves with the site boundaries, site co-ordinates, datum levels etc. Failure to do so will be the complete responsibility of the Tenderer and no claims whatsoever will be entertained in this regard. Tenderers are to note that all items with ZERO quantities are Rate Only items and should be priced as such.				
	Tenderers are to note that there might be specified suppliers to be used for certain trades as per the annexure to this tender document. Tenderers should familiarise themselves with the suppliers on the list and ensure to allow for accordingly. Failure to do so will be the complete responsibility of the Tenderer and no claims whatsoever will be entertained in this regard.				
	Tenderers are to fully acquaint themselves with the construction period and shall allow for any night shift if required. Failure to do so will be the complete responsibility of the Tenderer and no claims whatsoever will be entertained in this regard.				
	REMOVAL OF EXISTING WORK				
	Demolitions of existing structures all complete				
7/1/1	Single storey brick and mortar classroom block with pitched roof, comprising of surface bed, external and internal brick walls, corrugated roof covering on timber trusses, including wash hand basins & WC porcelain close couple and with plumbing complete.	m2	693		
7/1/2	Single storey brick and mortar ablution block with pitched roof, comprising of surface bed, external and internal brick walls, corrugated roof covering on timber trusses, including wash hand basins & WC porcelain close couple and with plumbing complete.	m2	37		
	Taking down and removing roofs, floors, panelling, ceilings, partitions, to				
7/1/3	Suspended plasterboard ceilings including suspension grid, hangers, etc	m2	61		
	Carried Forward Section No. 7 DEMOLISH (10 CLASSROOMS & 4 PIT TOILETS) & RE Bill No. 1			R	
	Demolitions and Alterations				

	Brought Forward			R	
	Hacking up/off and removing brick / concrete paving, screeds, etc				
7/1/4	25mm thick concrete screed	m2	61		
	Taking out and removing doors, windows, etc including making good frame (paintwork measured elsewhere)				
7/1/5	Timber single door, size 813mm x 2032mm high	No	19		
	Taking out and removing ironmongery				
7/1/6	Remove brass sliding stays, peg stay, handles window ironmongery	No	24		
	Taking out and removing piping, sanitary fittings, etc including disconnecting piping from fittings and making good floor and wall finishes (making good tiling and paintwork elsewhere)				
7/1/7	Remove and make good: vitreous china wash hand basin	No	6		
	Taking out and removing sundry joinery work				
7/1/8	Timber skirting from brickwork	m	146		
7/1/9	Security gate size 813 x 2023mm high including framing bolted to brickwork and making good mortar joints between face brickwork	No	7		
	Repairing cracks				
7/1/10	On plastered brick walls	m2	196		
	BRICK UP OPENINGS				
	Brickwork in NFP bricks in class II mortar in building up openings including cutting toothings and bonding new brickwork to existing				
7/1/11	One brick walls	m2	63		
	MAKING GOOD OF FINISHES ETC				
	Carried Forward			R	
	Section No. 7 DEMOLISH (10 CLASSROOMS & 4 PIT TOILETS) & RE Bill No. 1 Demolitions and Alterations				

	Brought Forward		R	
	Face Bricks			
7/1/12	Clean and treat face-bricks with approved oxidation preventative solution m2	228		
	Carried Forward to Summary of Section No.		R	
	Section No. 7 DEMOLISH (10 CLASSROOMS & 4 PIT TOILETS) & RE Bill No. 1			
	Demolitions and Alterations			

Item No		Quantity	Rate	Amount
	BILL NO. 2			
	MASONRY			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.			
	GENERAL NOTES TO TENDERERS			
	General notes, described in Bill No.1, shall equally apply to this Bill.			
	Sizes in descriptions			
	Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick			
	Hollow walls etc			
	Descriptions of hollow walls shall be deemed to include leaving every fifth perpend of the bottom course of the external skin open as a weep hole. Walls in two skins described as "bagged and sealed" shall be deemed to include having the outer face of the inner skin bagged with 1:6 cement and sand mixture and sealed with two coats "Brickseal" bitumen emulsion waterproofing coating.			
	Face bricks			
	Bricks shall be ordered timeously to obtain uniformity in size and colour			
	Carried Forward		R	
	Section No. 7 DEMOLISH (10 CLASSROOMS & 4 PIT TOILETS) & RE Bill No. 2 Masonry			

	Brought Forward			R	—
	<u>Pointing</u>				
	Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc				
	FACE BRICKWORK				
	Bricks shall be ordered timeously to obtain uniformity in size and colour				
	"Corobrick" face bricks (Colour: TBC) with PC sum amount of R 4 500.00 per thousand bricks delivered to site (excluding VAT) manufactured in accordance with SANS 227-2007, bedded and jointed in Class II mortar and pointed with recessed 6mm joints in both directions				
7/2/1	Extra over brickwork for face brickwork in brick-on-edge header course lintel	m	12		
7/2/2	Extra over brickwork for face brickwork in brick-on-edge header course sills, bedded in mortar and set slightly sloped	m	7		
	BRICKWORK SUNDRIES				
	"Allied concrete" or similar approved prestressed fabricated lintels				
7/2/3	100 x 70mm Lintels in lengths not exceeding 3m	m	8		
7/2/4	175 x 70mm Lintels in lengths not exceeding 3m	m	21		
	Turning pieces				
7/2/5	110mm Wide turning piece to flat brick lintels	m	22		
	Air bricks etc				
7/2/6	Set of 2 240 x 155mm Terracota air bricks as per architects specification	No	7		
	Comical Forward to Commence of Contill			5	_
	Carried Forward to Summary of Section No. Section No. 7			R	
	DEMOLISH (10 CLASSROOMS & 4 PIT TOILETS) & RE Bill No. 2 Masonry				

Item No		Qua	ntity	Rate	Amount
	BILL NO. 3				
	WATERPROOFING				
	PREAMBLES				
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.				
	SUPPLEMENTARY PREAMBLES				
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.				
	GENERAL NOTES TO TENDERERS				
	General notes, described in Bill No.1, shall equally apply to this Bill.				
	DAMP PROOFING OF WALLS AND FLOORS				
	One layer of 375 micron "Consol Plastic Brikgrip DPC" embossed damp proof course				
7/3/1	Under cills, etc.	m2	1		
	Country of Coaties No			R	
	Carried Forward to Summary of Section No. Section No. 7 DEMOLISH (10 CLASSROOMS & 4 PIT TOILETS) & RE Bill No. 3			ĸ	
	Waterproofing				

Item No		Quantity	Rate	Amount
	BILL NO. 4			
	CARPENTRY AND JOINERY			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.			
	GENERAL NOTES TO TENDERERS			
	General notes, described in Bill No.1, shall equally apply to this Bill.			
	<u>Joinery</u>			
	Descriptions of frames shall be deemed to include frames, transoms, mullions, rails, etc.			
	Descriptions of hardwood joinery shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete.			
	<u>Fixing</u>			
	Items described as nailed shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete			
	Decorative laminate finish			
	Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish			
	<u>Timber</u>			
	All softwood to be South African Pine			
	Carried Forward		R	
	Section No. 7 DEMOLISH (10 CLASSROOMS & 4 PIT TOILETS) & RE Bill No. 4 Carpentry and Joinery			
		l		

	Brought Forward	R	
<u>Descriptions</u>			
Items described as "bolted" shall be the bolts and include the holes unle described.			
Where the fixing of members is not the nailing of one timber member to			
The term "planted on" shall mean the timber member to another	he nailing of one		
The term "screwed on" shall mean screwing of one timber member to			
The term "screwed on and pelleted screwing of one timber member to heads of screw sunk and pelleted.			
The term "plugged" shall mean the screwing of a timber member to an plugs in brickwork or concrete.			
The term "plugged and pelleted" sh screwing of a timber member to an plugs in brickwork or concrete with and pelleted.	d including plastic		
Shelving, etc. described as screwer fixed from underside and prices are countersunk drilling through the ste	e to include for		
Descriptions of floors, ceilings, joind deemed to include for all square cu			
Descriptions of items given in linea deemed to include for mitres, stopp intersections, etc.			
Descriptions of rounded angles, relichamfers, moulded edges, etc. sha include for angles, ends, etc.			
ROOFS, ETC			
	Carried Forward	R	
Section No. 7 DEMOLISH (10 CLASSROOMS & Bill No. 4	4 PIT TOILETS) & RE		

	Brought Forward			R	
	Plate nailed timber roof truss construction	l			
	The following is applicable in respect of roof trusses:				
	All timber to be sawn softwood in accordance with V4 or M4 as defined in SABS 563 or SABS 1245.				
	Metal connector plates shall have a minimum yield strength of 228 MPa and a minimum ultimate tensile strength of 330 Mpa with hot-dip galvanised finish.				
	All joints to be close fitted butt joints.				
	Trusses shall be designed by a registered supplier of prefabricated trusses who shall issue an Engineers Certificate upon completion of the installation.				
	The dimensions in the descriptions of the trusses are nominal and actual measurements are to be obtained on site before design or fabrication commences.				
	Tenderers must study the roof plan and sections as attached to the back of these bills of quantities and must obtain prices from a qualified and registered roof truss supplier as no claims in this regard will be entertained.				
	DOORS ETC				
	44mm thick solid R&F panel meranti timber doors with masonite backing with 15 horizontal slates on both sides hung to steel frames				
7/4/1	813 x 2032mm single door	No	19		
	WINDOWS				
	Similar Approved				
	A				
	Carried Forward Section No. 7 DEMOLISH (10 CLASSROOMS & 4 PIT TOILETS) & RE			R	
	Bill No. 4 Carpentry and Joinery				

	Brought Forward			R	
	"Nutec" fibre cement window cills				
7/4/2	150mm x 15mm thick fibre cement Window sill set flat and slightly projecting, with window sill lug screwed to underside of sill at 400mm centres, minimum of 75mm from end of window sill and bedded in 1:4 cement sand mortar with plastic slip joints at end of sills at plaster reveals and projecting from finished face of wall, all as per manufacturer's recommendations	m	7		
	Carried Forward to Summary of Section No. Section No. 7 DEMOLISH (10 CLASSROOMS & 4 PIT TOILETS) & RE Bill No. 4 Carpentry and Joinery			R	

Item No		Quantity	Rate	Amount
	BILL NO. 5			
	CEILINGS, PARTITIONS AND ACCESS FLOORING			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.			
	GENERAL NOTES TO TENDERERS			
	General notes, described in Bill No.1, shall equally apply to this Bill.			
	<u>Fixing</u>			
	Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 500mm centres, and where described as "bolted", the bolts have been given elsewhere.			
	Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins, or to be shot-pinned, to brickwork or concrete			
	Ceilings & Bulkheads			
	Unless otherwise described ceilings shall be deemed to be horizontal			
	Steel components			
	All steel components for ceilings, partitions, etc are to be galvanised in accordance with SANS 121			
	Carried Forward		R	
	Section No. 7 DEMOLISH (10 CLASSROOMS & 4 PIT TOILETS) & RE Bill No. 5			
	Ceilings,Partitions and Access Flooring			

	Brought Forward			R	_
	Proprietary suspended ceilings				
	Hangers, suspension grids, "lay-in" panels, etc are to be in accordance with the manufacturers' recommendations				
	Where electrical light fittings, diffusers, panels etc are units of the same dimensions as the suspension grid described and allowance must be made in the rates accordingly for their support inclusive of any flexibility in setting out that may be required (ceiling panels have not been deducted and pricing is to take cognisance thereof)				
	Suspension systems				
	Where suspensions of ceilings require a sub-grid, the tenderer should include in his rates for the sub-grid. The design of the sub-grid support is not specified, the tenderer is to obtain the necessary requirements and recommendations for a safe installation from the board and suspension system manufacturer to the satisfaction of the structural engineer.				
	NAILED UP CEILINGS				
	FIBRE - CEMENT BOARDS				
	Similar Approved				
	6mm "Everite Nutec" Fibre-cement boards, jointed with and including galvanised H-type primed pressed steel jointing strips, including brandering as per architect's specifications				
7/5/1	2400 x 1200mm x 6mm Horizontal ceilings, fixed to and including 38 x 38mm sawn softwood brandering at maximum 400mm centres using 38mm long galvanised nails	m2	58		
	CEILING INSULATION				
	<u>Insulation</u>				
7/5/2	125mm thick Glass wool insulation blanket closely fitted and laid on top of ceiling panels, all in strict accordance with the manufacturer's specifications.	m2	58		
	Carried Forward to Summary of Section No.			R	
	Section No. 7 DEMOLISH (10 CLASSROOMS & 4 PIT TOILETS) & RE Bill No. 5 Ceilings,Partitions and Access Flooring				

Item No		Quantity	Rate	Amount
	BILL NO. 6			
	IRONMONGERY			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.			
	GENERAL NOTES TO TENDERERS			
	General notes, described in Bill No.1, shall equally apply to this Bill.			
	Where ironmongery is described as plugged, prices are to include for screwing to and including approved patent plugs in concrete or brickwork with plaster or tiled finish, etc.			
	Proprietary items			
	Where applicable the manufacturers' names or product catalogue titles are given in sub-headings preceding the items			
	Prices are to be based on the specific products/articles specified. If tenderers wish to offer alternative products/articles for certain items, these items are to be clearly marked and the alternative specification given with supporting brochures etc clarifying the features of the products/articles offered			
	On request returnable samples are to be provided to the principal agent for consideration			
	Carried Forward		R	
	Section No. 7 DEMOLISH (10 CLASSROOMS & 4 PIT TOILETS) & RE Bill No. 6 Ironmongery			

	Brought Forward			R	
	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 AN Anodised natural AS Anodised silver AB Anodised bronze AG Anodised black PB Polished brass PL Polished and lacquered PT Epoxy coated SD Sanded Rates The tenderer is to price for supply, taking delivery of, storing and fixing of the ironmongery listed below. SUNDRIES Approved				
7/6/1					
77071	"CZ8730SC" Door stop or similarly approved to wall or floors	No	19		
	Carried Forward to Summary of Section No.			R	
	Section No. 7 DEMOLISH (10 CLASSROOMS & 4 PIT TOILETS) & RE Bill No. 6 Ironmongery				

Item No		Quantity	Rate	Amount
	BILL NO. 7			
	METALWORK			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.			
	GENERAL NOTES TO TENDERERS			
	General notes, described in Bill No.1, shall equally apply to this Bill.			
	ALUMINIUM			
	The contractor is to make due allowance in his prices for complying with the following requirements.			
	<u>SPECIFICATIONS</u>			
	User Note:			
	Glazing			
	All Safety glazing material (individual panes) are to conform to all standards as stipulated in SANS 10400 Part N and SANS 10137 and any additional Engineer Specifications or relevant SANS glazing regulations not stipulated in this document. All tenderers are referred to the drawings for the glazing specification.			
	<u>Ironmongery</u>			
	All rates for windows, shopfronts and doors etc. must include for the supply, taking delivery or/and installation of the ironmongery to be specified.			
	Carried Forward		R	
	Section No. 7 DEMOLISH (10 CLASSROOMS & 4 PIT TOILETS) & RE Bill No. 7 Metalwork			

Brought Forv	vard	R	
Actuators			
All rates for shopfronts with actuators to include for the supply and installation of actuators as specified	e		
Scaffolding			
All scaffolding should be provided by the contractor and no claims/ qualifications will be accepted.			
<u>Protection</u>			
With this tender, the glazing sub-contractor must support a statement concerning protection that will be provide to finishes and components until Practical Completion This to include specific references to the method of removal of such protection. All tenderers to include cost of protection in tender pri	d .		
Installation			
All measurements to be checked on site prior to ordering and manufacturing.			
Aluminium sections and shop drawings to be accepted by Architect prior to manufacturing.	d		
Allow for water and weather proof polysulphide sealar to approved specifications all around frame junctions plaster and other materials.			
<u>Profiles</u>			
Tenderers to provide typical details of proposed aluminium section to be used in the design.			
Structural Silicone			
Tenderers to allow a 10 year guarantee on all powdercoating.			
Preliminary and Shop Drawings:			
The contractor shall submit preliminary design drawing showing basic system sections for the Architect's approval.	gs		
Carried Forv	vard	R	
Section No. 7 DEMOLISH (10 CLASSROOMS & 4 PIT TOILETS) & Bill No. 7 Metalwork	RE		

Brought Forward	R	
After approval and prior to fabrication detailed shop drawings shall be prepared and submitted to the Architect for approval.		
Fixing:		
The contractor is to take special note of all fixing details of all aluminium elements and must allow in his price for properly securing the aluminium sections to the structure with and including all necessary steel brackets, rails, timber grounds and sub-frames, including all necessary holing and bolting, etc. This fixing is to be adequately spaced and securely fixed to ensure total stiffness of the door frames, windows, etc. as no sagging causing improper functioning of the windows and doors will be accepted.		
<u>Deflection of structure:</u>		
The contractor is advised to make adequate provision for the design deflection of the structure.		
<u>Tolerances:</u>		
Sizes are approximate only and measurements on site must be taken before fabrication. Due allowance must be made for tolerances in accordance with the Architect's details.		
Protection:		
The contractor will be required to protect his work during the course of construction, which protection shall be adequate for the purpose and to the full approval of the Architect.		
Such protection shall only be removed after a written instruction from the Architect.		
Cleaning:		
All work must be cleaned down upon completion. Glazing as installed will not be accepted as clean glass and the contractor must allow for polishing glass as and when instructed by the Architect.		
Note: All windows and doors should be read in conjunction with window and door schedules		
Carried Forward	R	
Section No. 7 DEMOLISH (10 CLASSROOMS & 4 PIT TOILETS) & RE Bill No. 7 Metalwork		

	Brought Forward			R	<u> </u>
	WELDED SCREENS, GATES, ETC.				
	Welded MS gate consisting of 50 x 50 x 2.5mm rectangular tubing section frame with 45 degrees mitre at corners, bolted to reveals with 10mm (10M) rawlbolts and welded with 50 x 50 x 5mm mild steel to walls, with 50 x 50 x 2.5mm mild steel rectangular tube gate leaf with 45 degree mitre at corners and two 50 x 50 x 2.5mm horizontal sections, with 12 x 12mm mild steel vertical style solid square bars at 100mm c/c, including 3x pair of 20mm diameter bullet-hinges per gate, with "Solid blesbok" 460/313 four lever lockset with rebate set, including welding, bolting, holes, bolts etc., all complete as per the architect's specifications				
7/7/1	Steel gate to door, size 813mm x 2032mm high	No	21		
	PRESSED STEEL DOOR FRAMES				
	1.2mm thick Single rebated frame suitable for one brick walls, complete with lugs and base ties, with red oxide primer factory finish by manufacturer				
7/7/2	813 x 2032mm single door	No	19		
	WINDOWS FRAMES, etc.				
	Standard mild steel school type Top-hung open out window frame (with brass fittings), with burglar bars to opening and fixed sections, consisting of 10mm diameter mild steel round bars to standard NBP2 pattern, welded at intersections and window frames, all as per architect's specification				
7/7/3	Window size 1511 x 1170mm high	No	5		
	ALUMINIUM WINDOWS, DOORS, ETC				
	304/VEM 320G expanded metal mesh size 1200mm x 2400mm manufactured in accordance with SANS 190-1:1983 fixed to 76 x 50mm timber purlins using 40x 0.5mm hat channels @ 400mm centres with 12 x 20mm tac screws.				
7/7/4	In Ceiling voids	m2	58		
	Carried Forward to Summary of Section No. Section No. 7			R	<u> </u>
	DEMOLISH (10 CLASSROOMS & 4 PIT TOILETS) & RE Bill No. 7 Metalwork				

Item No			Quantity	Rate	Amount
	BILL NO. 8				
	PLASTERING				
	PREAMBLES				
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.				
	SUPPLEMENTARY PREAMBLES				
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.				
	GENERAL NOTES TO TENDERERS				
	General notes, described in Bill No.1, shall equally apply to this Bill.				
	SCREEDS				
	1:4 Cement sand screed on concrete, worked down to a true and even surface with a steel trowel				
7/8/1	30mm Thick on floors and landings	m2	61		
	INTERNAL PLASTER				
	One coat smooth 1:5 cement sand plaster on brickwork to receive finish				
7/8/2	On brick walls	m2	527		
7/8/3	On narrow widths	m2	53		
	CORNER PROTECTORS, DIVIDING STRIPS, ETC				
7/8/4	Aluminium straight edge M-trim suitable for underscreed fixing in vinyl/ceramic, etc. installed as per manufactures recommendation and specification.	m	18		
	Carried Forward to Summary of Section No.			R	
	Section No. 7 DEMOLISH (10 CLASSROOMS & 4 PIT TOILETS) & RE Bill No. 8 Plastering				

Item No		Quantity	Rate	Amount
	BILL NO. 9			
	TILING			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.			
	Pricing			
	Prices are to included for the following: Cutting, handling, labour, adhesive etc.			
	<u>Fixing</u>			
	Tiling described as "fixed with adhesive on power floated concrete" shall be deemed to include for approved tiling key-coat.			
	Ceramic, porcelain, marble and granite tiles are to be fixed, grouted and pointed with suitable adhesives and grouts, as recommended by the Architect. Costs are hereby deemed to include the cost of this requirement.			
	Payment for work that is deemed measurable, in respect of the conditions of contract, and which comprises cutting, leaving, or forming, rectangular holes and notches through tiling is hereby deemed to apply only to holes and notches that do not exceed 600mm girth. Those exceeding 600mm in girth are hereby deemed to be "square cutting", which is hereby deemed to be part of the work description for that type of tiling and is not measurable as a separate item of work.			
	<u>Wastage</u>			
	Tile wastage in excess of 10% will be for the tenderer's account.			
	Carried Forward		R	
	Section No. 7 DEMOLISH (10 CLASSROOMS & 4 PIT TOILETS) & RE Bill No. 9 Tiling			

	Brought Forward			R	
	GENERAL NOTES TO TENDERERS				
	General notes, described in Bill No. 1, shall equally apply to this Bill.				
	<u>Note</u>				
	All scaffolding should be provided by the contractor and no claims/qualifications will be accepted.				
	WALL TILING				
	150 x 150 x 6mm ceramic tiles (PC allowance of R 120.00/m2 excludes V.A.T. but includes delivery to site), includes waste, laying, supply and fixing with an approved adhesive and jointing white grout all as per manufacturers specifications				
7/9/1	Splash backs	m2	2		
	SUNDRIES				
	10mm aluminium straight edge trim				
7/9/2	Dividing strip between tiles and door frames	m	6		
	Carried Economic to Summany of Section No.			R	
	Carried Forward to Summary of Section No. Section No. 7				\vdash
	DEMOLISH (10 CLASSROOMS & 4 PIT TOILETS) & RE Bill No. 9 Tiling				

Item No		Quantity	Rate	Amount
	BILL NO. 10			
	PLUMBING AND DRAINAGE (PROVISIONAL)			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.			
	uPVC pipes and fittings:			
	Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings			
	uPVC pressure pipes and fittings:			
	Pipes for water supply shall be of the class stated			
	Excavations:			
	No claim for excavation in material other than "earth" will be entertained unless the contractor has timeously notified the quantity surveyor thereof prior to backfilling, and has obtained, in writing, authorised classification thereof.			
	"Intermediate material" and " hard rock" shall be as defined in "Earthworks".			
	Quantities of all excavations, carting away excavated material and backfilling are calculated on the nett extent to be formed, or filled, in accordance with drawings and specifications, and the Contractor is to allow in his prices for any bulking.			
	Classes of excavation shall be as S.A.B.S 1200D clause 3.1.2.			
	Carried Forward		R	
	Section No. 7 DEMOLISH (10 CLASSROOMS & 4 PIT TOILETS) & RE Bill No. 10 Plumbing and Drainage			

	Brought Forward			R	
	Laying, backfilling, bedding, etc., of pipes:				
	Pipes shall be laid and bedded, and trenches shall be carefully backfilled, in accordance with the specific instructions				
	GENERAL NOTES TO TENDERERS				
	General notes, described in Bill No.1, shall equally apply to this Bill.				
	SANITARY FITTINGS				
	Refer to sanitary schedule drawing for full description of abbreviations				
	WASH HAND BASINS				
	Similar Approved				
	Vaal Sanitaryware "Hibiscus" vitreous china basin with three semi-punched holes tap holes, including integrated overflow, including chain stay hole through the centre semi-punched tap hole, supplied with plug and chain, hung to walls (PC allowance of R450.00/no excludes V.A.T. but includes delivery to site), includes waste, supply and fixing				
7/10/1	WHB, installed complete	No	6		
	SINKS, etc.				
	Concrete double wash trough with outlets and three pedestals (PC allowance of R780.00/no excludes V.A.T. but includes delivery to site), includes waste, supply and fixing				
7/10/2	1400 x 530 x 340mm deep Wash trough	No	2		
	CHROME PLATED WASTE UNIONS, ETC. (Supply & Fit)				
7/10/3	32mm Basin waste union	No	6		
	SOAP DISPENSER				
	Carried Forward			R	
	Section No. 7 DEMOLISH (10 CLASSROOMS & 4 PIT TOILETS) & RE Bill No. 10 Plumbing and Drainage				

	Brought Forward			R	
	To be approved by Architect				
7/10/4	110 x 170 x 35mm high plastic Soap dispenser (Colour: White and transparent), with lever button and pump, plugged and screwed to wall	No	2		
	PAPER TOWEL DISPENSER				
	To be approved by Architect				
7/10/5	360 x 380 x 240mm high lockable auto-cut (reflex) plastic Paper towel dispenser (Colour: White), plugged and screwed to wall	No	2		
	TAPS, VALVES, ETC				
	Similar Approved				
7/10/6	15mm Cobra brass watertight hose Bib tap (Code: 108- 15)	No	2		
	Carried Forward to Summary of Section No.			R	
	Section No. 7 DEMOLISH (10 CLASSROOMS & 4 PIT TOILETS) & RE Bill No. 10				
	Plumbing and Drainage				

Item No		Qı	uantity	Rate	Amount
	BILL NO. 11				
	GLAZING				
	PREAMBLES				
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.				
	SUPPLEMENTARY PREAMBLES				
	Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.				
	GENERAL NOTES TO TENDERERS				
	General notes, described in Bill No. 1, shall equally apply to this Bill.				
	Note:				
	All glazing to comply with SABS 1263 Part 3:1998. Light and ventilation to comply with Part O if NBR 0400				
	GLASS TO STEEL WITH PUTTY				
	5mm clear floated glass fixed glazing putty				
7/11/1	Panes not exceeding 0.1m2	m2	8		
	6mm obscure floated glass fixed glazing putty				
7/11/2	Panes exceeding 0.5m2 and not exceeding 2.0m2	m2	5		
	TOPS, SHELVES, DOORS, MIRROR ETC				
	6mm Polished plate float glass mirrors with square polished edges plugged with chrome plated detachable screws or similarly approved				
7/11/3	Mirror 400 x 600 mm high	No	6		
	Carried Forward to Summary of Section No.			R	
	Section No. 7 DEMOLISH (10 CLASSROOMS & 4 PIT TOILETS) & RE Bill No. 11 Glazing			``	

Item No		(Quantity	Rate	Amount
	BILL NO. 12				
	<u>PAINTWORK</u>				
	PREAMBLES				
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.				
	SUPPLEMENTARY PREAMBLES				
	Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.				
	GENERAL NOTES TO TENDERERS				
	General notes, described in Bill No. 1, shall equally apply to this Bill.				
	PAINTWORK TO PREVIOUS PAINTED				
	ON FLOATED PLASTER				
	Prepare and apply two coats THT base primer and two coats dulux trade sterishield diamond eggshell or similar approved washable antibacterial paint (Colour: To architect's specification)				
7/12/1	Internal walls	m2	527		
	METAL SURFACES				
	Prepare and apply one coat Duraphos, one coat universal under coat and two coats gloss enamel paint, colour to be confirmed by architect				
7/12/2	On Window frames	m2	5		
	PAINTWORK ETC TO NEW WORK				
	FIBRE CEMENT				
	Carried Forward			R	
	Section No. 7 DEMOLISH (10 CLASSROOMS & 4 PIT TOILETS) & RE Bill No. 12 Paintwork				

	Brought Forward			R	Τ
	Prepare and apply one coat universal undercoat and two coats Super Acrylic PVA paint or similar approved, colour to be confirmed by architect				
7/12/3	On internal ceilings and cornices	m2	58		
	Prepare and apply one coat alkali resistant sealer and two coats mat enamel paint, colour to be confirmed by architect				
7/12/4	Fiber cement window sill not exceeding 300mm high or wide	m	7		
	FLOATED PLASTER INTERNAL WALLS				
	Prepare and apply one coat merit universal undercoat and two coats Super Acrylic PVA paint or similar approved, colour to be confirmed by architect				
7/12/5	Plastered walls	m2	527		
	METAL SURFACES				
	Prepare and apply one coat Duraphos, one coat universal under coat and two coats gloss enamel paint, colour to be confirmed by architect				
7/12/6	On gates, grilles, burglar screens, balustrades, etc (both sides measured on full flat area)	m2	79		
7/12/7	On window frames	m2	8		
7/12/8	On door frames	m2	42		
	WOOD				
	Prepare and apply one coat universal undercoat and two coats acrylic PVA, colour to be confirmed by architect				
7/12/9	On door	m2	39		
	Prepare and paint three coats clear varnish:				
7/12/10	On door	m2	23		
	Carried Forward to Summary of Section No.			R	
	Section No. 7 DEMOLISH (10 CLASSROOMS & 4 PIT TOILETS) & RE Bill No. 12 Paintwork				

LIMPOPO DEPARTMENT OF EDUCATION UPGRADES AND ADDITIONS AT CHAMETI HIGH SCHOOL

	SECTION SUMMARY			
Bill No		Page No		Amount
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7/2	Masonry	7/8		
7/3	Waterproofing	7/9		
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7/7	Metalwork	7/21		
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7/10	Plumbing and Drainage	7/27		
7/11	Glazing	7/28		
7/12	Paintwork	7/30		
	Carried to Final Summary		R	
	Section No. 7			
	DEMOLISH (10 CLASSROOMS & 4 PIT TOILETS) & RE			

Item No		Quantity	Rate	Amount	_
	SECTION NO. 8				_
	BILL NO. 1				
	EARTHWORKS (PROVISIONAL)				
	PREAMBLES				
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.				
	SUPPLEMENTARY PREAMBLES				
	Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.				
	GENERAL NOTES TO TENDERERS				
	General notes, described in Bill No.1, shall equally apply to this Bill.				
	KEEPING EXCAVATIONS FREE FROM WATER				
8/1/1	Keeping excavations free of all water other than subterranean water	Item			
	Country of Continue No.				_
	Carried Forward to Summary of Section No. Section No. 8 EXTERNAL WORKS Bill No. 1 Earthworks		R		=

Item No		Quantity	Rate	Amount
	BILL NO. 2			
	METALWORK			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.			
	GENERAL NOTES TO TENDERERS			
	General notes, described in Bill No.1, shall equally apply to this Bill.			
	FLAG POST			
8/2/1	2 x 15m high flag poles bolted to steel channel (211mm x 100mm) & channel to be anchored in concrete bases	Item		
	SUNDRY METAL WORK			
8/2/2	Allow an amount of (R20 000.00) (Twenty Thousand) for builders work in connection with metalwork sundry items	Item		20 000 00
	Carried Forward to Summary of Section No.		R	
	Section No. 8 EXTERNAL WORKS			
	Bill No. 2 Metalwork			
		•	1	n I

Item No		Quantity	Rate	Amount
	BILL NO. 3 PLUMBING AND DRAINAGE			
	(PROVISIONAL) PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.			
	GENERAL NOTES TO TENDERERS			
	General notes, described in Bill No.1, shall equally apply to this Bill.			
	TESTING			
8/3/1	Testing water pipe system	Item		
	Carried Forward to Summary of Section No.		R	
	Section No. 8 EXTERNAL WORKS Bill No. 3			
	Plumbing and Drainage			

LIMPOPO DEPARTMENT OF EDUCATION UPGRADES AND ADDITIONS AT CHAMETI HIGH SCHOOL

	SECTION SUMMARY			
Bill No		Page No		Amount
8/1	Earthworks	8/1		
8/2	Metalwork	8/2		
8/3	Plumbing and Drainage	8/3		
	Carried to Final Summary		R	
	Section No. 8 EXTERNAL WORKS			
	LATERIAL WORKS			

Item No		Quantity	Rate	Amount
	SECTION NO. 9			
	BILL NO. 1			
	IRONMONGERY			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.			
	GENERAL NOTES TO TENDERERS			
	General notes, described in Bill No.1, shall equally apply to this Bill.			
	BUDGETARY ALLOWANCE			
9/1/1	Allow an amount of R271 920.00 (Two Hundred and Seventy One Thousand Nine Hundred and Twenty) for the supply and installation of Ironmongery	Item		271 920.00
	Carried Forward to Summary of Section No.		R	
	Section No. 9 PROVISIONAL SUMS Bill No. 1 Ironmongery			
		I		l l

Item No		Quantity	Rate	Amount
	BILL NO. 2			
	PLUMBING AND DRAINAGE (PROVISIONAL)			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.			
	GENERAL NOTES TO TENDERERS			
	General notes, described in Bill No.1, shall equally apply to this Bill.			
	BUDGETARY ALLOWANCE			
9/2/1	Allow an amount of R76 450.00 (Seventy Six Thousand Four Hundred and Fifty) for the supply and installation of Sanitary Fitting Sundries	Item		76 450.00
9/2/2	Allow an amount of R1 628 000.00 (One Million Six Hundred and Twenty Eight Thousand) for the supply and installation of Enviro-loo complete	Item		1 628 000.00
	Carried Forward to Summary of Section No. Section No. 9 PROVISIONAL SUMS Bill No. 2		R	
	Plumbing and Drainage			

Item No		Quantity	Rate	Amount
	BILL NO. 3			
	BUDGETARY ALLOWANCES			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.			
	GENERAL NOTES TO TENDERERS			
	General notes, described in Bill No.1, shall equally apply to this Bill.			
	Provisional Sums are to be expended/utilized only upon:			
	·i) the submission of a minimum of three market related quotations. Quotations for service providers may be solicited by any of the following entities: the main contractor, a member of the consultant team, the implementing agent or the end user.			
	Cash discount			
	The following provisional sums and prime cost amounts are NET and represent the NET COST of the work described. The contractor shall not be entitled to any discount, percentage or allowance whatsoever on the value of any provisional sum or prime cost amount other than the priced value for profit and attendance as provided for. The provisional sums and prime cost amounts may be deducted in whole or in part from the contract and are subject to adjustment upon completion			
	<u>Profit</u>			
	Where stated, the contractor may allow for profit if required			
	Carried Forward		R	
	Section No. 9 PROVISIONAL SUMS Bill No. 3 Budgetary Allowance			

	Brought Forward		R	
	General attendance on nominated/selected subcontractors			
	The item "Attendance" which follows each provisional sum for nominated/selected subcontractors' work, shall be deemed to cover all the contractor's costs incurred in providing free of charge to the nominated/selected subcontractors, the following:			
	Builder's work			
	Builder's work in connection with specialist services is given elsewhere in these bills of quantities			
	LOCAL AUTHORITY FEES			
	Local authority fees for connections			
9/3/1	Provide the sum of R35 000.00 (Thirty Five Thousand) for sewer, water and electrical connections, etc to the local authority	Item		35 000.00
	Carried Forward to Summary of Section No.		R	
	Section No. 9 PROVISIONAL SUMS Bill No. 3			
	Budgetary Allowance			

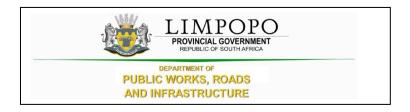
Item No		Quantity	Rate	Amount
	BILL NO. 4			
	PROVISIONAL SUMS			
	PREAMBLES			
	NOTE: The tenderer is referred to the relevant clauses in the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors before pricing this bill.			
	SUPPLEMENTARY PREAMBLES			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.			
	GENERAL NOTES TO TENDERERS			
	General notes, described in Bill No.1, shall equally apply to this Bill			
	Provisional Sums are to be expended/utilized only upon:			
	·i) the submission of a minimum of three market related quotations. Quotations for service providers may be solicited by any of the following entities: the main contractor, a member of the consultant team, the implementing agent or the end user.			
	Cash discount			
	The following provisional sums and prime cost amounts are NET and represent the NET COST of the work described. The contractor shall not be entitled to any discount, percentage or allowance whatsoever on the value of any provisional sum or prime cost amount other than the priced value for profit and attendance as provided for. The provisional sums and prime cost amounts may be deducted in whole or in part from the contract and are subject to adjustment upon completion			
	<u>Profit</u>			
	Where stated, the contractor may allow for profit if required			
	Carried Forward		R	
	Section No. 9 PROVISIONAL SUMS Bill No. 4 Provisional Sums			

	Brought Forward		R	
	General attendance on nominated/selected subcontractors			
	The item "Attendance" which follows each provisional sum for nominated/selected subcontractors' work, shall be deemed to cover all the contractor's costs incurred in providing free of charge to the nominated/selected subcontractors, the following:			
	Builder's work			
	Builder's work in connection with specialist services is given elsewhere in these bills of quantities			
	Signage Installation			
9/4/1	Allow an amount of R15 840.00 (Fifteen Thousand Eight Hundred and Forty) for the supply and installation of Signage	Item		15 840.00
9/4/2	Attendance		%	
9/4/3	Profit		%	
	Joinery Fittings			
9/4/4	Allow an amount of R430 000.00 (Four Hundred and Thirty Thousand) for the supply and installation of Ironmongery	Item		430 000 00
9/4/5	Attendance		%	
9/4/6	Profit		%	
	School Furniture and Fittings			
9/4/7	Allow an amount of R1 210 000.00 (One Million Two Hundred and Ten Thousand) for the supply and installation of School Furniture and Fittings	Item		1 210 000 00
9/4/8	Attendance		%	
9/4/9	Profit		%	
	Carried Forward Section No. 9 PROVISIONAL SUMS Bill No. 4		R	
	Provisional Sums			

	Brought Forward		R	
	Community Liaison Officer			
9/4/10	Allow an amount of R240 000.00 (Two Hundred and Forty Thousand) for provision of CLO	Item		240 000 00
9/4/11	Attendance		%	
9/4/12	Profit		%	
	Health and Safety Agent			
9/4/13	Allow an amount of R500 000.00 (Five Hundred Thousand) for provision of Health and Safety Agent	Item		500 000 00
9/4/14	Attendance		%	
9/4/15	Profit		%	
	Carried Forward to Summary of Section No. Section No. 9		R	
	PROVISIONAL SUMS Bill No. 4			
	Provisional Sums			

LIMPOPO DEPARTMENT OF EDUCATION UPGRADES AND ADDITIONS AT CHAMETI HIGH SCHOOL

	SECTION SUMMARY			
Bill No		Page No		Amount
9/1	Ironmongery	9/1		
9/2	Plumbing and Drainage	9/2		
9/3	Budgetary Allowance	9/4		
9/4	Provisional Sums	9/7		
	Carried to Final Summary Section No. 9		R	
	PROVISIONAL SUMS			



C4.3 CIVIL WORKS

418

SEC	BILL	PG	ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
3	1 1	70 70		SECTION NO. 3 BILL NO.1				
3	1	70		BULK EARTHWORKS				
3	1	70		Preambles	H4			
3	1	70		Model Preambles for Trades 2008 as published by the				
				Association of South African Quantity Surveyors shall apply.				
3	1	70		SUPPLEMENTARY PREAMBLES	H4			
3	1	70		<u>Items, materials or methods</u>	H4			
3	1	70		Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the				
				quality required. The use of trade names for items, materials or methods shall also mean - or other approved - on the condition				
				that prior approval is obtained from the architect.				
3	1	70		<u>Excavations</u>	H4			
3	1	70		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 the Model				
				Preambles for Trades 2008				
3	1	70		WORK GROUP 102	H4			
3	1	70		SITE CLEARANCE	H2			
	-					E4 0E0		
3	1	70	2	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc	m2	51 250		
3	1	70		Extra over all excavations for carting away	Н3			
3	1	70	3	Surplus material from excavations or stock piles on site to a dumping site to be located by the Contractor	m.km	10 250		
				dumping site to be located by the Contractor				
3	1	70		<u>EARTHWORKS</u>	H2			
3	1	70		Bulk excavation	Н3			
3	1	70	4	Excavate in all materials and use for	m3	5 125		
	·			embankment or fill or dispose, as ordered				
3	1	70		Extra-over for	Н3			
3	1	70	5	Intermediate for excavation	m3	769		
3	1	70	6	Hard rock excavation	m3	256		
3	4	70		Postricted Executation	Н3			
	1		_	Restricted Excavation		_		
3	1	70	7	Excavate for restricted pipe trenches in all A.2.4 materials and use for backfill or dispose	m3	0		
3	1	71		Import G5 or better material from the Commercial source or borrowpit for Selected layers compacted	Н3			
				to 95% of modified AASHTO maximum density				
3	1	71	8	150mm thick	m3	5 125		
3	1	71	9	Overhaul	m.km	25 625		
3	1	71		LOFFELSTEIN RETAINING WALLS	H2			
3	1	71	10	InfraBlok 425 (425x340x225) Waterloffel or other approved	m2	585		
				retaining wall stepped and curved to suit required slopes				
				BULK EARTHWORKS	ST			

SEC	BILL	PG	ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
3	2	73		SECTION NO. 3				
3	2	73		BILL NO.2				
3	2	73		WATER SUPPLY				
3	2	73		<u>Preambles</u>	H4			
3	2	73		Model Preambles for Trades 2008 as published by the				
				Association of South African Quantity Surveyors shall apply.				
3	2	73		SUPPLEMENTARY PREAMBLES	H4			
3	2	73		<u>Items, materials or methods</u>	H4			
3	2	73		Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the				
				quality required. The use of trade names for items, materials or				
				methods shall also mean - or other approved - on the condition that prior approval is obtained from the architect.				
3	2	73		uPVC Pressure pipes and fittings	H4			
3	2	73		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				
3	2	73		Copper pipes	H4			
3	2	73		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				
3	2	73		Lead pipes and traps	H4			
3	2	73		All soldered joints shall be wiped and brass unions shall be				
				used for jointing lead to steel				
3	2	74		Reducing fittings	H4			
3	2	74		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				
3	2	74		Steel sectional water tanks	H4			
3	2	74		Tanks shall comply with SABS CKS 114				
3	2	74		WORK GROUP 104	H4			
3	2	74		EARTHWORKS (PIPE TRENCHES)	H2			
3	2	74		Site clearance and removal of topsoil	Н3			
3	2	74	1	Clear vegetation and small trees/shrubs up 2m	m	730		
		17	'	wide	'''	, , , ,		
							<u> </u>	

SEC	BILL	PG	ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
3	2	74		Excavate in all materials for trenches, backfill,	H2			
				compact and dispose of surplus material for water pipes up to 90mm in diameter for depths:				
3	2	74	2	From 0m Up to 1.5m	m	730		
3	2	74		Extra-over item (a) above for:	Н3			
3	2	74	3	Intermidiate excavation	m3	131		
3	2	74		Hard rock excavation	m3	20		
		74		Traid fook excavation	1110	20		
3	2	74		Extra over all excavations for carting away	Н3			
3	2	74	5	Surplus material from trench excavations to a dumping site to be located by the Contractor	m3	50		
				be located by the Contractor				
3	2	74		Excavation ancillaries	Н3			
3	2	74		Make up deficiency in backfill material	Н3			
3	2	74	6	From other necessary excavations on site	m3	50		
3	2	74	7	By importation from designated borrow pits	m3			
3	2	74	8	Compaction in road reserves	m			
3	2	74		WORK GROUP 148	H4			
3	2	74		MEDIUM PRESSURE PIPELINES	H2			
3	2	74		Supply, lay and bed pipes complete with couplings	Н3			
3	2	74		50mm diameter uPVC Class 9 pipes	m	0		
3	2	74		50mm diameter uPVC Class 12 pipes	m	0		
3	2	74		63mm diameter uPVC Class 9 pipes	m	0		
3	2	74		63mm diameter uPVC Class 12 pipes	m			
3	2	74	13	75mm diameter uPVC Class 9 pipes	m	0		
3	2	74	14	75mm diameter uPVC Class 12 pipes	m	195		
3	2	74		90mm diameter uPVC Class 12 pipes	m	535		
3	2	74		65mm Pressure Reducing Valve	No			
3	2	74	17	75mm Pressure Reducing Valve	No			
3	2	74		BEDDING (PIPES)	H2			
3	2	74		Provision of Bedding from Trench Excavation	Н3			
3	2	74	18	Selected granular material	m3	263		
3	2	74	19	Selected fill material	m3	438		
3	2	74		ELEVATED STEEL TANK PLUS STAND	H2			
3	2	75		The following in sectional steel water tanks and bases	Н3			
3	2	75	20	Blinding layer, class 15 Mpa/19mm concrete, 75mm thick for all	m2	27		
				level where reinforced		_		
3	2	75	21	Concrete for footings class 25 Mpa / 19mm concrete plus anchor blocks, filling where ordered by the engineer	m3	5		
3	2	75	22	Supply, deliver to site and erect 85KL Prestressed steel tank	No	1		
				complete with 6m stand,				
3	2	75	23	Supply and install 50 mm dia Water Meter	No	0		
3	2	75	24	Supply and install 63 mm dia Water Meter	No	0		
3	2	75	25	90 x 90 mm T piece section	No	25		
3	2	75	26	90mm diam. Gate valve	No	2		
3	2	75	27	75 mm diam. Gate valve	No	2		
3	2	75	28	Supply and install 75mm X 32mm dia Saddles	No	28		

SEC	BILL	PG	ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
3	2	75	29	32 mm diam. Gate valve	No	0		
3	2	75	30	Ref. 617 welded mesh in floor/walls/footing/	m2	60		
				slab				
3	2	75	31	Supply and install a 5mm (1000 x 1000) Vastrap plate cover and frame for the openning in the reservoir roof	m2	0		
3	2	75	32	Half brick wall including wire ties	m2	0		
3	2	75	33	Supply and install 75mm dia Resilient Seal Flanged Gate Valve (with rising spindle and handwheel, clockwise closing)	No	0		
3	2	75	34	1000mm long X 150mm diameter steel pipe, flanged both ends, 250mm flanged pipe with a 150 x 100 bellmouth, plain ended overflow pipe	No	0		
3	2	75	35	100mm flanged steel pipe with a 90 degree welded long radius bend	No	0		
3	2	75	36	1500 x 100mm flanged steel pipe with welded flanges both ends	No	0		
3	2	75	37	Sitting, Drilling and Equiping of new borehole	No	1		
3	2	75		<u>TESTING</u>	H2			
3	2	75	38	Testing of yield and water quality of existing borehole and supply and install water package plant as per specialist recommendation	No	1		
3	2	75	39	Testing water pipe system	Item	1		
3	2	75		FIRE BOOSTER PUMP	Н3			
3	2	75	40	Supply and install Grundforce PM Pressure Pump (Q min 12 litres per second and 40m head) or similar with 90 mm inlet and outlet Complete with control panel, electrical connections, Brass Gate 50 mm valves (90 mm and 90mm), Brass Non Return valve (90 mm), Brass In-line Strainer (90 mm), fittings and pipings	No	1		
				WATER SUPPLY	ST			

SEC	BILL	PG	ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
3	3	77		SECTION NO. 3				
3	3	77 77		BILL NO.3 SEWER RETICULATION				
3	3				H4			
		77		<u>Preambles</u>	□4			
3	3	77		Model Preambles for Trades 2008 as published by the Association of South African Quantity Surveyors shall apply.				
3	3	77		SUPPLEMENTARY PREAMBLES	H4			
3	3	77		<u>Items, materials or methods</u>	H4			
3	3	77		Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. The use of trade names for items, materials or methods shall also mean - or other approved - on the condition that prior approval is obtained from the architect.				
3	3	77		Vitrified clay pipes, etc	H4			
3	3	77		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				
3	3	77		uPVC Pipes and fittings	H4			
3	3	77		Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings				
				Soil, waste and vent pipes and fittings shall be solvent weld jointed				
3	3	77		Reducing fittings	H4			
3	3	77		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				
3	3	77		Septic Tanks	H4			
3	3	77		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				
3	3	78		Laying, backfilling, bedding, etc. of pipes	H4			
3	3	78		Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturer's instructions				
				Where no manufacturer's 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				
				<u> </u>				

SEC	BILL	PG	ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
3	3	78		WORK GROUP 104	H4			
3	3	78		EARTHWORKS (PIPE TRENCHES)	H2			
3	3	78		Site clearance and removal of topsoil	Н3			
3	3	78	1	Clear vegetation and small trees/shrubs within 2m wide strip	m	320		
3	3	78		<u>EXCAVATION</u>	H2			
3	3	78		Excavate in all materials for trenches, backfill, compact and dispose of surplus material for sewers up to 160mm in diameter for depths:	H3			
3	3	78	2	Up to 1.5m	m3	336		
3	3	78	3	Over 1.5m up to 2.5m	m3	0		
3	3	78	4	Over 2.5m up to 3.5m	m3			
3	3	78		Extra-over item (a) above for:	Н3			
3	3	78	5	Intermidiate excavation	m3	224		
3	3	78	6	Hard rock excavation	m3	17		
3	3	78	7	Excavate and dispose of unsuitable material from trench	m3			
				bottom (provisional)				
3	3	78		Excavation ancillaries	Н3			
3	3	78		Make up deficiency in backfill material	Н3			
3	3	78	8	From other necessary excavations on site	m3	241		
3	3	78	9	By importation from designated borrow pits	m3			
3	3	78		WORK GROUP 146	H4			
3	3	78		<u>SEWERS</u>	H2			
3	3	78		Supply, lay, joint, bed and test 400KPa Maincore uPVC sewer pipes manufactured to SABS 1601	Н3			
3	3	78	10	110mm dia.	m	320		
3	3	78	11	160mm dia.	m	0		
3	3	79		Extra -over uPVC pipe for specials	Н3			
3	3	79	12	110mm 90 degree plain bend	m	8		
3	3	79		110mm 45 degree plain bend	m	4		
3	3	79		110mm 45 degree plain junction	m	6		
3	3	79	15	160mm 90 degree plain bend	m	3		
3	3	79		160mm 45 degree plain bend	m	3		
3	3	79	17	160mm 45 degree plain junction	m	2		
3	3	79		MANHOLES	H2			
3	3	79		Supply and construct pre-cast concrete manholes,	Н3			
		. •		complete with cover and frame and step irons as per drawings within the following depth ranges (depth measured from invert level to top of the manhole)				
3	3	79		1000mm dia. Manholes	Н3			
3	3	79	18	up to 1.5m	No	6		
3	3	79		over 1.5m up to 2.0m	No	1		
3	3	79		over 2.0m up to 2.5m	No	0		
3	3	79		over 2.5m up to 3.0m	No	0		

SEC	BILL	PG	ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
3	3	79	IIEW	BEDDING AND BACKFILLING (PIPES)	H2	QII	RAIL	ANIOUNT
3	3	79		Provision of Bedding from Trench Excavation	Н3			
3	3	79	22	Selected granular material	m3	115		
3	3	79	23	Selected fill material	m3	192		
3	3	79		SEWER TREATMENT PLANT	H2			
3	3	79		<u>Concrete</u>	Н3			
3	3	79	24	Blinding layer, class 15 Mpa/19mm concrete, 75mm thick for all level where reinforced	m2			
3	3	79	25	Concrete for footings/floors/slabs/walls class 25 Mpa / 19mm concrete plus anchor blocks, filling where ordered by the engineer	m3			
3	3	79		Mild steel reinforcement:	Н3			
3	3	79	26	Mild steel bars	kg			
3	3	79		High-Tensile Welded mesh	Н3			
3	3	79	27	Ref. 617 welded mesh in floor/walls/footing/slab	m2			
3	3	79		Brickwork of NFX bricks in 3:1 cement mortar:	Н3			
3	3	79	28	One brick wall including wire ties	m2			
3	3	79	29	Half brick wall including wire ties	m2			
3	3	79		Septic Tank	Н3			
3	3	79	30	Construct septic tank with french drain as per specification	Item	2		
3	3	79		Grease Trap	Н3	_		
3	3	79	30	Construct grease trap as per specification	Item	1		
		13	30	Construct grease trap as per specification	item	'		
3	3	79		1-4 Cement plaster finished with a wooden trowel on brickwork:	Н3			
3	3	79	31	Internal wall plaster	m2			
3	3	79	32	Supply and install 1600mm x 1200mm Galvanized frame and cover for septic tank and grease trap	No	5		
3	3	79		<u>TESTING</u>	H2			
3	3	79	33	Testing drainage pipe system	Item	1		
				SEWER RETICULATION	ST			

SEC	BILL	PG	ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
3	4	81		SECTION NO. 3				
3	4	81 81		BILL NO.4 ROADS AND PARKING				
					,,,,			
3	4	81		<u>Preambles</u>	H4			
3	4	81		Model Preambles for Trades 2008 as published by the Association of South African Quantity Surveyors shall apply.				
3	4	81		SUPPLEMENTARY PREAMBLES	H4			
3	4	81		Items, materials or methods	H4			
3	4	81		Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. The use of trade names for items, materials or methods shall also mean - or other approved - on the condition that prior approval is obtained from the architect.				
3	4	81		<u>Excavations</u>	H4			
3	4	81		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 the Model Preambles for Trades 2008				
3	4	81		WORK GROUP 154	H4			
3	4	81		EARTHWORKS (ROADS, SUBGRADE)	H2			
3	4	81		Road-bed preparation and compaction of material to	Н3			
3	4	81	1	Minimum of 90% of modified AASHTO maximum density	m3	466		
3	4	81		Minimum of 93% of modified AASHTO maximum density	m3	0		
	"	ΟI		Information 90 % of modified AAOLITO Maximum density	1113	U		
3	4	81		Selected layer compacted to 93% of modified AASHTO maximum density	НЗ			
3	4	81	3	150mm thick	m3	365		
3	4	81		Extra -over items 8.3.4 and 8.3.5 for excavation and breaking down material in	Н3			
3	4	81	4	Intermidiate excavation	m3	285		
3	4	81	5	Hard excavation	m3	75		
3	4	81		Cut to spoil or stockpile from	Н3			
3	4	81	6	Soft excavation	m3	583		
3	4	81	7	Intermidiate excavation	m3	51		
3	4	81	8	Hard excavation	m3	5		
3	4	81		Overhaul	m .km			
3	4	81		SUBBASE	H2			
3	4	81		Construct the subbase course with material excavated in all materials or from borrow pit	Н3			
3	4	81	10	Subbase 150mm thick and compacted to 95% Mod AASHTO density	m3	699		
3	4	81	11	Base 150mm thick constructed with Graded crushed stone from commercial source and compacted to 88% of apparent relative density	m3	0		
3	4	82		Process subbase material by the following processes, as relevant, and use in the subbase	НЗ			
3	4	82	12	Stabilization	m3	699		

SEC	BILL	PG	ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
3	4	82		Stabilizing agent	НЗ	-		
3	4	82	13	Ordinary Portland cement	t	20		
3	4	82	14	Lime	t	1		
3	4	82	15	Overbudden	m3	0		
3	4	82		BASE_	H2			
3	4	82		Construct the base with gravel material from borrow pits	Н3			
3	4	82	16	Base 150mm thick and compacted to 97% Mod AASHTO density	m3	699		
				density				
3	4	82		Process base material by the following processes, as	Н3			
				relevant and use in base				
3	4	82	18	Stabilization	m3	699		
3	4	82		Stabilizing agent	Н3			
3	4	82	19	Ordinary Portland cement	t	50		
3	4	82		Lime	m			
3	4	82		SEGMENTED PAVING	H2			
3	4	82		Provision of edge Restraints	Н3	450		
3	4	82	21	Cast in-situ edging, 200 x 150mm thick Class 25/19 concrete on curves and on straights	m	450		
3	4	82		Construction of paving complete	Н3			
3	4	82	22	Supply and lay 60mm thick segmented paving blocks with 20mm sand (Assembly and walkways)	m2	1 602		
3	4	82	23	Supply and lay 80mm thick segmented paving blocks with	m2	728		
	·	-		20mm sand				
3	4	82	24	Cutting units to fit edge restraints (straight, raking, or circular cutting)	m	0		
	4	82	25		m2	2 330		
3	4	02	25	Allow for soil poisoning	m2	2 330		
3	4	82		KERBING AND CHANNELING	H2			
3	4	82	26	Precast concrete kerbs 280 x 180 x 140 semi-mountable Figure	m	650		
				7				
3	4	82	27	Precast concrete kerbs Figure 5	m	473		
3	4	82		TESTING OF FILLING MATERIAL AND COMPACTION	H2			
3	4	82		GENERAL	H4			
3	4	82		The following tests are to be carried out when and only if				
	·	- -		required by the Architect/Engineer				
3	4	82		The letters S M T M, as used in the following descriptions refer				
				to the publication, Standard Methods of Testing Materials and Specification, of the Department of Transport				
3	4	82	28	Allow for testing of approved filling material in an approved	Item	1		
				laboratory according to S M T M method No A7, to establish the 100% modified AASHTO density thereof				
3	4	82	29	Allow for testing of density of compacted filling under roads, etc.	Item	1		
				by means of the Sand Replacement Method according to S M T M method No A10(a)				
				BREAKING UP EXISTING PAVEMENT LAYERS				
3	4	83		Excavating and removing existing bituminous material				
3	4	83		sg aa . cc mg omoung and minodo matorial				
3	4	03		(a) Material intended for recycling with the average depth of excavation				
3	4	83	30					
				(ii)Exceeding 30mm but not exceeding 60mm	m2	0		
3	4	83	31	Excavating and spoiling material from an existing pavement and /or the underlying fill:				

			·		I			
SEC	BILL	PG	ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
3	4	83		(b) Cemented material	m³	0		
3	4	83	32	Excavating material from an existing pavement and /or underlying fill in restricted areas				
3	4	83		(a) Extra over item 38.01 for bituminous material excavated separately	m2	Rate Only		
3	4	83	33	(b)Extra over item 38.04 for other existing pavement				
	4	03	33	(ii) Cemented material	m³	Rate Only		
3	4	83		Sawing or cutting asphalt or cemented pavement layers				
3	4	83	34	(a) Sawing asphalt	m2	0		
3	4	83	35	Backfiling of excavations for patching with				
3	4	83		(a) Chemically stabilized base for a patch with a surface area				
3	4	83	36	(i) Not exceeding 5m2	m³	0		
				(ii)Exceeding 5m2 but not 100m2	m³	0		
3	5 5	85 85		Compacting the floor of excavations for patching	m2	0		
3	5	85		STABILIZATION				
3	5	85		Chemical stabilization extra over unstabilized compacted layers:				
3	5	85		(a) Base layer, 150mm thick	m³	0		
				Chemical stabilizing agent: (a) Ordinary portland cement	t	0		
3	5	85						
3	5	85		(b) Slaked road lime Provision and application of water for curing	t kl	Rate Only		
3	5	85		PRIME COAT				
				Prime coat:				
3	5	85		(a) MC-30 cut back bitumen	litre	0		
				(b) MSP1	litre	Rate Only		
3	5	85		Aggregate for blinding	m²	Rate Only		
3	5	85		Extra over item 41.01 for applying the prime				
3	5	85		coat in areas accessible only to hand held equipment	litre	0		
3	5	85		ASPHALT PAVEMENTS AND SEALS				
3	5	85		Asphalt surfacing (60/70 penetration grade bitumen)				
		-		(a) Medium continously graded asphalt				
				(i)Thickness -30mm	m²	0		
3	5	85		Rolled in chippings (9.5mm)				
3	5	85		(a) in surfacing	t	Rate Only		
3	5	85		Tack coat of 30% stable grade emulsion	litre	0		
3	5	85	1	ROADS AND PARKING	ST			

SEC	BILL	PG	ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
3	4	81		SECTION NO. 3				
3 3	4	81 81		BILL NO.5 STORMWATER DRAINAGE				
	-	•		Preambles	H4			
3	5	85		Model Preambles for Trades 2008 as published by the	11-			
3	5	85	2	Association of South African Quantity Surveyors shall apply.				
3	5	85		CLIDDI EMENTADV DDE AMDLES	H4			
3	5	00	3	SUPPLEMENTARY PREAMBLES Items materials or methods	П4 Н4			
3	5	85		Items, materials or methods	Π4			
3	5	85		Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the				
3	5	85	4	quality required. The use of trade names for items, materials or methods shall also mean - or other approved - on the condition that prior approval is obtained from the architect.				
3	5	85	5	Concrete pipes	H4			
3	5	85		Pipes shall be jointed with ogee joints with rubber collars or				
3	5	85		socket and spigot joints with rubber rings				
3	5	85	6	Wire gratings	H4			
				Descriptions of gutter outlets, etc shall be deemed to include wire balloon gratings				
3	5	85	7	Exposed concrete surfaces	H4			
				Exposed surfaces of concrete stormwater channels, cover				
3	5	85		slabs, inspection eve marker slabs, gulley tops, cleaning eye tops, catchpits, inspection chambers, etc shall be finished				
3	5	85	8	smooth with plaster				
3	5	85	9	WORK GROUP 104	H4			
3	5	86	10	EARTHWORKS (OPEN CHANNEL)	H2			
				EXCAVATION	Н3			
3	5	86		Excavate in all materials for trenches, backfill, compact and	m3	208		
3	5	86		dispose of surplus material for stormwater channel				
3	5	86	11	Extra-over item (a) above for:	Н3			
3	5	86	12	Intermidiate excavation	m3	94		
3	5	86		Hard rock excavation	m3	40		
3	5	86	13	BEDDING AND BACKFILLING	H2			
3	5	86	14	Provision of Bedding from Trench Excavation	Н3			
3	5	86	15	Selected granular material for bedding	m3			
				Selected fill material and backfilling	m3			
3	5	86		WORK GROUP 146	H4			
3	5	86		CONCRETE AND REINFORCEMENT	H4			
				Blinding layer, class 15 Mpa/19mm concrete, 75mm thick for all	m2	8		
				level where reinforced		-		
				Concrete for footings/floors/slabs/walls class 25 Mpa / 19mm concrete plus anchor blocks, filling where ordered by the	m3	15		
3	5	86	16	engineer				
				High-Tensile Welded mesh	Н3			
	_	00		Ref. 245 welded mesh in floor slab	m2	152		
3	5	86	17	Ref. 617 welded mesh in floor slab	m2			
3	5	86		Mild steel bars	kg			

SEC	BILL	PG	ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
SEC	DILL	FG	III	DESCRIPTION	UNIT	QII	NAIL	AWOUNT
3	5	86	18	CONCRETE PIPES	H4			
				Supply, lay and bed pipes complete with couplings	Н3			
						00		
				450mm Diameter C50	m	60		
				600mm Diameter C50	m	20		
3	5	86						
	_	00		Supply and lay RS40 Grating Unbanded and	Н3			
3	5	86		Banded Rectagrid or similar approved Grid for Storm water drainage				
					.	•		
3	5	86	19	2 400 x 1 200 x 50 x 4.5mm RS40 Grating Unbanded Bitumen	No	2		
				1 000 x 500 x 50 x 4.5mm RS40 Grating Banded Bitumen	No	1		
				Supply and install 60 x 60 x 6mm Angle Iron cast into concrete	m	6		
	_			3				
3	6	88 88		SURFACE V-CHANNELS	H2			
3	6	88						
3	6	88		In-situ 20 MPa/19mm Concrete open stormwater channels finished on all exposed surfaces with woodfloat finish and	H3			
				with angles rounded, cast in approximately 2m lengths				
3	6	88		with construction joints and expansion joints formed with Flexcell joint filler and sealed with bitumastic joint sealant				
				at 6m intervals, including all formwork, moulds, shallow				
3	6	88		excavations and filling and laying to falls				
				V-shaped channel 1200mm wide, 105mm (average) thick and 50	m	230		
3	6	88		mm deep (concrete = 0,10 m /m) next to existing wall and including the forming of an expansion joint with the existing wall				
3	6	88		formed with Flexcell joint filler and sealed with bitumastic joint				
				sealant				
				Extra over 900 x 50mm deep stormwater channel for bends,	No			
				junctions, ends, etc				
		0.0						
3	6	88		Stormwater outlet spreader, culvert headwall, etc.	H3			
3	6	88		Concrete 20MPa/19mm in spreader outlet 2,0m long and x	No	1		
3	6	88		2,0m wide at open end with 100 x 50mm projecting kerbs along both sides and bricks cast in at 300mm centres and 150mm				
				apart to project 50mm above 75mmm concrete surface bed,				
3	6	88	1	including all necessary shallow excavations, formwork and finishing with a wood float				
		2.2						
3	6	88		STONE PITCHING	H2			
3	6	88						
3	6	88		Stone pitched of approximately 150mm diameter river stones tightly packed including preparation of ground	Н3			
				surface under, top soil filling and planted with grass				
3	6	88		150mm Thick lining to open ends of outfall spreaders, ditches,	m2	256		
				etc.		_55		
3	6	88		STORMWATER DRAINAGE	ST			

SEC	BILL	PG	ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
				SUMMARY				
				Bulk Earthworks	Page	-72-		
				Water Supply	Page	-76-		
				Sewer Reticulation	Page	-80-		
				Roads and Parking	Page	-84-		
				Stormwater Drainage	Page	-87-		
<u> </u>								
				TOTAL	ST			



C4.4 ELECTRICAL WORKS

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FOTIOLI		RY: ELECTRICAL WOR		TOTAL
SECTION	DESCRIPTION	QTY	AMOUNT	TOTAL
1	MV Reticulation	Sum		
2	LV Reticulation	Lot		
3	Adminstration	1		
4	Three Classroom Block	4		
5	Ablutions Ten Seater	1		
6	Ablutions Four Seater	4		
7	Area Lighting	Lot		
8	Provisional Sum: ICT	Sum		
	SUB TOTAL 1			

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1	MV RETICULATION				
1.1	Supply and Install 25kVA 22kV or 11kV/400V pole mounted transformer complete with structures and poles. Supply and install fox conductor ACSR incl. Meter Box c/w 3-phase meter	Sum	1	R110 000.00	R110 000.00
1.2	Profit	%			
1.3	Attendense	%			
	TOTAL FOR BILL - CARRIED FORWARD TO SUMMARY	<u>.</u>		•	

ITEM	DESCRIPTION	UNIT	QTY	RATE	TOTAL
	LV RETICULATION	0.111	~''	TO VIE	101712
0.1	D. I. I. W. I.				
2.1	Distribution Kiosks,				
	equipment as specified				
	oquipment as specifica				
2.1.1	Main Kiosk	No	1		
2.1.2	Plinth	No	1		
2.2	Trenching				
	Excavating, bedding, backfilling, consolidating and				
	making good as specified,				
2.2.1	Pickable soil	m³	140		
2.2.2	Hard rock	m³	60		
2.2.3	Very hard rock	m³	_		rate only
2.2.4	Backfilling and compaction	m³	200		
	110mm dig PVC slooves for road crassings/eable				
2.3	110mm dia PVC sleeves for road crossings/cable entries into the building-rate must include for galv steel				
	draw wires in spare sleeves and sealing of ends	m	70		
2.4	Concrete slabs for crossing of other services - rate	m	20		
2.4	must include installation 200mm below existing	m	∠∪		
	services				
			70		
2.5	Cable warning tape, 300mm above cables	m	70		
2.6	Cable markers, above cables	No	10		
	TOTAL FOR BILL - CARRIED FORWARD				

TOTAL FO	OR BILL - BROUGHT FORWARD			
2.7	600/1000V PVC SWA cables, in trenches and sleeves, including labels			
2.7.1	16mm² 4core	m	40	
2.7.2	16mm² 2core	m	430	
2.7.3	10mm² 2core	m	125	
2.7.4	6mm² 2core	m	170	
2.8	600/1000V Cable terminations,			
	for PVC PVC SWA PVC Cu cables, for indoor or outdoor use, as required			
2.8.1	Gland no 3 complete with shroud	No	8	
2.8.2	Gland no 2 complete with shroud	No	4	
2.9	Earth conductors (HDHC), including ends			
2.9.1	16mm² 4core	m	40	
2.9.2	16mm² 2core	m	430	
2.9.3	10mm² 2core	m	125	
2.9.4	6mm² 2core	m	170	
2.10	Testing of this section in the presence of the Employer and/or the Engineer, including all equipment, power generator, etc.	No	1	
	TOTAL FOR BILL - CARRIED FORWARD TO SUMMARY			

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
3 3.1	MEDIUM ADMINISTRATION BLOCK				
	General trenching workfor sleeves along the routes as pegged out on site after co-ordination with other services				
	Allowance must be made for the sifting of soil when required, removal and carting away of all stones and rocks including dumping off site. Backfilling and compaction shall be carried out as specified for overall siteworks.				
3.1.1	Trenching through floor for sleeves	m³			rate only
3.1.2	Excavation and backfilling in soft soil	m³			rate only
3.1.3	Excavation and backfilling in hard rock	m³			rate only
3.2	Cable and Data Sleeves				
	Supply and installation of PVC Sleeves through floor construction to power distribution board and communication board complete with standard radius sleeve bends				
3.2.1	75mm Diameter for Data	m			rate only
3.2.2	110mm Diameter for power cable	m			rate only
3.3	Draw Wires				
3.3.1	Supply and install a 0,6mm diameter galvanised draw wire in sleeves and conduit for data installation	m	710		
3.4	Distribution Boards				
	Supply, delivery, storage and submission of workshop drawings for the Flush mounted architrave steel type power distribution boards complete with flush trays, doors, switch gear mounting trays, copper busbars, neutral and earth bars, correctly sized interna				
3.4.1	Distribution Board (DB-ADM)	No.	1		
	TOTAL FOR BILL - CARRIED FORWARD	l .	<u>l</u>		

TOTAL FO	OR BILL - BROUGHT FORWARD			
3.5	Low Voltage PVC Cables Supply and installation of PVC SWA PVC cable which is quantified under LV Reticulation and Bare Copper Earth Wire in sleeves and in trenches			
	Terminations:			
3.5.1	16mm 4 core cable	No	2	
3.5.2	16mm BCEW	No	2	
3.6	Conduit Work			
	Supply, delivery and installation of SABS approved PVC / Galvanised Conduits completed with all required conduit accessories.			
	Built or Chase into brick or concrete work:			
3.6.1	20mm PVC Conduit	m	130	
3.6.2	25mm PVC Conduit	m	230	
	In Ceiling space and Timber work or along Purlins			
3.6.3	20mm PVC Conduit	m	250	
	25mm PVC Conduit	m	80	
3.6.4	Girder clamp for chain and wire, STRUTFAST Type AH-1420	No.		rate only
3.6.5	Conduit Boxes			
	Supply and installation of SABS approved conduit boxes, installed in the run of the conduit installation, cast into concrete and built into brickwork or flush inside false ceiling spaces, complete with all required conduit termination accessories.			
3.6.6	20mm diameter 4 way type(round box)	No	51	
3.6.7	450 x 450mm Bonding tray in roof space	No		rate only
3.7	Wall Boxes			
	Supply and installation of SABS approved galvanised pressed steel wall boxes for building flush into brickwork or cast into concrete work.			
	Flush mounted type:			
3.7.1	100 x 50 x 50mm	No	12	
3.7.2	100 x 100 x 50mm	No	20	
3.7.3	88 x 275 x 62mm One tier cluster`	No	6	
	TOTAL FOR BILL - CARRIED FORWARD			

TOTAL FO	OR BILL - BROUGHT FORWARD			
3.8	PVC Wiring in conduits:			
3.8.1	2.5 mm² for lights circuits	m	650	
3.8.2	4 mm² for plug sockets circuits	m	460	
	Stranded Bare Copper Earth Wire			
	Supply and installation of stranded bare copper earth wire along with PVC wiring in conduits. Tendered rates shall make provision for wastage.			
3.8.3	2.5 mm²	m	650	
3.8.4	4 mm²	m	460	
3.9	Light Switches			
	Supply and installation of SABS approved type 16A flush and surface type light switches. Final paint finishes shall be confirmed at a later stage, allowance shall however be made as specified in the general specification. All boxes for flush mounting meas			
3.9.1	16A Single Lever Light Switch	No	11	
3.9.2	2Way 16A Single Lever Light switch	No	2	
3.9.3	Outdoor Photocell Switch	No	1	
3.9.4	90 degree motion sensor light switch	No	3	
3.10	Socket Outlets			
	Supply and installation of SABS approved switched and unswitched type flush and surface mounted type 16A switched socket outlets suitable for mounting in flush steel wall boxes or in steel pedestal units or on surface.			
	The final colour of the paint finish shall be confirmed at a later stage, allowance shall be made as specified in the specification.			
	All flush type boxes and special pedestals measured elsewhere.			
	Flush switched sockets type:			
3.10.1	SA/Euro 16A Socket Outlet @1200 A.F.F.L	No	3	
3.10.2	SA/Euro 16A Socket Outlet @300 A.F.F.L	No	17	
	One Tier Cluster Wall Box Consisting of The Following: - 16A Normal Socket Un-switched - 16A Dedicated Socket Un-switched - 5A 2 Pin Socket Un-switched			
3.10.3	- 2x RJ45 Data & Telephone Points		6	
	TOTAL FOR BILL - CARRIED FORWARD		I	

	OR BILL - BROUGHT FORWARD			
3.11	Light Fittings			
	Suppy, delievery to site, storage and installation of the below specified light fittings complete with lamps, fixing material, mounting and tubes. Allowance must be made in the rates for all the required fixing materials and accessories.			
	Fittings to be equal and similar approved to the below quoted manufacture.			
3.11.1	1200mm 34W LED IP66 Corrosion Proof Light Fitting	No	25	
3.11.2	8 Inch 15W LED Downlight	No	16	
3.11.3	10W LED Rondo Downlight with Dali Modification	No	2	
3.11.4	15W LED Round Bulkhead with Dali Modification	No	8	
3.12	Electrical Tests			
	Making provision for the required inspection, tests and the commissioning of the complete installation and the issuing of the required certificate.			
3.12.1	Building installation	Sum	1	
3.13	Others			
3.13.1	2 compartment power skirting installed in offices	m	10	
3.13.2	Telephone points on Powerskirting; must include draw box, blank cover plate, etc,	No	3	
3.13.3	Telephone points on Powerskirting; must include draw box, blank cover plate, etc,	No		
3.13.4	Provide the sum of R15000-00 for earthing and lightning protection installations by specialist	Sum	1	
3.13.5	20A 2pole Isolator, in suitable York Box, for HVAC	No	2	
3.13.6	Supply and install a 150L Solar Water Geyser	No		rate
3.13.7	Provide the sum of R5500-00 for the supply and installation of school motorised siren c/w timer	Sum	1	

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
4 4.1	3 CLASSROOM BLOCK				
	General trenching workfor sleeves along the routes as pegged out on site after co-ordination with other services				
	removal and carting away of all stones and rocks including dumping off site. Backfilling and compaction shall be carried				
4.1.1	Trenching through floor for sleeves	m³			rate only
4.1.2	Excavation and backfilling in soft soil	m³			rate only
4.1.3	Excavation and backfilling in hard rock	m³			rate only
4.2	Cable and Data Sleeves				
	Supply and installation of PVC Sleeves through floor construction to power distribution board and communication board complete with standard radius sleeve bends				
4.2.1	75mm Diameter for Data	m			rate only
4.2.2	110mm Diameter for power cable	m			rate only
	Radius bends:				
4.2.3	75mm Diameter	No			rate only
4.2.4	110mm Diameter	No			rate only
4.3	Draw Wires				
4.3.1	Supply and install a 0,6mm diameter galvanised draw wire in sleeves and conduit for data installation	m	620		
4.4	Distribution Boards				
	Supply, delivery, storage and submission of workshop drawings for the Flush mounted architrave steel type power distribution boards complete with flush trays, doors, switch gear mounting trays, copper busbars, neutral and earth bars, correctly sized interna				
4.4.1	Distribution Board	No.	1		
	TOTAL FOR BILL - CARRIED FORWARD	<u>i </u>	1		

TOTAL FO	OR BILL - BROUGHT FORWARD			
4.5	Low Voltage PVC Cables Supply and installation of PVC SWA PVC cable which is quantified under LV Reticulation and Bare Copper Earth Wire in sleeves and in trenches			
4.5.1	10mm 4 core PVC SWA Cable	m		rate only
4.5.2	10mm BCEW	m		rate only
	Terminations:			
4.5.3	10mm 4 core cable	No	2	
4.5.4	10mm BCEW	No	2	
4.6	Conduit Work			
	Supply, delivery and installation of SABS approved PVC / Galvanised Conduits completed with all required conduit accessories.			
	Built or Chase into brick or concrete work:			
4.6.1	20mm PVC Conduit	m	50	
4.6.2	25mm PVC Conduit	m	50	
4.6.3	In Ceiling space and Timber work or along Purlins 20mm PVC Conduit	m	300	
4.6.4	25mm PVC Conduit	m	200	
4.6.5	Girder clamp for chain and wire, STRUTFAST Type AH-1420	No.		rate only
4.6.6	Conduit Boxes			
	Supply and installation of SABS approved conduit boxes, installed in the run of the conduit installation, cast into concrete and built into brickwork or flush inside false ceiling spaces, complete with all required conduit termination accessories.			
4.6.7	20mm diameter 4 way type(round box)	No	25	
4.6.8	450 x 450mm Bonding tray in roof space	No		rate only
4.7	Wall Boxes			
	Supply and installation of SABS approved galvanised pressed steel wall boxes for building flush into brickwork or cast into concrete work.			
	Flush mounted type:			
4.7.1	100 x 50 x 50mm	No	3	
4.7.2	100 x 100 x 50mm	No	6	
4.7.3	88 x 275 x 62mm One tier cluster`	No	3	
	TOTAL FOR BILL - CARRIED FORWARD			

TOTAL FOR BILL - BROUGHT FORWARD							
4.8	PVC Wiring in conduits:						
4.0	The Willing III condons.						
4.8.1	2.5 mm² for lights circuits	m	400				
4.8.2	4 mm² for plug sockets circuits	m	300				
	Stranded Bare Copper Earth Wire						
	Supply and installation of stranded bare copper earth wire along with PVC wiring in conduits. Tendered rates shall make provision for wastage.						
4.8.3	2.5 mm ²	m	400				
4.8.4	4 mm ²	m	300				
4.9	Light Switches						
	Supply and installation of SABS approved type 16A flush and surface type light switches. Final paint finishes shall be confirmed at a later stage, allowance shall however be made as specified in the general specification. All boxes for flush mounting meas						
4.9.1	16A Single Lever Light Switch	No	3				
4.9.2	Outdoor Photocell Switch	No	1				
4.10	Socket Outlets						
	Supply and installation of SABS approved switched and unswitched type flush and surface mounted type 16A switched socket outlets suitable for mounting in flush steel wall boxes or in steel pedestal units or on surface.						
	The final colour of the paint finish shall be confirmed at a later stage, allowance shall be made as specified in the specification.						
	All flush type boxes and special pedestals measured elsewhere.						
	Flush switched sockets type:						
4.10.1	SA/Euro 16A Socket Outlet @300 A.F.F.L	No	6				
	One Tier Cluster Wall Box Consisting of The Following: - 16A Normal Socket Un-switched - 16A Dedicated Socket Un-switched - 5A 2 Pin Socket Un-switched						
4.10.2	- 2x RJ45 Data & Telephone Points	No	3				
	TOTAL FOR BILL - CARRIED FORWARD		<u> </u>				

TOTAL FO	OR BILL - BROUGHT FORWARD			
4.11	Light Fittings			
	Suppy, delievery to site, storage and installation of the below specified light fittings complete with lamps, fixing material, mounting and tubes. Allowance must be made in the rates for all the required fixing materials and accessories.			
	Fittings to be equal and similar approved to the below quoted manufacture.			
4.11.1	1200mm 34W LED IP66 Corrosion Proof Light Fitting	No	12	
4.11.2	15W LED Round Bulkhead with Dali Modification	No	10	
4.12	Electrical Tests			
	Making provision for the required inspection, tests and the commissioning of the complete installation and the issuing of the required certificate.			
4.12.1	Building installation	Sum	1	
4.13	Others			
4.13.1	Provide the sum ot R/000-00 tor earthing and lightning protection installations by specialist	Sum	1	
	TOTAL FOR BILL - CARRIED FORWARD TO SUMMARY			

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
5	ABLUTION BLOCK (10 SEATER)				
5.1					
	General trenching workfor sleeves along the routes as pegged out on site after co-ordination with other services				
	removal and carting away of all stones and rocks including dumping off site. Backfilling and compaction shall be carried				
5.1.1	Trenching through floor for sleeves	m³			rate only
5.1.2	Excavation and backfilling in soft soil	m³			rate only
5.1.3	Excavation and backfilling in hard rock	m³			rate only
5.2	Cable and Data Sleeves				
	Supply and installation of PVC Sleeves through floor construction to power distribution board and communication board complete with standard radius sleeve bends				
5.2.1	75mm Diameter for Data	m			rate only
5.2.2	113mm Diameter for power cable	m			rate only
	Radius bends:				
5.2.3	75mm Diameter	No			rate only
5.2.4	113mm Diameter	No			rate only
5.3	Draw Wires				
5.3.1	Supply and install a 0,6mm diameter galvanised draw wire in sleeves and conduit for data installation	m	55		
5.4	Distribution Boards				
	Supply, delivery, storage and submission of workshop drawings for the Flush mounted architrave steel type power distribution boards complete with flush trays, doors, switch gear mounting trays, copper busbars, neutral and earth bars, correctly sized interna				
5.4.1	Distribution Board	No.	1		
	TOTAL FOR BILL - CARRIED FORWARD				

TOTAL FO	OR BILL - BROUGHT FORWARD			
5.5	Low Voltage PVC Cables Supply and installation of PVC SWA PVC cable which is quantified under LV Reticulation and Bare Copper Earth Wire in sleeves and in trenches			
5.5.1	4mm 2 core PVC SWA Cable	m		rate only
5.5.2	4 mm BCEW	m		rate only
	Terminations:			
5.5.3	4mm 2 core cable	No	2	
5.5.4	4mm BCEW	No	2	
5.6	Conduit Work Supply, delivery and installation of SABS approved PVC / Galvanised Conduits completed with all required conduit accessories. Built or Chase into brick or concrete work:			
5.6.1	20mm PVC Conduit	m	5	
5.6.2	25mm PVC Conduit	m	5	
	In Ceiling space and Timber work or along Purlins			
5.6.3	20mm PVC Conduit	m	50	
5.6.4	25mm PVC Conduit	m	10	
5.6.5	Girder clamp for chain and wire, STRUTFAST Type AH-11320	No.		rate only
5.6.6	Conduit Boxes			
	Supply and installation of SABS approved conduit boxes, installed in the run of the conduit installation, cast into concrete and built into brickwork or flush inside false ceiling spaces, complete with all required conduit termination accessories.			
5.6.7	20mm diameter 13 way type(round box)	No	20	
5.6.8	1350 x 1350mm Bonding tray in roof space	No		rate only
5.7	Wall Boxes Supply and installation of SABS approved galvanised pressed steel wall boxes for building flush into brickwork or cast into concrete work. Flush mounted type:			
5.7.1	100 x 50 x 50mm	No	1	
5.7.2	100 x 100 x 50mm	No	2	
	TOTAL FOR BILL - CARRIED FORWARD			
		•		

TOTAL FO	OR BILL - BROUGHT FORWARD			
5.8	PVC Wiring in conduits:			
3.0				
5.8.1	2.5 mm² for lights circuits	m	55	
	Stranded Bare Copper Earth Wire			
	Supply and installation of stranded bare copper earth wire along with PVC wiring in conduits. Tendered rates shall make provision for wastage.			
5.8.3	2.5 mm ²	m	55	
5.9	Light Switches			
	Supply and installation of SABS approved type 16A flush and surface type light switches. Final paint finishes shall be confirmed at a later stage, allowance shall however be made as specified in the general specification. All boxes for flush mounting meas			
5.9.1	1 Lever 1 way	No	2	
5.9.2	Outdoor Photocell Switch	No	1	
5.10	Socket Outlets			
	Supply and installation of SABS approved switched and unswitched type flush and surface mounted type 16A switched socket outlets suitable for mounting in flush steel wall boxes or in steel pedestal units or on surface.			
	The final colour of the paint finish shall be confirmed at a later stage, allowance shall be made as specified in the specification.			
	All flush type boxes and special pedestals measured elsewhere.			
	Flush switched sockets type:			
5.10.1	SA/Euro 16A Socket Outlet @300 A.F.F.L	No		rate only
	TOTAL FOR BILL - CARRIED FORWARD			

TOTAL FO	OR BILL - BROUGHT FORWARD			
5.11	Light Fittings			
	Suppy, delievery to site, storage and installation of the below specified light fittings complete with lamps, fixing material, mounting and tubes. Allowance must be made in the rates for all the required fixing materials and accessories.			
	Fittings to be equal and similar approved to the below quoted manufacture.			
5.11.1	1200mm 313W LED IP66 CORROSION PROOF LIGHT FITTING	No		rate only
5.11.2	15W LED ROUND BULKHEAD WITH DALI MODIFICATION	No	5	
5.11.3	10W LED RONDO DOWNLIGHT WITH DALI MODIFICATION	No	14	
5.12	Electrical Tests			
	Making provision for the required inspection, tests and the commissioning of the complete installation and the issuing of the required certificate.			
5.12.1	Building installation	Sum	1	
5.13	Others Provide the sum of R5000-00 for earthing and lightning			
5.13.1	protection installations by specialist	Sum	1	
	TOTAL FOR BILL - CARRIED FORWARD TO SUMMARY			

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
6	ABLUTION BLOCK (4 SEATER)				
6.1					
	General trenching workfor sleeves along the routes as pegged out on site after co-ordination with other services				
	removal and carting away of all stones and rocks including dumping off site. Backfilling and compaction shall be carried				
6.1.1	Trenching through floor for sleeves	m³			rate only
6.1.2	Excavation and backfilling in soft soil	m³			rate only
6.1.3	Excavation and backfilling in hard rock	m³			rate only
6.2	Cable and Data Sleeves				
	Supply and installation of PVC Sleeves through floor construction to power distribution board and communication board complete with standard radius sleeve bends				
6.2.1	75mm Diameter for Data	m			rate only
6.2.2	113mm Diameter for power cable	m			rate only
	Radius bends:				
6.2.3	75mm Diameter	No			rate only
6.2.4	113mm Diameter	No			rate only
6.3	Draw Wires				
6.3.1	Supply and install a 0,6mm diameter galvanised draw wire in sleeves and conduit for data installation	m	50		
6.4	Distribution Boards				
	Supply, delivery, storage and submission of workshop drawings for the Flush mounted architrave steel type power distribution boards complete with flush trays, doors, switch gear mounting trays, copper busbars, neutral and earth bars, correctly sized interna				
6.4.1	Distribution Board (DB-ADM)	No.	1		
	TOTAL FOR BILL - CARRIED FORWARD	<u> </u>	l		

TOTAL FO	DR BILL - BROUGHT FORWARD			
6.5	Low Voltage PVC Cables Supply and installation of PVC SWA PVC cable which is quantified under LV Reticulation and Bare Copper Earth Wire in sleeves and in trenches			
6.5.1	4mm 2 core PVC SWA Cable	m		rate only
6.5.2	4mm BCEW	m		rate only
	Terminations:			
6.5.3	4mm 2core cable	No	2	
6.5.4	4mm BCEW	No	2	
6.6	Conduit Work			
	Supply, delivery and installation of SABS approved PVC / Galvanised Conduits completed with all required conduit accessories.			
	Built or Chase into brick or concrete work:			
6.6.1	20mm PVC Conduit	m		rate only
6.6.2	25mm PVC Conduit	m	15	
	In Ceiling space and Timber work or along Purlins			
6.6.3	20mm PVC Conduit	m	10	
6.6.4	25mm PVC Conduit	m		rate only
6.6.5	Girder clamp for chain and wire, STRUTFAST Type AH-11320	No.		rate only
	Conduit Boxes			
	Supply and installation of SABS approved conduit boxes, installed in the run of the conduit installation, cast into concrete and built into brickwork or flush inside false ceiling spaces, complete with all required conduit termination accessories.			
6.6.6	20mm diameter 13 way type(round box)	No	7	
6.6.7	1350 x 1350mm Bonding tray in roof space	No		rate only
6.7	Wall Boxes			
	Supply and installation of SABS approved galvanised pressed steel wall boxes for building flush into brickwork or cast into concrete work.			
	Flush mounted type:			
6.7.1	100 x 50 x 50mm	No	2	
6.7.2	100 x 100 x 50mm	No	2	
	TOTAL FOR BILL - CARRIED FORWARD			

TOTAL FO	OR BILL - BROUGHT FORWARD				
6.8	PVC Wiring in conduits:				
6.8.1	2.5 mm² for lights circuits	m	20		
6.8.2	4 mm ² for plug sockets circuits	m			rate only
	Stranded Bare Copper Earth Wire				
	Supply and installation of stranded bare copper earth wire along with PVC wiring in conduits. Tendered rates shall make provision for wastage.				
6.8.3	2.5 mm ²	m	20		
6.8.4	4 mm ²	m			rate only
6.9	Light Switches				
	Supply and installation of SABS approved type 16A flush and surface type light switches. Final paint finishes shall be confirmed at a later stage, allowance shall however be made as specified in the general specification. All boxes for flush mounting meas				
6.9.1	1 Lever 1 way	No	2		
6.9.2	1 Lever 2 way	No			rate only
6.9.3	2 Lever 2 way	No			rate only
6.9.4	Outdoor Photocell Switch	No	1		
6.10	Socket Outlets				
	Supply and installation of SABS approved switched and unswitched type flush and surface mounted type 16A switched socket outlets suitable for mounting in flush steel wall boxes or in steel pedestal units or on surface.				
	The final colour of the paint finish shall be confirmed at a later stage, allowance shall be made as specified in the specification.				
	All flush type boxes and special pedestals measured elsewhere.				
	Flush switched sockets type:				
6.10.1	SA/Euro 16A Socket Outlet @300 A.F.F.L	No			rate only
	TOTAL FOR BILL - CARRIED FORWARD				

TOTAL FO	DR BILL - BROUGHT FORWARD			
6.11	Light Fittings			
	Suppy, delievery to site, storage and installation of the below specified light fittings complete with lamps, fixing material, mounting and tubes. Allowance must be made in the rates for all the required fixing materials and accessories.			
	Fittings to be equal and similar approved to the below quoted manufacture.			
6.11.1	1200mm 313W LED IP66 Corrosion Proof Light Fitting	No		rate only
6.11.2	15W LED Round Bulkhead with Dali Modification	No	4	
6.11.3	10W LED Rondo Downlight with Dali Modification	No	4	
6.12	Electrical Tests			
	Making provision for the required inspection, tests and the commissioning of the complete installation and the issuing of the required certificate.			
6.12.1	Building installation	Sum	1	
6.13	Others			
6.13.1	2 compartment power skirting installed in offices	m		rate only
6.13.2	Provide the sum of R2500-00 for earthing and lightning protection installations by specialist	Sum	1	
	TOTAL FOR BILL - CARRIED FORWARD TO SUMMARY			

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
7	Area Lighting				
7.1	Supply and installation of SABS approved light fittings as per the specification, complete with lamps, mounted as described including accessories necessary to complete the mounting as specified and are measured separately				
7.1.1	25W 3m LED POST TOP FITTING	No	3		
7.1.2	OPEN CHANNEL FLUORESCENT LED TUBES 2x18W 1200mm T8 4000K CRI>80	no.	5		
7.1.3	50000Hrs L80 to -25°C TO +50°C IP44 WITH FROSTED LENS AND ECG (VAPOUR PROOF) ROUND BULKHEAD LIGHT FITTING 14W 4000K CRI>80 to -25°C TO +45°C IP65 WITH ELECTRONIC CONTROL GEAR Cabling	No	51		
	PVC Wiring :				
7.2.1	4mm² x 2core copper cable	m	400		
7.2.2	2.5mm² bare copper earth wire (BCEW)	m	400		
7.3	TESTING AND COMISSIONING				
	Testing and comissioning of the entire medium and low voltage network and area lighting including the provision of all test equipment required and issuing of a certificate of compliance for the installation.	Sum	1		
			CARRIED	TO SUMMARY	

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
8	PROVISIONAL AMOUNTS : ICT				
8.1	Provide the sum of R 173 920.00 for the installation of Information and Communication Technologies by specialist service provider in consultation with the Engineer/Consultant	Sum	1		
8.2	Profit	%			
8.3	Attendense	%			

	I=	1	1	1
Section No	FINAL SUMMARY	Page No		Amount
1	PRELIMINARIES & GENERAL	1/30		
2	2 CLASSROOM BLOCK	2/45		
3	3 CLASSROOM BLOCK X 4	3/45		
4	10 SEATS ENVIROLOO TOILET BLOCK	4/48		
5	MEDIUM ADMINISTRATION BLOCK	5/45		
6	4 SEATS WATERBORNE TOILET BLOCK	6/42		
7	DEMOLISH (10 CLASSROOMS & 4 PIT TOILETS) & RENOVATE 13 ENVIROLOO SEATS	7/31		
8	EXTERNAL WORKS	8/4		
9	PROVISIONAL SUMS	9/8		
	Sub- Total (PART A - MAIN BUILDING WORKS)		R	
	PART B - ELECTRICAL AND MECHANICAL WORK			
	TENDER AMOUNT CARRIED OVER FROM PART B (ELECTRICAL AND MECHANICAL WORK)	Item		
	PART C - CIVIL WORK			
	TENDER AMOUNT CARRIED OVER FROM PART C (CIVIL WORK)	Item		
	Sub- Total - BUILDING COSTS		R	
	CONTINGENCY ALLOWANCE TO THE CONTRACT			
	Contingencies:			
	Allow an amount of R1 400 000.00 (One Million Four Hundred Thousand) for contingency allowance to the contract ,to be used at the discretion of the Employer and deducted in whole or in part if not required.	Item		
	Carried Forward		R	

	FINAL SUMMARY			
Section No		Page No		Amount
	Brought Forward		R	
	PRICE ADJUSTMENT FOR INFLATION TO			
	THE CONTRACT			
	Inflation:			
	Allow an amount of R1 500 000.00 (One Million Five Hundred Thousand) for price adjustment for inflation.	Item		
	Sub- Total Excluding VAT		R	
	ADD VAT @ 15%.		R	
	Carried to Form of Tender		R	



PART C5: SCOPE OF WORKS



C5.1 Scope of Works

Overview of the works

The project comprises the construction of the following:

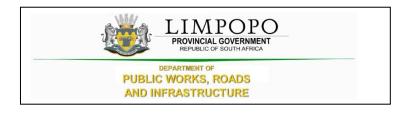
Demolishing of 10 classrooms and 4 pit toilets, and refurbishment of 13 enviro-loo toilets, and construction of medium administration, 14 classrooms, 4 waterborne toilets and 10 enviro-loo toilets at Chameti High School in Mopani District, in accordance with the drawings and specifications that will be provided to the contractor.

The Contractor shall provide sufficient qualified technical staff, field staff, and safety personnel to ensure the Works under this contract be satisfactorily carried out safely and meeting the performance targets and programs. The Contractor shall also provide competent attendant(s) to monitor any works in relation to the scope of works.



PART C6: EPWP INFRASTRUCTURE GUIDELINE 2015

PART C6: EPWP INFRASTRUCTURE GUIDELINE 2015



PART C6.1: DATA COLLECTION TOOL





	DATA COLLECTION TOOL
NOTE:The field with the asterick indicates the mandantory.***	
Column A	Column B
	Project Details
Project Name ***	
Project Reference Number ***	
Project description ***	
Project Start Date ***	
Project End Date ***	
Estimated Budget ***	
	Project Location
Province ***	
District/Metro Municipality ***	
Local Municipality/Metro Region ***	
Latitude (in decimal format)	
Longitude (in decimal format)	
	Public Body Details
Public body sphere ***	
Reporting public body that is the project owner (and will	
report on the project) ***	
Implementing public body type ***	
Public body that will implement the project	
MIG/IDP reference number allocated to the project	
	EPWP Details
EPWP Sector***	Infrastructure
EPWP Program ***	
EPWP Sub programme ***	
	Budget Amount
Financial year ***	1
Total Budget Amount ***	
Wages ***	
UIF ***	
COIDA ***	
Training	
Administration	
Equipment and materials	
Other	
Describe if other	
	Outputs and Training
Output ***	
Despription ***	
Target Quantity ***	
Number of persons to be trained	
	Contact person
Title***	
Initials***	
First Name***	
Surname***	
Email Tol (Office)***	
Tel (Office)*** Fax Number	
Cell Number***	
Physical Address ***	
Postal Address	
Postal code	
<u></u>	

		Ben	eficiary Detai	ls *** NOTE	:Give as	much info	ormation as	s you pos	sible can c	n the bene	ficiaries de	etails.			Locatio	on Details **	*	Но	ousehold Details ***	
FirstName ***	Initials ***	Surname ***		DateOfBirth	Gender ***		StartDate ***	EndDate ***	education level ***	Language	Address	Nationality ***	Governmen t Grant ***	Province	District ***	Muncipality ***	Ward	Number of people in Household ***	Number of Dependants in Household ***	Number of Children attending school
	_					_			_						_					

	Project Location
Column A	Column B
Locality Name ***	
Municipality***	
Ward ***	
Subplace***	
Government Facility***	
Project Location ***	

						Paym	nent Details	***					
FirstName ***	Initials ***	Surname ***	Idnumber ***	DateOfBirth* **	WageRate ***	TotalPaidDays ***	AmountPaid ***	WorkDays* **	Training Days Paid	Total Training Days	Training Course Id	Month	Year

					Trai	ning				
ID	Course Name	Code	Туре	Start	End	Number of Trainees	Number of Days	Cost	Status	Training Provider

Monthly Progress	s Report
Wages ***	
UIF ***	
COIDA ***	
Training	
Administration	
Equipment and materials	
Other	
Describe if other	
Outputs	
Achieved Value ***	
Achieved Percentage ***	

EPWP Employment Inform	nation
Name of Project	
First Name	
Initials	
Surname	
ID Number	
Nationality	
Name of Employer	
Name of Project	
Signature of Employer	
Attachment	
Copy of ID	

						Payme	ent Details **	*						
Employe	ſ			LI	DPWR&I									
Project N	ame			Schoem	ansdal Mu	seum								
Contract														
Reporting														
Attach pr	ooof of p	ayment o	r register where							T''	Tarak			
FirstName ***	Initials ***	Surname ***	Idnumber ***	DateOfBirth ***	WageRate ***	No. of Days Worked	AmountPaid ***	WorkDays ***	Training Days Paid	TrainingD ays NonPaid	Training	Training Course Id	Month ***	Signature of Payment Received
ı														
2														
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1														
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5														
7														
3														
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2														
3														



PART C7: SITE INFORMATION AND DRAWINGS

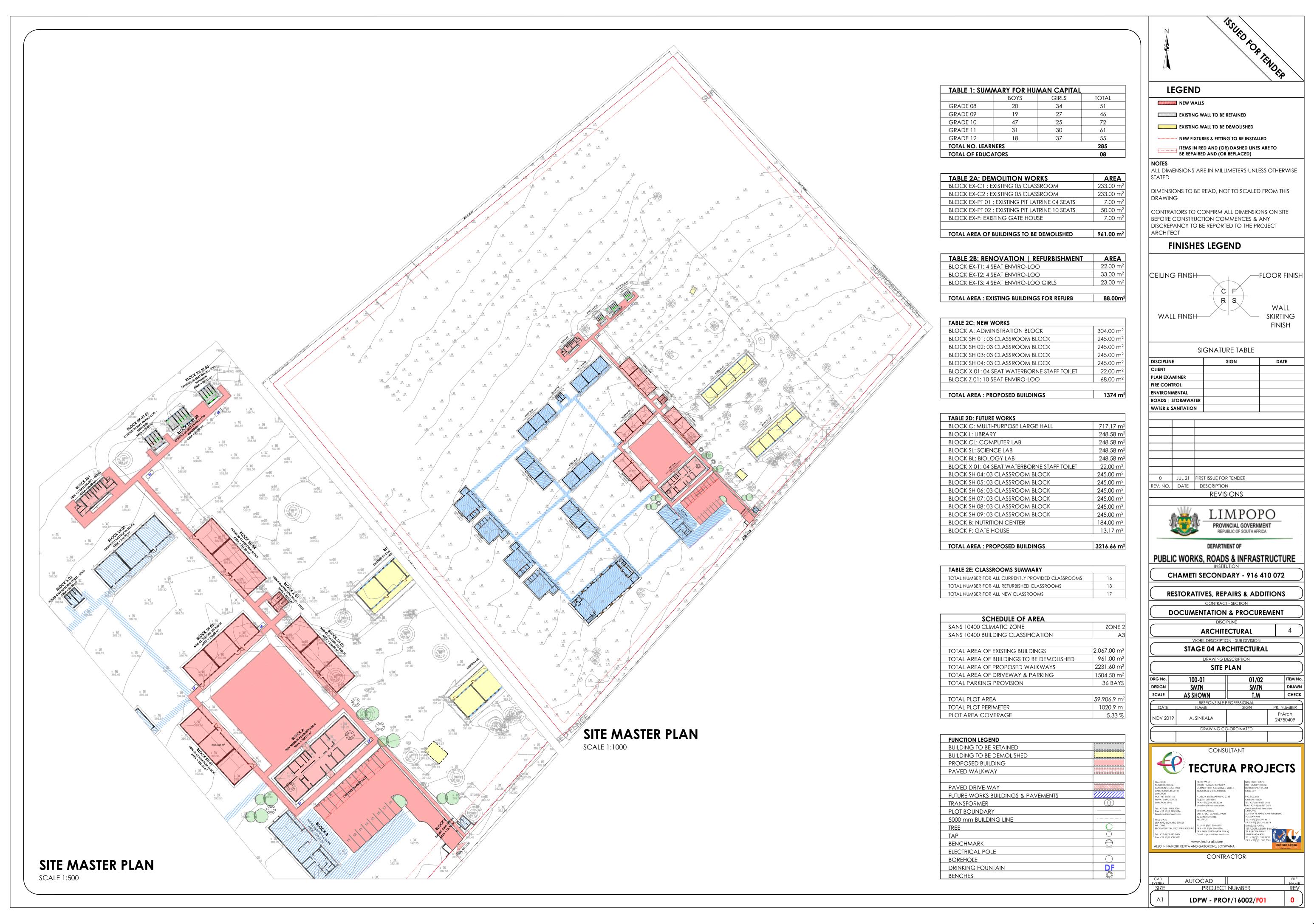


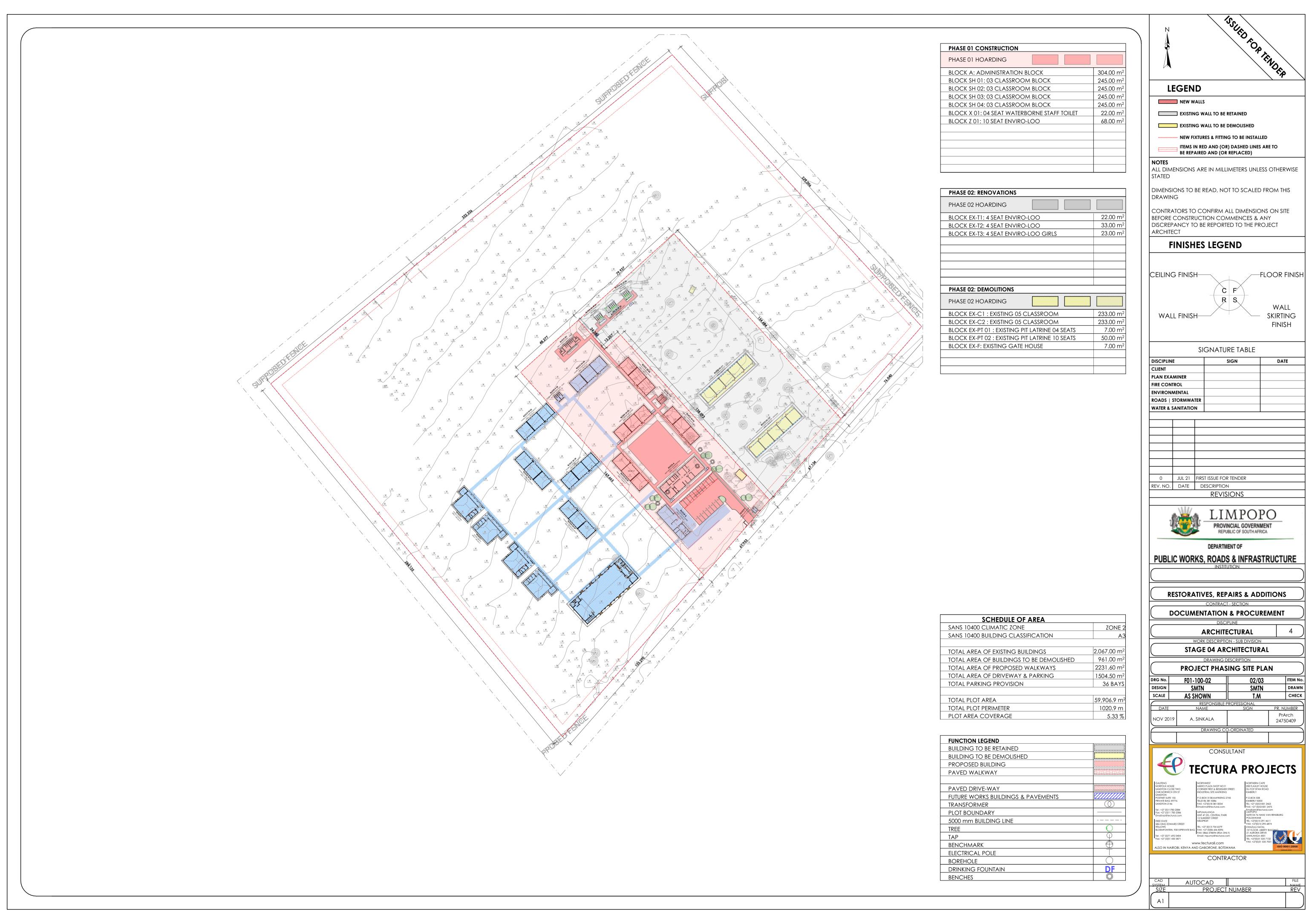
PART C7.1: SITE INFORMATION



PART C7.2: DRAWINGS

ARCHITECTURAL DRAWINGS





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

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 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 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 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

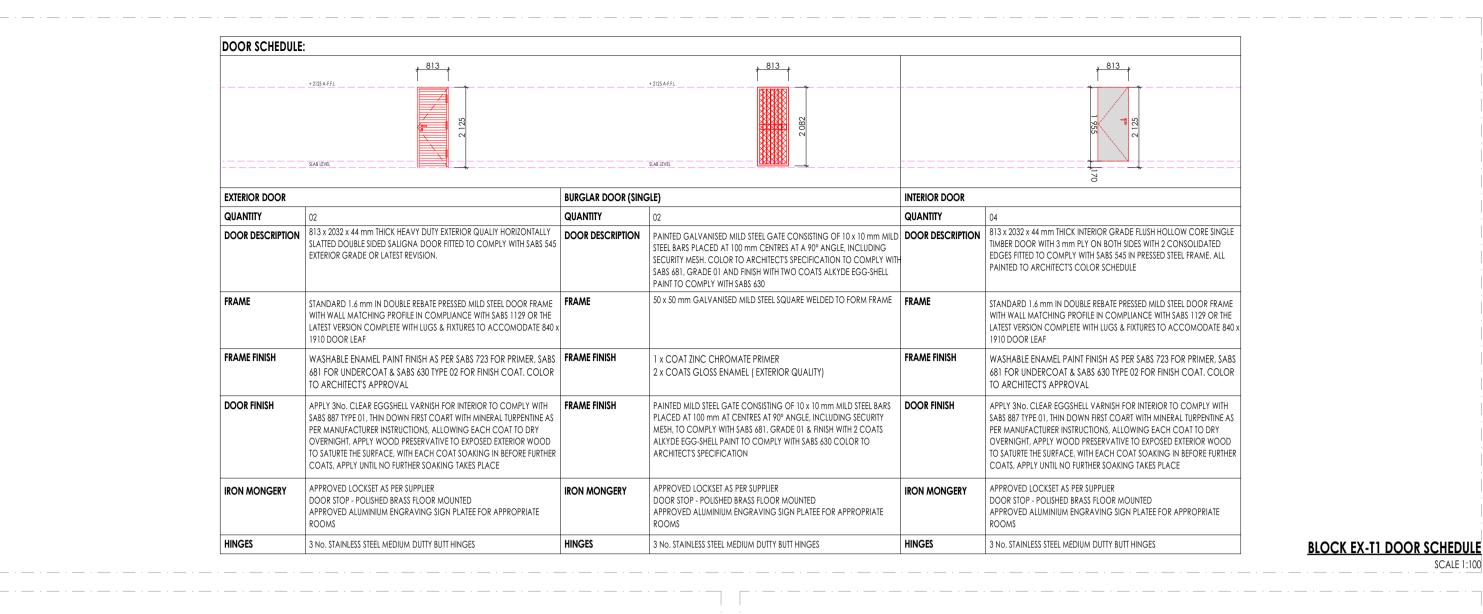
omplying with ISQ 550 (31). The profile shall have three trapezoidal ribs at 203mm centers giving a net cover of 406mm. The rib height shall be 41mm and provide capillary breaks. The male rib shall have spurs at 283mm centers to ensure a positive double interlocking action at side-laps. Each pan shall 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

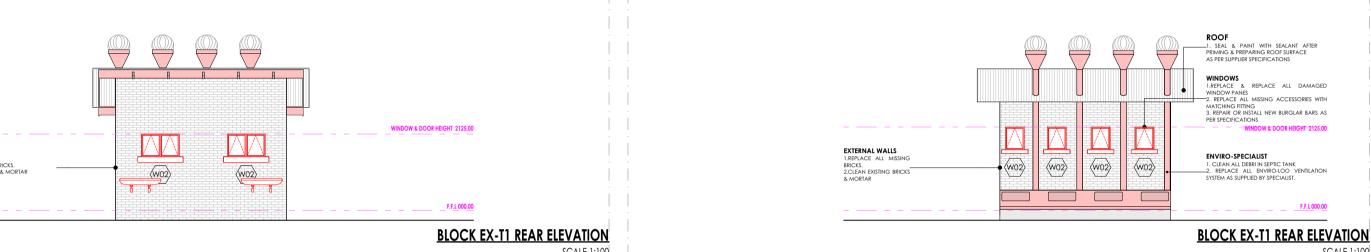
Insulation: SHALL EITHER BE: 1: where there are acoustic ceilings susspeded board, a heavy duty "Aluminium sisalation foil" shall be installed AND 2: where the steel work is exposed, a 50mm "FactoryBoard" manufactured from noncombustible glass fibres and thermo-setting resin binder supplied size 2400mm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

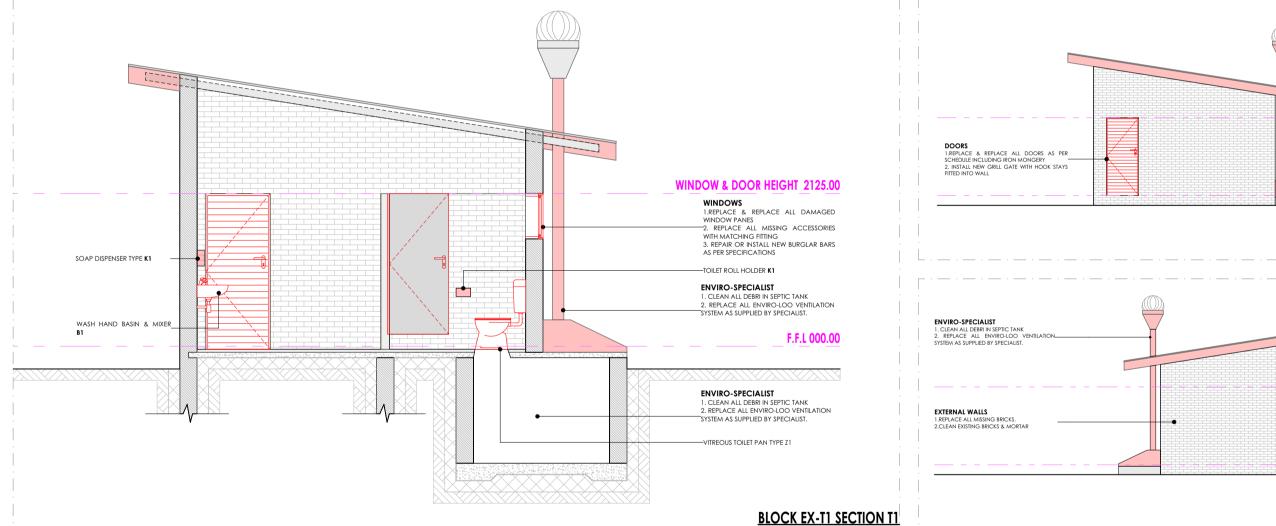
Galvanised Steel (GI) Gutter: 150mm Wide x 100mm Deep x 0.6mm Eaves Gutter of Commercial Grade Steel With Class Z275 Galvanising To Comply With SABS 934 or latest Revision Fixed To Painted Fibre Cement Fascia Board Together with standard accessories discharging into

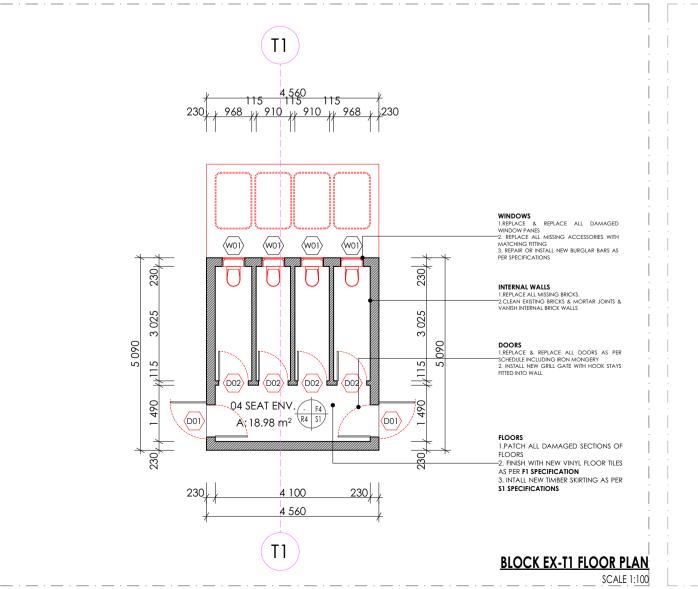
Downpipe: 110 x110 x 0.6mm Thick Commercial Grade Galvanised Steel Sheet With Class Z275 Galvanising To Comply With SABS 934 or Latest Revision to or built into walls or cast in concrete columns fixed to brickwork or steel including brackets and self-taping screws To Manufacturer Installation Instructions.

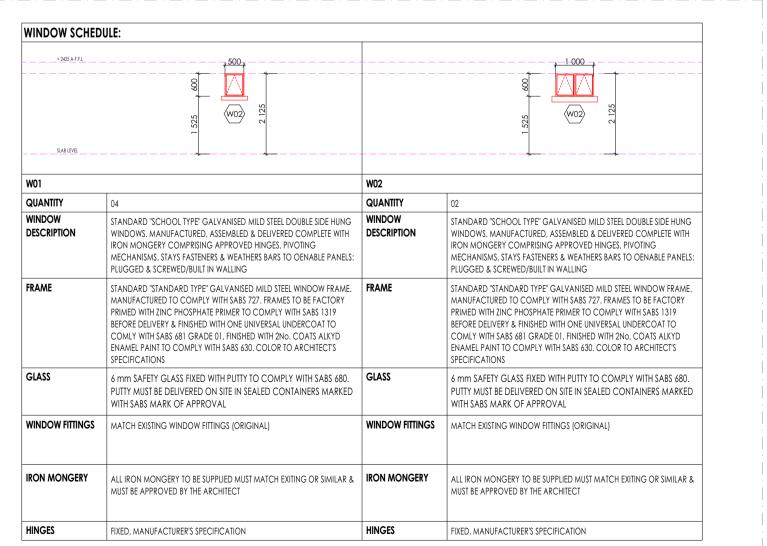
Fascia board: 250 x 10 mm Fibre- Cement Fascia/Barge Board, Screw Fixed To Truss Ends & Counter Batten With Countersunk Brass Screws. Prepare & Apply One Universal Undercoat & Two Coats Super Acrylic P.V.A.











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

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 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 8-1No. TAP (FOR LABS)

Let a michine char should be sold with the configuration to comply with SABS 497 and RHS hole plugged and fitted with; 1No.

The configuration to comply with SABS 497 and RHS hole plugged and fitted with; 1No.

The 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. Combination of sanitaryware, accessories and general fittings comprising of:

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

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

X1: STAINLESS STEEL SINK

ENVIRO-SPECIALIS

DOORS

1.REPLACE & REPLACE ALL DOORS AS PER

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1.REPLACE & REPLACE ALL DOORS AS PER

BLOCK EX-T1 SIDE ELEVATION

BLOCK EX-T1 WINDOW SCHEDULE

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 (cupboard

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, 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. 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.

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

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. K5: SOAP HOLDER

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

Single semi-recessed ceramic soap dish Complete with all necessary accessories and installed in accordance to manufacturer's specifications.

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 Complet-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

G2: PROJECTOR SCREEN 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)

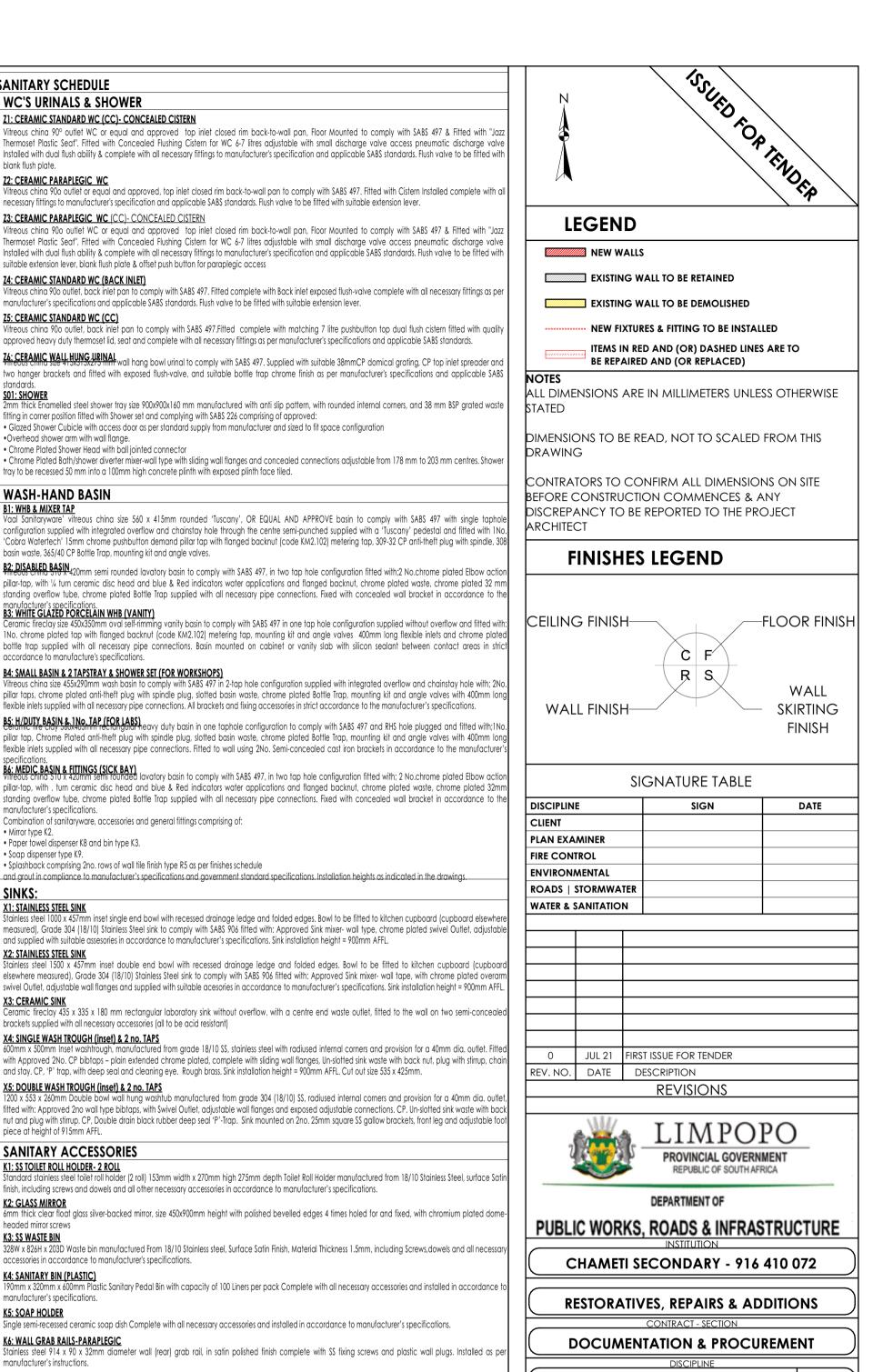
27 mm vertical deco blinds with anodised aluminium headrail fitted with colour coordinated insert. All runners o be wheeled and fitted with individual clut mechanism. All runners to be connected by stainless steel links. Tilt mechanism to be operated by a nylon ball chain with a reduction gear inside 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.

accordance to manufacturer's specifications. Installation height 900mm above FFL, or as specified.

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 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 wil 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



ARCHITECTURAL STAGE 04 ARCHITECTURAL

EX-T1 FLOOR | SECTION | SIDES | SCHEDULES F01-101-01 **SMTN** N/Δ CHECK AS SHOWN T.M

NOV 2019 A. SINKALA 24750409 CONSULTANT **TECTURA PROJECTS**

SCALE



AUTOCAD PROJECT NUMBER

LDPW - PROF/16002/F01

FLOORS:

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 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.

S1: HARDWOOD OR EQUAL AND APPROVED

"Ex 75mm x 20mm Moulded Hardwood Skirting" to comply with SAN\$ 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

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

R4: GLAZED CERAMIC WALL TILES / ENAMEL PAINT COMBO

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.

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

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

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

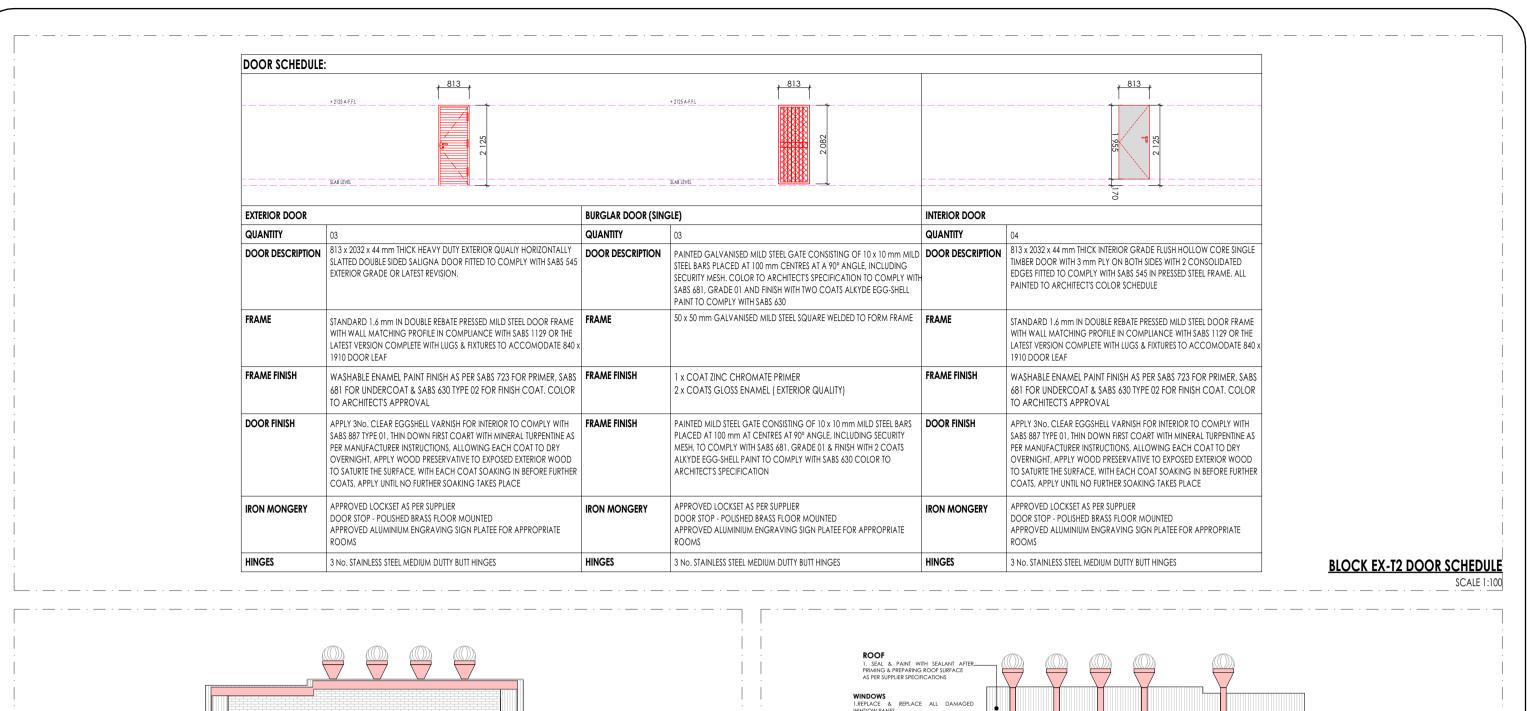
omplying with ISQ 550 (3T). The profile shall have three trapezoidal ribs at 203mm centers giving a net cover of 406mm. The rib height shall be 41mm and provide capillary breaks. The male rib shall have spurs at 283mm centers to ensure a positive double interlocking action at side-laps. Each pan shall 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

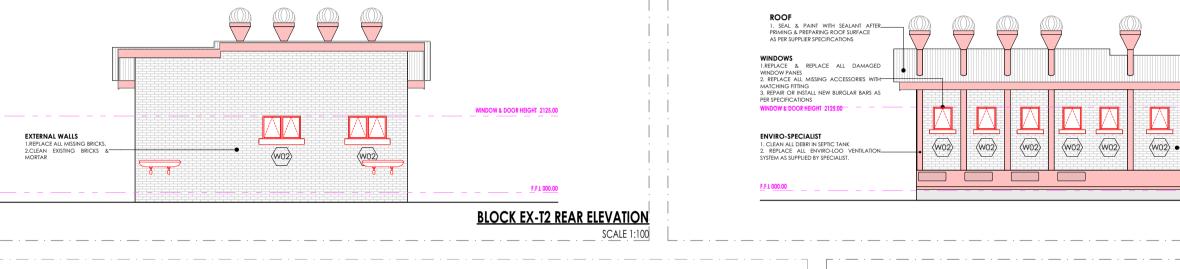
AND 2: where the steel work is exposed, a 50mm "FactoryBoard" manufactured from noncombustible glass fibres and thermo-setting resin binder supplied size 2400mm x 1200mm and 80kg/mÑ and finished with white metalized foil. Galvanised Steel (GI) Gutter: 150mm Wide x 100mm Deep x 0.6mm Eaves Gutter of Commercial 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

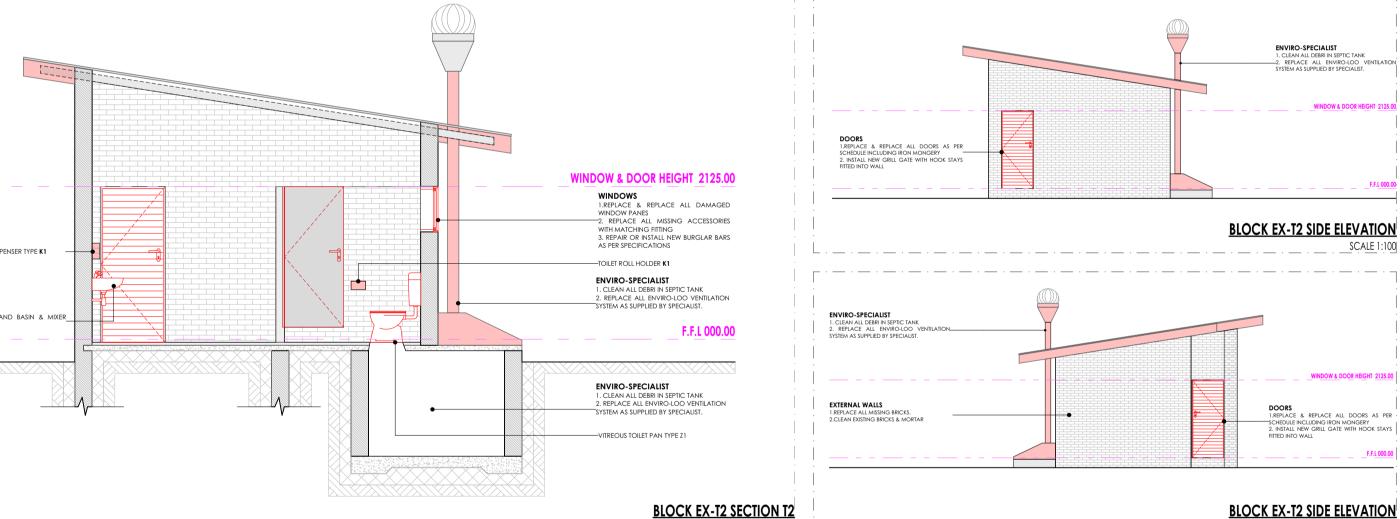
Insulation: SHALL EITHER BE: 1: where there are acoustic ceilings susspeded board, a heavy duty "Aluminium sisalation foil" shall be installed

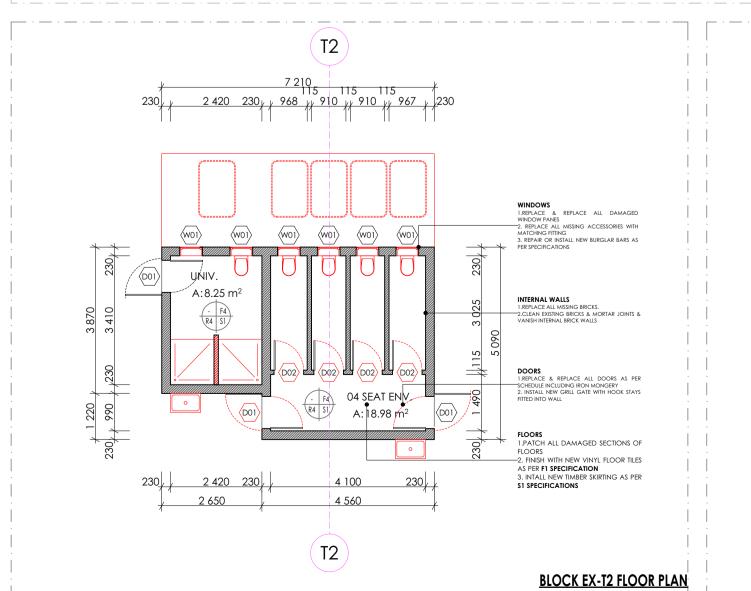
Downpipe: 110 x110 x 0.6mm Thick Commercial Grade Galvanised Steel Sheet With Class Z275 Galvanising To Comply With SABS 934 or Latest Revision to or built into walls or cast in concrete columns fixed to brickwork or steel including brackets and self-taping screws To

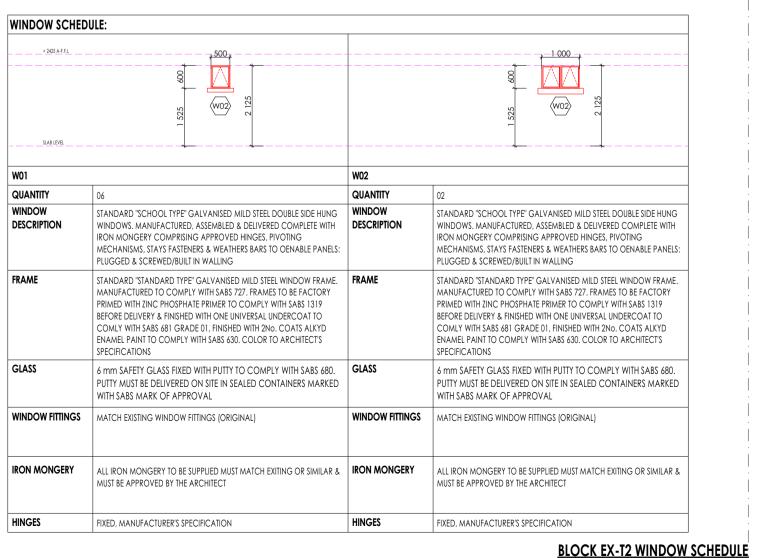
Manufacturer Installation Instructions. Fascia board: 250 x 10 mm Fibre- Cement Fascia/Barge Board, Screw Fixed To Truss Ends & Counter Batten With Countersunk Brass Screws. Prepare & Apply One Universal Undercoat & Two Coats Super Acrylic P.V.A.











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 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 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 al 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

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 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 ¼ 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) nic 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)
Examination of 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. Combination of sanitaryware, accessories and general fittings comprising of:

Paper towel dispenser K8 and bin type K3.

• 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.

X1: STAINLESS STEEL SINK

BLOCK EX-T2 REAR ELEVATION

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 (cupboard

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.

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. K5: SOAP HOLDER

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

and plastic wall plugs. Installed as per manufacturer's instructions **K8: PAPER TOWEL DISPENSER** 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.

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 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 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.

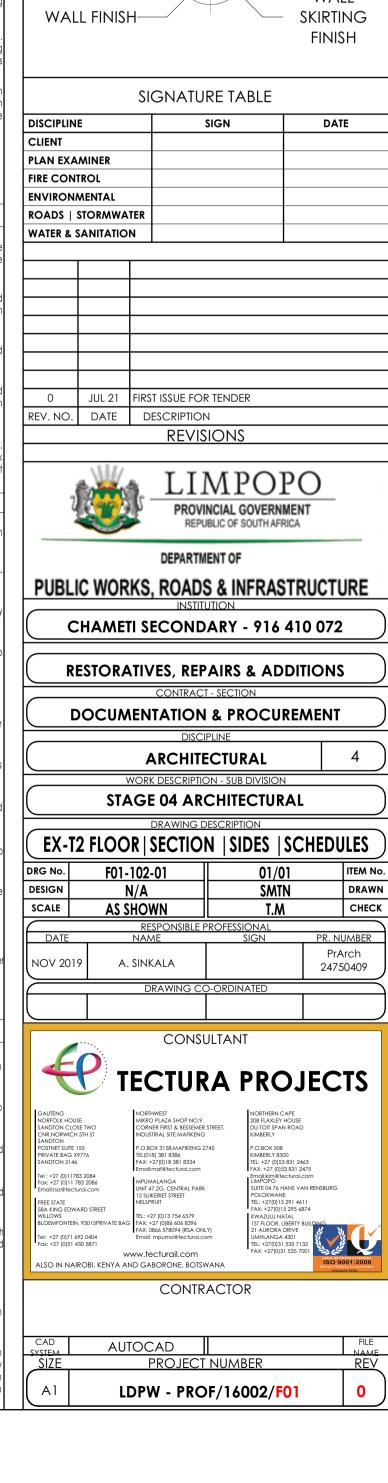
G6: FLOOR DRAIN Cast iron flat type full-flow outlets size 110 mm diameter with centre bolt, , including connections to downpipes.

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

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 wil 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





FLOORS:

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 SARS 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 SAN\$ 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

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 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

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 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

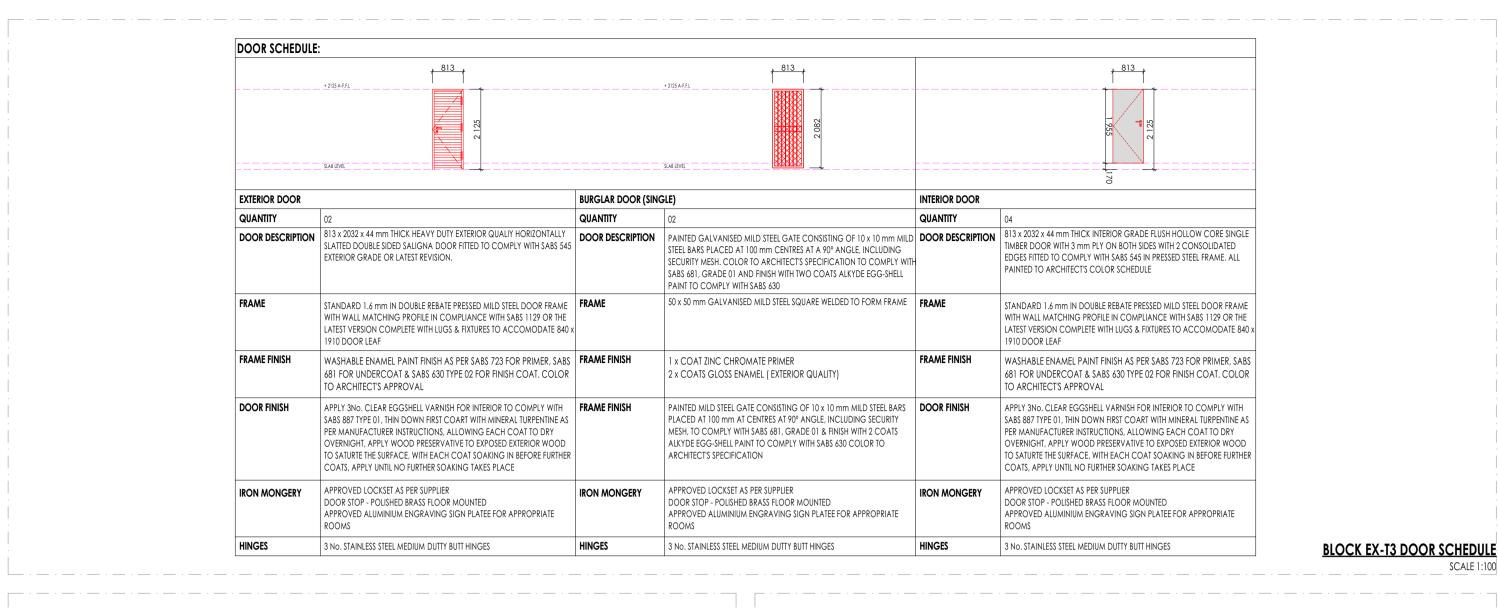
AND 2: where the steel work is exposed, a 50mm "FactoryBoard" manufactured from noncombustible glass fibres and thermo-setting resin binder supplied size 2400mm x 1200mm and 80kg/mÑ and finished with white metalized foil. Galvanised Steel (GI) Gutter: 150mm Wide x 100mm Deep x 0.6mm Eaves Gutter of Commercial 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

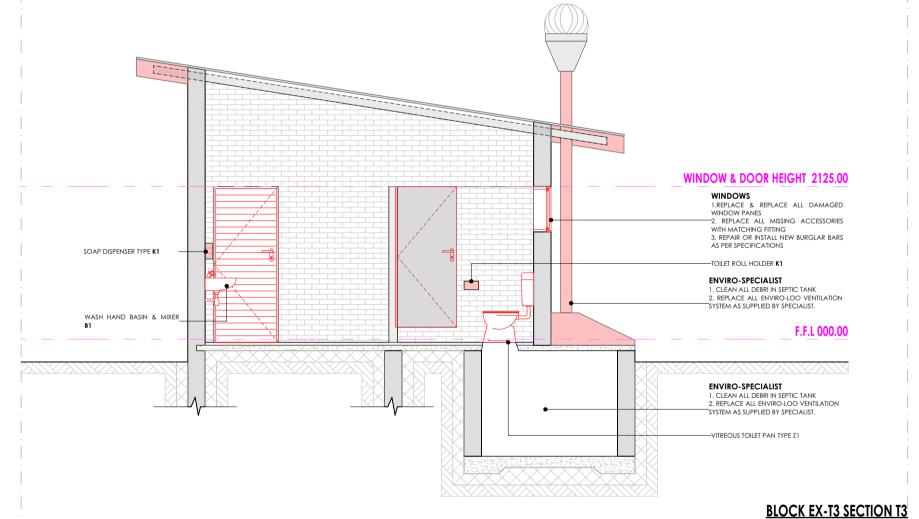
Comply With SABS 934 or latest Revision Fixed To Painted Fibre Cement Fascia Board Together with standard accessories discharging into

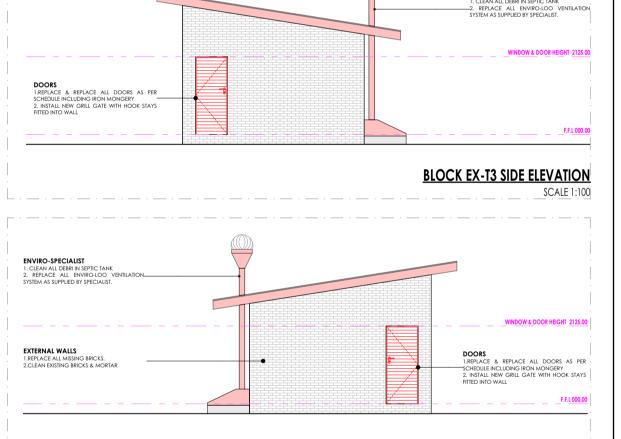
Downpipe: 110 x110 x 0.6mm Thick Commercial Grade Galvanised Steel Sheet With Class Z275 Galvanising To Comply With SABS 934 or Latest Revision to or built into walls or cast in concrete columns fixed to brickwork or steel including brackets and self-taping screws To Manufacturer Installation Instructions.

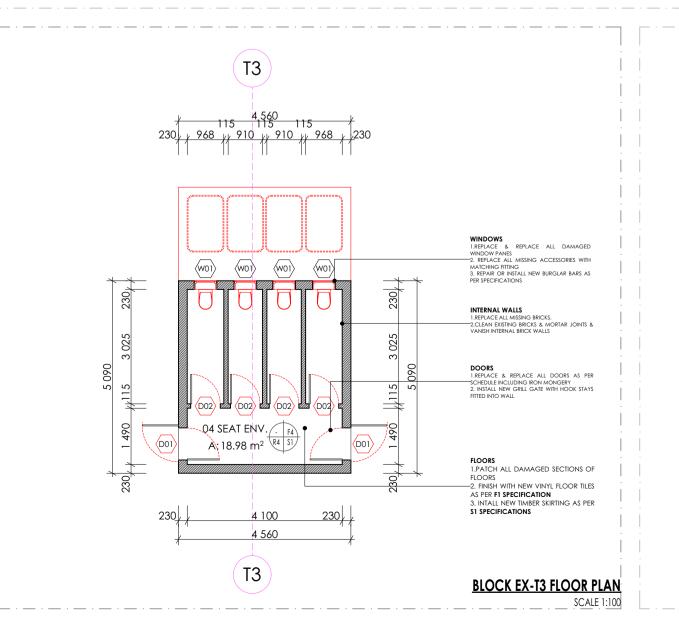
Fascia board: 250 x 10 mm Fibre- Cement Fascia/Barge Board, Screw Fixed To Truss Ends & Counter Batten With Countersunk Brass Screws. Prepare & Apply One Universal Undercoat & Two Coats Super Acrylic P.V.A.

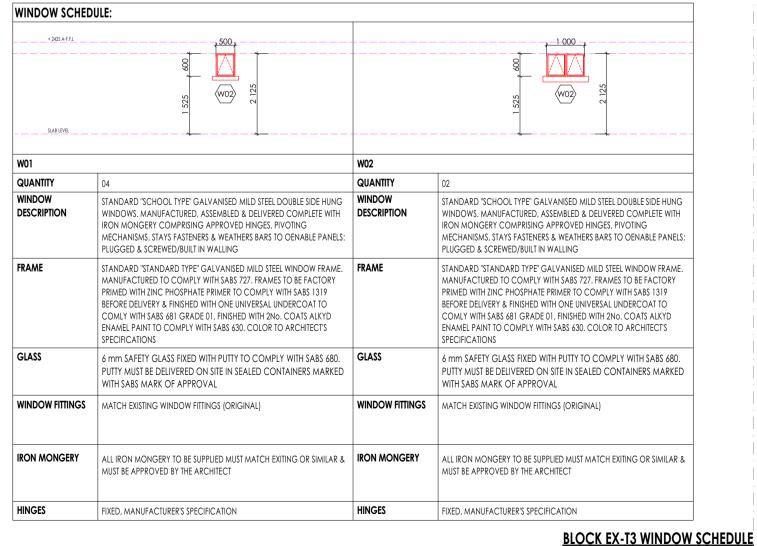












SANITARY SCHEDULE

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

suitable extension lever, blank flush plate & offset push button for paraplegic access

/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

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

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 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) 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; 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 8-1No. TAP (FOR LABS)

Let a michine char should be sold with the configuration to comply with SABS 497 and RHS hole plugged and fitted with; 1No.

The configuration to comply with SABS 497 and RHS hole plugged and fitted with; 1No.

The 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

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.

flexible inlets supplied with all necessary pipe connections. Fitted to wall using 2No. Semi-concealed cast iron brackets in accordance to the manufacturer

Combination of sanitaryware, accessories and general fittings comprising of:

Paper towel dispenser K8 and bin type K3.

• 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.

X1: STAINLESS STEEL SINK

ENVIRO-SPECIALIS

BLOCK EX-T3 SIDE ELEVATION

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 (cupboard

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. 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. 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.

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. 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

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

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

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

115W x 270H x 110D Stailess steel Hands Free soap dispenser. Complete with screws, locking key, and all necessary accessories and installed in accordance

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 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

accordance with the manufacturer's instructions

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 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 wil ntegral anodised aluminium chalk rail (ACR), fixing components and secured in position to brickwork. The Chalk boards are to be fixed in position strictly

LEGEND 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 ARCHITECT FINISHES LEGEND -FLOOR FINISH WALL FINISH SKIRTING FINISH SIGNATURE TABLE DISCIPLINE DATE PLAN EXAMINER FIRE CONTROL ROADS | STORMWATER **WATER & SANITATION** JUL 21 FIRST ISSUE FOR TENDER REV. NO. DATE DESCRIPTION ROVINCIAL GOVERNMENT REPUBLIC OF SOUTH AFRICA DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE CHAMETI SECONDARY - 916 410 072 RESTORATIVES, REPAIRS & ADDITIONS **DOCUMENTATION & PROCUREMENT ARCHITECTURAL** STAGE 04 ARCHITECTURAL EX-T3 FLOOR | SECTION | SIDES | SCHEDULES F01-103-01 **SMTN** N/A CHECK SCALE AS SHOWN T.M NOV 2019 A. SINKALA 24750409 CONSULTANT **TECTURA PROJECTS** 27 (0)13 754 6579 www.tecturail.com LSO IN NAIROBI, KENYA AND GABORONE, BOTSWANA CONTRACTOR AUTOCAD

PROJECT NUMBER

LDPW - PROF/16002/F01

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 SAB\$ 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 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.

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

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.

S3: CEMENT SAND 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

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 files 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 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:

Prepare & Apply One Universal Undercoat & Two Coats Super Acrylic P.V.A.

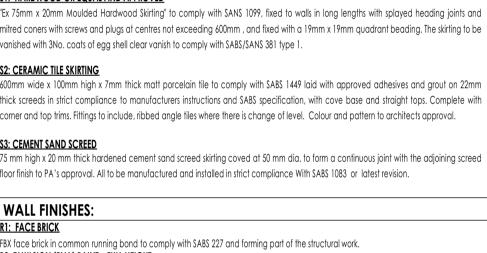
ER1: EMBOSSED ROOFING SHEET (TWO SIDES) **Roofing Sheets:** 0.58mm Thick concealed fixing roofing sheets manufactured from roll-formed from certified steel

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 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 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 Fascia board: 250 x 10 mm Fibre- Cement Fascia/Barge Board, Screw Fixed To Truss Ends & Counter Batten With Countersunk Brass Screws.

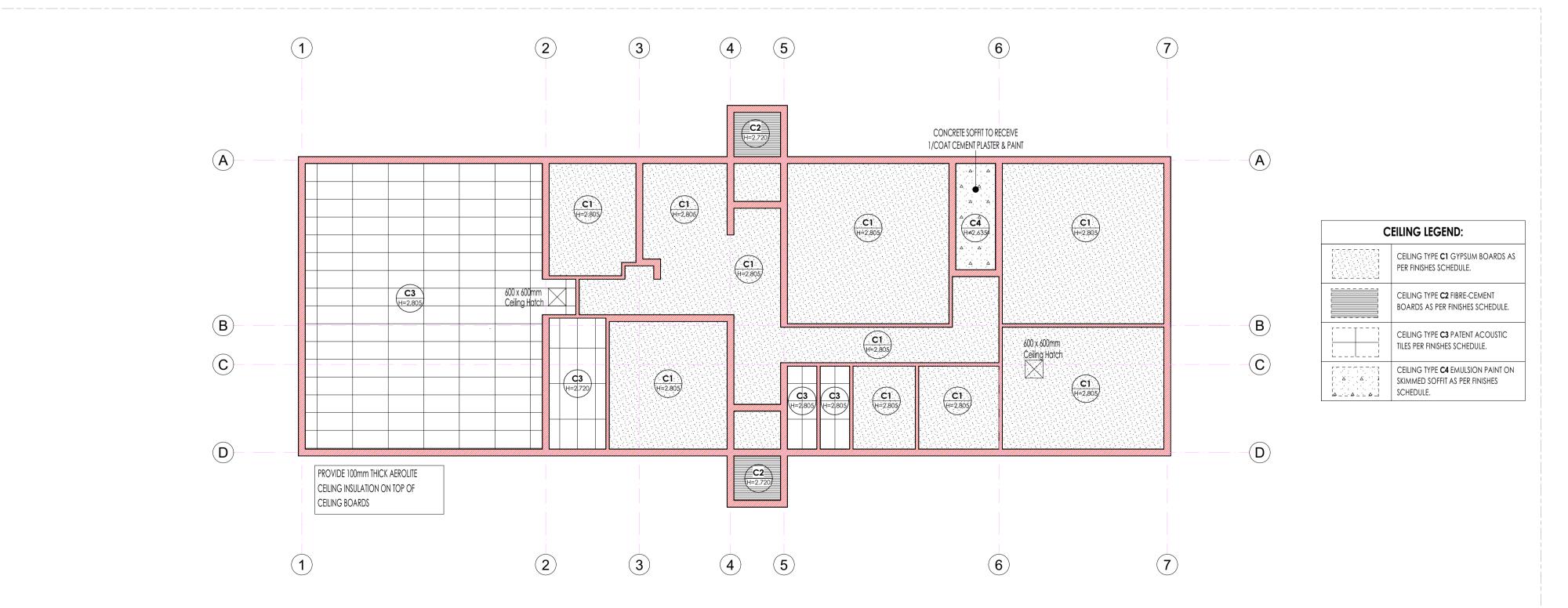


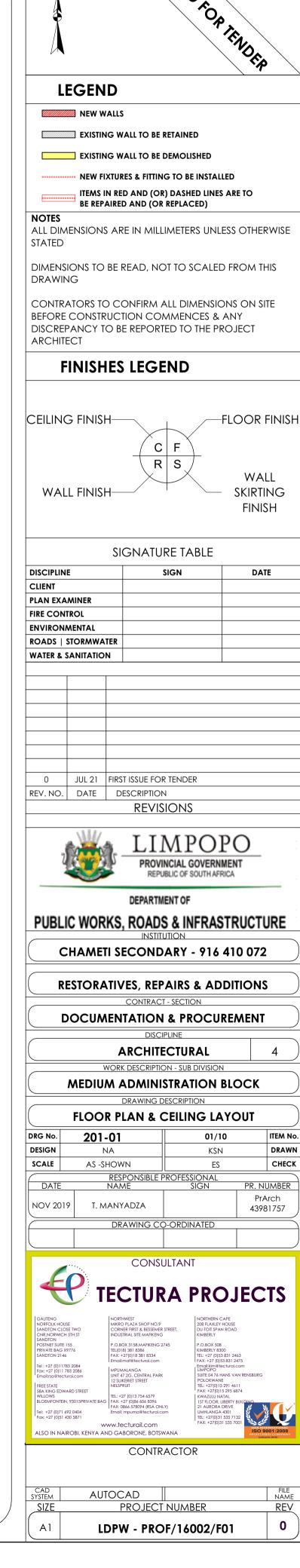
Scale 1:100.

CEILING PLAN:

Scale 1:100.

PORCH STATIONARY STORI WAITING AREA GENERAL OFFICE PRINCIPAL OFFICE STAFF ROOM C3 F2 PASSAGE RECEPTION/CLERK OFFICE PORCH \$\frac{1}{1096}\$\frac{1}{1511}\$\frac{1}{867}\$\frac{1}{1511}\$\frac{1}{867}\$\frac{1}{1511}\$\frac{1}{1543}\$\frac{1}{1022}\$\frac{1}{1033}\$\frac{1}{1022}\$\frac{1}{988}\$\frac{1}{1022}\$\frac{1}{471}\$\frac{1}{230}\$\frac{1575}{230}\$\frac{533}{575}\$\frac{1}{533}\$\frac{1}{1511}\$\frac{1}{856}\$\frac{1}{1511}\$\frac{1}{1640}\$\frac{1}{1511}\$\frac{1}{1511}\$\frac{1}{1511}\$\frac{1}{1511}\$\frac{1}{157}\$\frac{1}{230}\$\frac{1} 230 575 230 1 575 230 992 1 993 1 115 2 100 1 115 2 707 1 15





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 SAB\$ 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 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.

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.

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

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.

S3: CEMENT SAND SCREED

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 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

vanished with 3No. coats of egg shell clear vanish to comply with SABS/SANS 381 type 1.

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 files 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 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 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

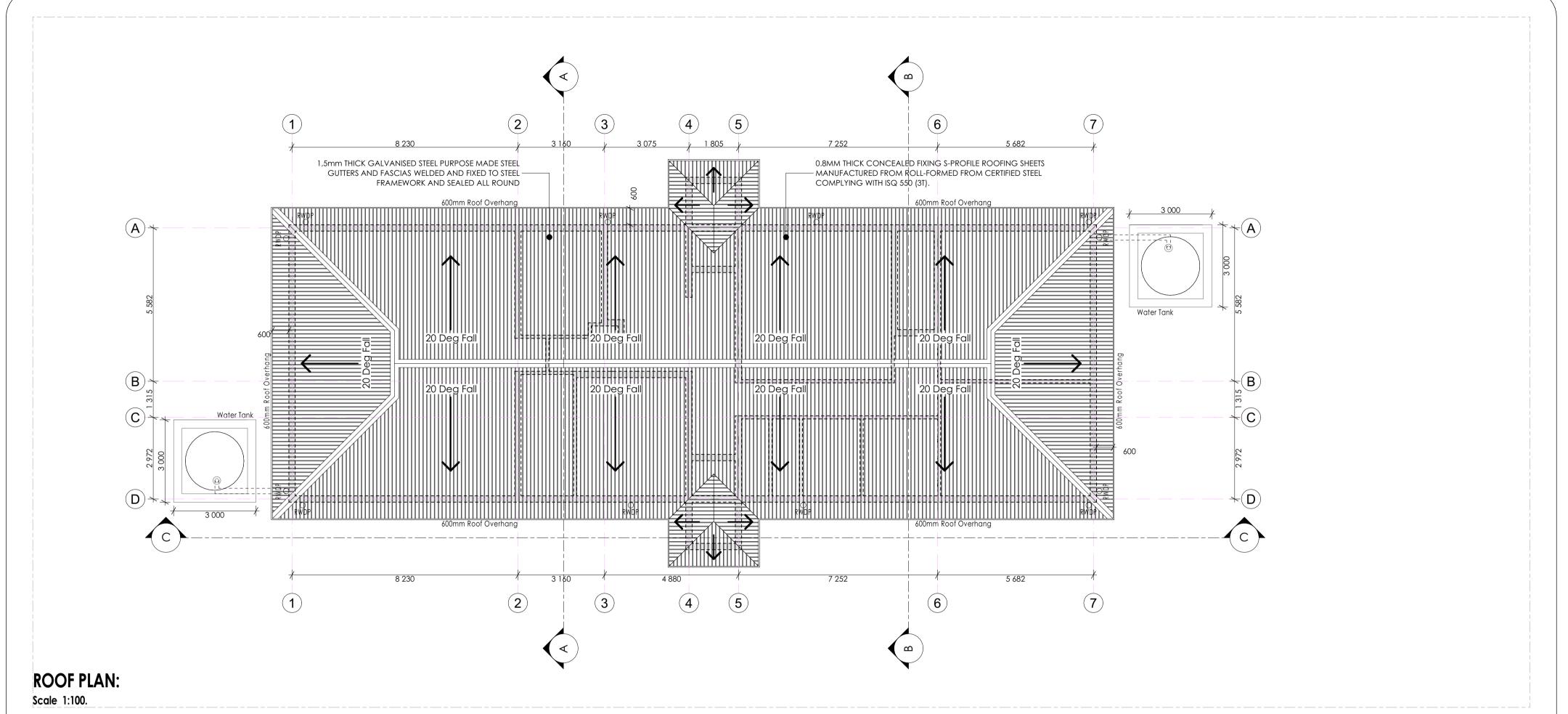
complying with ISQ 550 (3T). The profile shall have three trapezoidal ribs at 203mm centers giving a net cover of 406mm. The rib height shall be 41mm and provide capillary breaks. The male rib shall have spurs at 283mm centers to ensure a positive double interlocking action at side-laps. Each pan shall 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.

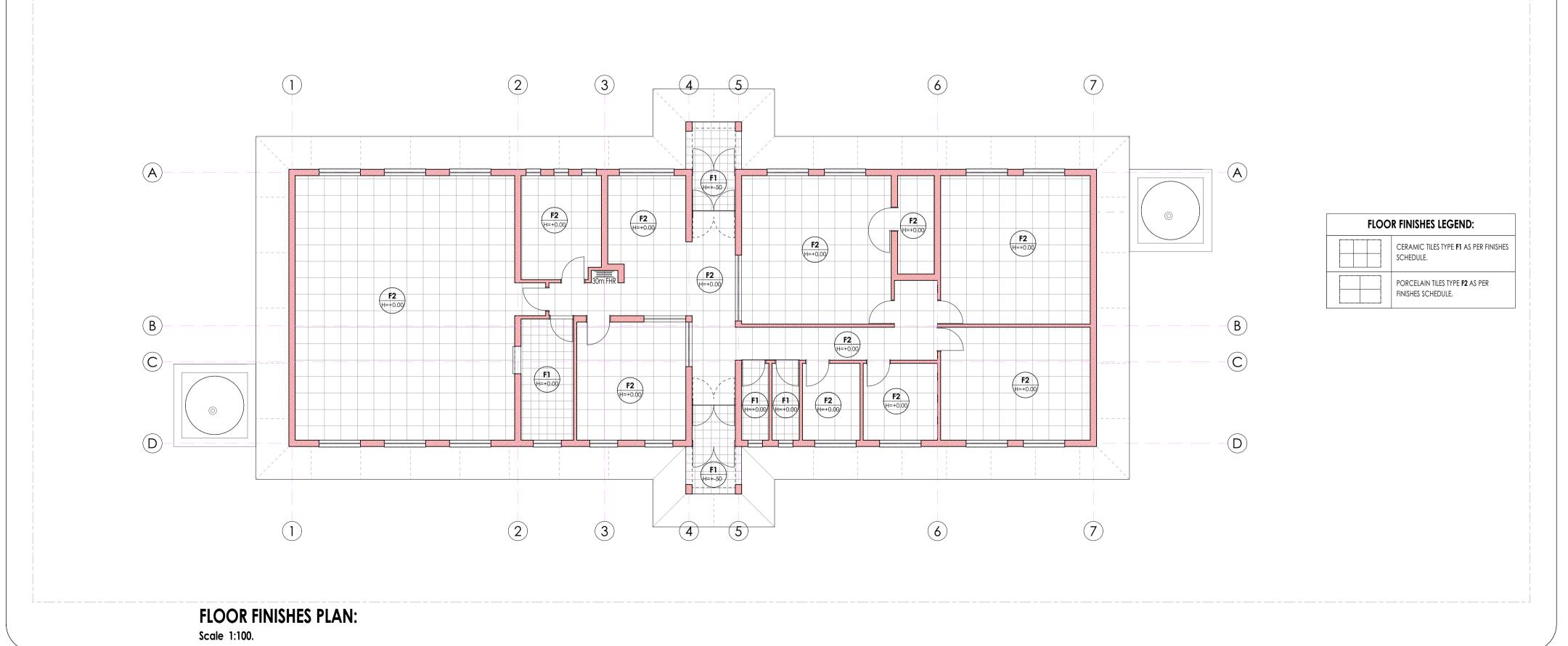
Insulation: SHALL EITHER BE: 1: where there are acoustic ceilings susspeded board, a heavy duty "Aluminium sisalation foil" shall be installed AND 2: where the steel work is exposed, a 50mm "FactoryBoard" manufactured from noncombustible glass fibres and thermo-setting resin binder supplied size 2400mm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

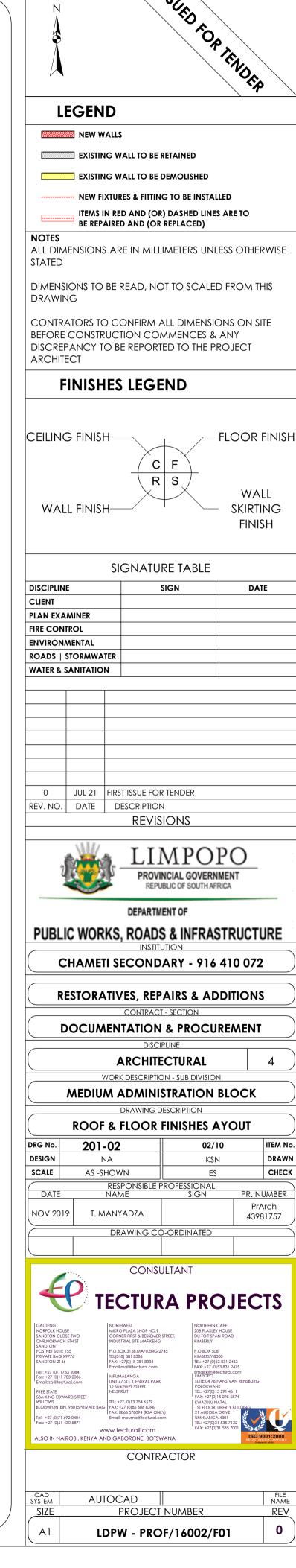
Galvanised Steel (GI) Gutter: 150mm Wide x 100mm Deep x 0.6mm Eaves Gutter of Commercial Grade Steel With Class 7275 Galvanising To

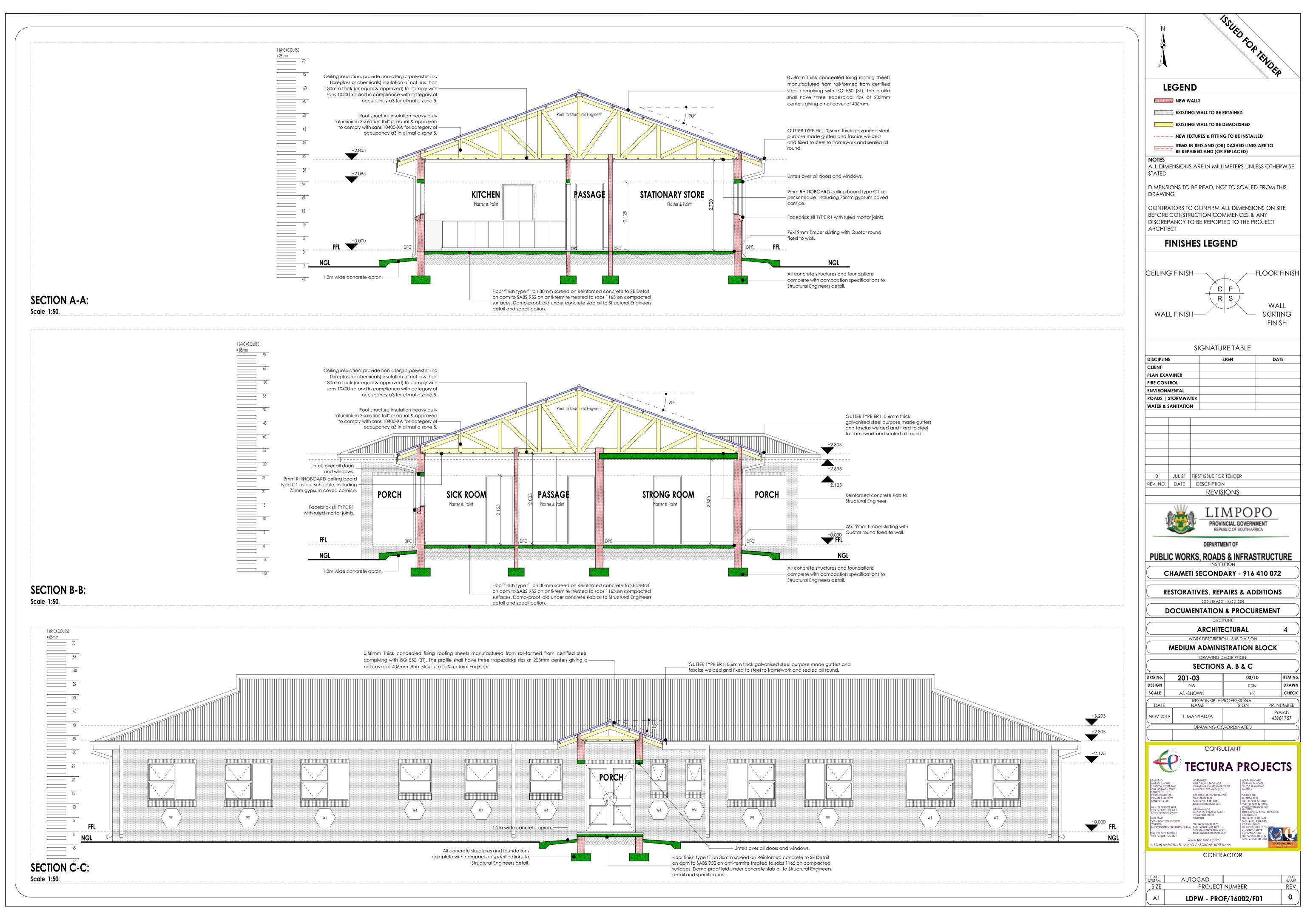
Comply With SABS 934 or latest Revision Fixed To Painted Fibre Cement Fascia Board Together with standard accessories discharging into Downpipe: 110 x 110 x 0.6mm Thick Commercial Grade Galvanised Steel Sheet With Class Z275 Galvanising To Comply With SABS 934 or

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









FINISHES LEGEND FLOORS:

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 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.

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.

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.

S3: CEMENT SAND SCREED 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 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 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 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 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

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)

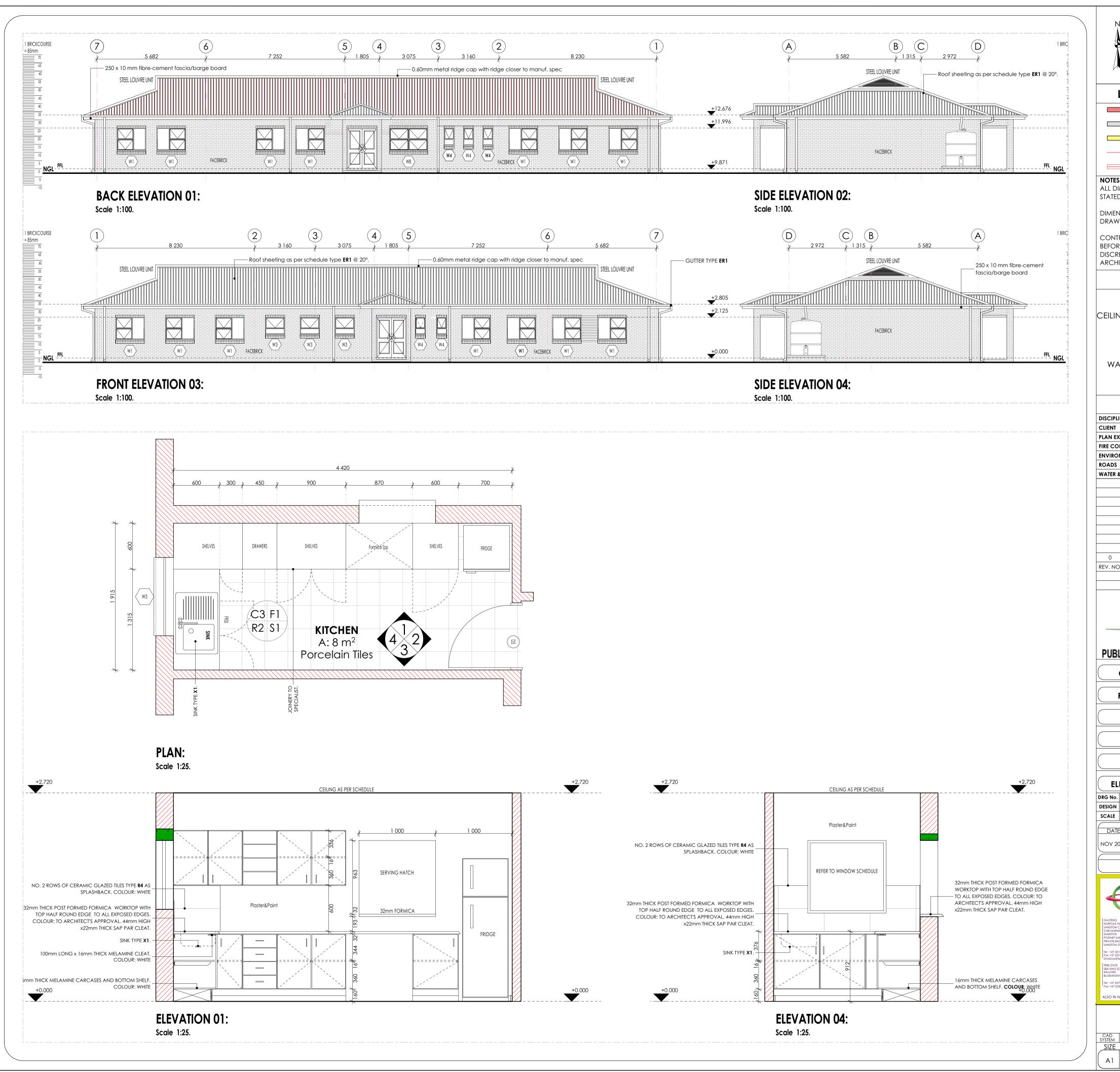
<u>Roofing Sheets:</u> 0.58mm Thick concealed fixing roofing sheets manufactured from roll-formed from certified steel

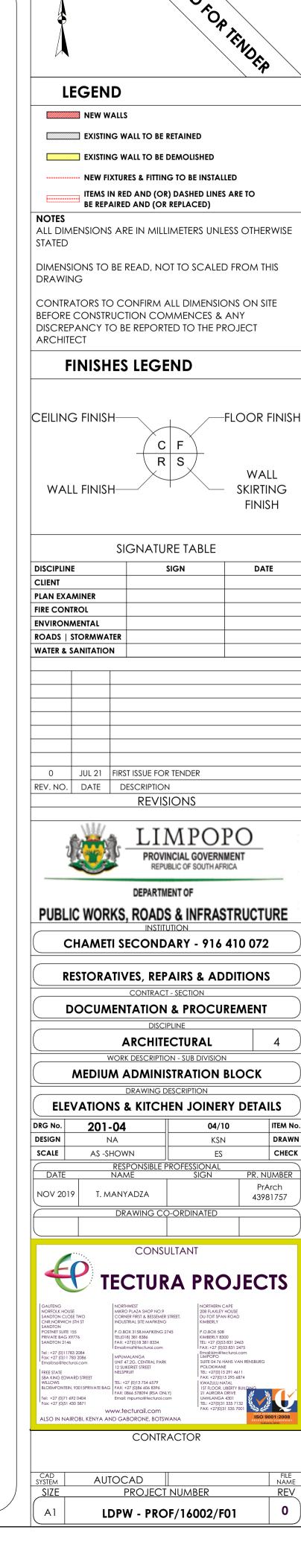
complying with ISQ 550 (3T). The profile shall have three trapezoidal ribs at 203mm centers giving a net cover of 406mm. The rib height shall be 41mm and provide capillary breaks. The male rib shall have spurs at 283mm centers to ensure a positive double interlocking action at side-laps. Each pan shall 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.

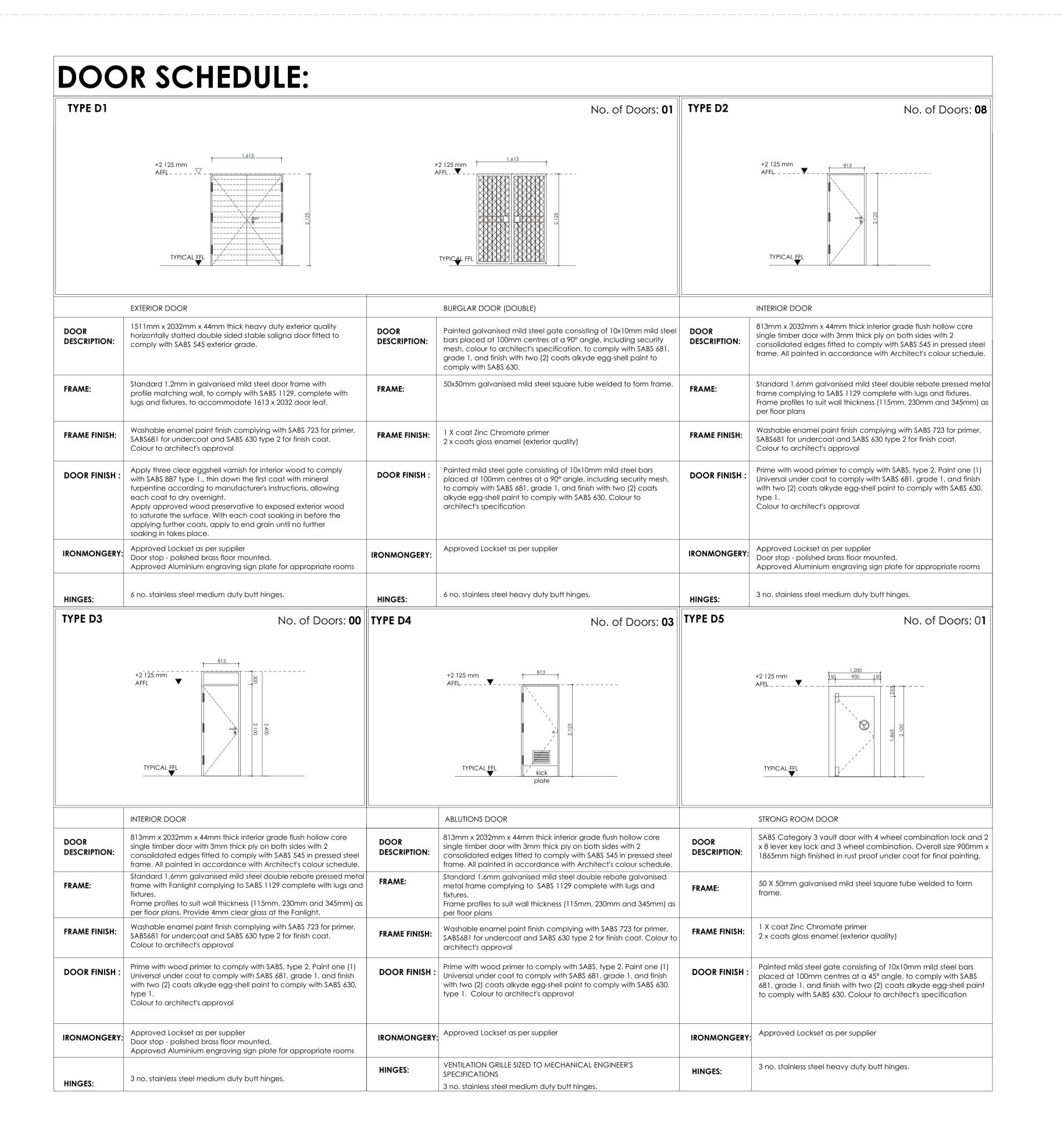
Insulation: SHALL EITHER BE: 1: where there are acoustic ceilings susspeded board, a heavy duty "Aluminium sisalation foil" shall be installed AND 2: where the steel work is exposed, a 50mm "FactoryBoard" manufactured from noncombustible glass fibres and thermo-setting resin binder supplied size 2400mm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

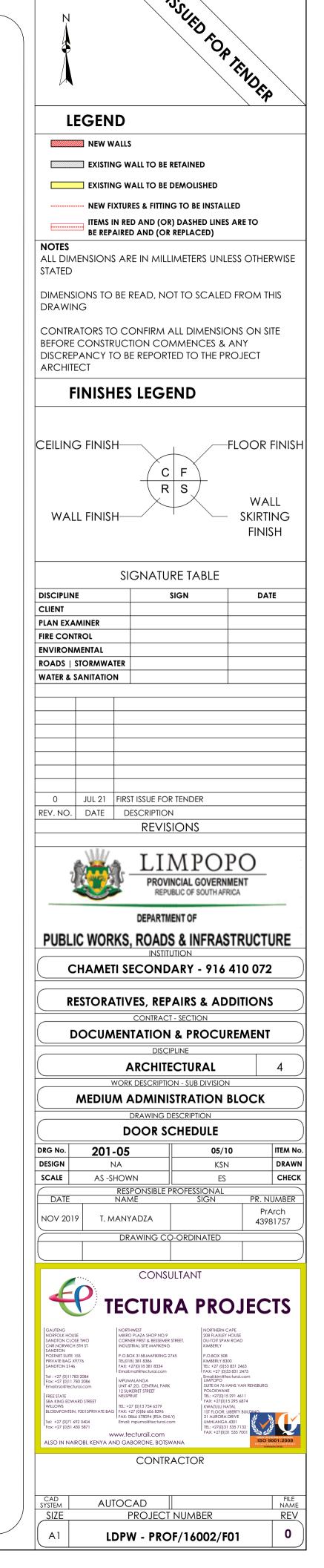
Comply With SABS 934 or latest Revision Fixed To Painted Fibre Cement Fascia Board Together with standard accessories discharging into Downpipe: 110 x110 x 0.6mm Thick Commercial Grade Galvanised Steel Sheet With Class Z275 Galvanising To Comply With SABS 934 or Latest Revision to or built into walls or cast in concrete columns fixed to brickwork or steel including brackets and self-taping screws To

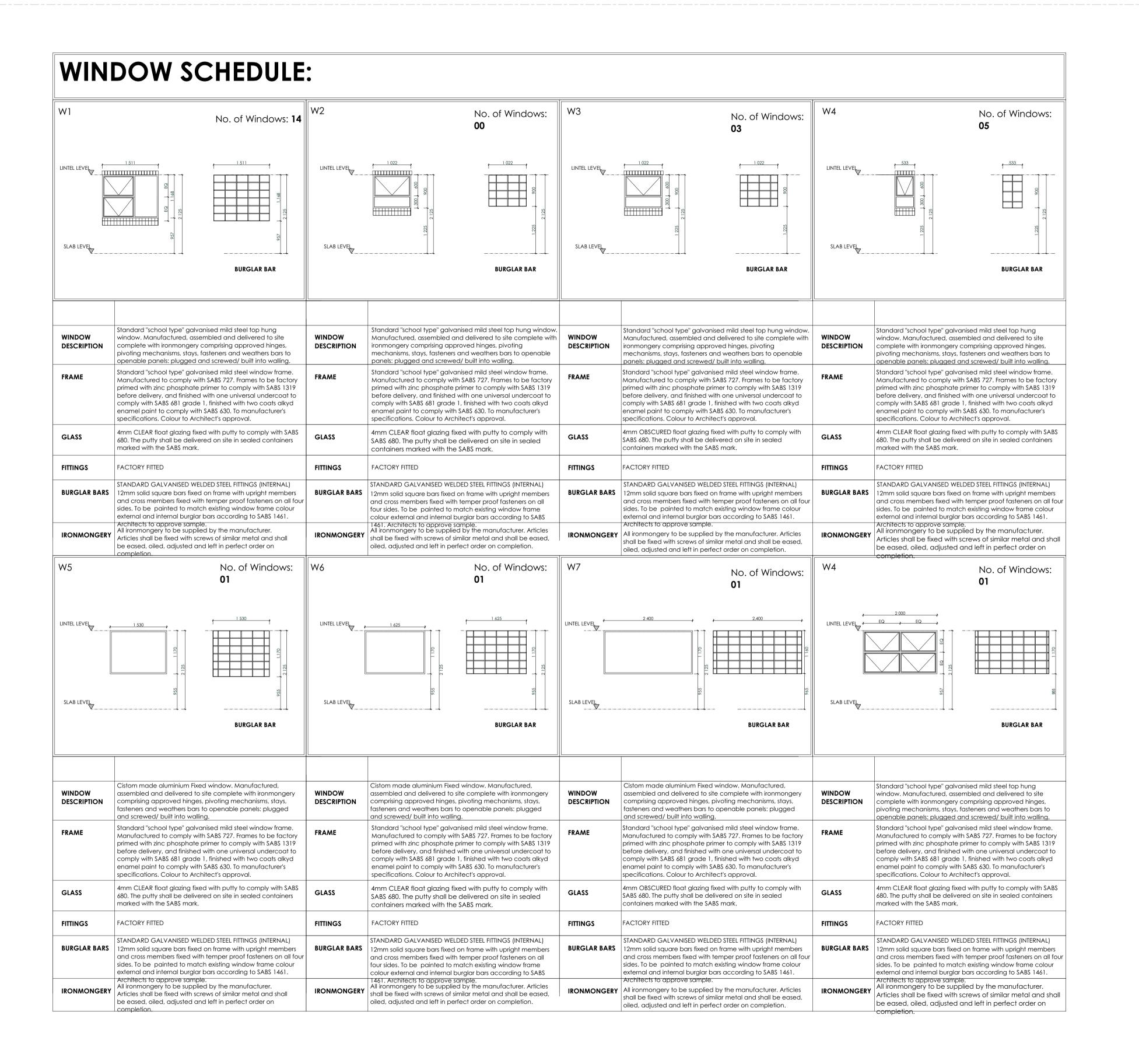
Manufacturer Installation Instructions.

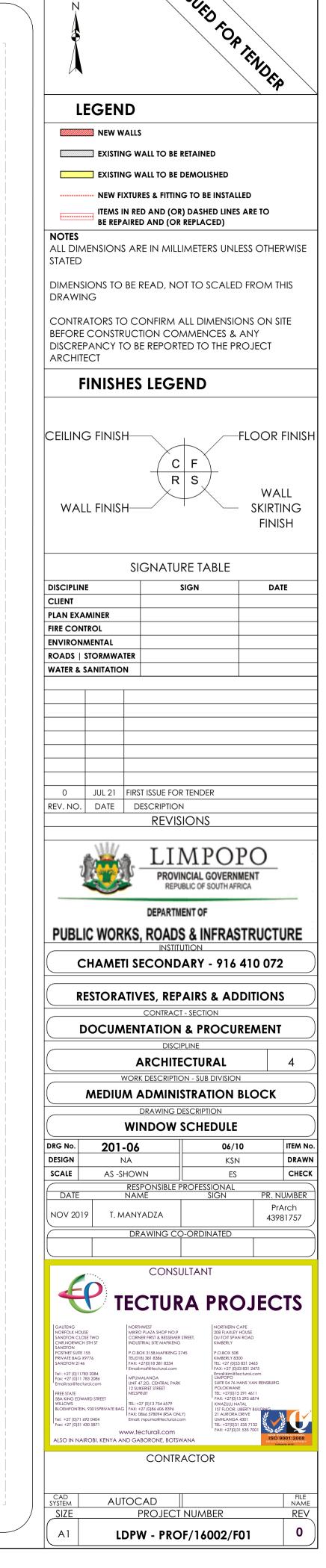












SANITARY SCHEDULE WC'S URINALS & SHOWER

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 "Jazz 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 90° outlet or equal and approved, top inlet closed rim back-to-wall pan to comply with SABS 497. Fitted with Cistern Installed complete with all 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 90° outlet WC or equal and approved top inlet closed rim back-to-wall pan, Floor Mounted to comply with SABS 497 & Fitted with "Jazz" 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

Z4: CERAMIC STANDARD WC (BACK INLET) Vitreous china 90° 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 90° 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.

/itreous china size 415x315x275 mm wall hang bowl urinal to comply with SABS 497. Supplied with suitable 38mmCP domical grating, CP top inlet spreader and two hanger brackets and fitted with exposed flush-valve, and suitable bottle trap chrome finish as per manufacturer's specifications and applicable SABS

WASH-HAND BASIN

Vaal Sanitaryware' vitreous china size 560 x 415mm rounded 'Tuscany', OR EQUAL AND APPROVE basin to comply with SABS 497 with single taphole configuration supplied with integrated overflow and chainstay hole through the centre semi-punched supplied with a 'Tuscany' pedestal and fitted with 1No. '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

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 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 the manufacturer's specifications.

B3: WHITE GLAZED PORCELAIN WHB (VANITY)

Ceramic 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 strict 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; 2No. pillar taps, 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. All brackets and fixing accessories in strict accordance to the manufacturer's specifications.

B5: H/DUTY BASIN & 1No. TAP (FOR LABS)

Ceramic fire clay 560x405mm rectangular 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's

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

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 elsewhere measured), Grade 304 (18/10) Stainless Steel sink to comply with SABS 906 fitted 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 (cupboard 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.

X3: CERAMIC SINK 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)

X4: SINGLE WASH TROUGH (inset) & 2 no. TAPS

600mm 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 back 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 foot piece at height of 915mm AFFL.

SANITARY ACCESSORIES

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 Satin 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 domeheaded 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 necessary accessories in accordance to manufacturer's specifications.

K4: SANITARY BIN (PLASTIC) 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. K5: SOAP HOLDER

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.

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

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 screws

and plastic wall plugs. Installed as per manufacturer's instructions. **K8: PAPER TOWEL DISPENSER** 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 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 to manufacturer's specifications.

K10: ALUMINIUM COAT HOOKS (Multirack) 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 Complete

K11: HAND DRYER (Hands free)

K12: TOWEL RAIL 55mm dia. Polished 900mm long towel rail complete with all necessary accessories in accordance to manufacturer's specifications. Installation height as per

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 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 surround 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 surround 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)

7 mm vertical deco blinds with anodised aluminium headrail fitted with colour coordinated insert. All runners o be wheeled and fitted with individual clutch 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 enclosed cap. Blinds to be face fixed (fixed over the window opening) by means of concealed type fixing brackets.

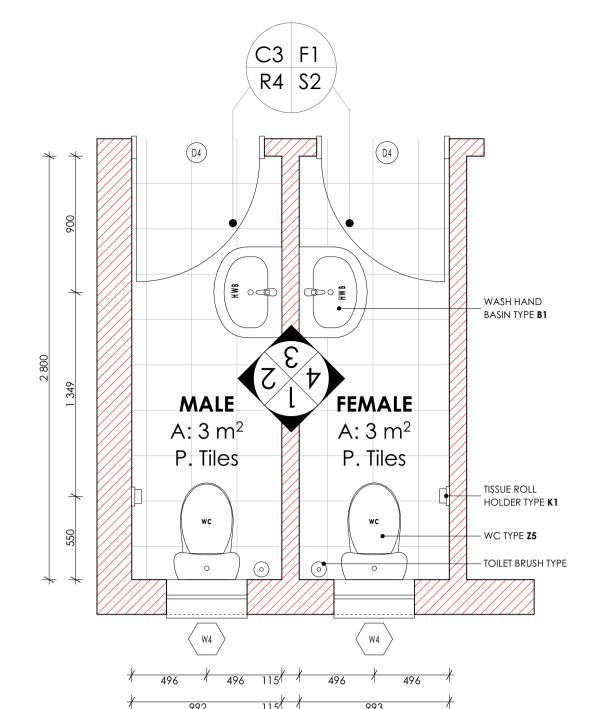
G6: FLOOR DRAIN Cast iron flat type full-flow outlets size 110 mm diameter with centre bolt, , including connections to downpipes.

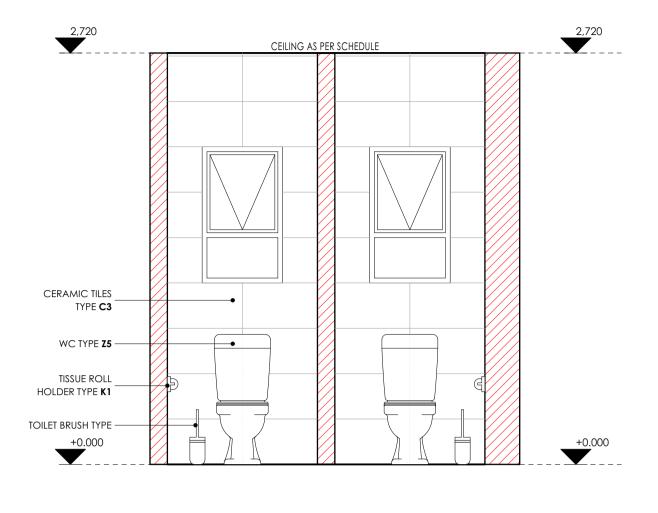
G7: SS FLOOR EXPANSION JOINT COVER

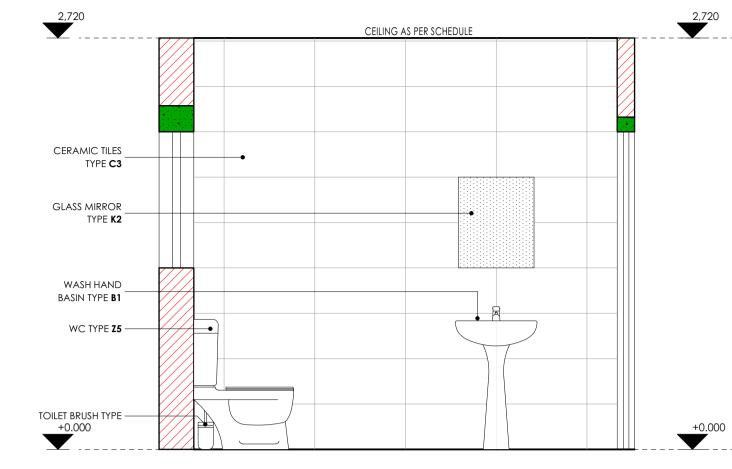
Co-extruded heavy-duty stainless steel movement joint strip, with polyurethane infill (colour grey). To be installed within the tile surface over the 20mm expansion joints, in accordance to the manufacturer's specifications.

G8: CHALKBOARDS- GREEN SURFACE COLOUR

/itrex 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 Utility chalk board surfaces to be matt and finely structured, olive green in colour (Vitrex Colour Reference - Chalk Board Green LM1797/2), supplied complete with integral 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 to the manufacturer's instructions.



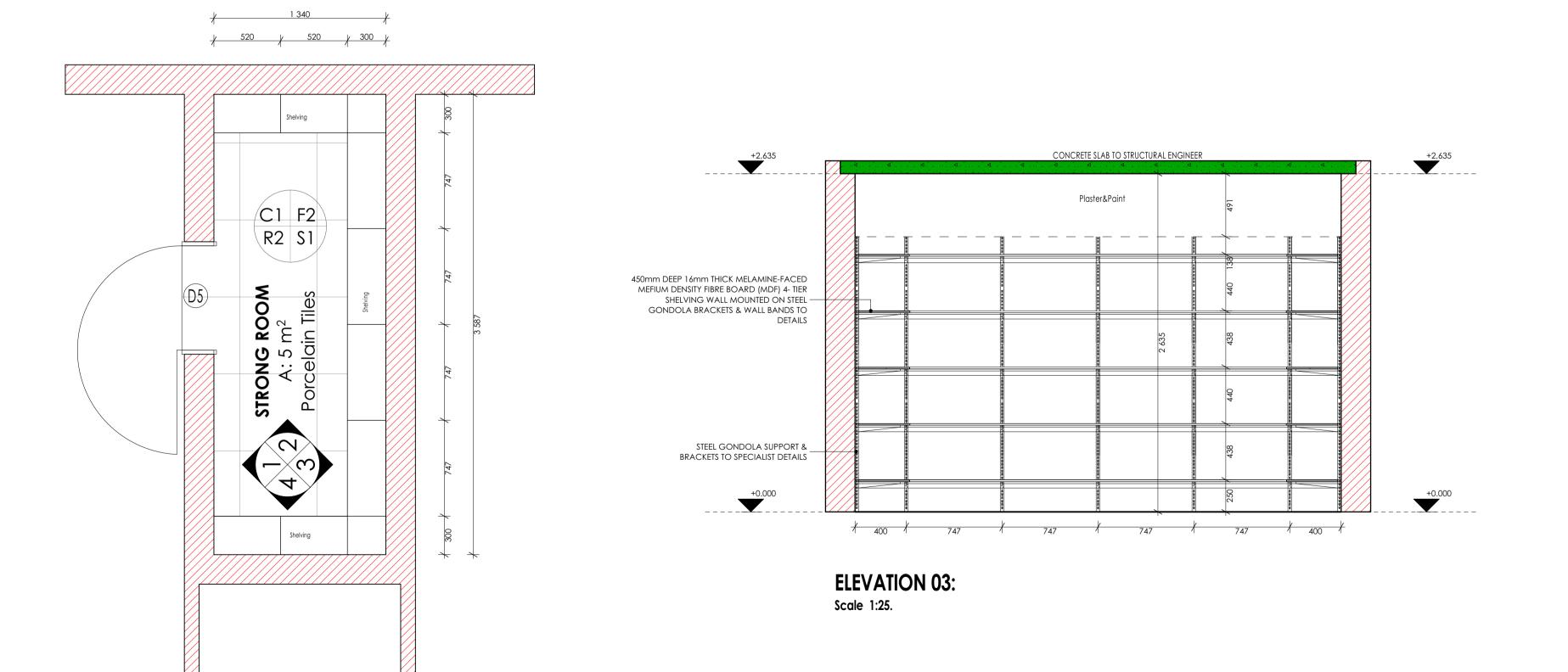




ABLUTIONS PLAN: Scale 1:25.

ELEVATION 01: Scale 1:25.

ELEVATION 02: Scale 1:25.



STRONG ROOM PLAN: Scale 1:25.

LEGEND

MEW WALLS EXISTING WALL TO BE RETAINED EXISTING WALL TO BE DEMOLISHED

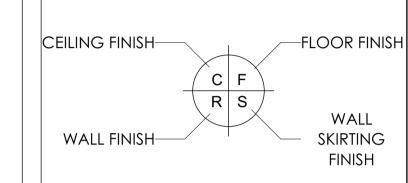
NEW FIXTURES & FITTING TO BE INSTALLED ITEMS IN RED AND (OR) DASHED LINES ARE TO BE REPAIRED AND (OR REPLACED)

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE

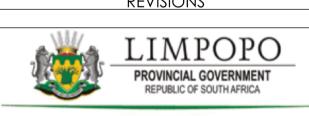
DIMENSIONS TO BE READ, NOT TO SCALED FROM THIS DRAWING

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

FINISHES LEGEND



		SI	GNATURE TABLE	
DISCIPLIN	IE		SIGN	DATE
CLIENT				
PLAN EXA	AMINER			
FIRE CON	TROL			
ENVIRON	MENTAL			
ROADS	STORMWA	TER		
WATER &	SANITATIO	N		
0	JUL 21	FIRS	T ISSUE FOR TENDER	·



REV. NO. DATE DESCRIPTION

DEPARTMENT OF

PUBLIC WORKS, ROADS & INFRASTRUCTURE CHAMETI SECONDARY - 916 410 072

DOCUMENTATION & PROCUREMENT

RESTORATIVES, REPAIRS & ADDITIONS CONTRACT - SECTION

DISCIPLINE **ARCHITECTURAL** WORK DESCRIPTION - SUB DIVISION

MEDIUM ADMINISTRATION BLOCK DRAWING DESCRIPTION ABLUTIONS & STRONG ROOM DTLS

201-07 KSN SCALE CHECK AS -SHOWN RESPONSIBLE PROFESSIONAL NAME SIGN PR. NUMBER NOV 2019 T. MANYADZA 43981757 DRAWING CO-ORDINATED CONSULTANT

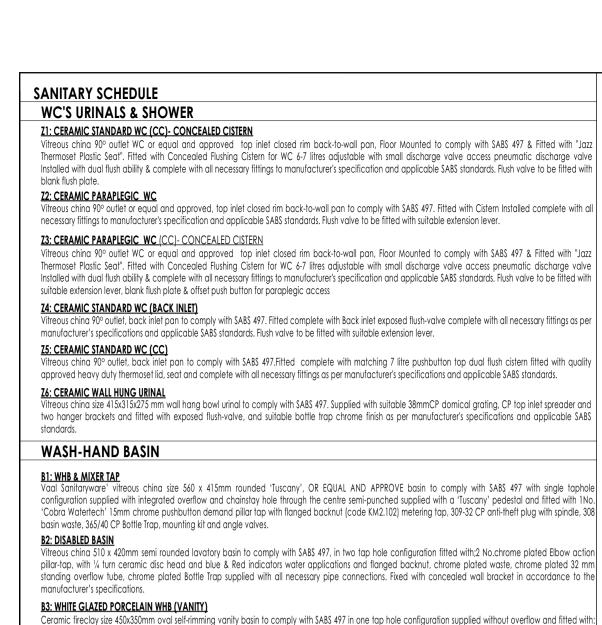


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ALSO IN NAIROBI, KENYA AND GABORONE, BOTSWANA

CONTRACTOR

AUTOCAD PROJECT NUMBER LDPW - PROF/16002/F01



itreous china size 415x315x275 mm wall hang bowl urinal to comply with SABS 497. Supplied with suitable 38mmCP domical grating, CP top inlet spreader and two hanger brackets and fitted with exposed flush-valve, and suitable bottle trap chrome finish as per manufacturer's specifications and applicable SABS

configuration supplied with integrated overflow and chainstay hole through the centre semi-punched supplied with a 'Tuscany' pedestal and fitted with 1No. '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

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 ¼ turn ceramic disc head and blue & Red indicators water applications and flanged backnut, chrome plated waste, chrome plated 32 mm

Ceramic 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 strict

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; 2No. pillar taps, 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. All brackets and fixing accessories in strict accordance to the manufacturer's specifications.

B5: H/DUTY BASIN & 1No. TAP (FOR LABS)

Ceramic fire clay 560x405mm rectangular 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's

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

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 elsewhere measured), Grade 304 (18/10) Stainless Steel sink to comply with SABS 906 fitted 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 (cupboard 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.

X3: CERAMIC SINK 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-conceoled brackets supplied with all necessary accessories (all to be acid resistant)

X4: SINGLE WASH TROUGH (inset) & 2 no. TAPS

500mm 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 back 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 foot

SANITARY ACCESSORIES

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 Satin 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 domeheaded 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 necessary 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. K5: SOAP HOLDER

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.

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 screws

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 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 to

manufacturer's specifications. K10: ALUMINIUM COAT HOOKS (Multirack)
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 Complete

K11: HAND DRYER (Hands free)

K12: TOWEL RAIL 55mm dia. Polished 900mm long towel rail complete with all necessary accessories in accordance to manufacturer's specifications. Installation height as per

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 lenath, 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 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 surround 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 surround

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)

7 mm vertical deco blinds with anodised aluminium headrail fitted with colour coordinated insert. All runners o be wheeled and fitted with individual clutch 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 enclosed cap. Blinds to be face fixed (fixed over the window opening) by means of concealed type fixing brackets.

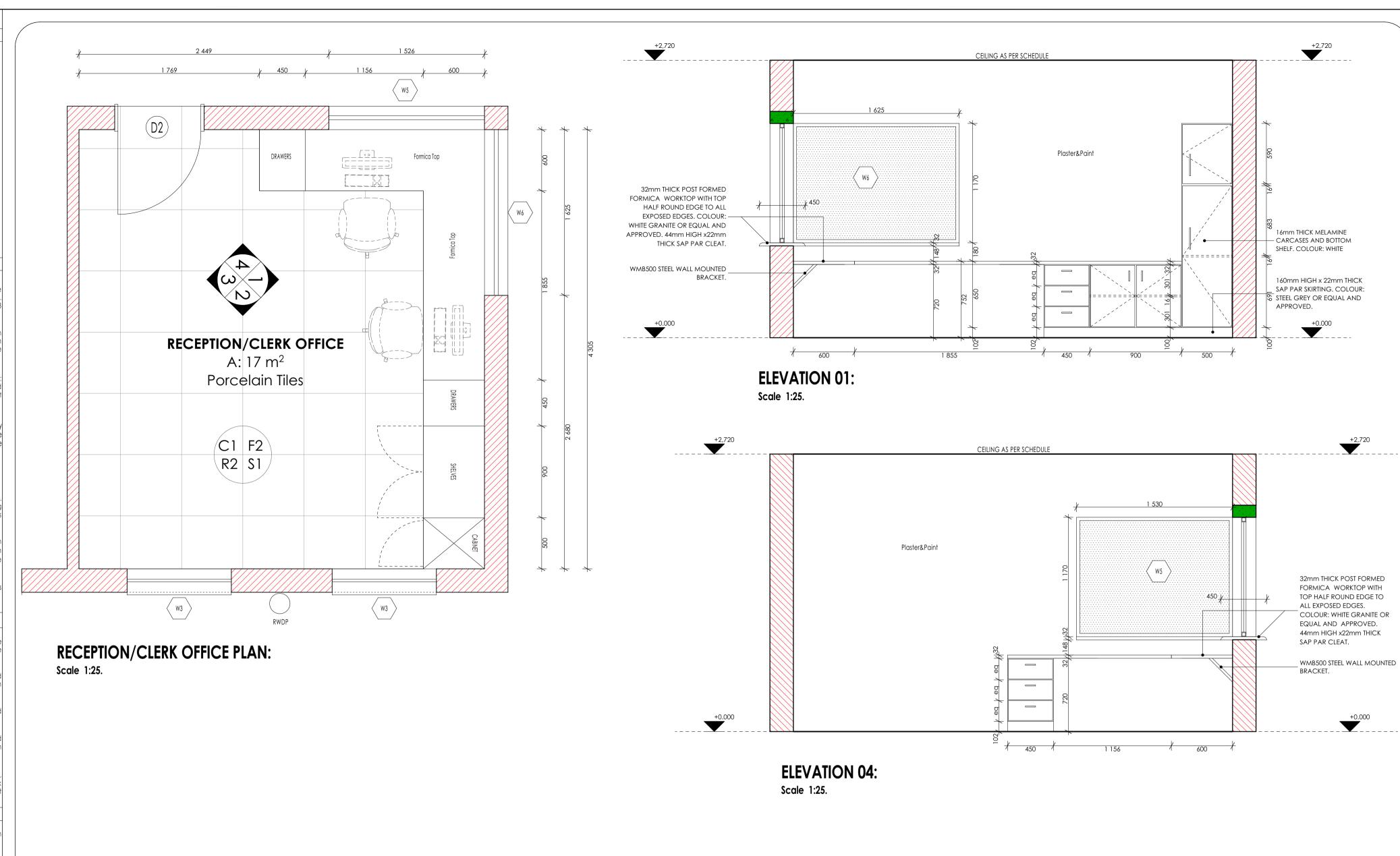
G6: FLOOR DRAIN Cast iron flat type full-flow outlets size 110 mm diameter with centre bolt, , including connections to downpipes.

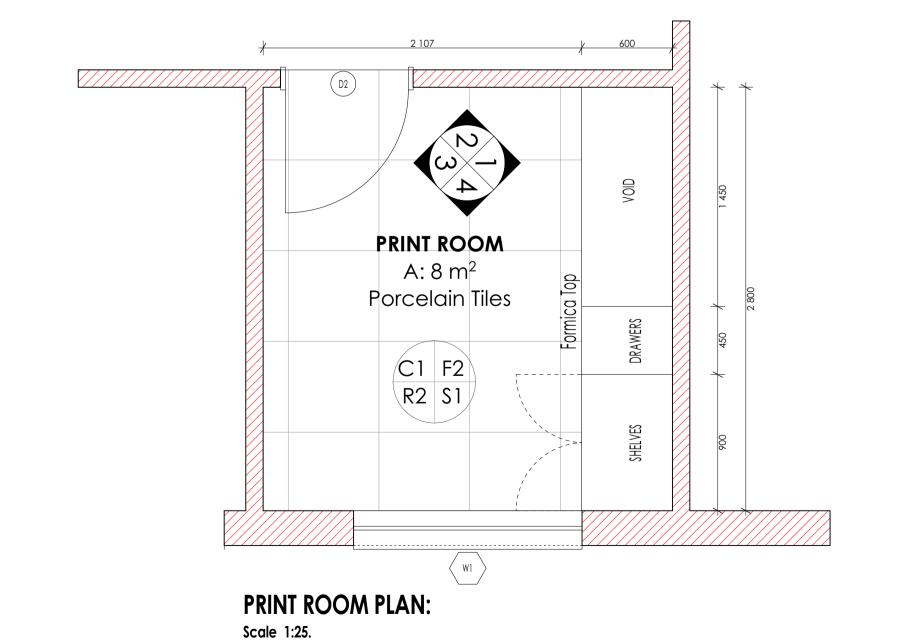
G7: SS FLOOR EXPANSION JOINT COVER

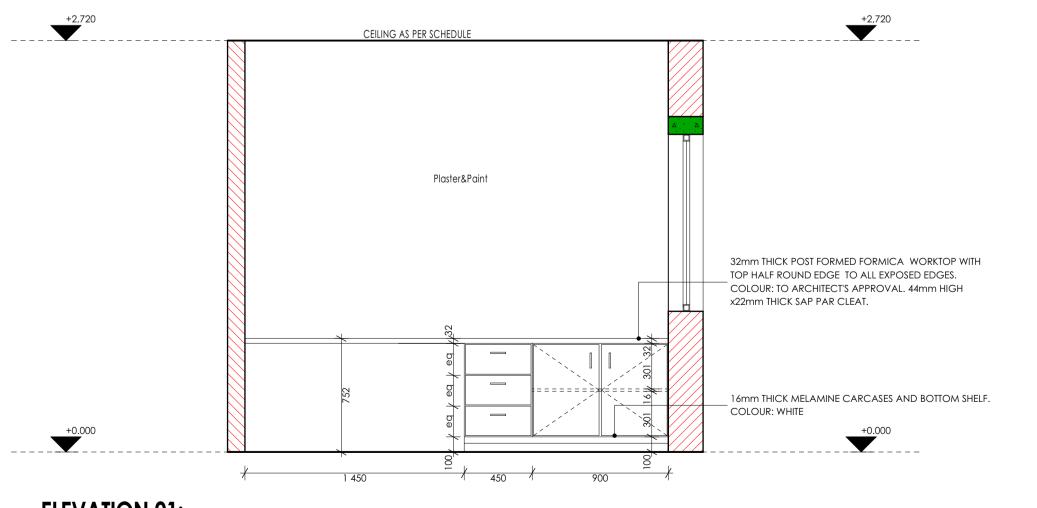
Co-extruded heavy-duty stainless steel movement joint strip, with polyurethane infill (colour grey). To be installed within the tile surface over the 20mm expansion joints, in accordance to the manufacturer's specifications.

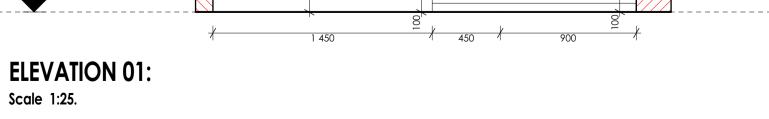
G8: CHALKBOARDS- GREEN SURFACE COLOUR

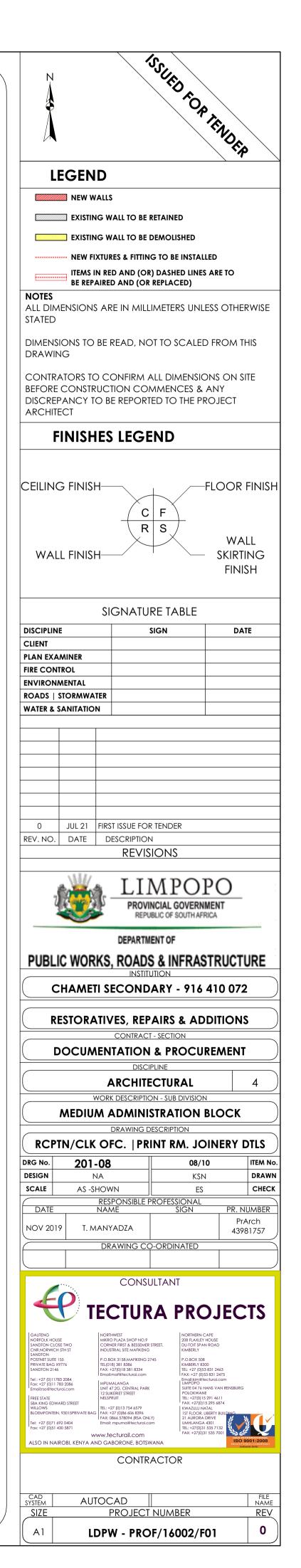
/itrex system 1000 standard WRITEBOARD or EQUAL & APPROVED vitreous enamelled steel utility school chalkboards wall-mounted size 4800mm x 1140mm high manufactured in accordance with SABS Standard CKS 36/2004 Edition 4 and suitable for Class 1: Heavy Duty applications, as defined therein. Enamel steel Utility chalk board surfaces to be matt and finely structured, olive green in colour (Vitrex Colour Reference - Chalk Board Green LM1797/2), supplied complete with integral 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 to the manufacturer's instructions.











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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 "Jazz 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 90° outlet or equal and approved, top inlet closed rim back-to-wall pan to comply with SABS 497. Fitted with Cistern Installed complete with all 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 90° outlet WC or equal and approved top inlet closed rim back-to-wall pan, Floor Mounted to comply with SABS 497 & Fitted with "Jazz" 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 90° 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 90° 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.

itreous china size 415x315x275 mm wall hang bowl urinal to comply with SABS 497. Supplied with suitable 38mmCP domical grating, CP top inlet spreader and two hanger brackets and fitted with exposed flush-valve, and suitable bottle trap chrome finish as per manufacturer's specifications and applicable SABS

WASH-HAND BASIN

Vaal Sanitaryware' vitreous china size 560 x 415mm rounded 'Tuscany', OR EQUAL AND APPROVE basin to comply with SABS 497 with single taphole configuration supplied with integrated overflow and chainstay hole through the centre semi-punched supplied with a 'Tuscany' pedestal and fitted with 1No. '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.

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 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 the manufacturer's specifications.

B3: WHITE GLAZED PORCELAIN WHB (VANITY)

Ceramic 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 strict 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; 2No. pillar taps, 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. All brackets and fixing accessories in strict accordance to the manufacturer's specifications.

B5: H/DUTY BASIN & 1No. TAP (FOR LABS)

Ceramic fire clay 560x405mm rectangular 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's

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

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 elsewhere measured), Grade 304 (18/10) Stainless Steel sink to comply with SABS 906 fitted 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 (cupboard 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. X3: CERAMIC SINK

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-conceoled brackets supplied with all necessary accessories (all to be acid resistant)

600mm 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 back 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 foot

SANITARY ACCESSORIES

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 Satin 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 domeheaded 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 necessary 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.

K5: SOAP HOLDER 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.

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 screws and plastic wall plugs. Installed as per manufacturer's instructions.

K8: PAPER TOWEL DISPENSER 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 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 to 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 Complete

K12: TOWEL RAIL 55mm dia. Polished 900mm long towel rail complete with all necessary accessories in accordance to manufacturer's specifications. Installation height as per

K11: HAND DRYER (Hands free)

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 lenath, 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 surround 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 surround 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) 7 mm vertical deco blinds with anodised aluminium headrail fitted with colour coordinated insert. All runners o be wheeled and fitted with individual clutch 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 enclosed

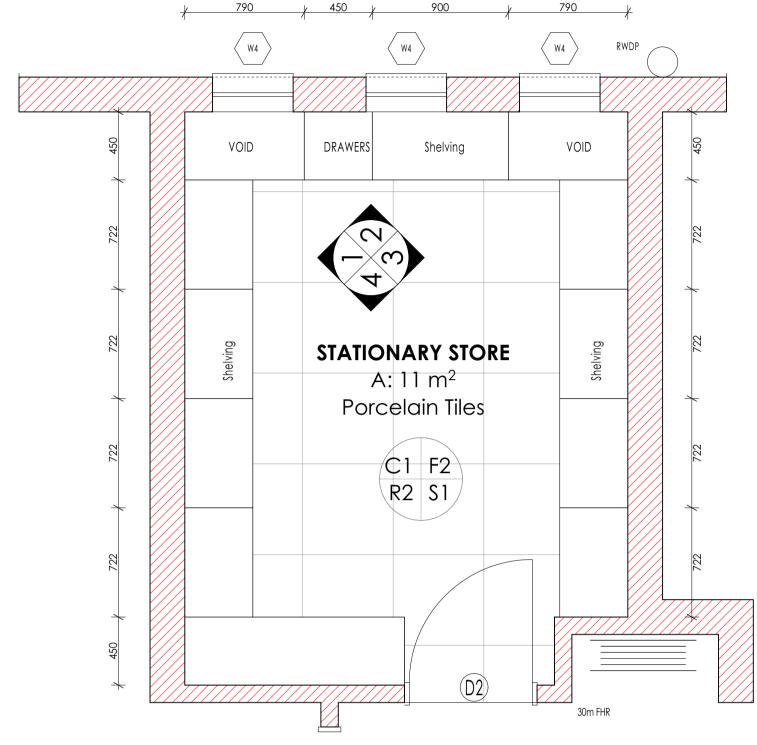
cap. Blinds to be face fixed (fixed over the window opening) by means of concealed type fixing brackets. G6: FLOOR DRAIN Cast iron flat type full-flow outlets size 110 mm diameter with centre bolt, , including connections to downpipes.

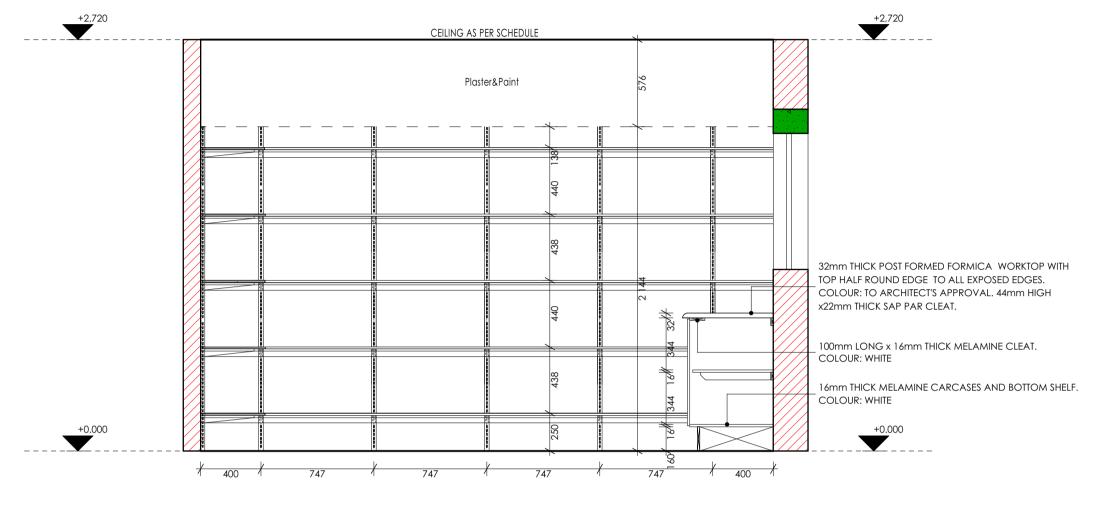
G7: SS FLOOR EXPANSION JOINT COVER

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

/itrex 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 Utility chalk board surfaces to be matt and finely structured, olive green in colour (Vitrex Colour Reference - Chalk Board Green LM1797/2), supplied complete with integral 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 to the manufacturer's instructions.

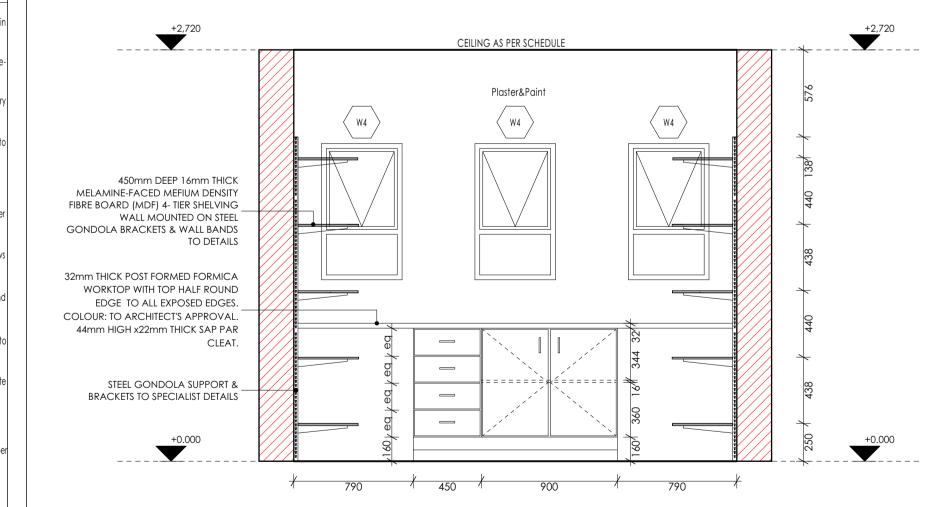




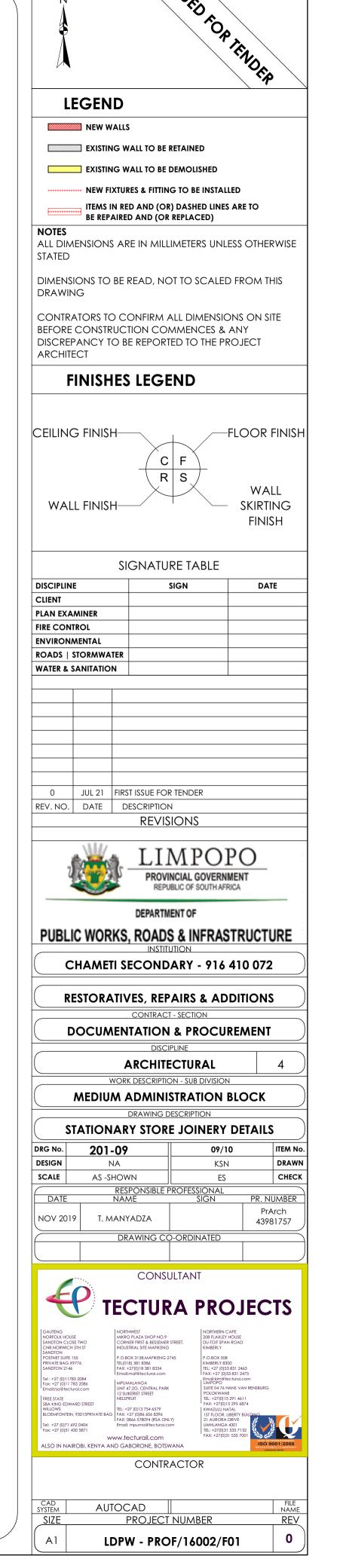
ELEVATION 01:

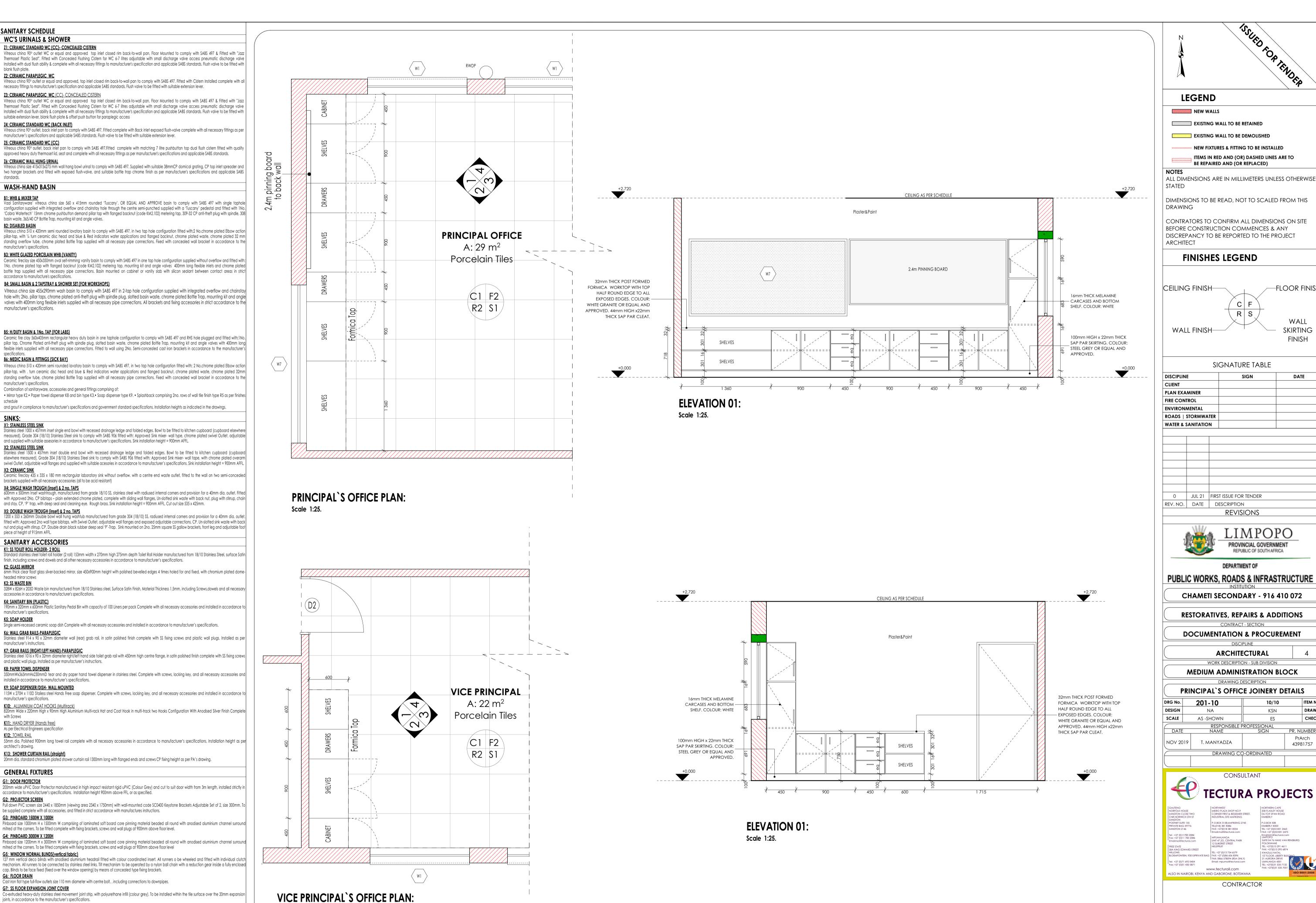
STATIONARY STORE PLAN:

Scale 1:25.



ELEVATION 02: Scale 1:25.





G8: CHALKBOARDS- GREEN SURFACE COLOUR

accordance to the manufacturer's instructions.

/itrex 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 Utility chalk board surfaces to be matt and finely structured, olive green in colour (Vitrex Colour Reference - Chalk Board Green LM1797/2), supplied complete with integral anodised aluminium chalk rail (ACR), fixing components and secured in position to brickwork. The Chalk boards are to be fixed in position strictly in Scale 1:25.

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 SAB\$ 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

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.

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.

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.

S3: CEMENT SAND SCREED

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

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 files fixed with approved adhesives and grout in compliance to manufacturer's specifications and government standard

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.

specifications. Tiles to be laid to full ceiling height. All to be manufactured and installed in strict compliance SABS 22 Standard. All to be

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 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 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)

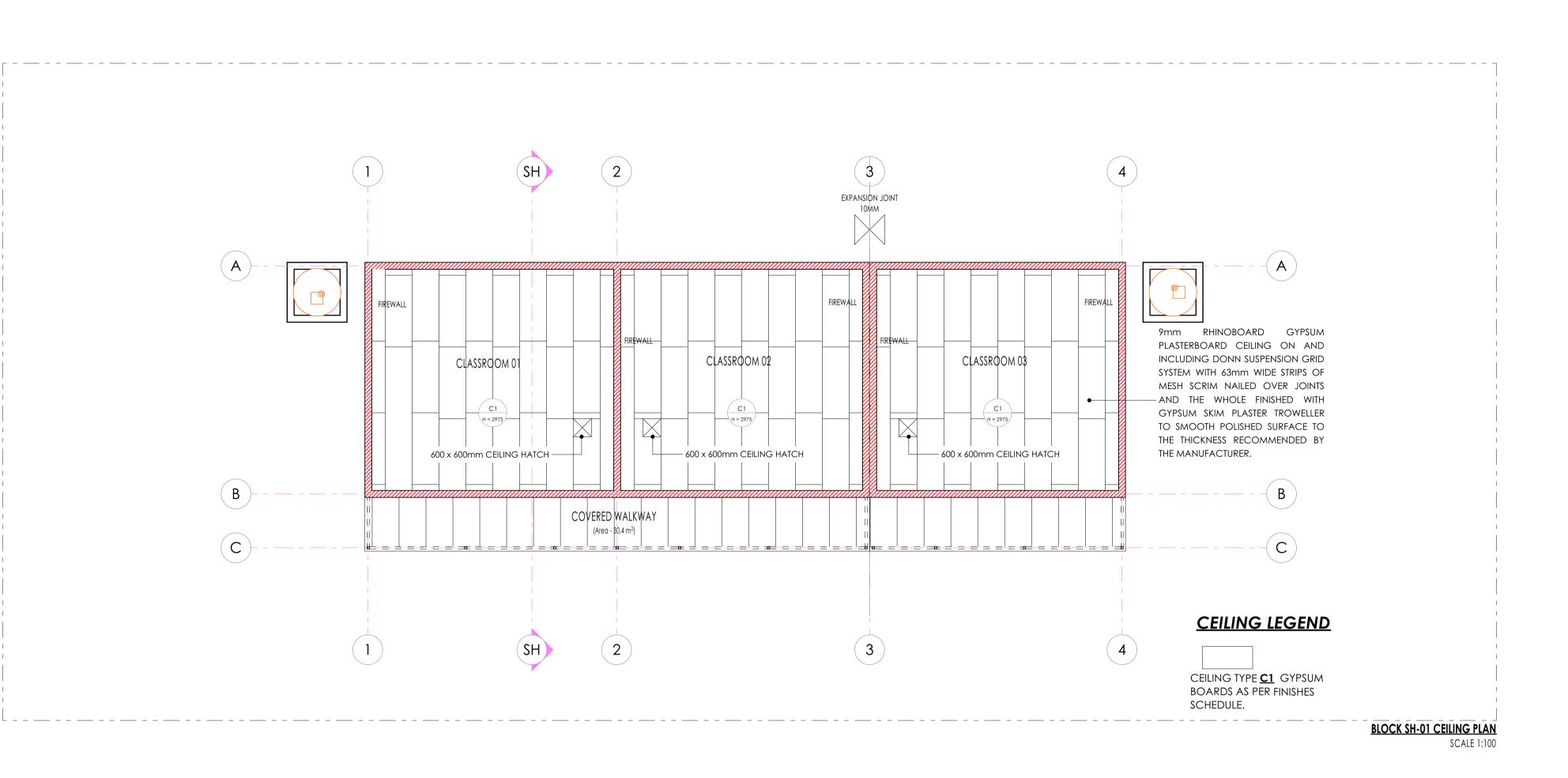
 $\underline{\textbf{Roofing Sheets:}}\ 0.58 \text{mm Thick concealed fixing roofing sheets manufactured from roll-formed from certified steel}$

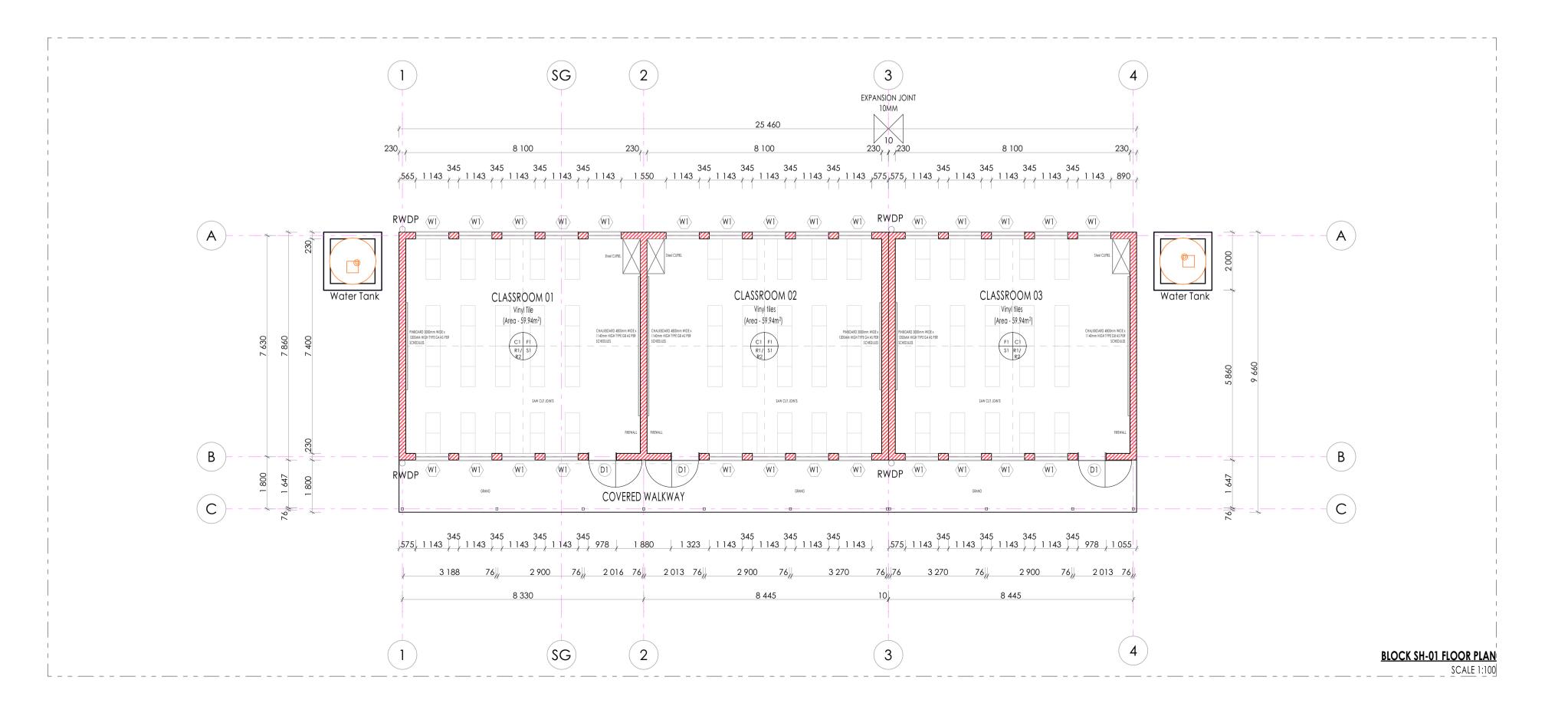
complying with ISQ 550 (3T). The profile shall have three trapezoidal ribs at 203mm centers giving a net cover of 406mm. The rib height shall be 41mm and provide capillary breaks. The male rib shall have spurs at 283mm centers to ensure a positive double interlocking action at side-laps. Each pan shall 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

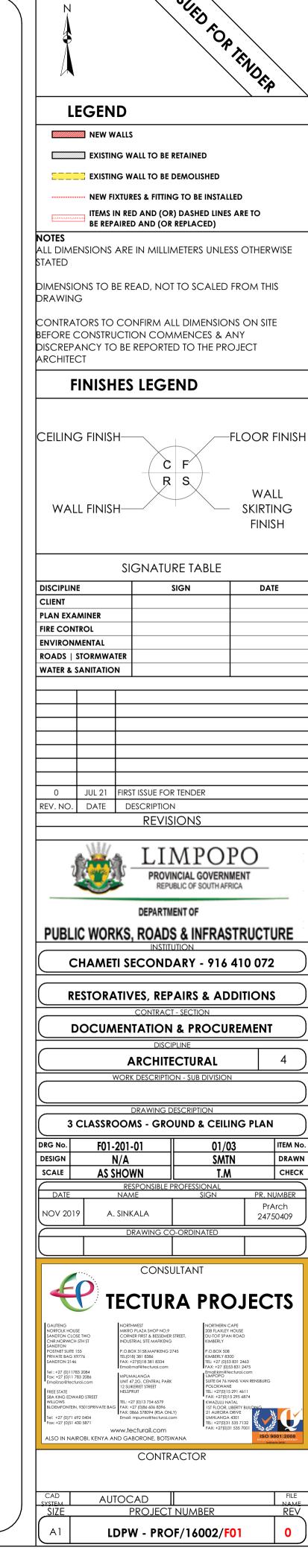
Insulation: SHALL EITHER BE: 1: where there are acoustic ceilings susspeded board, a heavy duty "Aluminium sisalation foil" shall be installed AND 2: where the steel work is exposed, a 50mm "FactoryBoard" manufactured from noncombustible glass fibres and thermo-setting resin binder supplied size 2400mm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







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 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.

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.

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.

S3: CEMENT SAND SCREED 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

WALL FINISHES: R1: FACE BRICK

floor finish to PA's approval. All to be manufactured and installed in strict compliance With SABS 1083 or latest revision.

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 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 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 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 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

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)

 $\underline{\textbf{Roofing Sheets:}}\ 0.58 \text{mm Thick concealed fixing roofing sheets manufactured from roll-formed from certified steel}$

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.

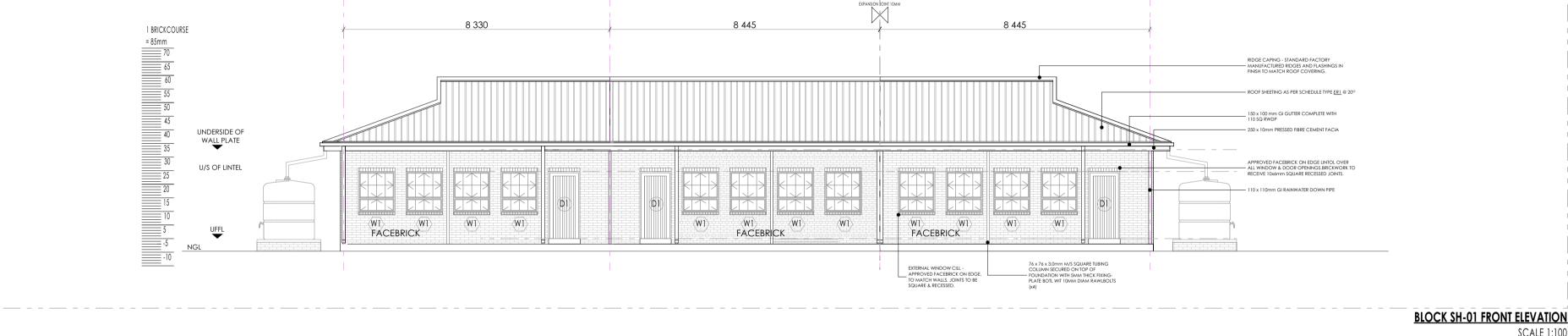
Insulation: SHALL EITHER BE: 1: where there are acoustic ceilings susspeded board, a heavy duty "Aluminium sisalation foil" shall be installed AND 2: where the steel work is exposed, a 50mm "FactoryBoard" manufactured from noncombustible glass fibres and thermo-setting resin binder supplied size 2400mm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

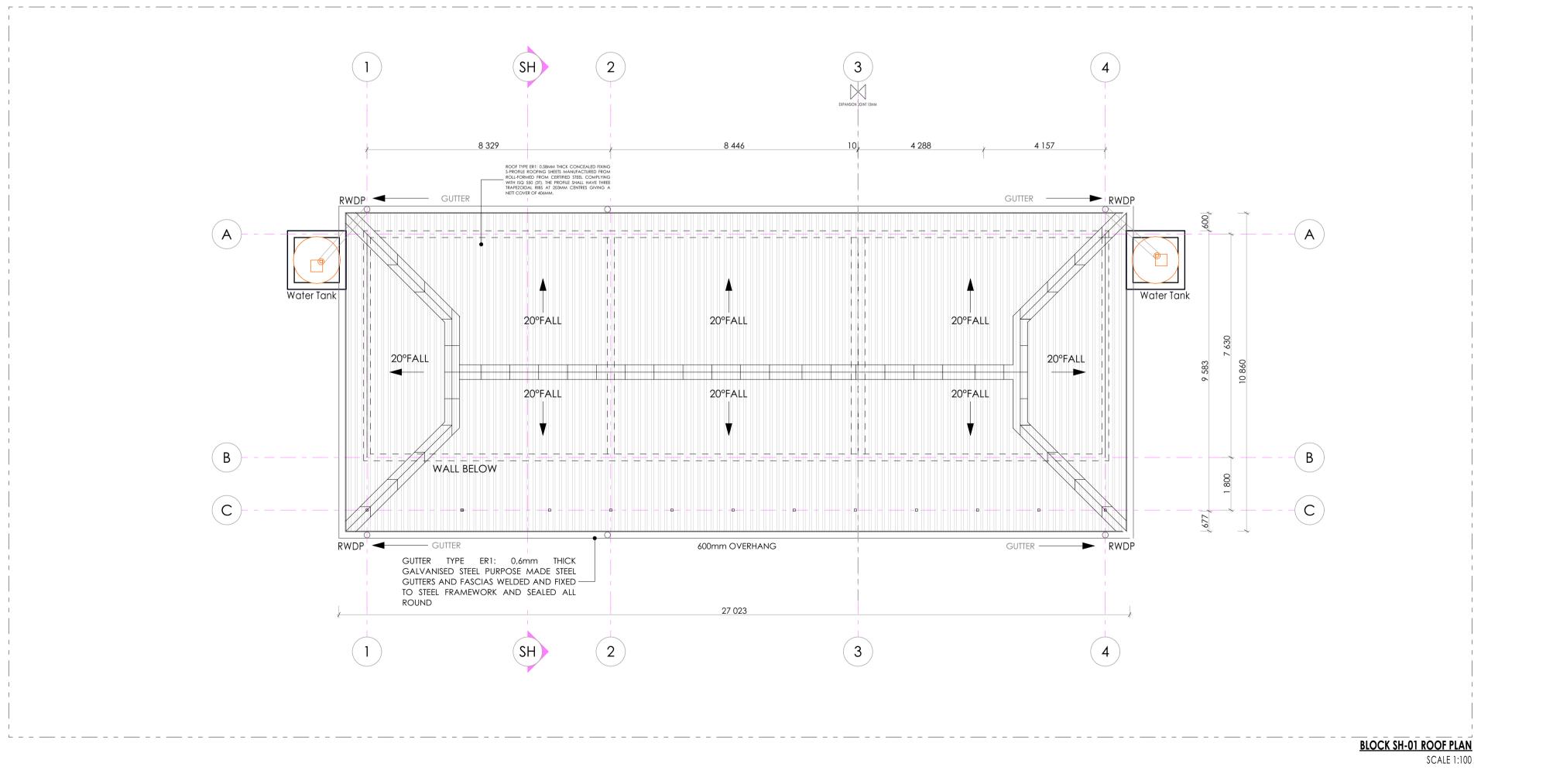
Galvanised Steel (GI) Gutter: 150mm Wide x 100mm Deep x 0.6mm Eaves Gutter of Commercial Grade Steel With Class Z275 Galvanising To Comply With SABS 934 or latest Revision Fixed To Painted Fibre Cement Fascia Board Together with standard accessories discharging into

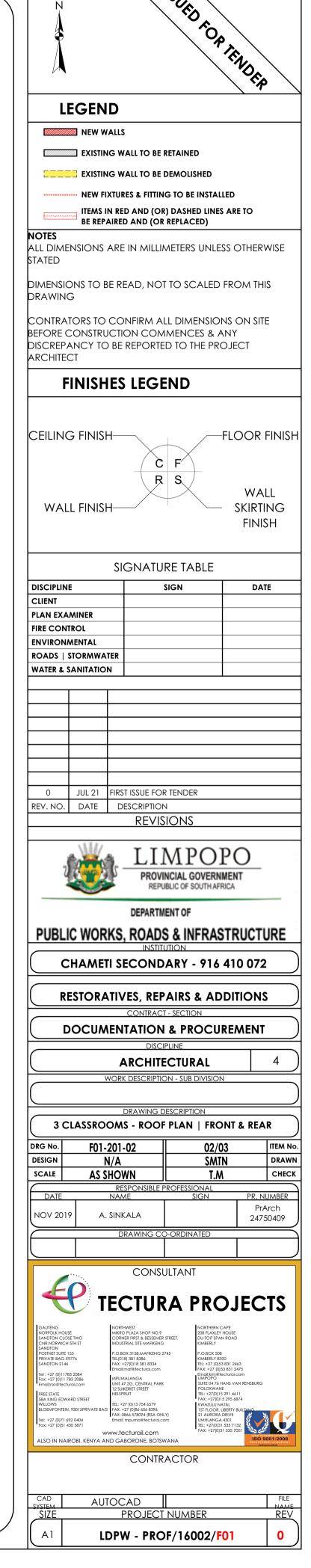
Downpipe: 110 x110 x 0.6mm Thick Commercial Grade Galvanised Steel Sheet With Class Z275 Galvanising To Comply With SABS 934 or Latest Revision to or built into walls or cast in concrete columns fixed to brickwork or steel including brackets and self-taping screws To Manufacturer Installation Instructions.

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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BLOCK SH-01 REAR ELEVATION

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

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 stric 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 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.

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U/S OF LINTEL

S3: CEMENT SAND SCREED 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

nanufactured and installed in strict compliance SABS 22 Standard.

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

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)

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

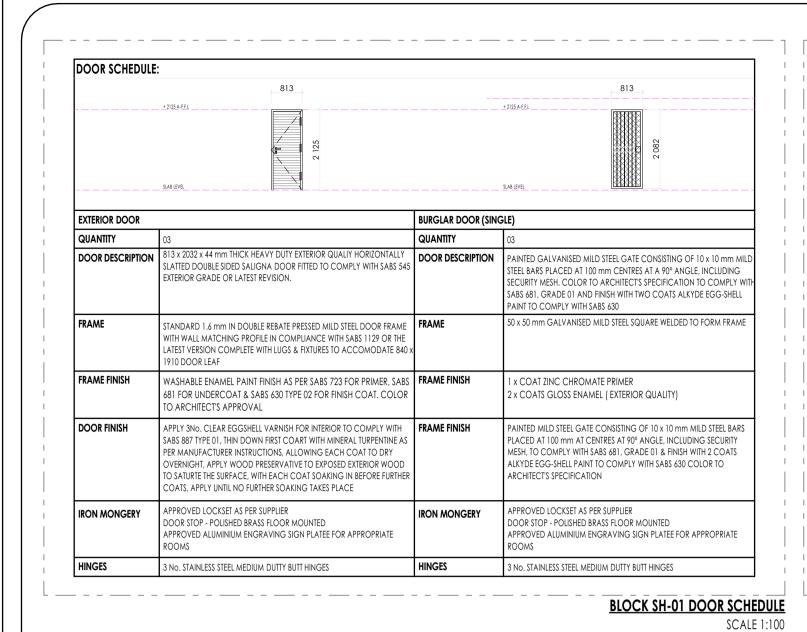
AND 2: where the steel work is exposed, a 50mm "FactoryBoard" manufactured from noncombustible glass fibres and thermo-setting resin binder supplied size 2400mm x 1200mm and 80kg/mÑ and finished with white metalized foil. Galvanised Steel (GI) Gutter: 150mm Wide x 100mm Deep x 0.6mm Eaves Gutter of Commercial 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

Insulation: SHALL EITHER BE: 1: where there are acoustic ceilings susspeded board, a heavy duty "Aluminium sisalation foil" shall be installed

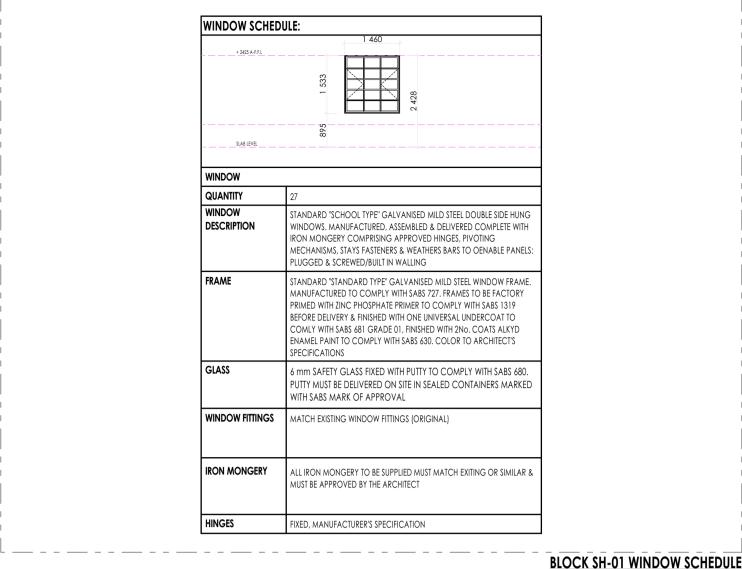
Downpipe: 110 x110 x 0.6mm Thick Commercial Grade Galvanised Steel Sheet With Class Z275 Galvanising To Comply With SABS 934 or Latest Revision to or built into walls or cast in concrete columns fixed to brickwork or steel including brackets and self-taping screws To

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.

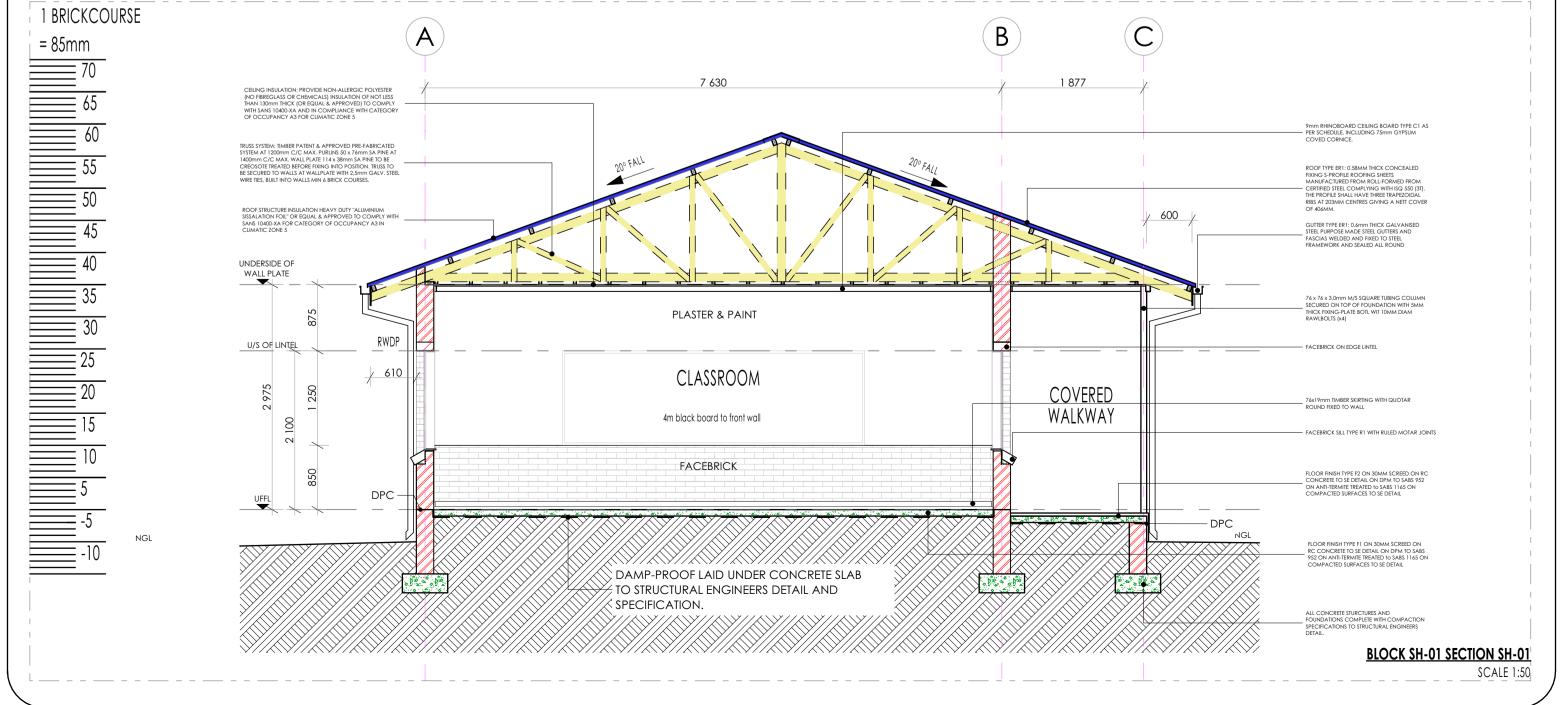




FACEBRICK



FACEBRICK **BLOCK SH-01 SIDE ELEVATION BLOCK SH-01 SIDE ELEVATION**



SCALE 1:100

SANITARY SCHEDULE

WC'S URINALS & SHOWER

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

Z1: CERAMIC STANDARD WC (CC)- CONCEALED CISTERN

/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

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.

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

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

two hanger brackets and fitted with exposed flush-valve, and suitable bottle trap chrome finish as per manufacturer's specifications and applicable SABS 2mm 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 basin waste, 365/40 CP Bottle Trap, mounting kit and angle valves.

RECOUNTIES BASIN B 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 the

B3: WHITE GLAZED PORCELAIN WHB (VANITY)

mic firectay 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) /itreous 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) 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

86: MEDIC BASIN & FITTINGS (SICK BAY)

Wifeous china 310 x 420mm semi rounded lavatory basin to comply with SABS 497, in two tap hole configuration fitted with; 2 No.chrome plated Elbow actic 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 t manufacturer's specifications. Combination of sanitaryware, accessories and general fittings comprising of:

Paper towel dispenser K8 and bin type K3.

• 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.

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 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 (cupboa 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, Fitter 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 ba 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

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 Sa finish, including screws and dowels and all other necessary accessories in accordance to manufacturer's specifications.

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.

n 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. 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 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

G5: WINDOW NORMAL BLINDS(vertical fabric)

accordance with the manufacturer's instructions.

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 lenath, 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 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 surrou mitred at the corners. To be fitted complete with fixing brackets, screws and wall plugs at 900mm above floor level.

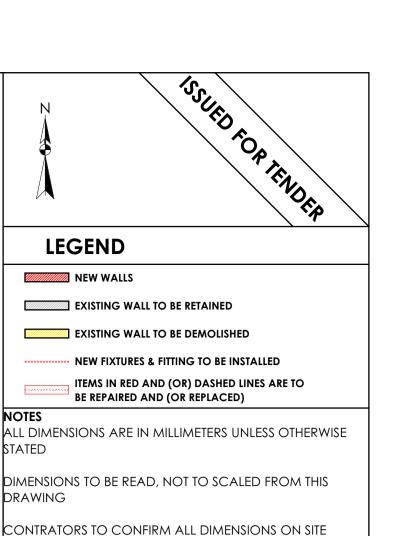
Pinboard size 1200mm H x 3000mm W comprising of laminated soft board core pinning material beaded all round with anodised aluminium channel surrour mitred at the corners. To be fitted complete with fixing brackets, screws and wall plugs at 900mm above floor level

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 Util 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

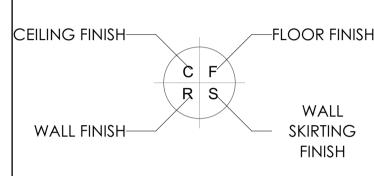


FINISHES LEGEND

BEFORE CONSTRUCTION COMMENCES & ANY

ARCHITECT

DISCREPANCY TO BE REPORTED TO THE PROJECT



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CHAMETI SECONDARY - 916 410 072 RESTORATIVES, REPAIRS & ADDITIONS

DOCUMENTATION & PROCUREMENT

ARCHITECTURAL WORK DESCRIPTION - SUB DIVISION

SECTION | SIDE ELEVATIONS | SCHEDULES

F01-201-03 **SMTN** AS SHOWN T.M CHECK NOV 2019 A. SINKALA 24750409



www.tecturail.com LSO IN NAIROBI, KENYA AND GABORONE, BOTSWANA

CONTRACTOR

AUTOCAD PROJECT NUMBER LDPW - PROF/16002/F01

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 SAB\$ 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

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.

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.

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.

S3: CEMENT SAND SCREED

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 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 files 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 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 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)

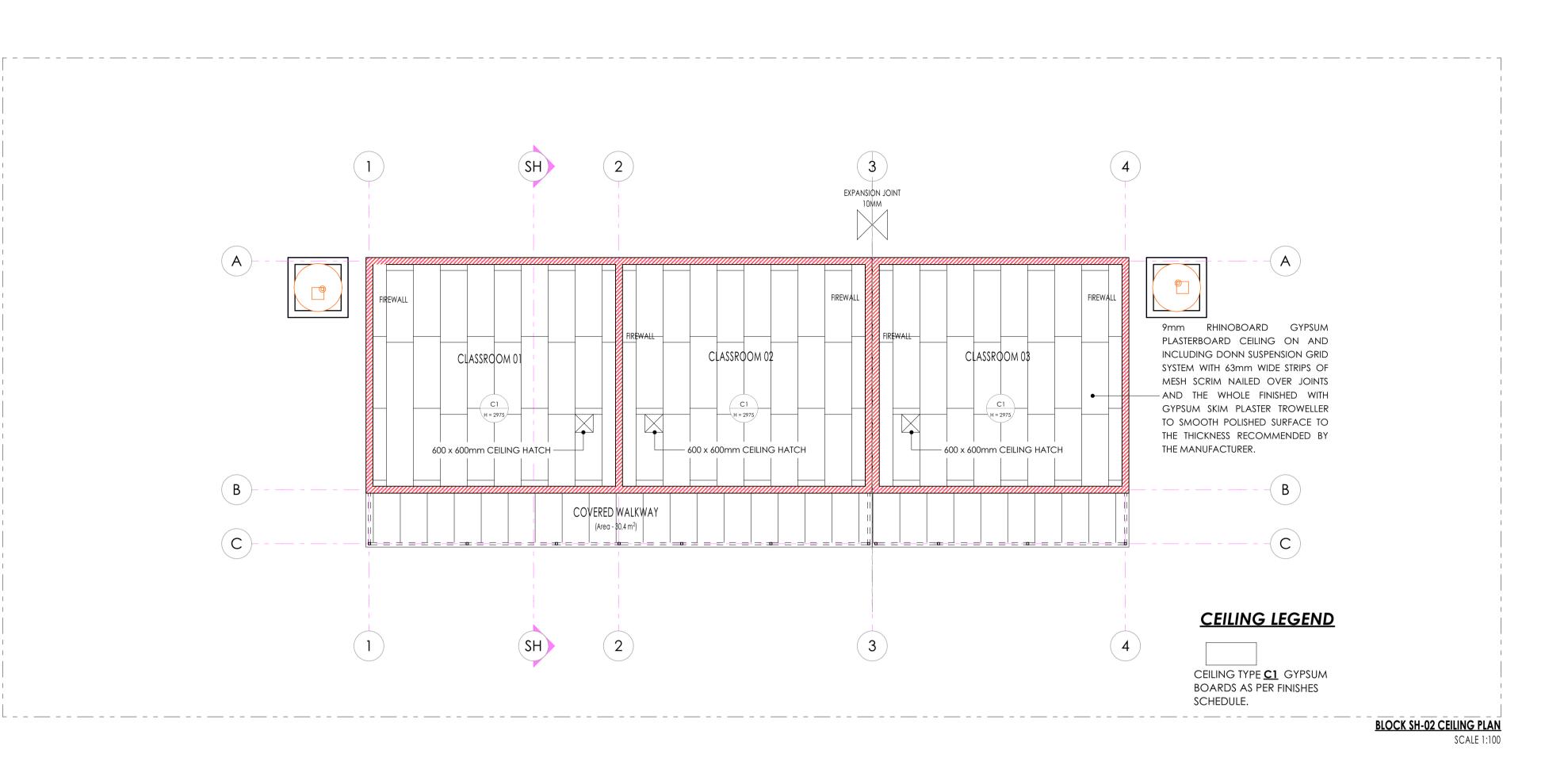
 $\underline{\textbf{Roofing Sheets:}}\ 0.58 \text{mm Thick concealed fixing roofing sheets manufactured from roll-formed from certified steel}$

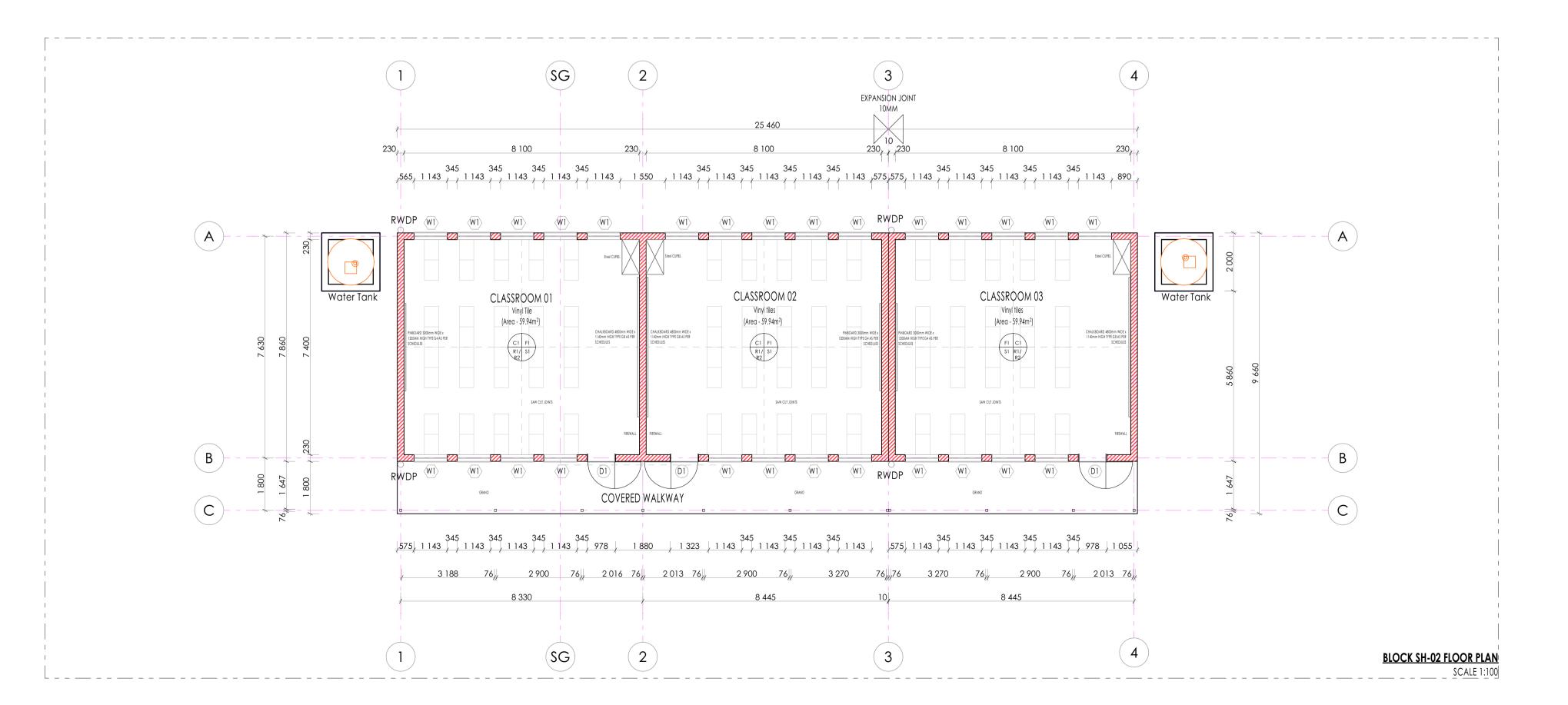
complying with ISQ 550 (3T). The profile shall have three trapezoidal ribs at 203mm centers giving a net cover of 406mm. The rib height shall be 41mm and provide capillary breaks. The male rib shall have spurs at 283mm centers to ensure a positive double interlocking action at side-laps. Each pan shall 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

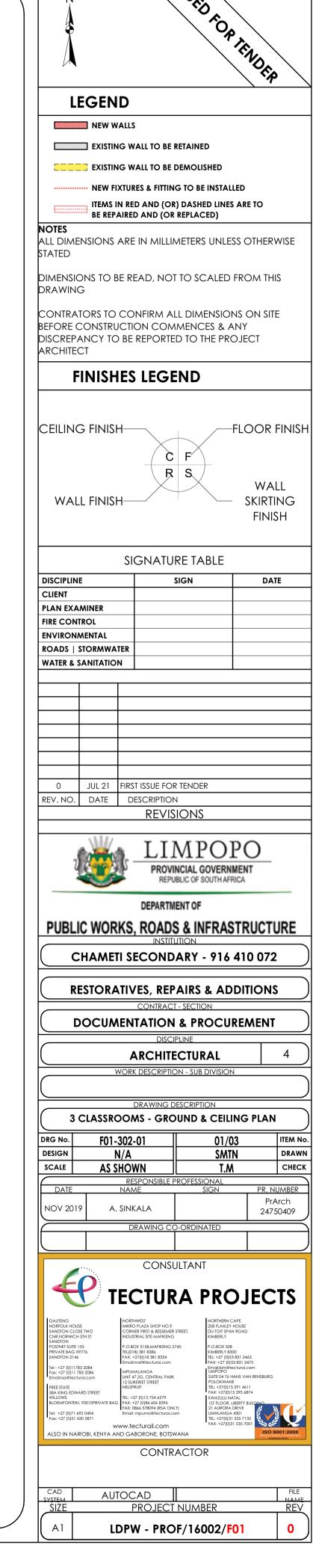
Insulation: SHALL EITHER BE: 1: where there are acoustic ceilings susspeded board, a heavy duty "Aluminium sisalation foil" shall be installed AND 2: where the steel work is exposed, a 50mm "FactoryBoard" manufactured from noncombustible glass fibres and thermo-setting resin binder supplied size 2400mm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







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 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.

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.

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:

S3: CEMENT SAND SCREED

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 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 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 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 to 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)

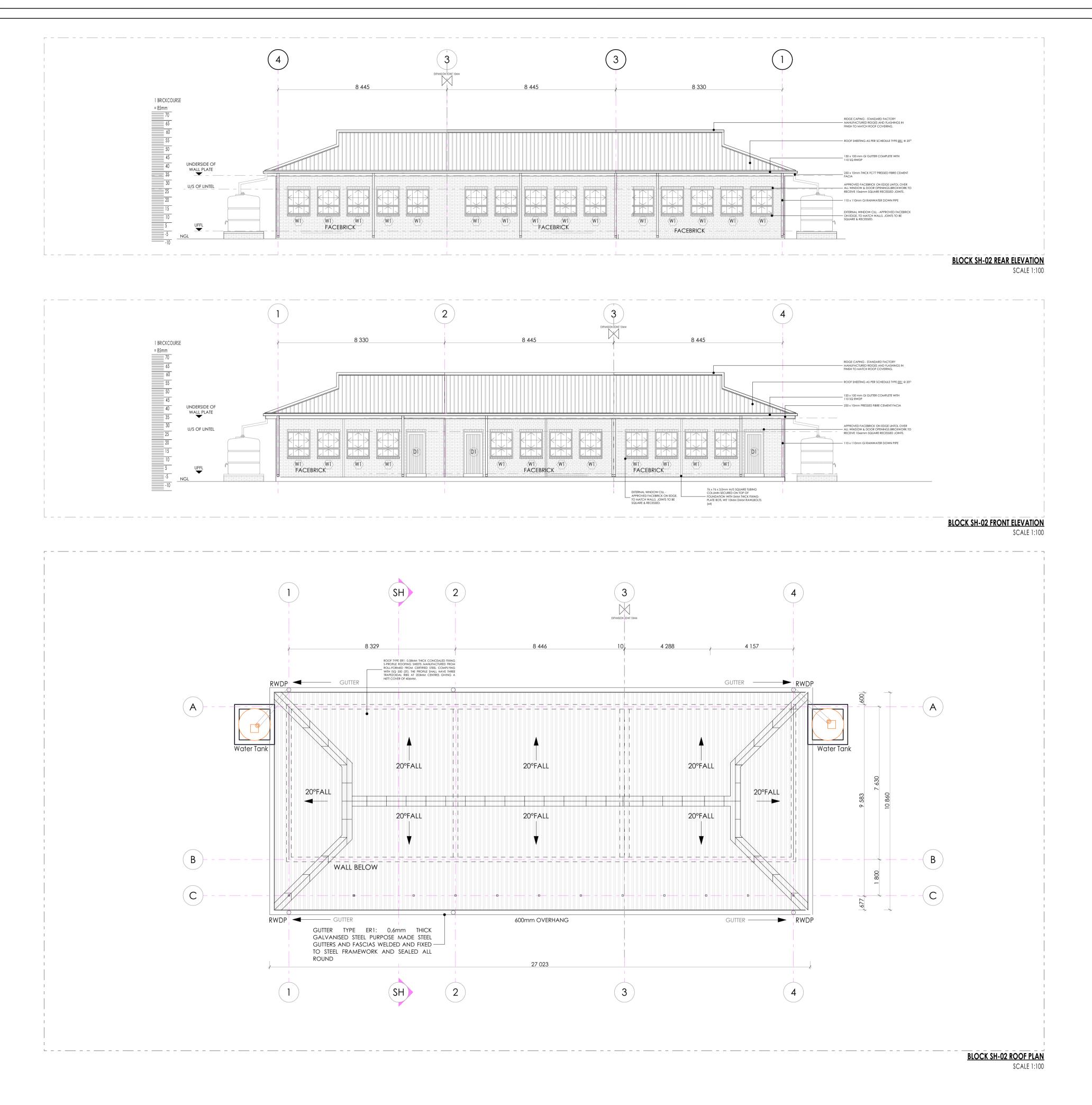
 $\underline{\textbf{Roofing Sheets:}}\ 0.58 \text{mm Thick concealed fixing roofing sheets manufactured from roll-formed from certified steel}$

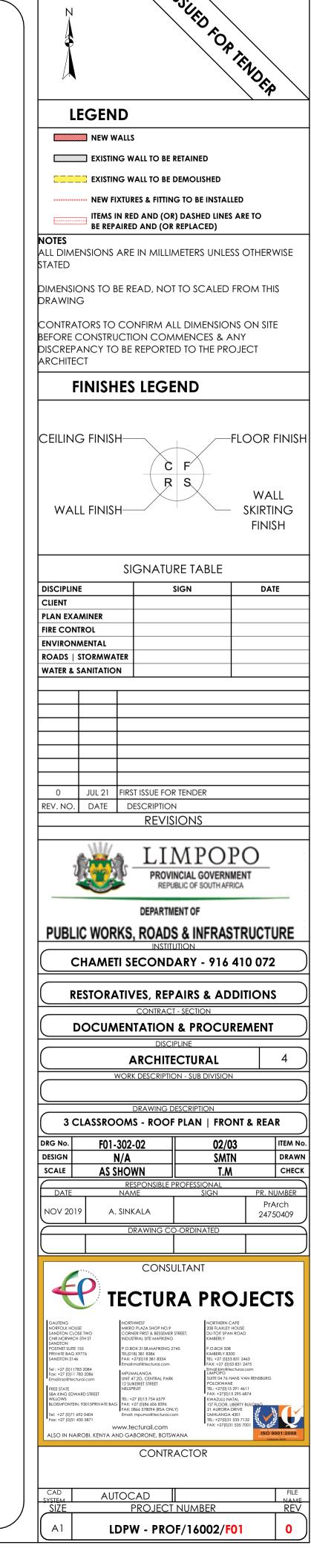
complying with ISQ 550 (3T). The profile shall have three trapezoidal ribs at 203mm centers giving a net cover of 406mm. The rib height shall be 41mm and provide capillary breaks. The male rib shall have spurs at 283mm centers to ensure a positive double interlocking action at side-laps. Each pan shall 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 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 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.

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 fo

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 stric 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 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.

1 BRICKCOUR

INDERSIDE OF

U/S OF LINTEL

S3: CEMENT SAND SCREED 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)

<u>Roofing Sheets:</u> 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

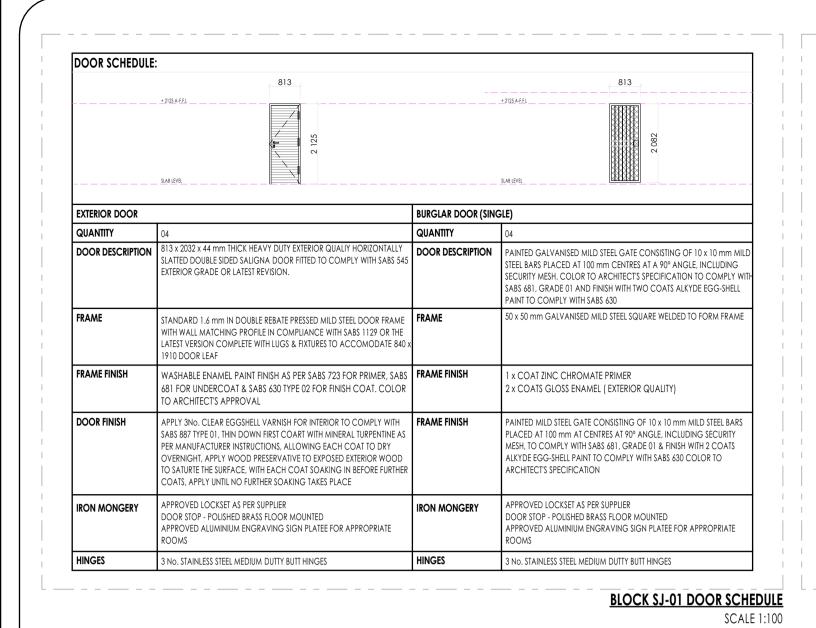
AND 2: where the steel work is exposed, a 50mm "FactoryBoard" manufactured from noncombustible glass fibres and thermo-setting resin binder supplied size 2400mm x 1200mm and 80kg/mÑ and finished with white metalized foil. Galvanised Steel (GI) Gutter: 150mm Wide x 100mm Deep x 0.6mm Eaves Gutter of Commercial 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

Insulation: SHALL EITHER BE: 1: where there are acoustic ceilings susspeded board, a heavy duty "Aluminium sisalation foil" shall be installed

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.

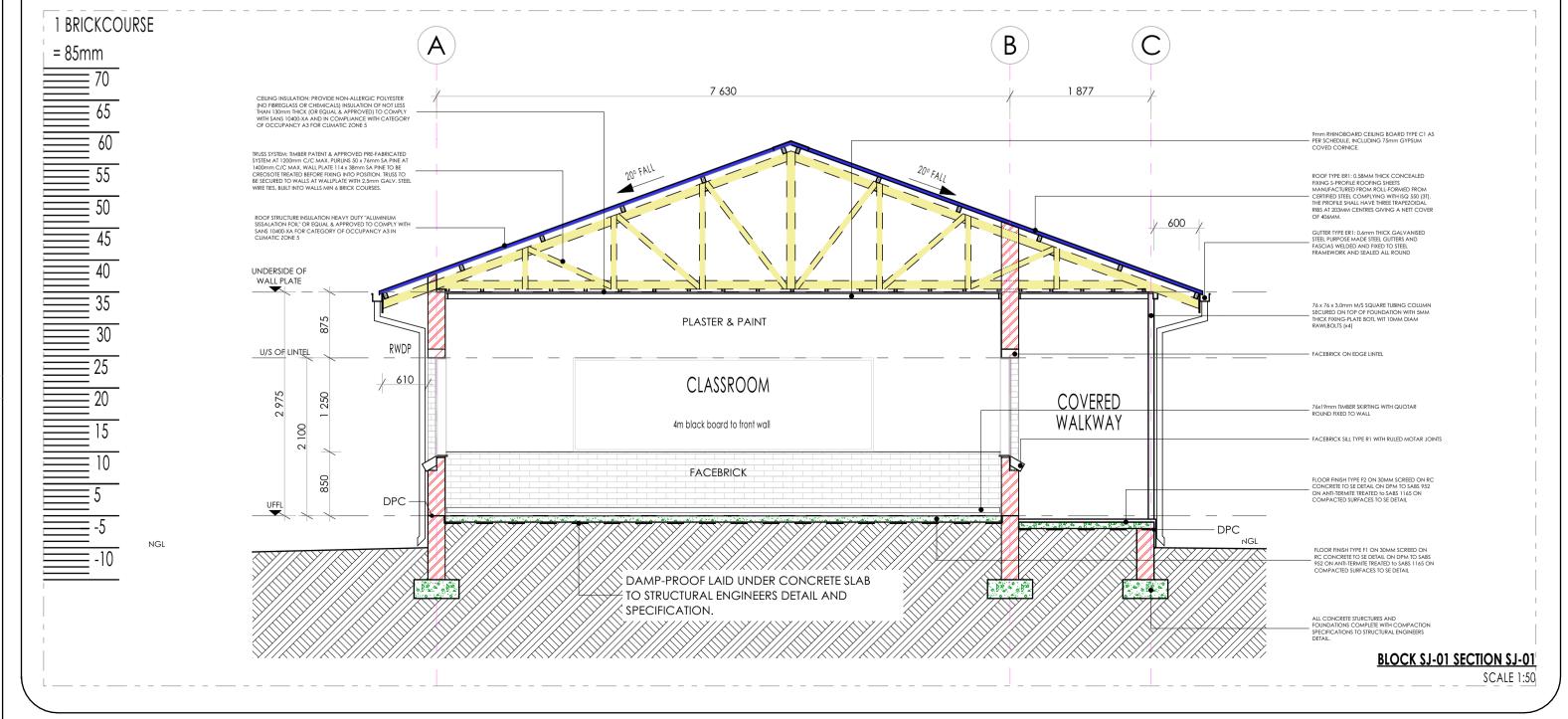
Prepare & Apply One Universal Undercoat & Two Coats Super Acrylic P.V.A.



FACEBRICK

WINDOW SCHEDULE: CHANTITY ANDARD "SCHOOL TYPE" GALVANISED MILD STEEL DOUBLE SIDE HUNG DESCRIPTION INDOWS, MANUFACTURED, ASSEMBLED & DELIVERED COMPLETE WITH RON MONGERY COMPRISING APPROVED HINGES, PIVOTING ECHANISMS, STAYS FASTENERS & WEATHERS BARS TO OENABLE PANELS JGGED & SCREWED/BUILT IN WALLING ANDARD "STANDARD TYPE" GALVANISED MILD STEEL WINDOW FRAME. NUFACTURED TO COMPLY WITH SABS 727, FRAMES TO BE FACTOR RIMED WITH ZINC PHOSPHATE PRIMER TO COMPLY WITH SABS 1319 EFORE DELIVERY & FINISHED WITH ONE UNIVERSAL UNDERCOAT TO COMLY WITH SABS 681 GRADE 01, FINISHED WITH 2No. COATS ALKYD AMEL PAINT TO COMPLY WITH SABS 630. COLOR TO ARCHITECT'S mm SAFETY GLASS FIXED WITH PUTTY TO COMPLY WITH SABS 680. UTTY MUST BE DELIVERED ON SITE IN SEALED CONTAINERS MARKED ITH SABS MARK OF APPROVAL WINDOW FITTINGS | MATCH EXISTING WINDOW FITTINGS (ORIGINAL) IRON MONGERY LL IRON MONGERY TO BE SUPPLIED MUST MATCH EXITING OR SIMILAR & UST BE APPROVED BY THE ARCHITECT FIXED MANUFACTURER'S SPECIFICATION

FACEBRICK BLOCK SJ-01 SIDE ELEVATION



BLOCK SJ-01 SIDE ELEVATION

SCALE 1:100

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

BLOCK SJ-01 WINDOW SCHEDULE

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, 30 basin waste, 365/40 CP Bottle Trap, mounting kit and angle valves.

RECOUNTIES BASIN B 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 the

B3: WHITE GLAZED PORCELAIN WHB (VANITY)

mic 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 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)
et amic fire day 360x405 min rectangular 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) Wifeous china 310 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 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.

Combination of sanitaryware, accessories and general fittings comprising of: Paper towel dispenser K8 and bin type K3.

• 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.

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 (cupboard 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

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 Sa finish, including screws and dowels and all other necessary accessories in accordance to manufacturer's specifications.

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 necessa accessories in accordance to manufacturer's specifications.

n 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

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 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 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 surrou

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

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.

mitred at the corners. To be fitted complete with fixing brackets, screws and wall plugs at 900mm above floor level

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 expansior 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 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.



LDPW - PROF/16002/F01

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 SAB\$ 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

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.

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.

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.

S3: CEMENT SAND SCREED

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 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 files 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 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 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)

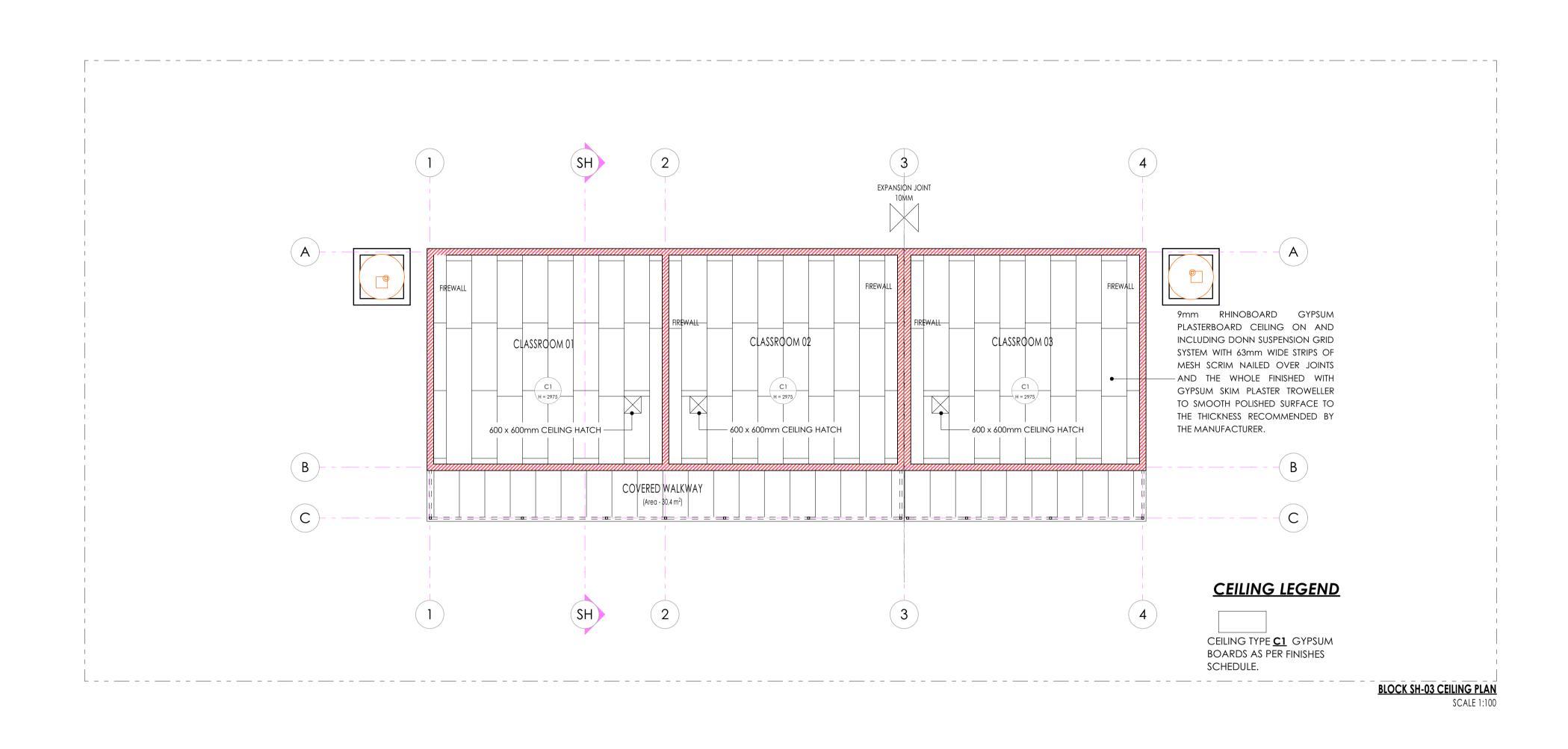
 $\underline{\textbf{Roofing Sheets:}}\ 0.58 \text{mm Thick concealed fixing roofing sheets manufactured from roll-formed from certified steel}$

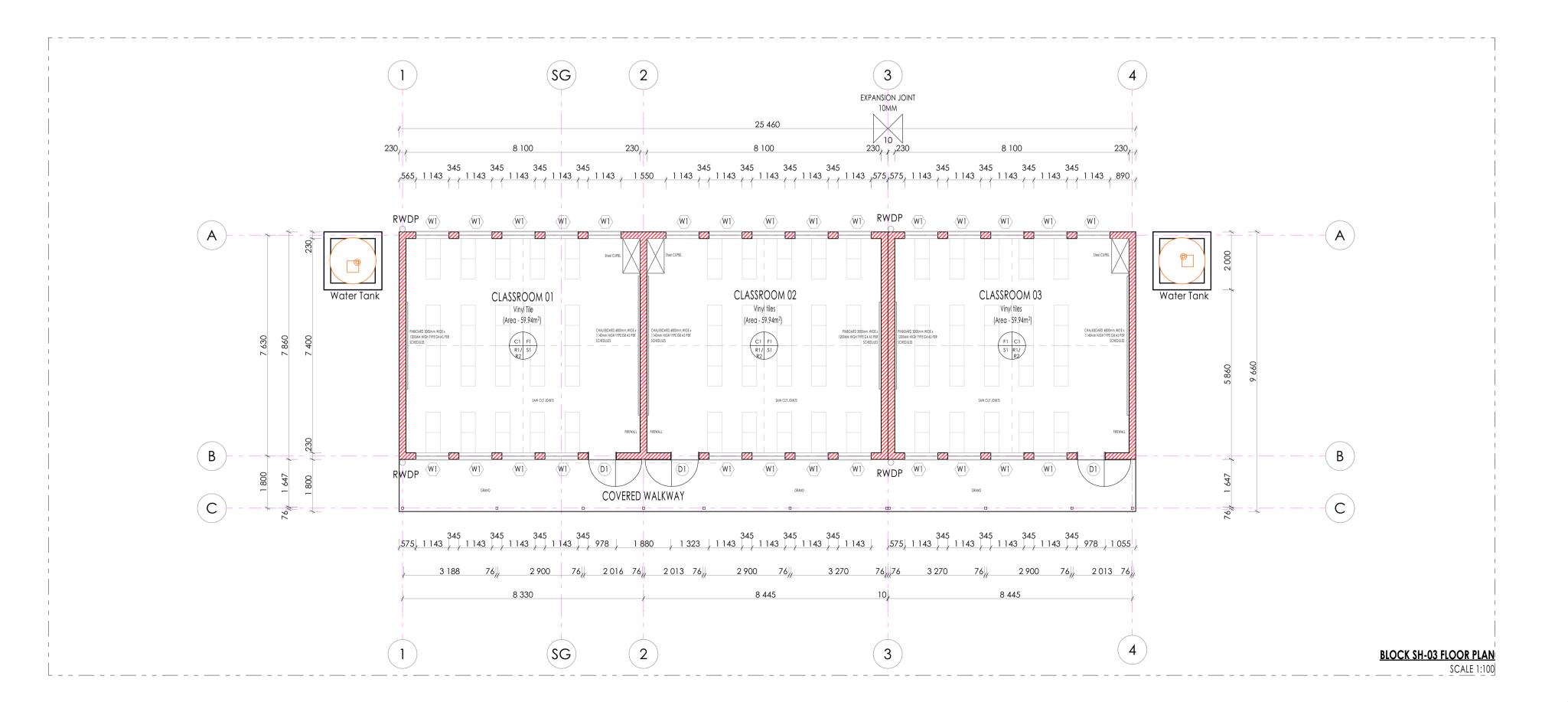
complying with ISQ 550 (3T). The profile shall have three trapezoidal ribs at 203mm centers giving a net cover of 406mm. The rib height shall be 41mm and provide capillary breaks. The male rib shall have spurs at 283mm centers to ensure a positive double interlocking action at side-laps. Each pan shall 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

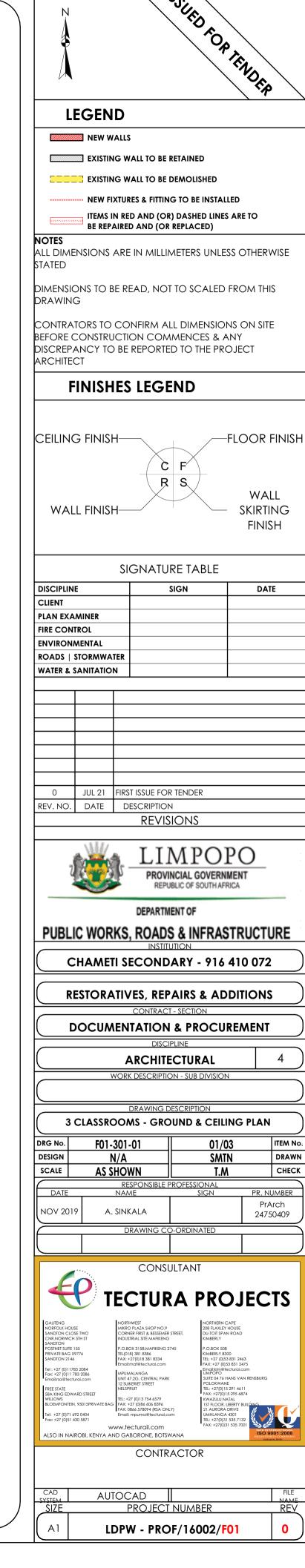
Insulation: SHALL EITHER BE: 1: where there are acoustic ceilings susspeded board, a heavy duty "Aluminium sisalation foil" shall be installed AND 2: where the steel work is exposed, a 50mm "FactoryBoard" manufactured from noncombustible glass fibres and thermo-setting resin binder supplied size 2400mm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







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 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.

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

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.

S3: CEMENT SAND SCREED

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

vanished with 3No. coats of egg shell clear vanish to comply with SABS/SANS 381 type 1.

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 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 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 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 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

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)

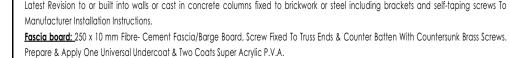
Roofing Sheets: 0.58mm Thick concealed fixing roofing sheets manufactured from roll-formed from certified steel

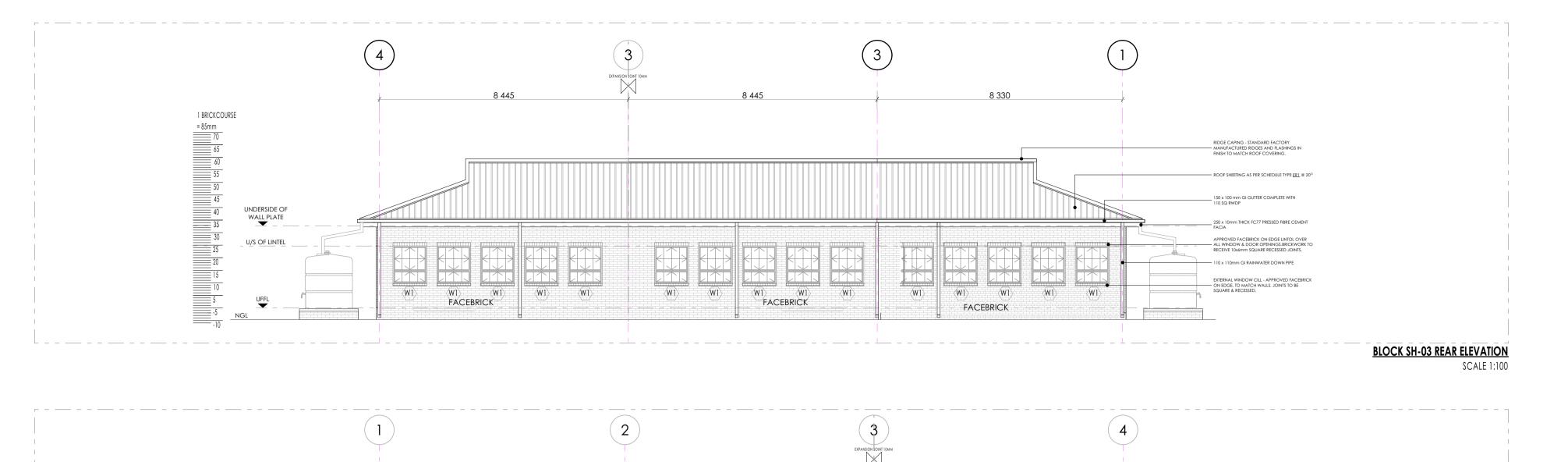
complying with ISQ 550 (3T). The profile shall have three trapezoidal ribs at 203mm centers giving a net cover of 406mm. The rib height shall be 41mm and provide capillary breaks. The male rib shall have spurs at 283mm centers to ensure a positive double interlocking action at side-laps. Each pan shall 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.

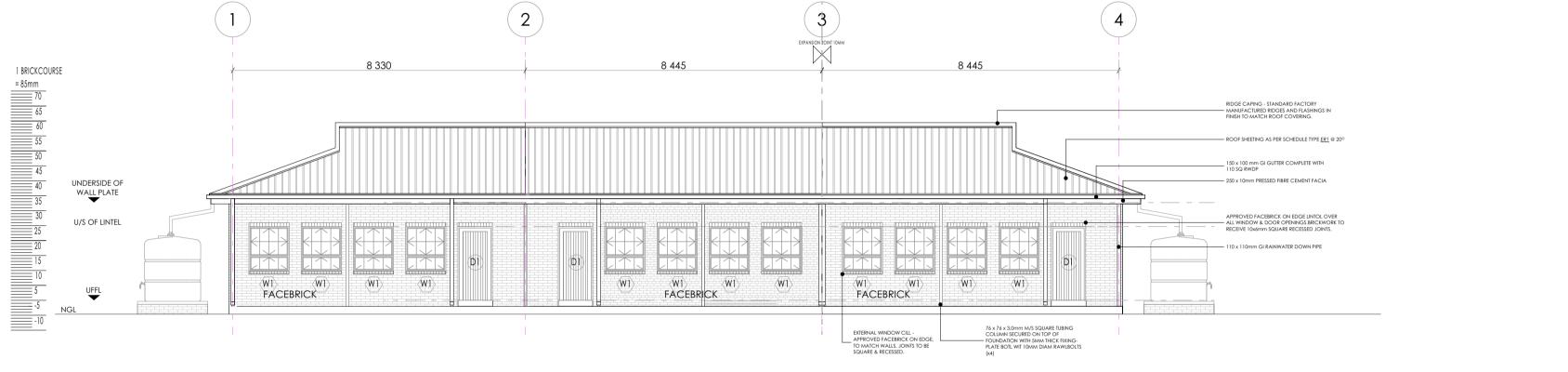
Insulation: SHALL EITHER BE: 1: where there are acoustic ceilings susspeded board, a heavy duty "Aluminium sisalation foil" shall be installed AND 2: where the steel work is exposed, a 50mm "FactoryBoard" manufactured from noncombustible glass fibres and thermo-setting resin binder supplied size 2400mm 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 Z275 Galvanising To

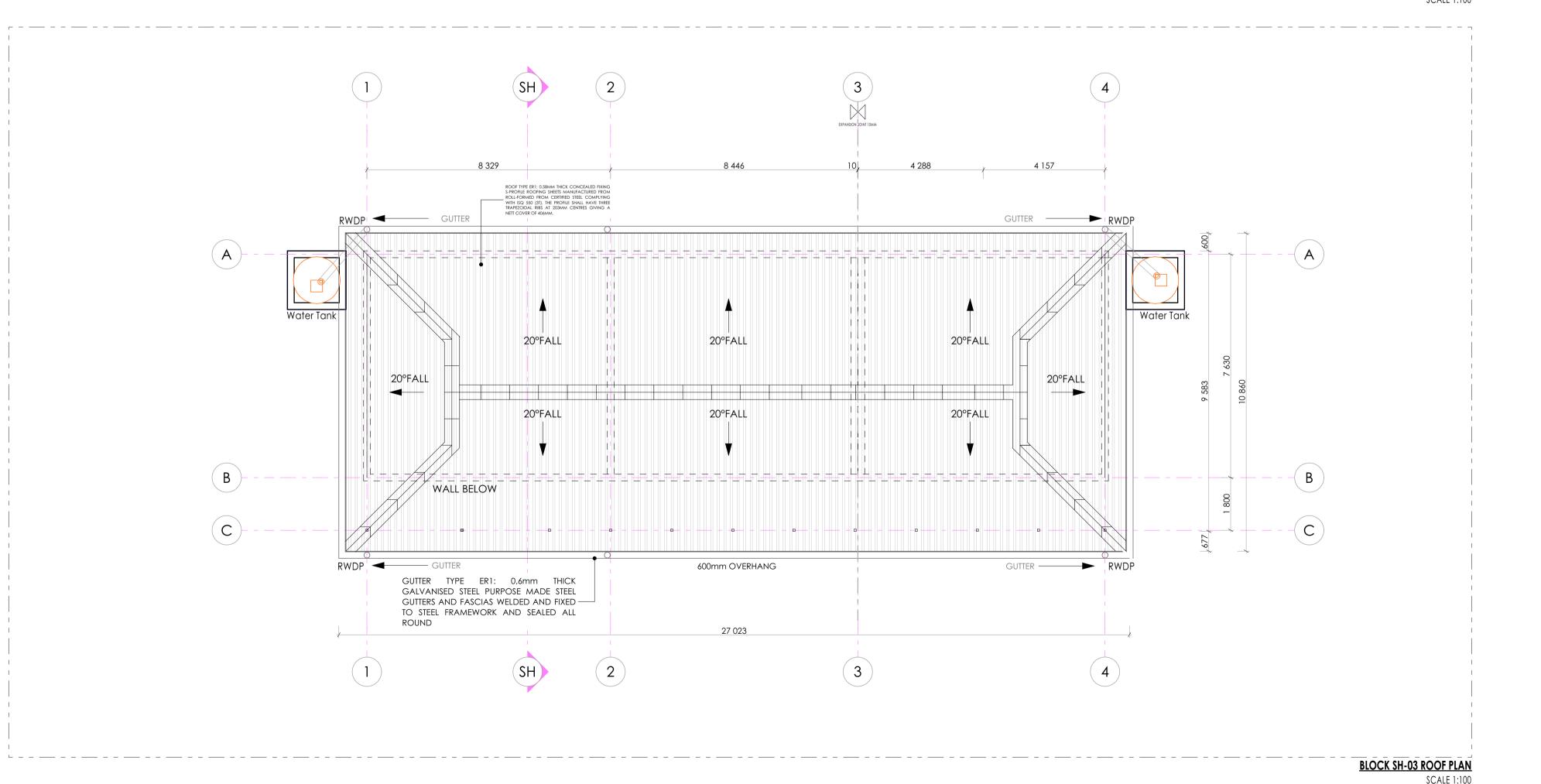
Comply With SABS 934 or latest Revision Fixed To Painted Fibre Cement Fascia Board Together with standard accessories discharging into Downpipe: 110 x110 x 0.6mm Thick Commercial Grade Galvanised Steel Sheet With Class Z275 Galvanising To Comply With SABS 934 or

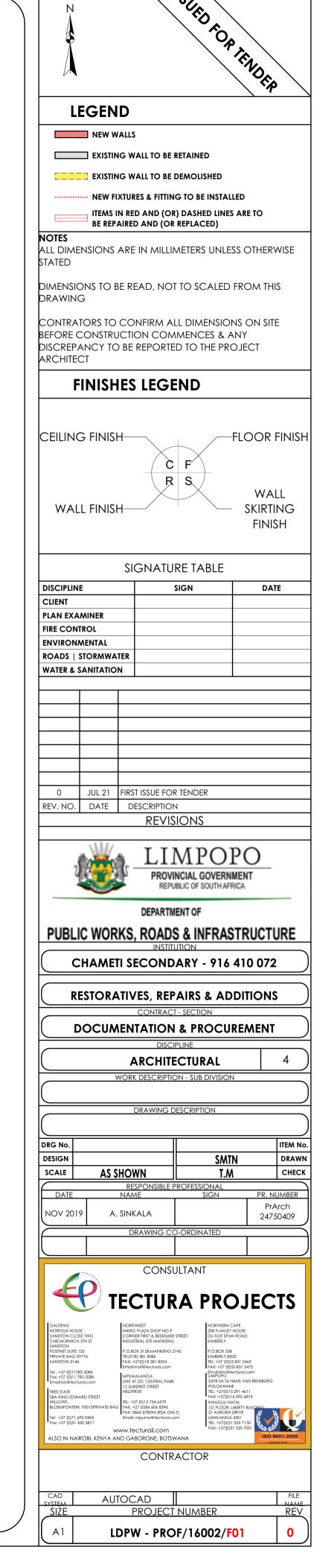
Latest Revision to or built into walls or cast in concrete columns fixed to brickwork or steel including brackets and self-taping screws To Manufacturer Installation Instructions.











BLOCK SH-03 FRONT ELEVATION

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 fo

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 stric 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 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. **S3: CEMENT SAND SCREED**

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

1 BRICKCOUR

UNDERSIDE OF

U/S OF LINTEL

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 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 (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

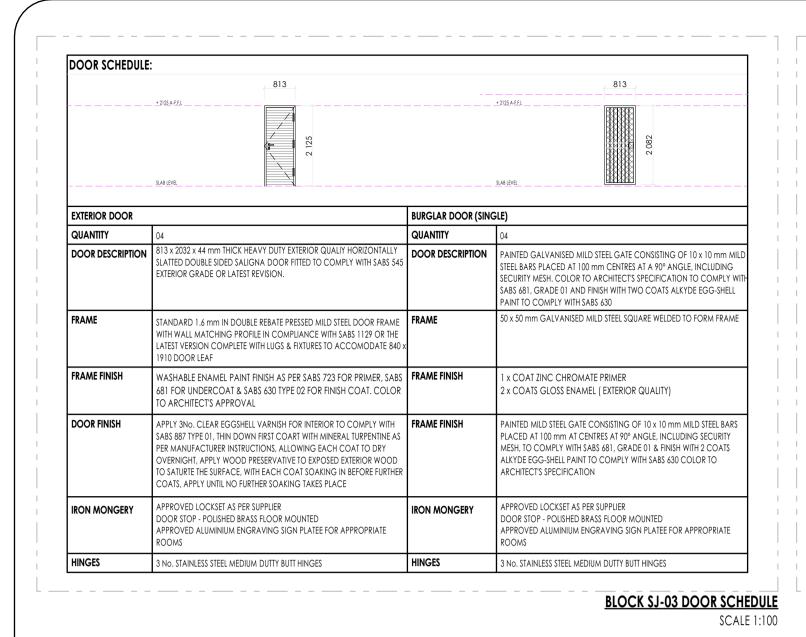
AND 2: where the steel work is exposed, a 50mm "FactoryBoard" manufactured from noncombustible glass fibres and thermo-setting resin binder supplied size 2400mm x 1200mm and 80kg/mÑ and finished with white metalized foil. Galvanised Steel (GI) Gutter: 150mm Wide x 100mm Deep x 0.6mm Eaves Gutter of Commercial 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

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.

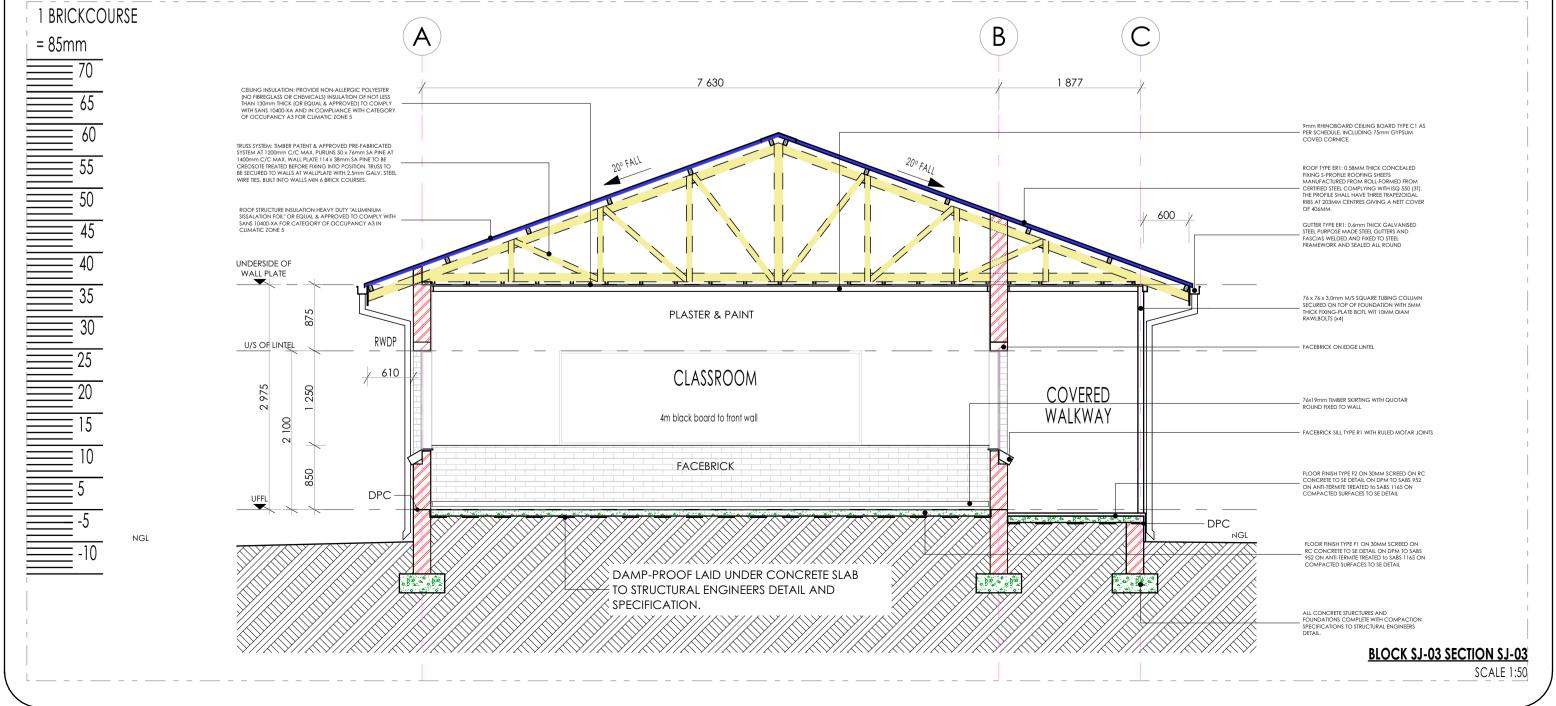
Fascia board: 250 x 10 mm Fibre- Cement Fascia/Barge Board, Screw Fixed To Truss Ends & Counter Batten With Countersunk Brass Screws. Prepare & Apply One Universal Undercoat & Two Coats Super Acrylic P.V.A.



FACEBRICK

WINDOW SCHEDULE: SLAB LEVEL CHANTITY ANDARD "SCHOOL TYPE" GALVANISED MILD STEEL DOUBLE SIDE HUNG DESCRIPTION INDOWS MANUFACTURED ASSEMBLED & DELIVERED COMPLETE WITH RON MONGERY COMPRISING APPROVED HINGES, PIVOTING CHANISMS, STAYS FASTENERS & WEATHERS BARS TO OENABLE PANELS JGGED & SCREWED/BUILT IN WALLING ANDARD "STANDARD TYPE" GALVANISED MILD STEEL WINDOW FRAME. NUFACTURED TO COMPLY WITH SABS 727, FRAMES TO BE FACTOR RIMED WITH ZINC PHOSPHATE PRIMER TO COMPLY WITH SABS 1319 BEFORE DELIVERY & FINISHED WITH ONE UNIVERSAL UNDERCOAT TO COMLY WITH SABS 681 GRADE 01, FINISHED WITH 2No. COATS ALKYD AMEL PAINT TO COMPLY WITH SABS 630. COLOR TO ARCHITECT'S SDECIEIC ATIONS mm SAFETY GLASS FIXED WITH PUTTY TO COMPLY WITH SABS 680. UTTY MUST BE DELIVERED ON SITE IN SEALED CONTAINERS MARKED ITH SABS MARK OF APPROVAL WINDOW FITTINGS | MATCH EXISTING WINDOW FITTINGS (ORIGINAL) IRON MONGERY LL IRON MONGERY TO BE SUPPLIED MUST MATCH EXITING OR SIMILAR & UST BE APPROVED BY THE ARCHITECT FIXED MANUFACTURER'S SPECIFICATION

FACEBRICK



BLOCK SJ-03 SIDE ELEVATION

SCALE 1:100

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 parapleaic 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:

two hanger brackets and fitted with exposed flush-valve, and suitable bottle trap chrome finish as per manufacturer's specifications and applicable SABS

• 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

BLOCK SJ-03 WINDOW SCHEDULE

BLOCK SJ-03 SIDE ELEVATION

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 basin waste, 365/40 CP Bottle Trap, mounting kit and angle valves.

RECOUNTIES BASIN B 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 the

B3: WHITE GLAZED PORCELAIN WHB (VANITY)

mic 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) Wireous china 310 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:

Paper towel dispenser K8 and bin type K3.

• 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.

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 elsewhere measured), Grade 304 (18/10) Stainless Steel sink to comply with SABS 906 fitted 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 (cupboard 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-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, 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 back 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

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 Satii finish, including screws and dowels and all other necessary accessories in accordance to manufacturer's specifications.

6mm thick clear float glass silver-backed mirror, size 450x900mm height with polished bevelled edges 4 times holed for and fixed, with chromium plated domeheaded 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 necessary accessories in accordance to manufacturer's specifications.

m 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

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

115W x 270H x 110D Stailess steel Hands Free soap dispenser. Complete with screws, locking key, and all necessary accessories and installed in accordance

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 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 SC0400 Keystone Brackets Adjustable Set of 2, size 300mm. To 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 surrou mitred at the corners. To be fitted complete with fixing brackets, screws and wall plugs at 900mm above floor level.

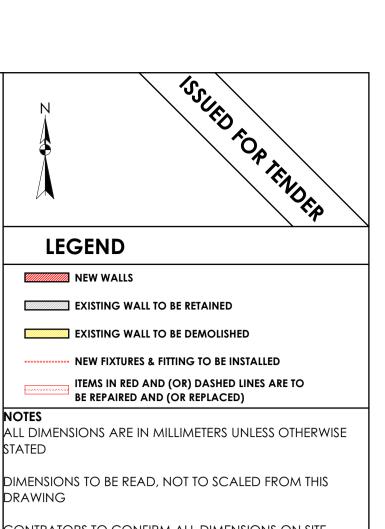
Pinboard size 1200mm H x 3000mm W comprising of laminated soft board core pinning material beaded all round with anodised aluminium channel surrour mitred at the corners. To be fitted complete with fixing brackets, screws and wall plugs at 900mm above floor level

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.

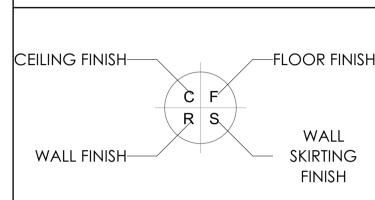
G7: SS FLOOR EXPANSION JOINT COVER Co-extruded heavy-duty stainless steel movement joint strip, with polyurethane infill (colour grey). To be installed within the tile surface over the 20mm expansion joints, in accordance to the manufacturer's specifications.

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 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.



CONTRATORS TO CONFIRM ALL DIMENSIONS ON SITE BEFORE CONSTRUCTION COMMENCES & ANY

DISCREPANCY TO BE REPORTED TO THE PROJECT ARCHITECT FINISHES LEGEND



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CHAMETI SECONDARY - 916 410 072

RESTORATIVES, REPAIRS & ADDITIONS

DOCUMENTATION & PROCUREMENT ARCHITECTURAL

WORK DESCRIPTION - SUB DIVISION

SECTION | SIDE ELEVATIONS | SCHEDULES

SMTN AS SHOWN T.M CHECK NOV 2019 A. SINKALA 24750409



www.tecturail.com LSO IN NAIROBI, KENYA AND GABORONE, BOTSWANA

CONTRACTOR

AUTOCAD PRO IECT NUMBER LDPW - PROF/16002/F01

FI 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 THES -MA

600 x 600 x10mm thick matt porcelain tile to comply with SAB\$ 1449 laid on approved pattern by an approved specialist to comply with SAB\$ 107 and approved adhesives and grout on screeds With Thickness/Specification in strict compliance to manufacturers instructions and SAB\$ 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 SCREE

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.

SKIKIING:

S1: HARDWOOD OR EQUAL AND APPROVED

"Ex 75mm x 20mm Moulded Hardwood Skirtling" 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.

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 lead shell) finish alkyd (enamel) paint to SABS 630, type 2 applied on plastered surfaces with 1 no coat alky

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 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

C4 EMULSION (PVA) PAINT OK 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)

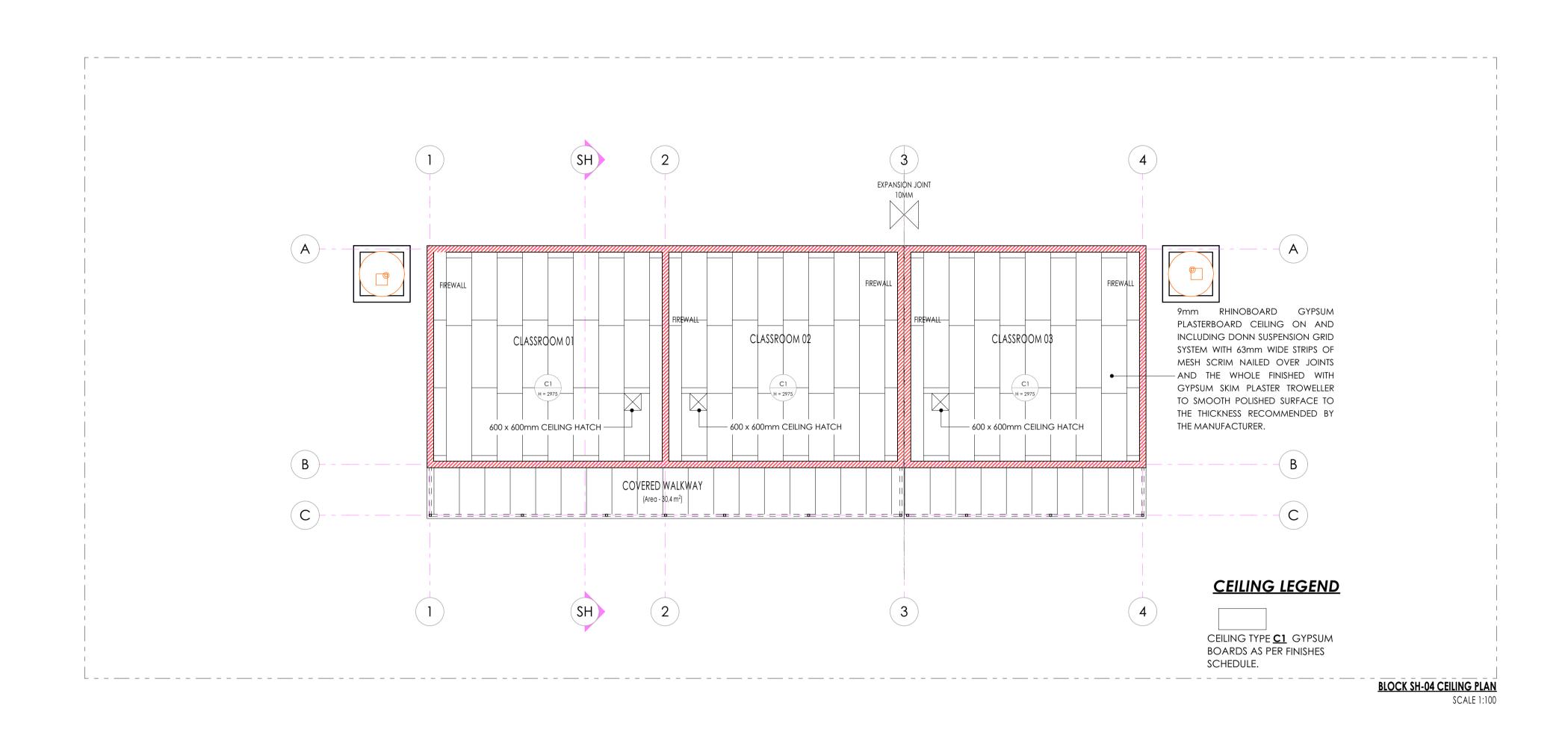
Roofing Sheets: 0.58mm Thick concealed fixing roofing sheets manufactured from roll-formed from certified steel

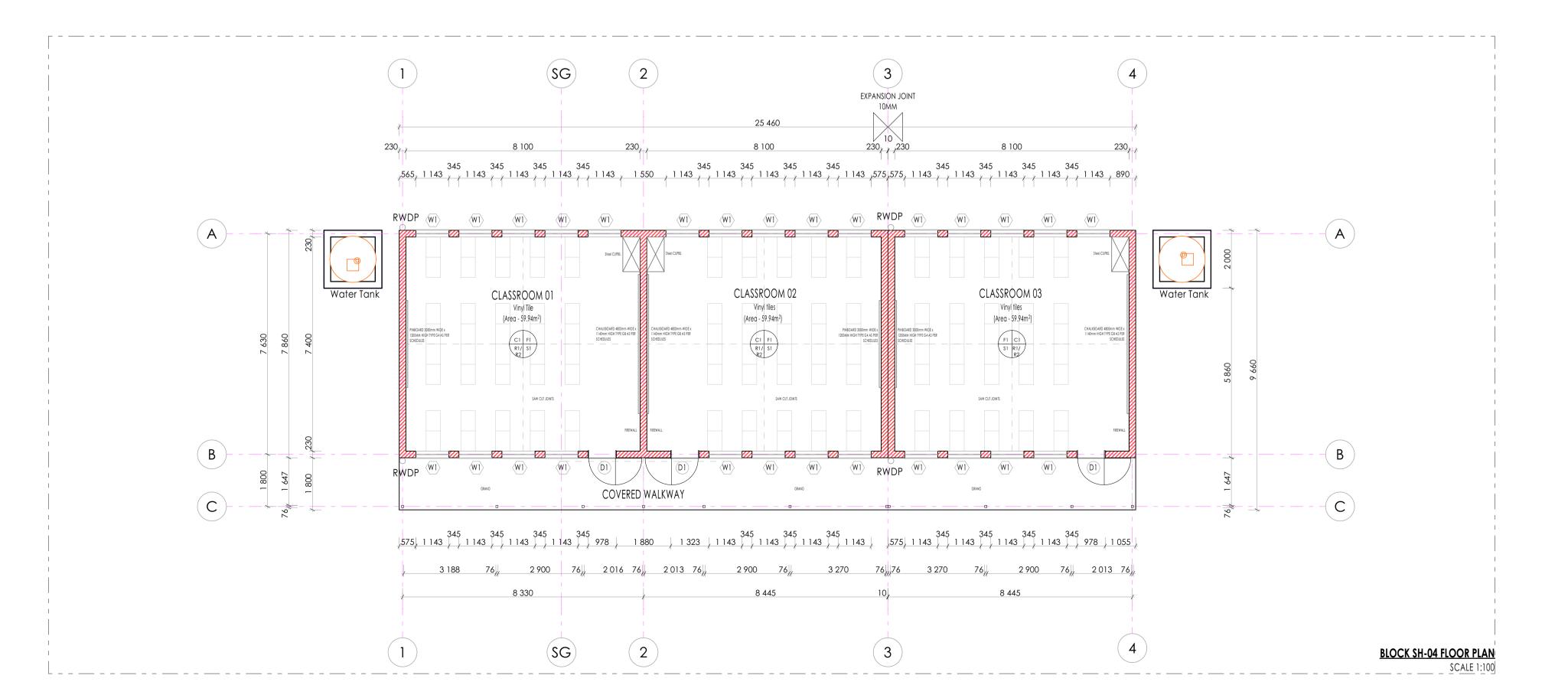
complying with ISQ 550 (3T). The profile shall have three trapezoidal ribs at 203mm centers giving a net cover of 406mm. The rib height shall be 41mm and provide capillary breaks. The male rib shall have spurs at 283mm centers to ensure a positive double interlocking action at side-laps. Each pan shall 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.

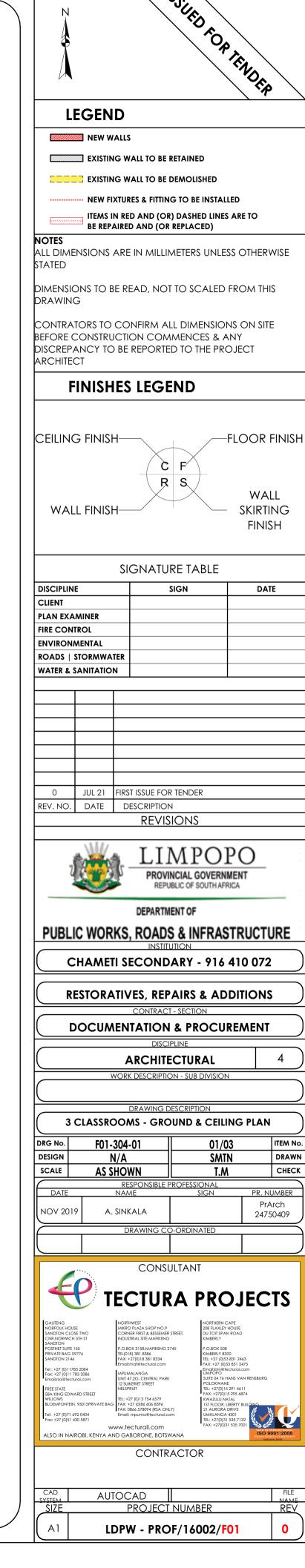
Insulation: SHALL EITHER BE: 1: where there are acoustic ceilings susspeded board, a heavy duty "Aluminium sisalation foil" shall be installed AND 2: where the steel work is exposed, a 50mm "FactoryBoard" manufactured from noncombustible glass fibres and thermo-setting resin binder supplied size 2400mm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







ELOOPS:

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 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 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, Contractor to provide Certificate of Static Current

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 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.

53: CEMENT SAND SCREED 75 mm high x 20 mm thick ha

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 SAI

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 68 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 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 Slah" 3No. coats

"Emulsion (PVA) Paint on Skimmed Plastered Slab" 3No. coats of PVA emulsion ceiling paint to latest SAN\$ 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.

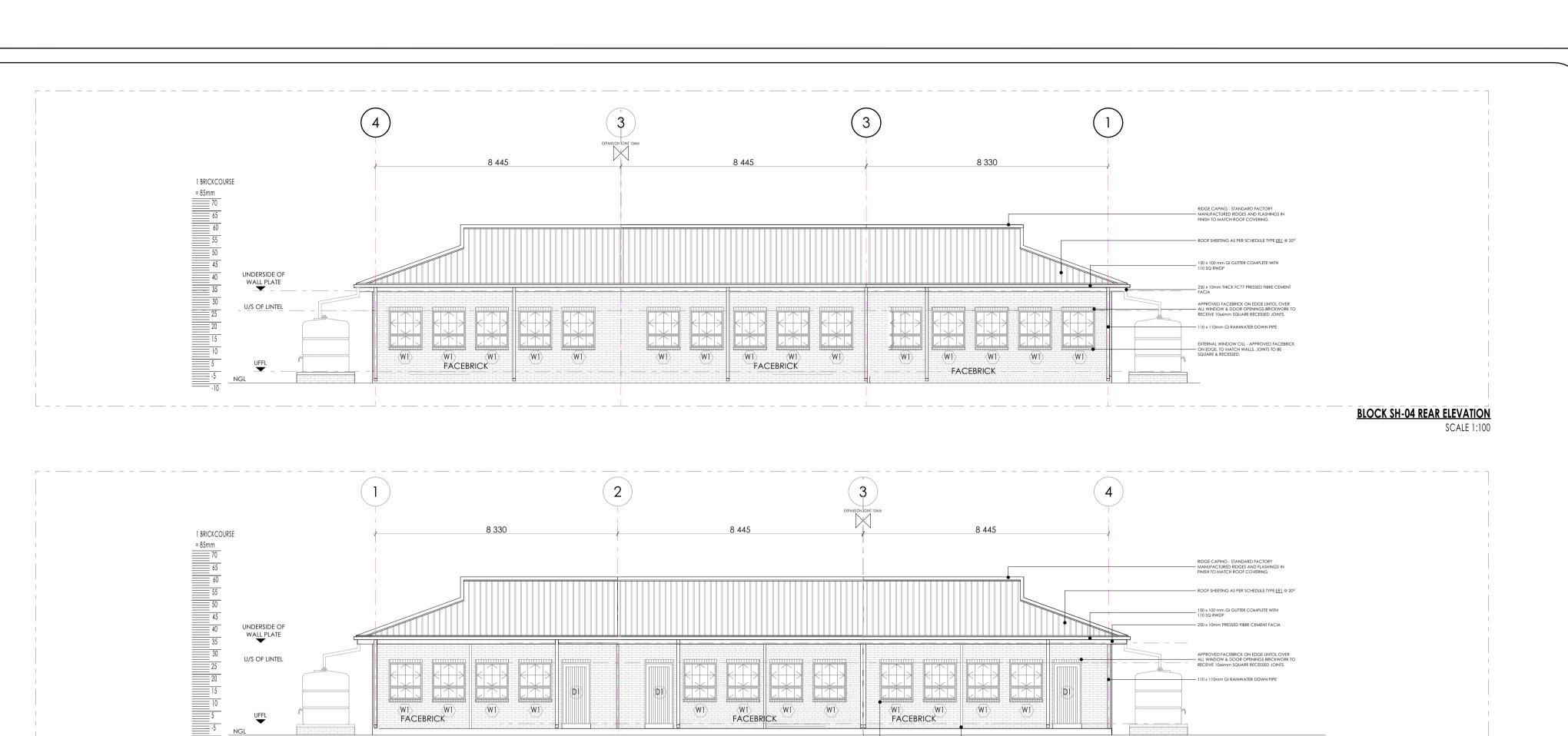
Insulation: SHALL EITHER BE: 1: where there are acoustic ceilings susspeded board, a heavy duty "Aluminium sisalation foil" shall be installed AND 2: where the steel work is exposed, a 50mm "FactoryBoard" manufactured from noncombustible glass fibres and thermo-setting resin binder supplied size 2400mm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

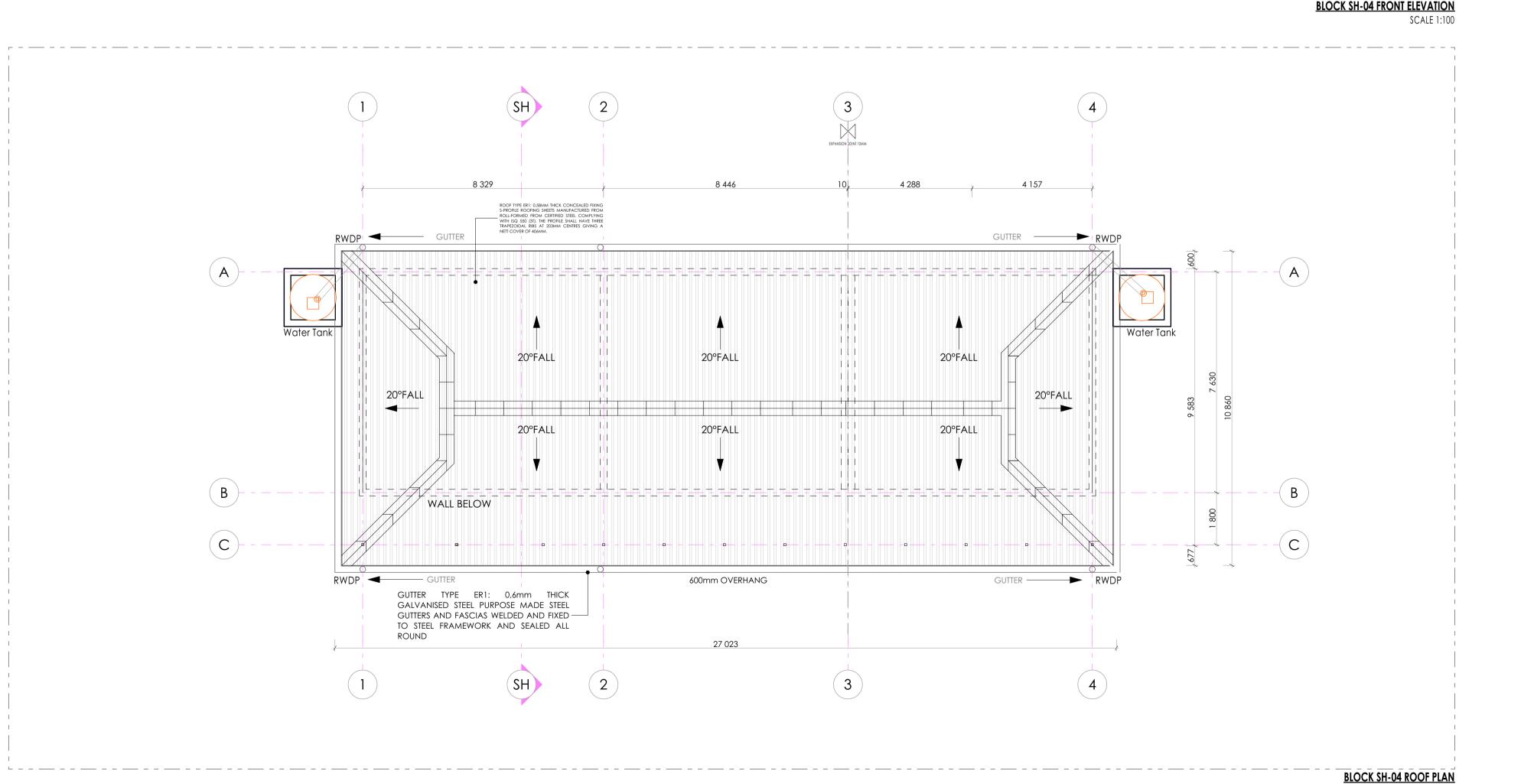
Galvanised Steel (GI) Gutter: 150mm Wide x 100mm Deep x 0.6mm Eaves Gutter of Commercial Grade Steel With Class 2275 Galvanising To Comply With SABS 934 or latest Revision Fixed To Painted Fibre Cement Fascia Board Together with standard accessories discharging into Rainwater Downpipes.

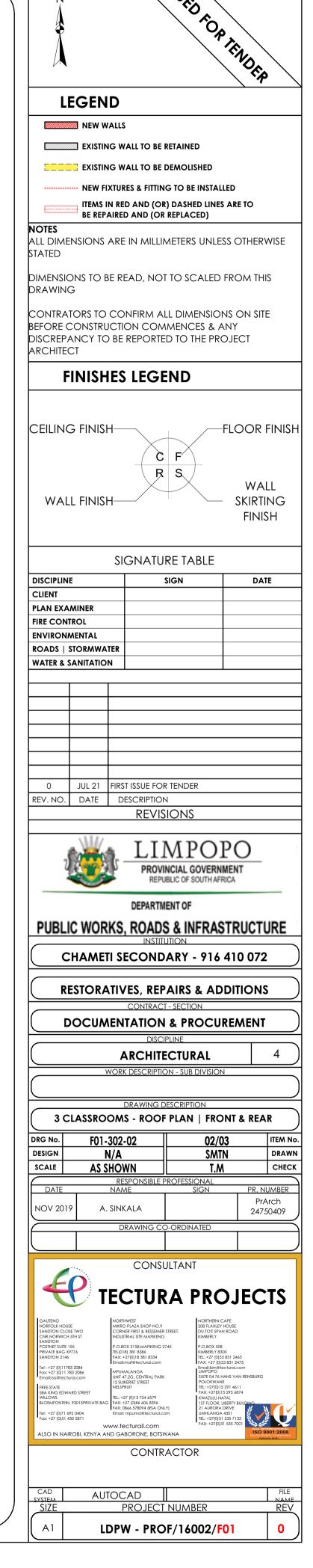
Downpipe: 110 x 110 x 0.6mm Thick Commercial Grade Galvanised Steel Sheet With Class Z275 Galvanising To Comply With SABS 934 or Latest Revision to or built into walls or cast in concrete columns fixed to brickwork or steel including brackets and self-taping screws To Manufacturer Installation Instructions.

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.







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

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 stric 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 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.

S3: CEMENT SAND SCREED 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

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

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

CEILING AND CORNICE:

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

nanufactured 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 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)

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

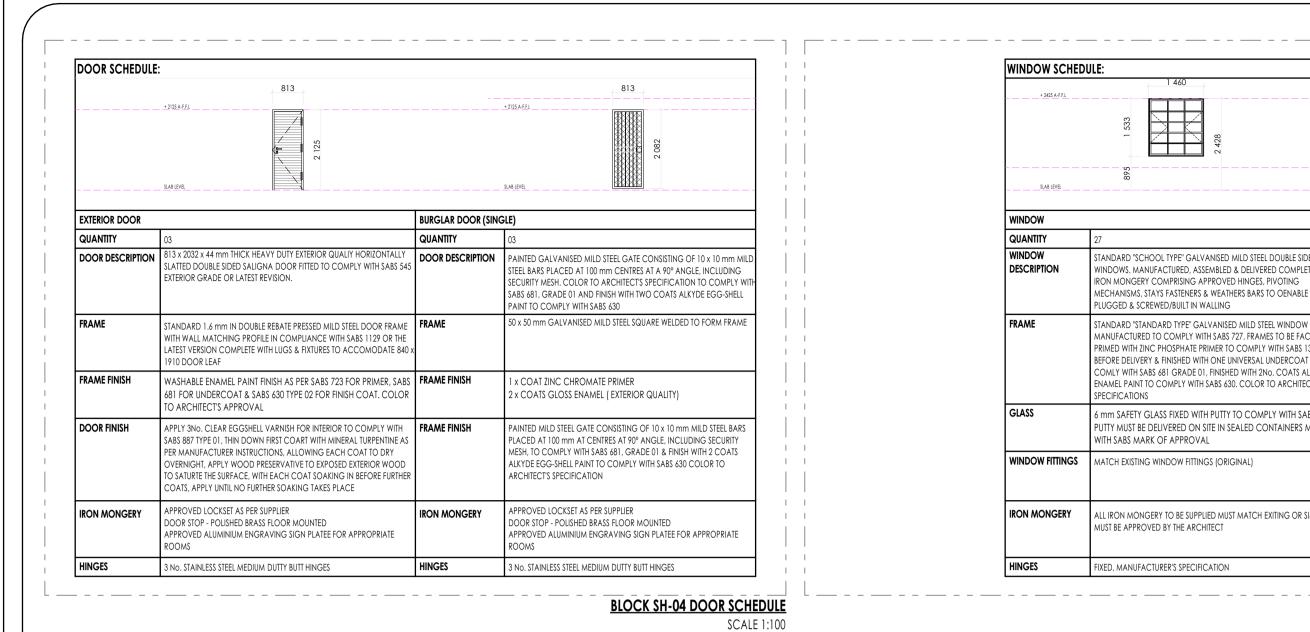
omplying with ISQ 550 (3T). The profile shall have three trapezoidal ribs at 203mm centers giving a net cover of 406mm. The rib height shall be 41mm and provide capillary breaks. The male rib shall have spurs at 283mm centers to ensure a positive double interlocking action at side-laps. Each pan shall 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

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

Insulation: SHALL EITHER BE: 1: where there are acoustic ceilings susspeded board, a heavy duty "Aluminium sisalation foil" shall be installed

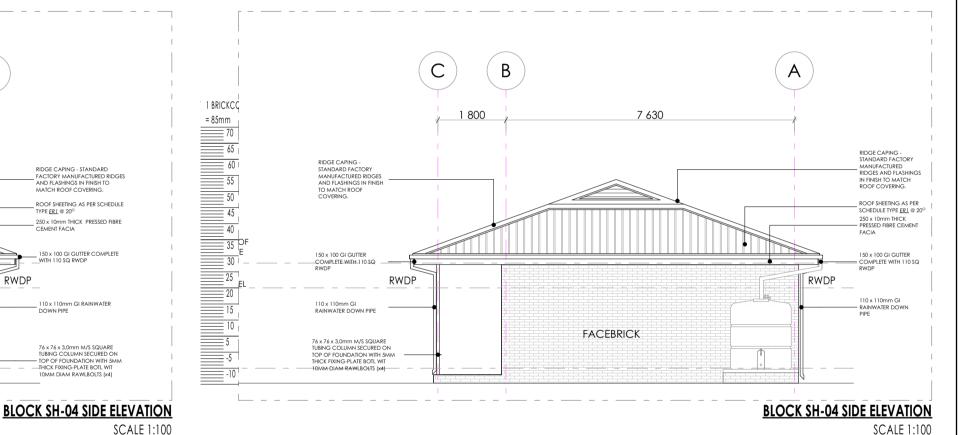
Downpipe: 110 x110 x 0.6mm Thick Commercial Grade Galvanised Steel Sheet With Class Z275 Galvanising To Comply With SABS 934 or Latest Revision to or built into walls or cast in concrete columns fixed to brickwork or steel including brackets and self-taping screws To

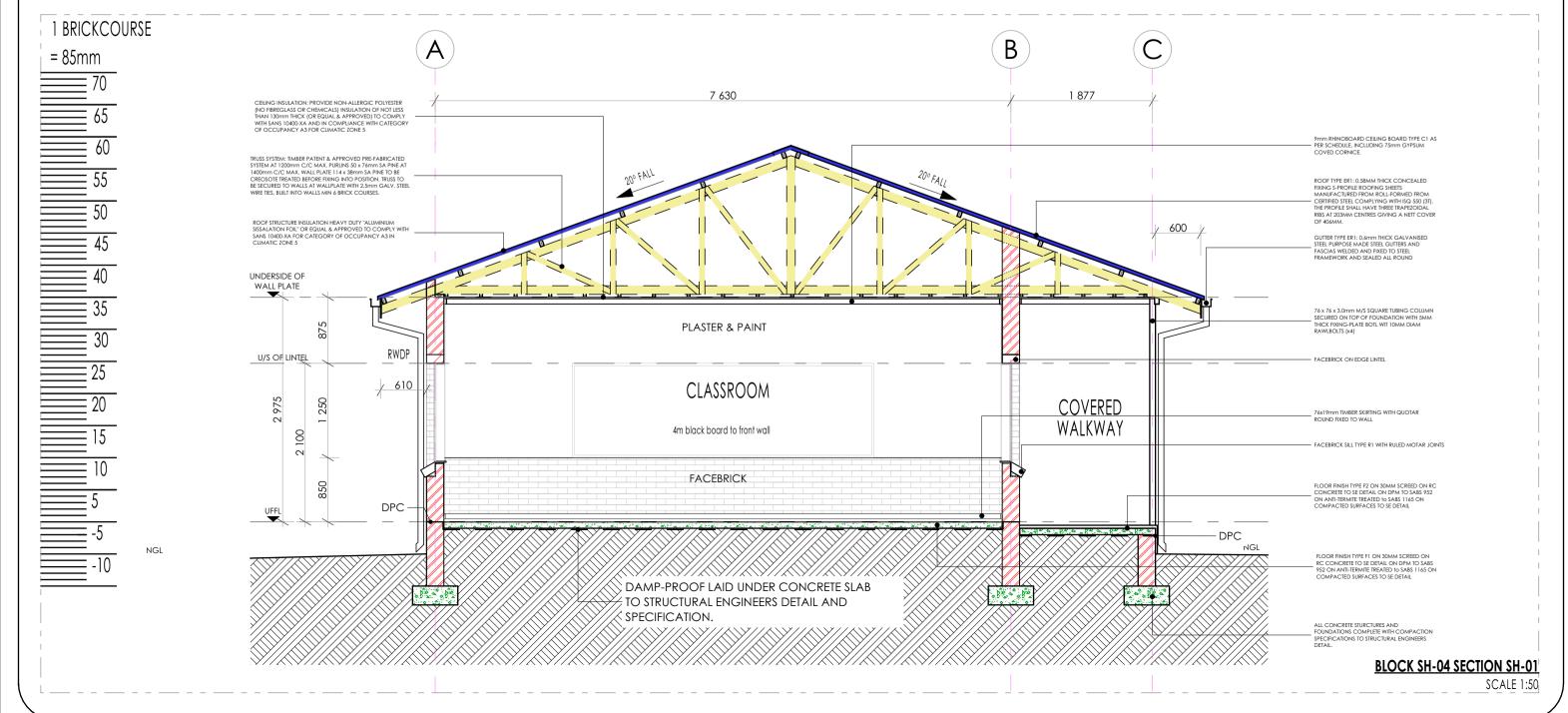
Manufacturer Installation Instructions. Fascia board: 250 x 10 mm Fibre- Cement Fascia/Barge Board, Screw Fixed To Truss Ends & Counter Batten With Countersunk Brass Screws. Prepare & Apply One Universal Undercoat & Two Coats Super Acrylic P.V.A.



WINDOW SCHEDULE: ANDARD "SCHOOL TYPE" GALVANISED MILD STEEL DOUBLE SIDE HUNG DESCRIPTION INDOWS, MANUFACTURED, ASSEMBLED & DELIVERED COMPLETE WITH RON MONGERY COMPRISING APPROVED HINGES, PIVOTING ECHANISMS, STAYS FASTENERS & WEATHERS BARS TO OENABLE PANELS JGGED & SCREWED/BUILT IN WALLING ANDARD "STANDARD TYPE" GALVANISED MILD STEEL WINDOW FRAME. NUFACTURED TO COMPLY WITH SABS 727. FRAMES TO BE FACTOR RIMED WITH ZINC PHOSPHATE PRIMER TO COMPLY WITH SABS 1319 EFORE DELIVERY & FINISHED WITH ONE UNIVERSAL UNDERCOAT TO OMLY WITH SABS 681 GRADE 01, FINISHED WITH 2No. COATS ALKYD AMEL PAINT TO COMPLY WITH SABS 630. COLOR TO ARCHITECT'S mm SAFETY GLASS FIXED WITH PUTTY TO COMPLY WITH SABS 680. UTTY MUST BE DELIVERED ON SITE IN SEALED CONTAINERS MARKED ITH SABS MARK OF APPROVAL WINDOW FITTINGS | MATCH EXISTING WINDOW FITTINGS (ORIGINAL) IRON MONGERY LL IRON MONGERY TO BE SUPPLIED MUST MATCH EXITING OR SIMILAR & UST BE APPROVED BY THE ARCHITECT FIXED MANUFACTURER'S SPECIFICATION

1 BRICKCOUR INDERSIDE OF U/S OF LINTEL FACEBRICK





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 parapleaic 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

BLOCK SH-04 WINDOW SCHEDULE

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, 30 basin waste, 365/40 CP Bottle Trap, mounting kit and angle valves.

RECOUNTIES BASIN B 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)

mic 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 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)
et amic fire day 360x405 min rectangular 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

B6: MEDIC BASIN & FITTINGS (SICK BAY)

Wifeous china 310 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 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.

Combination of sanitaryware, accessories and general fittings comprising of:

Paper towel dispenser K8 and bin type K3.

• 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.

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 (cupboard 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

K5: SOAP HOLDER

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 Sa finish, including screws and dowels and all other necessary accessories in accordance to manufacturer's specifications.

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.

n 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 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 al 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 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 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 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 surrou 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

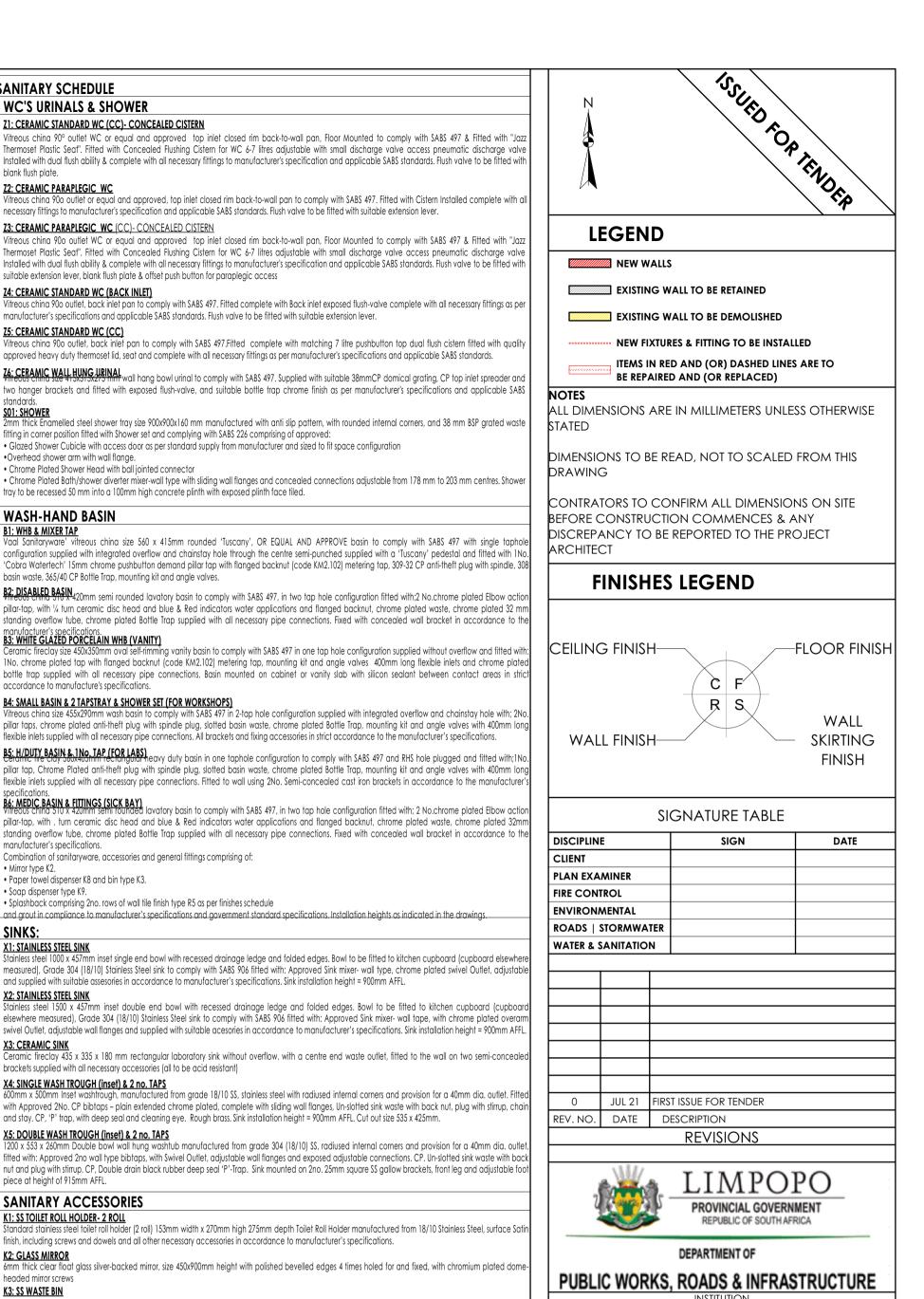
G5: WINDOW NORMAL BLINDS(vertical fabric) 27 mm vertical deco blinds with anodised aluminium headrail fitted with colour coordinated insert. All runners o be wheeled and fitted with individual clut mechanism. All runners to be connected by stainless steel links. Tilt mechanism to be operated by a nylon 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.

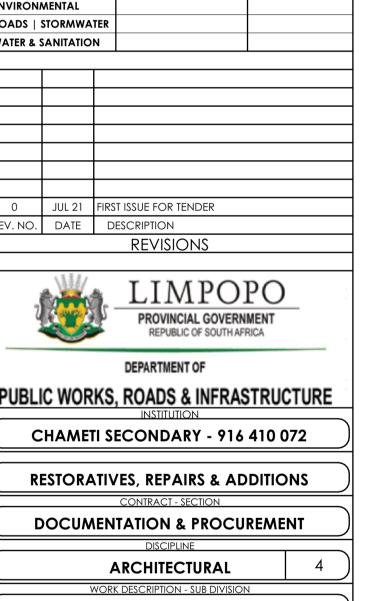
G6: FLOOR DRAIN Cast iron flat type full-flow outlets size 110 mm diameter with centre bolt, , including connections to downpipes.

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 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.





AS SHOWN CHECK NOV 201 A. SINKALA 24750409 CONSULTANT **TECTURA PROJECTS** www.tecturail.com LSO IN NAIROBI, KENYA AND GABORONE, BOTSWAN, CONTRACTOR

> AUTOCAD PRO IECT NUMBER LDPW - PROF/16002/F01

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 SARS 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

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 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

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

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

applied from 2100 mm above finished floor level to ceiling height all in strict compliance to manufacturer's instructions. All to be

CEILING AND CORNICE:

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

nanufactured 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 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 tructural 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)

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

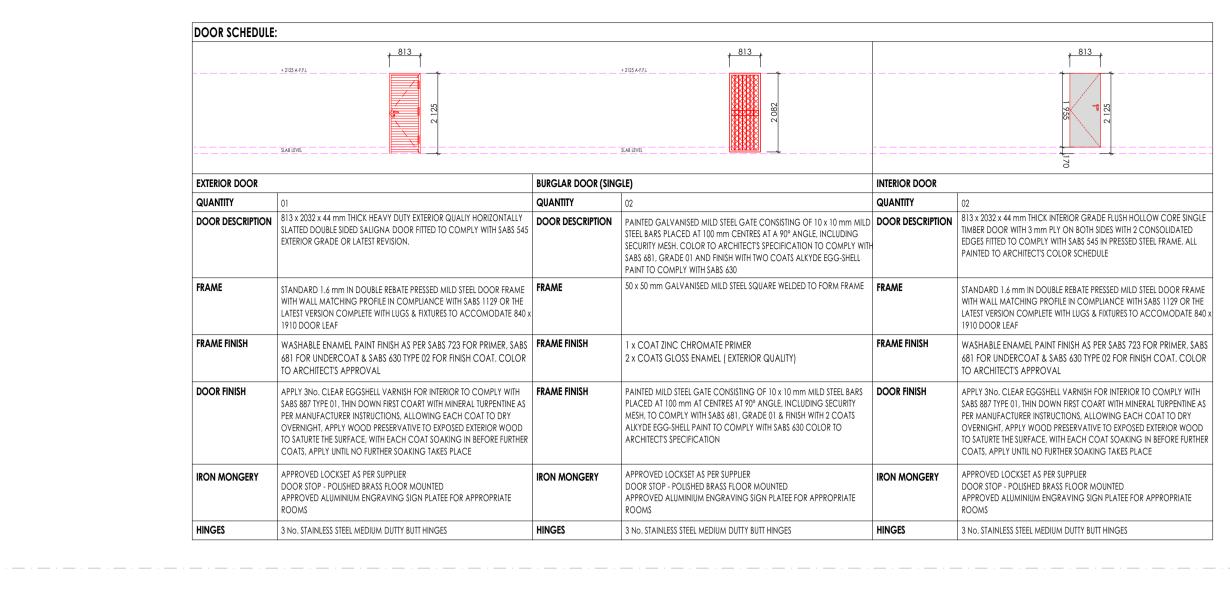
omplying with ISQ 550 (31). The profile shall have three trapezoidal ribs at 203mm centers giving a net cover of 406mm. The rib height shall be 41mm and provide capillary breaks. The male rib shall have spurs at 283mm centers to ensure a positive double interlocking action at side-laps. Each pan shall 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

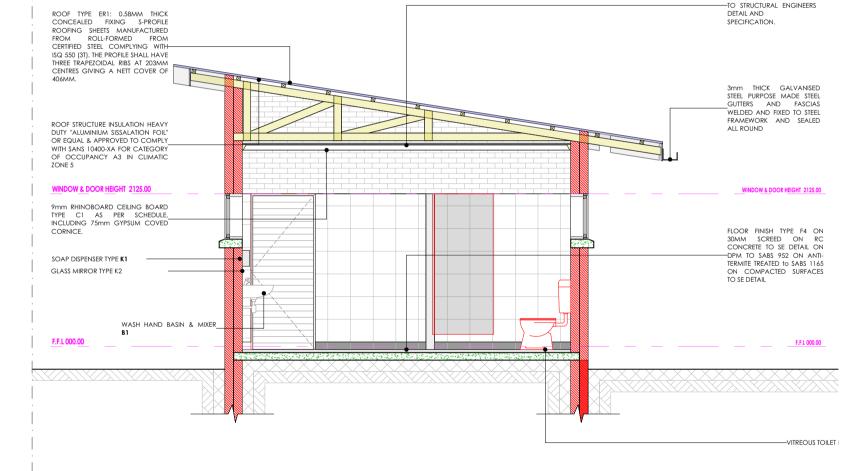
Galvanised Steel (GI) Gutter: 150mm Wide x 100mm Deep x 0.6mm Eaves Gutter of Commercial Grade Steel With Class 2275 Galvanising To Comply With SABS 934 or latest Revision Fixed To Painted Fibre Cement Fascia Board Together with standard accessories discharging into

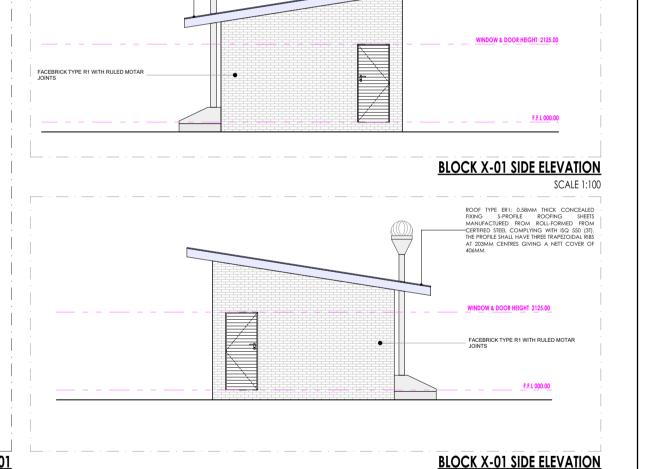
Downpipe: 110 x110 x 0.6mm Thick Commercial Grade Galvanised Steel Sheet With Class Z275 Galvanising To Comply With SABS 934 or Latest Revision to or built into walls or cast in concrete columns fixed to brickwork or steel including brackets and self-taping screws To Manufacturer Installation Instructions.

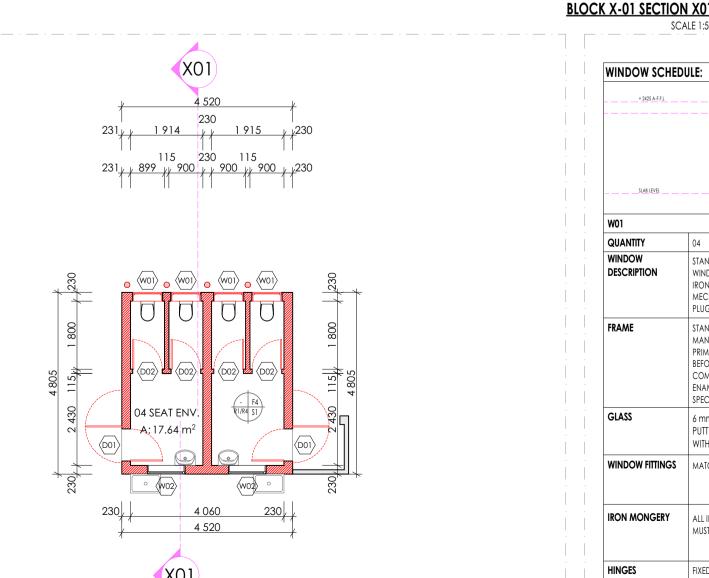
Fascia board: 250 x 10 mm Fibre- Cement Fascia/Barge Board, Screw Fixed To Truss Ends & Counter Batten With Countersunk Brass Screws. Prepare & Apply One Universal Undercoat & Two Coats Super Acrylic P.V.A.



FACEBRICK TYPE R1 WITH RULED MOTAR FACEBRICK TYPE R1 WITH RULED MOTAR BLOCK X-01 REAR ELEVATION CONCRETE SLAB

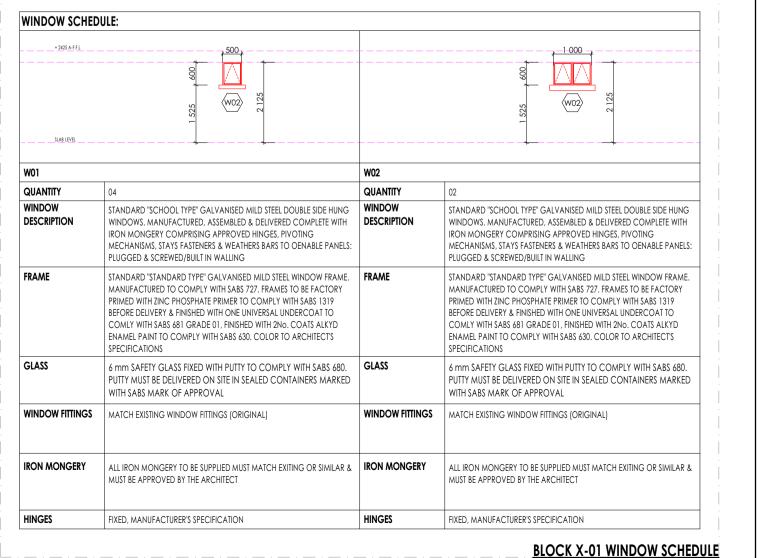






BLOCK X-01 FLOOR PLAN

SCALE 1:100



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 Flushina Cistern for WC 6-7 litres adjustable with small discharae valve access pneumatic discharae 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 parapleaic 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

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

BLOCK X-01 DOOR SCHEDULE

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, 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 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) 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

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 310 x 420mm semi rounded lavatory basin to comply with SABS 497, in two tap hole configuration fitted with; 2 No.chrome plated Elbow activities to the same plated 200. 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 t manufacturer's specifications.

Combination of sanitaryware, accessories and general fittings comprising of:

Paper towel dispenser K8 and bin type K3.

• 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.

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, adjustate 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 (cupboa 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-conceale 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 ba 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 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. K5: SOAP HOLDER

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.

Single semi-recessed ceramic soap dish Complete with all necessary accessories and installed in accordance to manufacturer's specifications.

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 screws 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 Complete

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

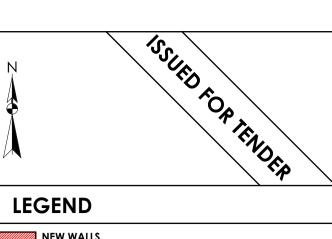
mitred at the corners. To be fitted complete with fixing brackets, screws and wall plugs at 900mm above floor level G5: WINDOW NORMAL BLINDS(vertical fabric) 27 mm vertical deco blinds with anodised aluminium headrail fitted with colour coordinated insert. All runners o be wheeled and fitted with individual 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

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 Util chalk board surfaces to be matt and finely structured, olive green in colour (Vitrex Colour Reference - Chalk Board Green LM1797/2), supplied complete wil 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

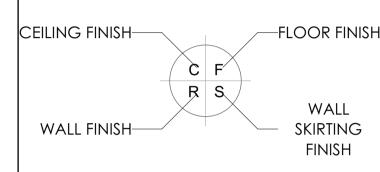
DIMENSIONS TO BE READ, NOT TO SCALED FROM THIS

DRAWING CONTRATORS TO CONFIRM ALL DIMENSIONS ON SITE BEFORE CONSTRUCTION COMMENCES & ANY

FINISHES LEGEND

DISCREPANCY TO BE REPORTED TO THE PROJECT

ARCHITECT



		<u> </u>	GNATURE TABLE			
DISCIPLINI	E		SIGN	DATE		
CLIENT						
PLAN EXA	MINER					
FIRE CONT	rol					
ENVIRONA	MENTAL					
ROADS S	STORMWAT	ER				
WATER & S	ANITATION					
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RESTORATIVES, REPAIRS & ADDITIONS

DOCUMENTATION & PROCUREMENT

ARCHITECTURAL STAGE 04 ARCHITECTURAL

X-01 FLOOR | SECTION | SIDES | SCHEDULES F01-401-01 **SMTN** AS SHOWN T.M CHECK

NOV 2019 A. SINKALA 24750409 CONSULTANT

SCALE



27 (0)13 754 6579 www.tecturail.com LSO IN NAIROBI, KENYA AND GABORONE, BOTSWANA

CONTRACTOR

AUTOCAD PROJECT NUMBER

LDPW - PROF/16002/F01

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

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.

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.

S3: CEMENT SAND SCREED 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

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.

floor finish to PA's approval. All to be manufactured and installed in strict compliance With SABS 1083 or latest revision.

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 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 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 to 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

Emulsion (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)

Manufacturer Installation Instructions.

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

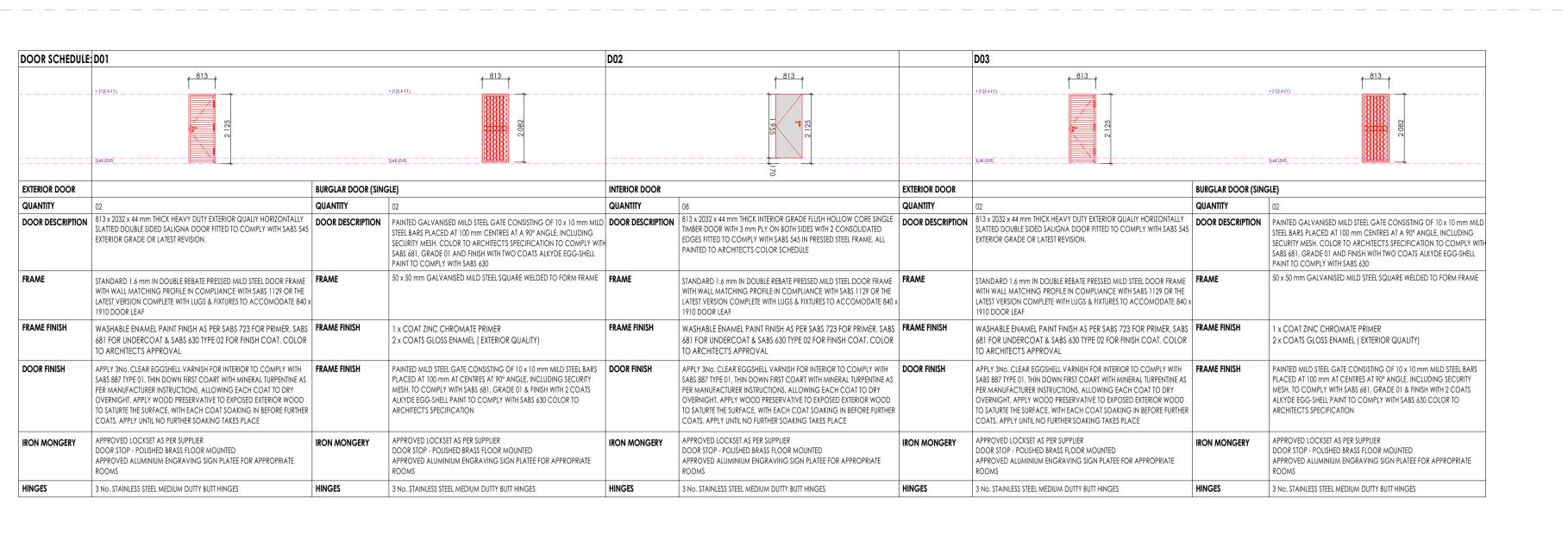
complying with ISQ 550 (3T). The profile shall have three trapezoidal ribs at 203mm centers giving a net cover of 406mm. The rib height shall be 41mm and provide capillary breaks. The male rib shall have spurs at 283mm centers to ensure a positive double interlocking action at side-laps. Each pan shall 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 Comply With SABS 934 or latest Revision Fixed To Painted Fibre Cement Fascia Board Together with standard accessories discharging into

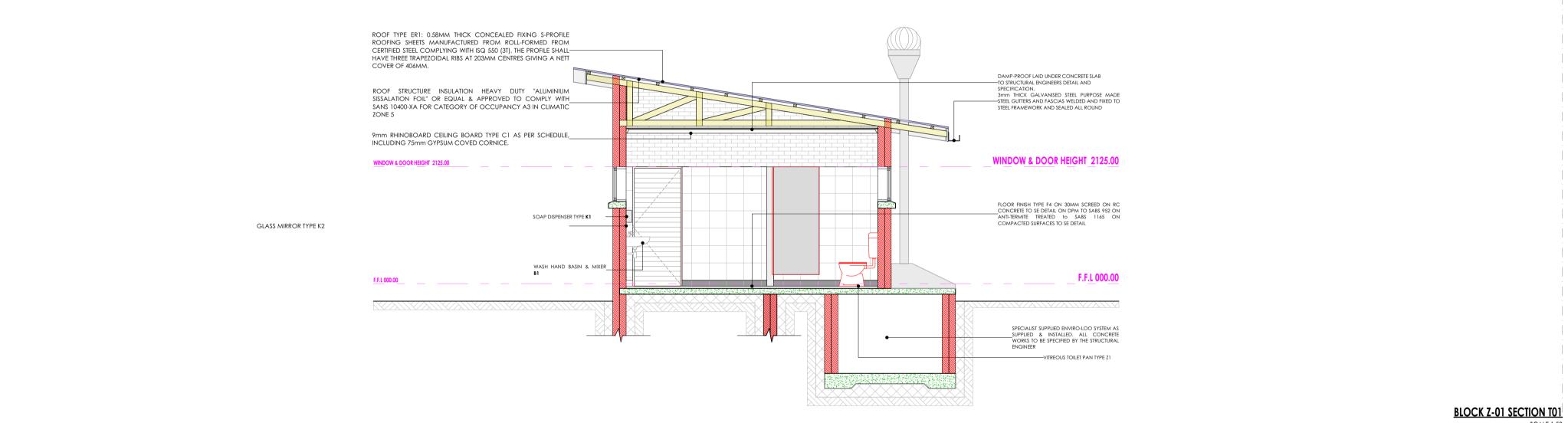
Insulation: SHALL EITHER BE: 1: where there are acoustic ceilings susspeded board, a heavy duty "Aluminium sisalation foil" shall be installed

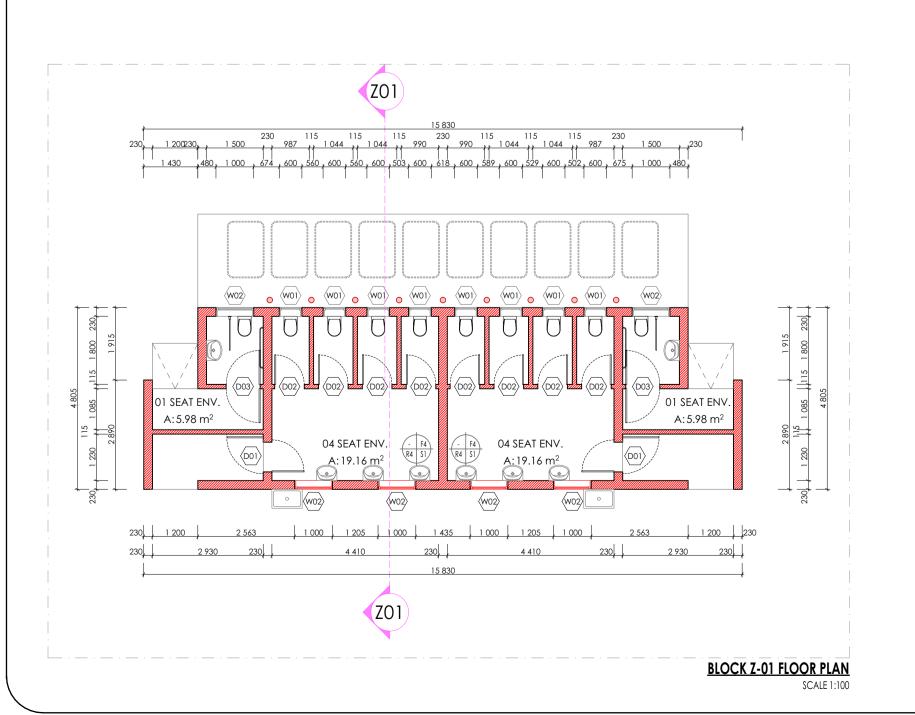
Downpipe: 110 x110 x 0.6mm Thick Commercial Grade Galvanised Steel Sheet With Class Z275 Galvanising To Comply With SABS 934 or Latest Revision to or built into walls or cast in concrete columns fixed to brickwork or steel including brackets and self-taping screws To

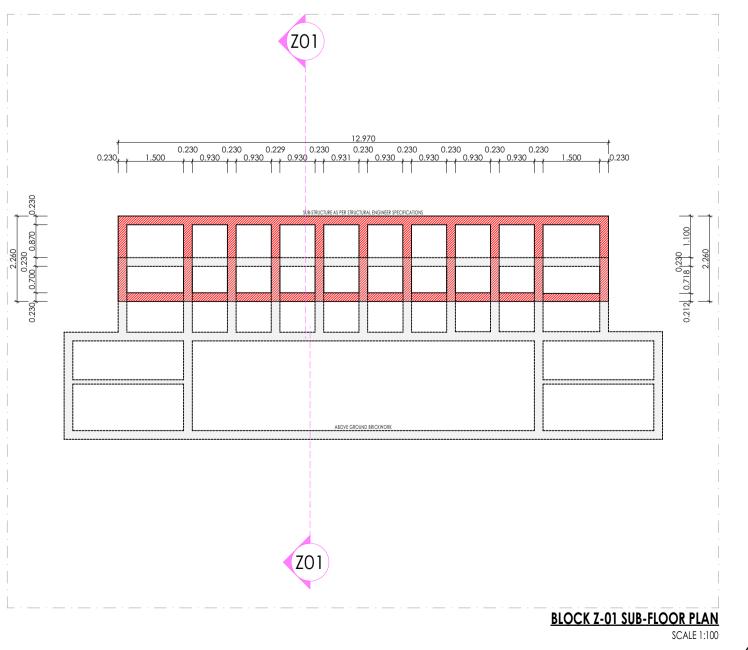
Fascia board: 250 x 10 mm Fibre- Cement Fascia/Barge Board, Screw Fixed To Truss Ends & Counter Batten With Countersunk Brass Screws. Prepare & Apply One Universal Undercoat & Two Coats Super Acrylic P.V.A.

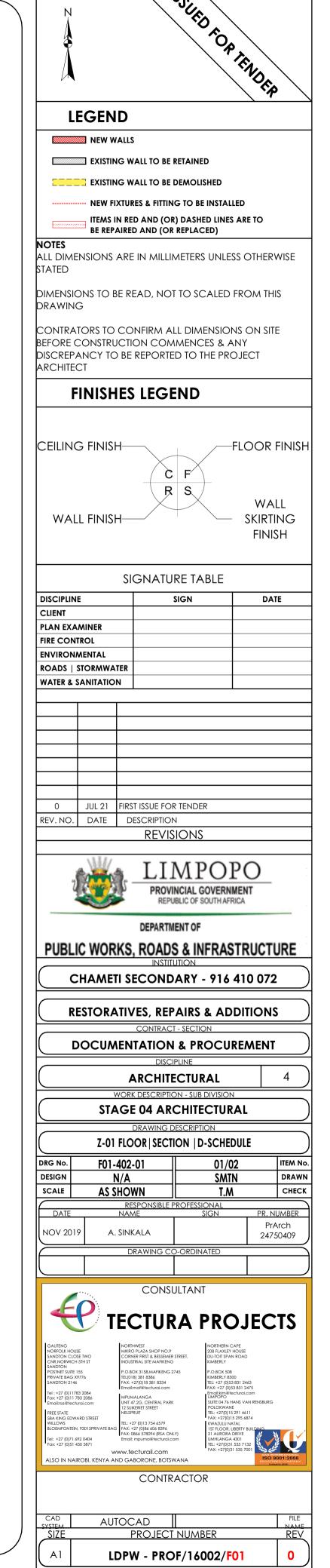


BLOCK Z-01 DOOR SCHEDULE SCALE 1:100









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 alued with conducive adhesive To SARS 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

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.

vanished with 3No. coats of egg shell clear vanish to comply with SABS/SANS 381 type 1.

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

R4: GLAZED CERAMIC WALL TILES / ENAMEL PAINT COMBO

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

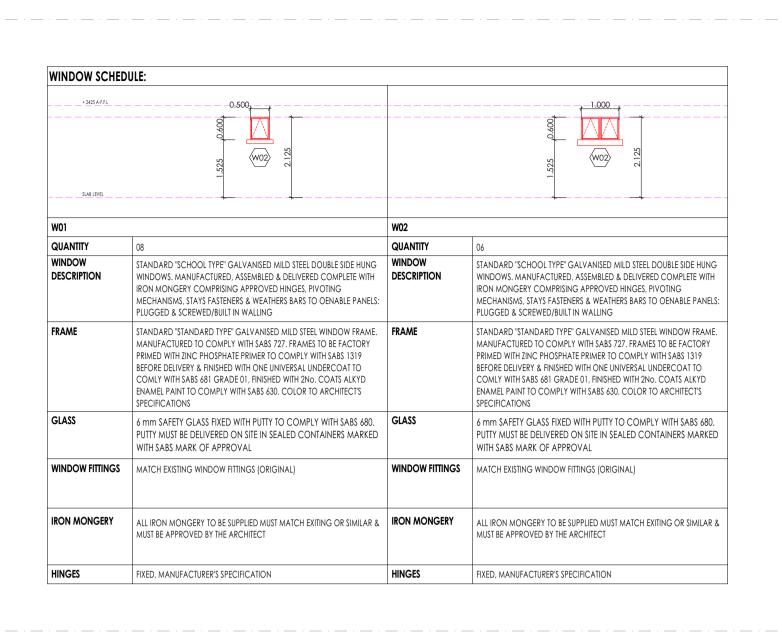
omplying with ISQ 550 (3T). The profile shall have three trapezoidal ribs at 203mm centers giving a net cover of 406mm. The rib height shall be 41mm and provide capillary breaks. The male rib shall have spurs at 283mm centers to ensure a positive double interlocking action at side-laps. Each pan shall 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.

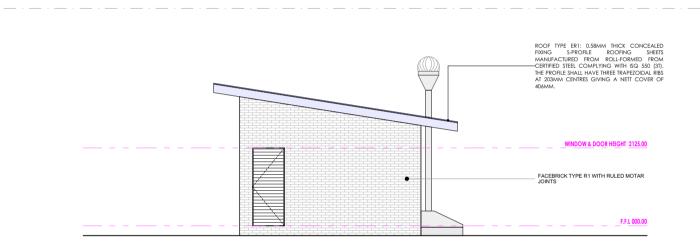
Galvanised Steel (GI) Gutter: 150mm Wide x 100mm Deep x 0.6mm Eaves Gutter of Commercial Grade Steel With Class Z275 Galvanising To Comply With SABS 934 or latest Revision Fixed To Painted Fibre Cement Fascia Board Together with standard accessories discharging into

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

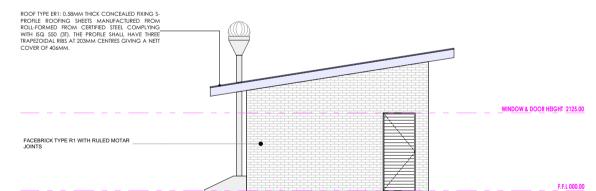
Fascia board: 250 x 10 mm Fibre- Cement Fascia/Barge Board, Screw Fixed To Truss Ends & Counter Batten With Countersunk Brass Screws. Prepare & Apply One Universal Undercoat & Two Coats Super Acrylic P.V.A.



BLOCK Z-01 WINDOW SCHEDULE



BLOCK Z-01 SIDE ELEVATION



BLOCK Z-01 SIDE ELEVATION

BLOCK Z-01 REAR ELEVATION

BLOCK Z-01 FRONT ELEVATION

SCALE 1:100

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 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

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 "Jaz 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.

76: 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 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 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 t

B3: WHITE GLAZED PORCELAIN WHB (VANITY) mic 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) ous 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)

Willeous china 310 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:

Paper towel dispenser K8 and bin type K3.

• 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.

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 (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. outle

fitted with: Approved 2no wall type bibtaps, with Swivel Outlet, adjustable wall flanges and exposed adjustable connections. CP. Un-slotted sink waste with ba 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 Sc finish, including screws and dowels and all other necessary accessories in accordance to manufacturer's specifications.

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 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

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 screws

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 per

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

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. To

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

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 surrou 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 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) 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.

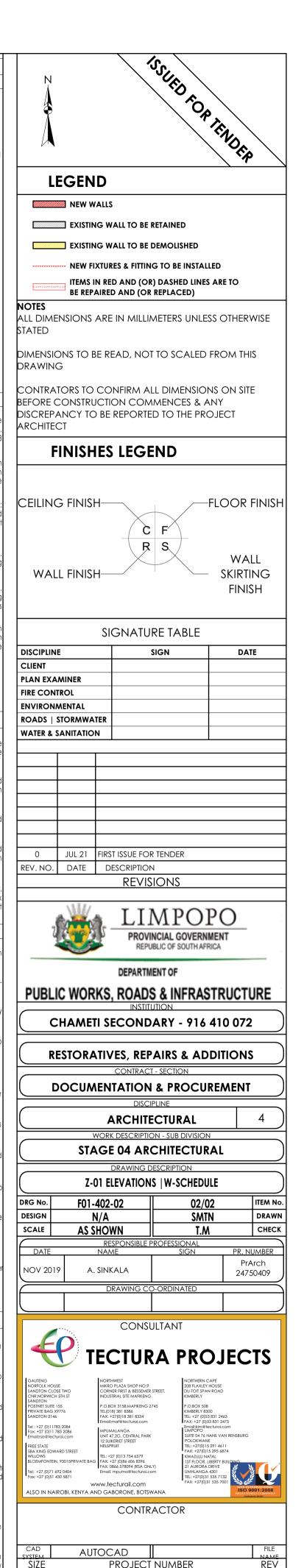
G6: FLOOR DRAIN Cast iron flat type full-flow outlets size 110 mm diameter with centre bolt, , including connections to downpipes.

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 expansior

accordance with the manufacturer's instructions.

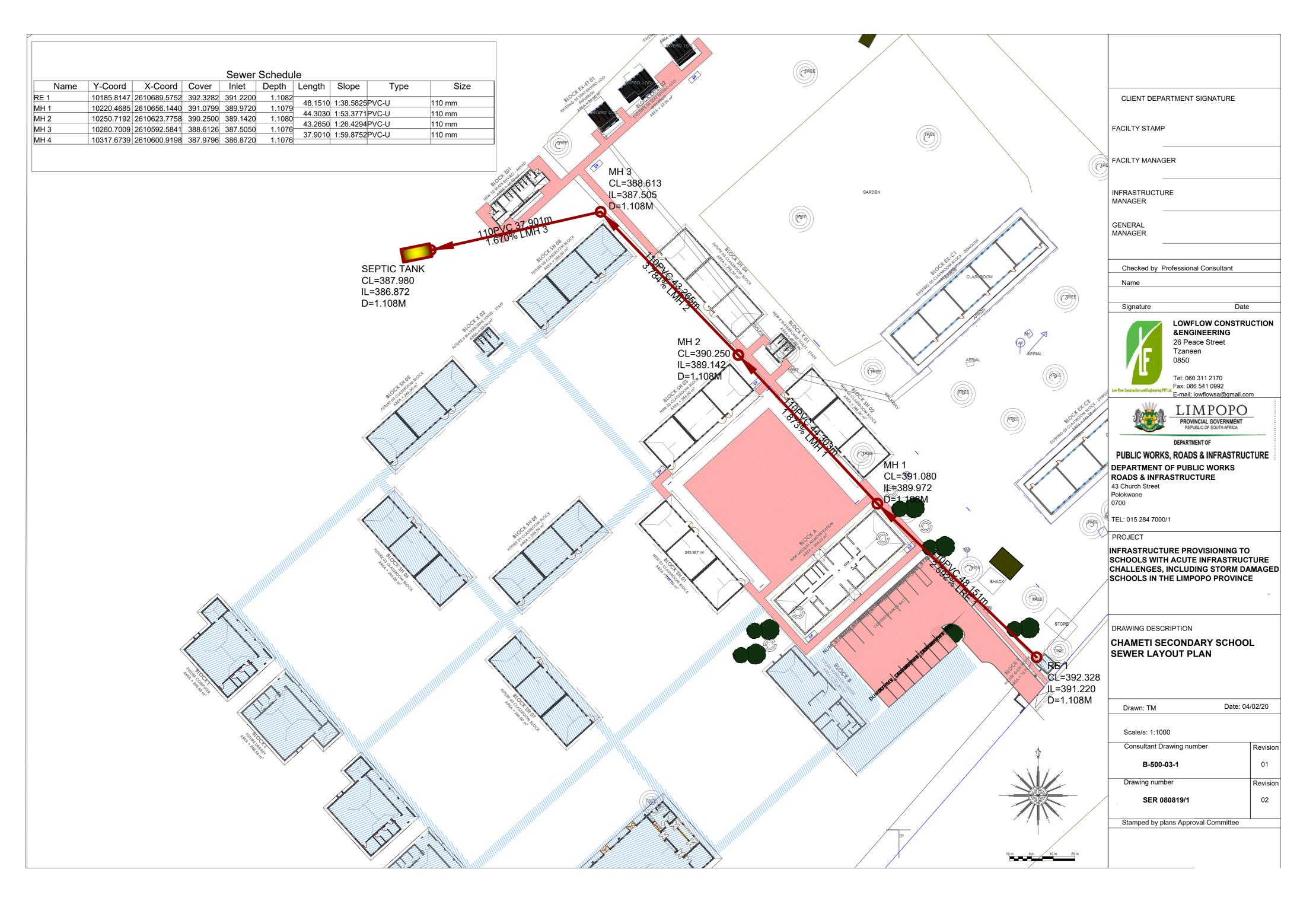
joints, in accordance to the manufacturer's specifications. G8: CHALKBOARDS- GREEN SURFACE COLOUR m 1000 standard WRITEBOARD or EQUAL & APPROVED vitreous enamelled steel utility school chalkboards wall-mounted size 4800mm x 1140mm his nanufactured in accordance with SABS Standard CKS 36/2004 Edition 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

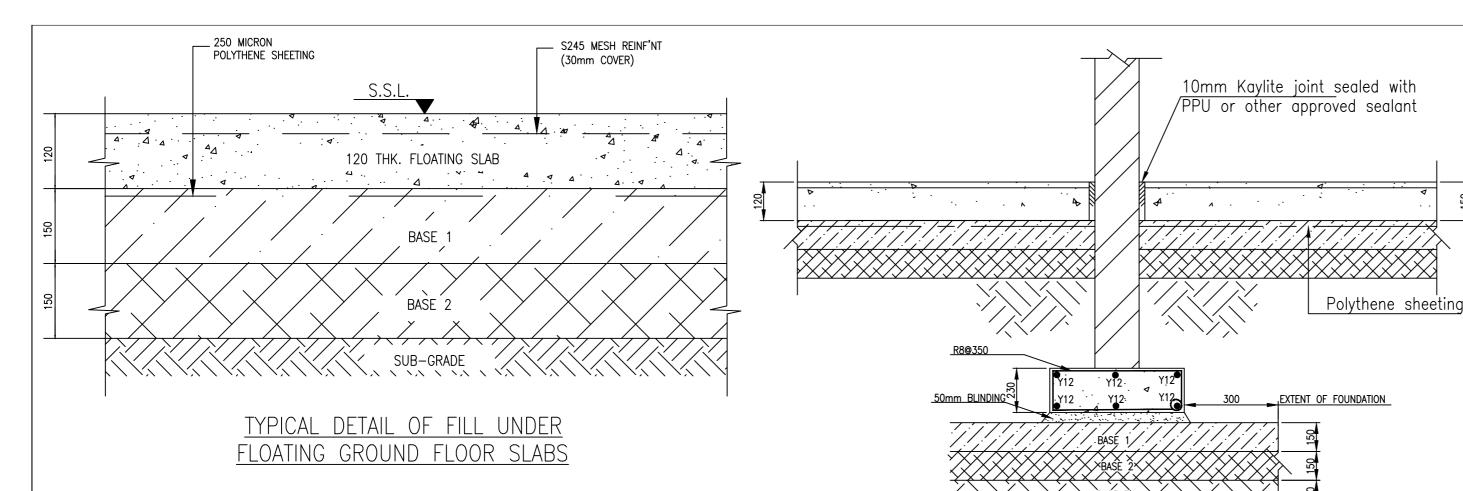


LDPW - PROF/16002/F01

CIVIL DRAWINGS







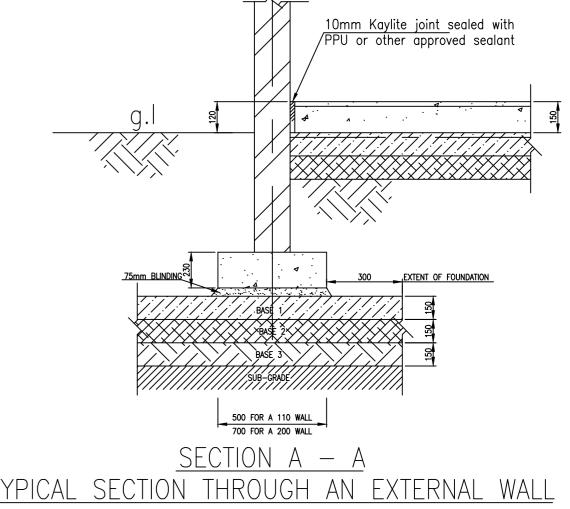
UNDER FLOOR TREATMENT

- 1. REMOVE TOP 150mm SOIL TO WASTE.
- 2. SCARIFY TOP OF IN-SITU MATERIAL & COMPACT TO 90% MOD AASHTO (SUB-GRADE)
- 3. IMPORT GRAVEL OF G7 TYPE & STABILISE WITH 2-3% CEMENT TO ACHIEVE 150mm OF WELL COMPACTED FILL TO 93% MOD AASHTO (BASE 2)
- 4. IMPORT GRAVEL OF G7 TYPE & STABILISE WITH 2-3% CEMENT TO ACHIEVE 150mm OF WELL COMPACTED FILL TO 95% MOD AASHTO (BASE 1)

500 FOR A 110 WALL 700 FOR A 220 WALL

TYPICAL SECTION THROUGH AN INTERNAL WALL

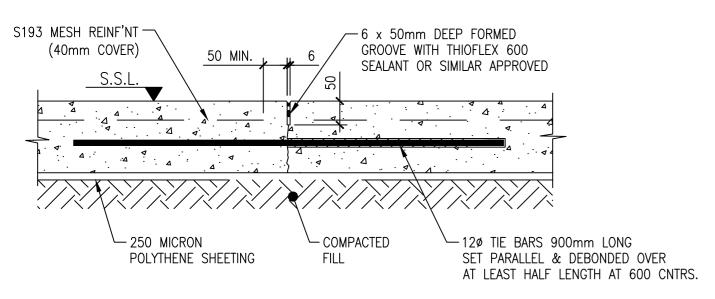
Scale 1:25



TYPICAL SECTION THROUGH AN EXTERNAL WALL Scale 1:25

FOUNDATION TREATMENT

- 1. SCARIFY TOP OF FOUNATION MATERIAL & COMPACT TO 90% MOD AASHTO (SUB-GRADE)
- 2 IMPORT GRAVEL OF G7 TYPE & STABILISE WITH 2-3% CEMENT
- TO ACHIEVE 150mm OF WELL COMPACTED FILL TO 93% MOD AASHTO (BASE 3)
- 3. IMPORT GRAVEL OF G7 TYPE & STABILISE WITH 2-3% CEMENT TO ACHIEVE 150mm OF WELL COMPACTED FILL TO 95% MOD AASHTO (BASE 2)
- 4. IMPORT GRAVEL OF G7 TYPE & STABILISE WITH 2-3% CEMENT
- TO ACHIEVE 150mm OF WELL COMPACTED FILL TO 97% MOD AASHTO (BASE 1)



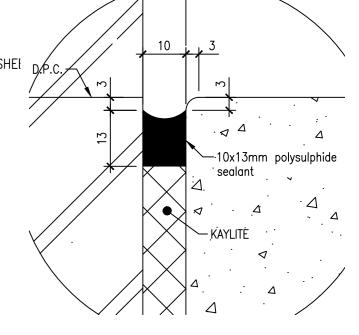
FORMED DEBONDED CONTRACTION JOINT DETAIL SCALE 1: 10

-6 x 50mm DEEP FORMED S193 MESH REINF'NT GROOVE WITH THIOFLEX 600 (40mm COVER) 50 MIN. SEALANT OR SIMILAR APPROVED COMPACTED - 250 MICRON 12ø TIE BARS 900mm POLYTHENE SHEETING LONG AT 600 CNTRS. FILL PLACED CENTRALLY

> FORMED TIED CONSTRUCTION JOINT DETAIL SCALE 1 : 10

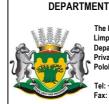
-S193 MESH REINF'NT (40mm COVER) D.P.C. 250 MICRON POLYTHENE SHEE COMPACTED - KAYLITE

ISOLATION JOINT (I.J. (WALL / SLAB INTERFACE) SCALE 1:10



No	DATE	RE√ISION	CONSULT	DIR

CHECKED BY DRAWN BY NTB TM CHECKED BY



DEPARTMENT OF PUBLIC WORKS Department of Public Works Private Bag X9490



LOWFLOW CONSTRUCTION & ENGINEERING 26 Peace Street

Tel: 060 311 2170

Fax: 086 541 0992 E-mail: lowflowsa@gmail.con

	CONTRACT
CHIEF ENGINEER-LPG-DPWR&I DATE	CHAI
CONSULTING ENGINEER DATE	FOUNDATION

	CONTRACT NO.: LDPW.PROF/11026	ISSUED FOR TENDER (Full Signature)	SHEET 1 OF 1
al DATE	CHAMETI SECONDARY SCHOOL	2016/ / For: Department of Public Works	SCALE:
		2016/ / For: Consultant	AS SHOWN
	FOUNDATION TREATMENT DETAIL	CONSULTANT DRAWING NUMBER:	DRAWING NUMBER:
DATE		LFCM-005-BOS-201/1	LFCM005-BOS-201/1



PAVEMENT LAYERS DETAILS (PARKING AREAS)

80mm PAVING BLOCKS WITH 20mm SAND

150mm THICK NATURAL IN SITU GRAVEL OR IMPORTED GRAVEL (G7) COMPACTED TO 95% Mod AASHTO DENSITY.

150mm THICK NATURAL IN SITU GRAVEL RIP AND COMPACT TO 90% Mod AASHTO DENSITY.

1. SURFACING:

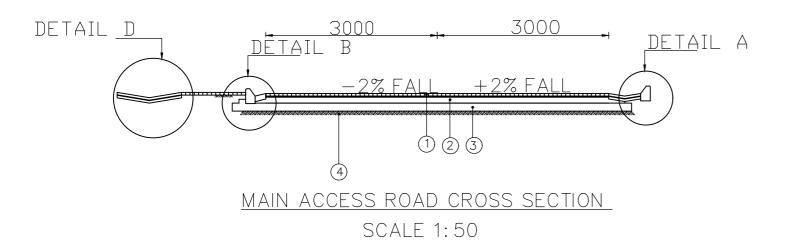
3. SUB-BASE:

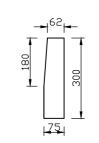
4. IN-SITU

2. BASE:

20mm Sand Below 60mm Paving Blocks paving blocks 150mm THICK NATURAL IN SITU GRAVEL OR IMPORTED GRAVEL (G7) COMPACTED TO 95% Mod AASHTO DENSITY. figure 5 kerb (Seec detail C 150mm THICK NATURAL IN SITU GRAVEL RIP AND COMPACT TO 90% Mod AASHTO DENSITY.

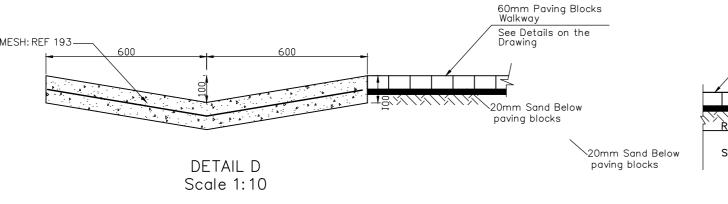
Walkway Cross Section SCALE 1:10

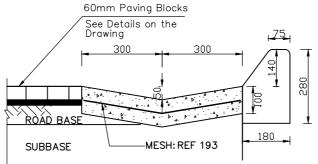




DETAIL C (Figure 5 Kerb)

Scale 1:10





DETAIL B (Figure 7 Kerb)

ROAD BASE

SUBBASE

Scale 1:10

Scale 1:10

DETAIL A (Figure 7 Kerb)

CLIENT DEPARTMENT SIGNATURE FACILTY STAMP **FACILTY MANAGER**

MANAGER GENERAL MANAGER

Checked by Professional Consultant

Name

INFRASTRUCTURE

Signature

LOWFLOW CONSTRUCTION &ENGINEERING 26 Peace Street Tzaneen 0850

Date

Tel: 060 311 2170 Fax: 086 541 0992 E-mail: lowflowsa@gmail.com



DEPARTMENT OF

PUBLIC WORKS, ROADS & INFRASTRUCTURE **DEPARTMENT OF PUBLIC WORKS**

ROADS & INFRASTRUCTURE 43 Church Street Polokwane

TEL: 015 284 7000/1

PROJECT

0700

INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH ACUTE INFRASTRUCTURE CHALLENGES, INCLUDING STORM DAMAGED SCHOOLS IN THE LIMPOPO PROVINCE

DRAWING DESCRIPTION

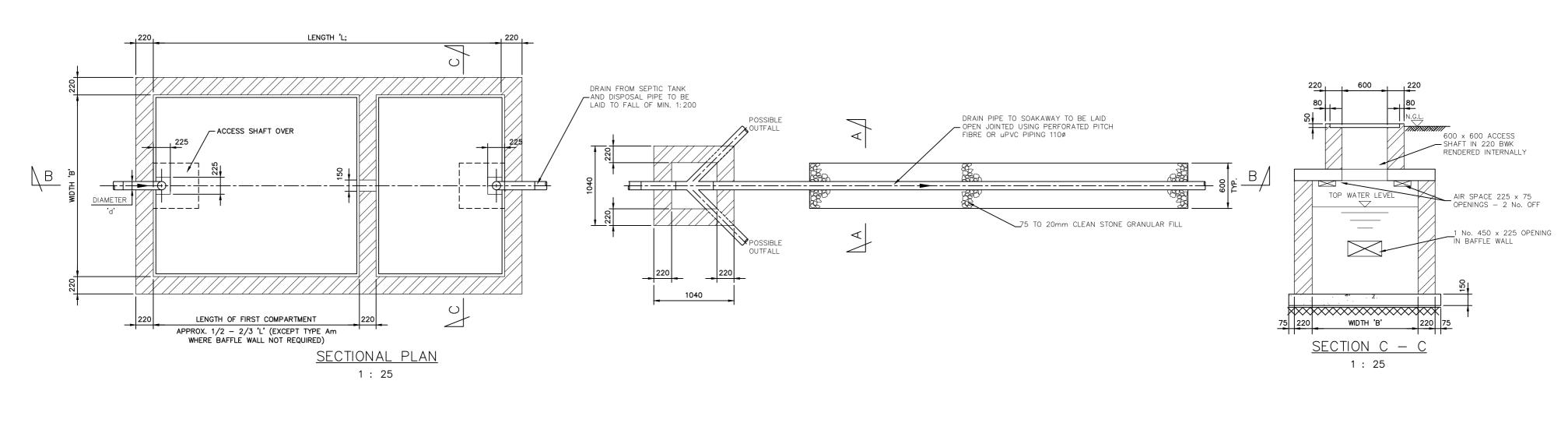
CHAMETI SECONDARY SCHOOL TYPICAL ROAD DETAIL

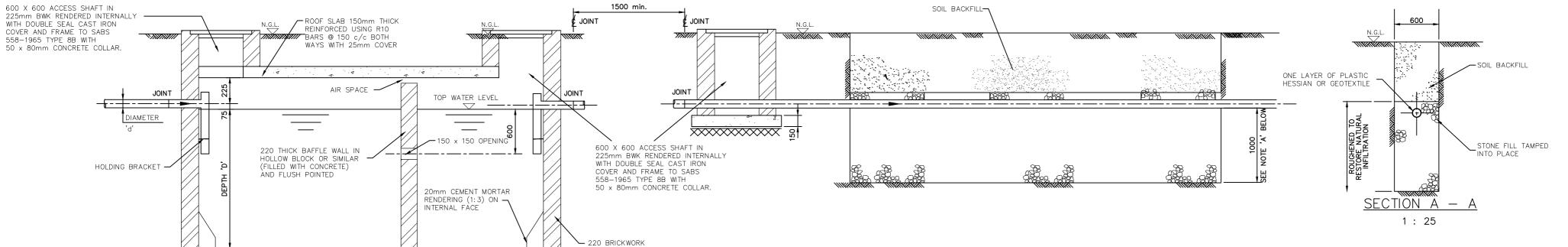
> Date: 04/02/20 Drawn: TM

Scale/s: 1:1000

Consultant Drawing number Revision B-500-03-1 01 Drawing number Revision ETH 080819/1 02

Stamped by plans Approval Committee





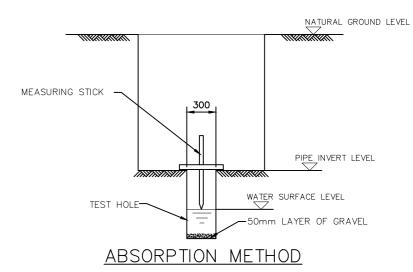
<u>SECTION B - B</u> NOTE A:
LENGTH OF SOAKAWAY TRENCH BASED ON 1m DEPTH BELOW INVERT
LEVEL OF PIPE. IF THIS DEPTH IS NOT POSSIBLE DUE TO LOCAL
CONDITIONS, THE LENGTH OF TRENCH SHOULD BE VARIED
ACCORDINGLY TO GIVE THE EQUIVALENT TRENCH SIDE WALL AREA.

∠50mm BLINDING

						···						
TYPE	NO. OF	DEPTH	WIDTH	LENGTH	CAPACITY		ERCOLATION R		JTES PER 25m			
11111	PERSONS	"D"m	"B"m	"L"m	m3	1 OR LESS	5 MINS	10 MINS	15 MINS	30 MINS	60 MINS	
Am	1-5	1.15	0.94	1.88	2.04	5.00	5.00	5.00	7.50	10.00	15.00	
Bm	6-10	1.15	0.94	2.35	2.55	5.00	7.50	10.00	15.00	20.00	30.00	
Cm	11-15	1.15	0.94	3.76	3.57	7.50	11.25	15.00	22.50	30.00	45.00	
Dm	16-20	1.15	0.94	4.23	4.59	10.00	15.00	20.00	30.00	40.00	60.00	
Em	21-25	1.29	0.94	4.70	5.72	12.50	18.75	25.00	37.50	50.00	75.00	
Fm	26-30	1.35	0.94	5.17	6.67	15.00	22.50	30.00	45.00	60.00	90.00	
Gm	31-35	1.12	1.41	4.70	7.50	17.25	26.25	35.00	52.50	70.00	105.00	
Hm	36-40	1.23	1.41	4.70	8.14	7.50	30.00	40.00	60.00	80.00	120.00	
Jm	41-50	1.29	1.41	5.64	10.30	10.00	37.50	50.00	75.00	100.00	150.00	
Km	51÷60	1.50	T,41	5.64	11:90	12.50	45.00	6U:00	90:00	120:00	180.00	
Lm	61-70	1.72	1.41	6.11	13.65	15.00	52.50	70.00	105.00	140.00	210.00	

PERCOLATION RATE TEST TO DETERMINE THE ABSORPTION RATE OF THE SOIL

- 1. EXCAVATE A TEST HOLE TO THE DEPTH OF THE PROPOSED SOAKAWAY TRENCH BY HAND OR BY AUGER WITH A DIAMETER OF BETWEEN 100mm AND 300mm. IN ORDER TO RECORD RESULTS ACCURATELY IT WILL BE NECESSARY TO DIG A PIT BELOW PIPE INVERT LEVEL PRIOR TO TAKING OUT THE TEST HOLE. REMOVE ALL LOOSE MATERIAL FROM THE BOTTOM OF THE HOLE AND REPLACE WITH A 50mm LAYER OF GRAVEL TO PREVENT SCOUR WHEN FILLING WITH
- FILL THE TEST HOLE WITH WATER TO A DEPTH OF 300mm AND MAINTAIN THIS LEVEL BY THE ADDITION OF MORE WATER FOR AT LEAST 4 HOURS BEFORE CARRYING OUT THE TEST.
- 3. AFTER ALLOWING THE SOAKING WATER TO PERCOLATE AWAY, FILL THE TEST HOLE TO A DEPTH OF 150mm WITH WATER AND MEASURE THE DROP IN WATER LEVEL OVER A PERIOD OF 30 mins. OR UNTIL THE WATER HAS DRAINED AWAY.
- 4. THE AVERAGE TIME FOR THE WATER TO DROP 25mm IS CALCULATED AND REPRESENTS THE PERCOLATINN RATE EXPRESSED IN MINUTES PER 25mm.



1: 25

No	DATE	REVISION	CONSULT	DIR

DESIGNED BY	NTB
CHECKED BY	тм
DRAWN BY	NTB
CHECKED BY	тм
APPROVED & ADOPTED BY	NTB

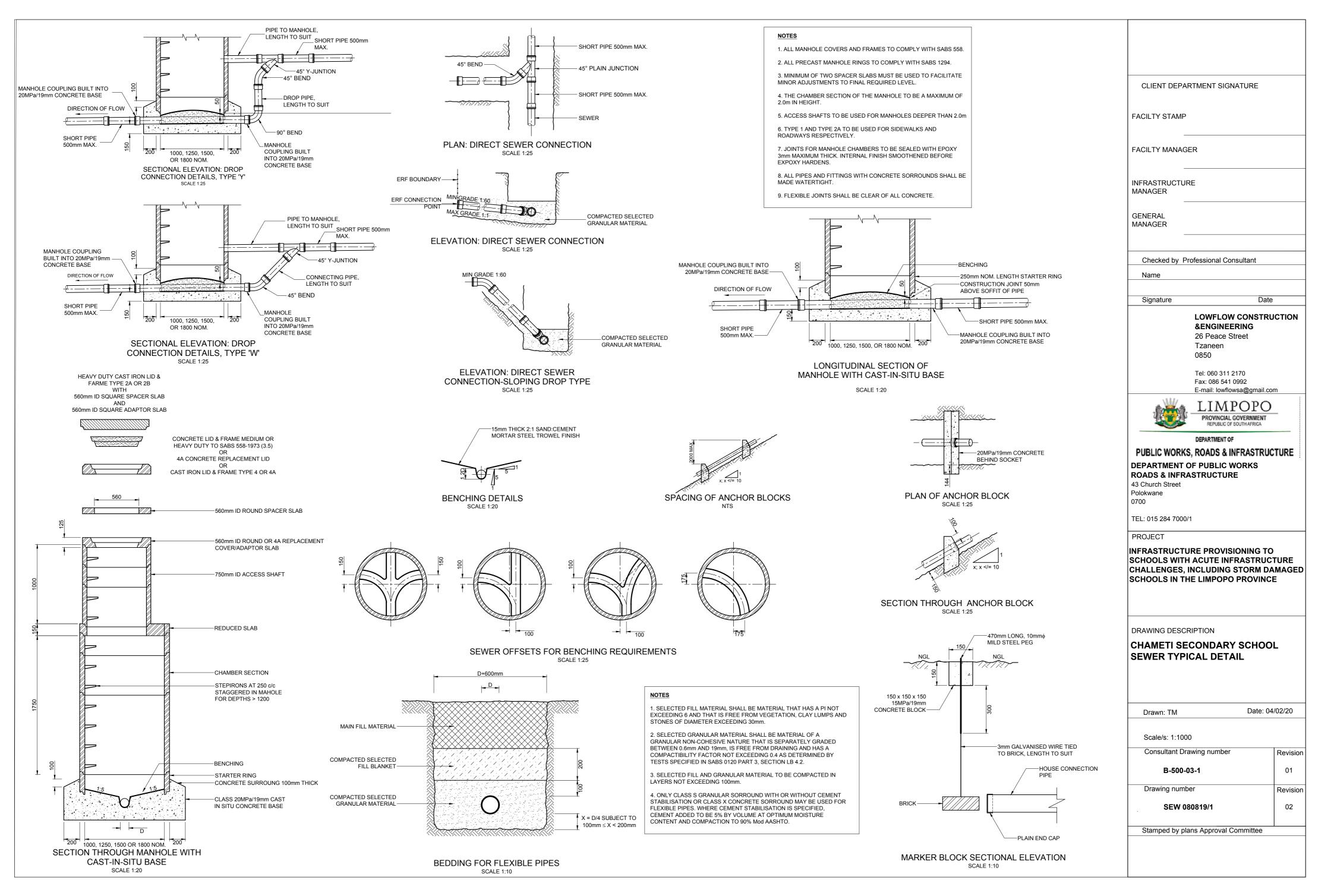
DEPARTMENT OF PUBLIC WORKS						
	The Head of department Limpopo Provincial Government Department of Public Works Private Bag X9490 Polokwane, 0700 Tel: +27 (0)15 284 7000 Fax: +27 (0)15 284 7030					

150mm THICK CONCRETE BASE

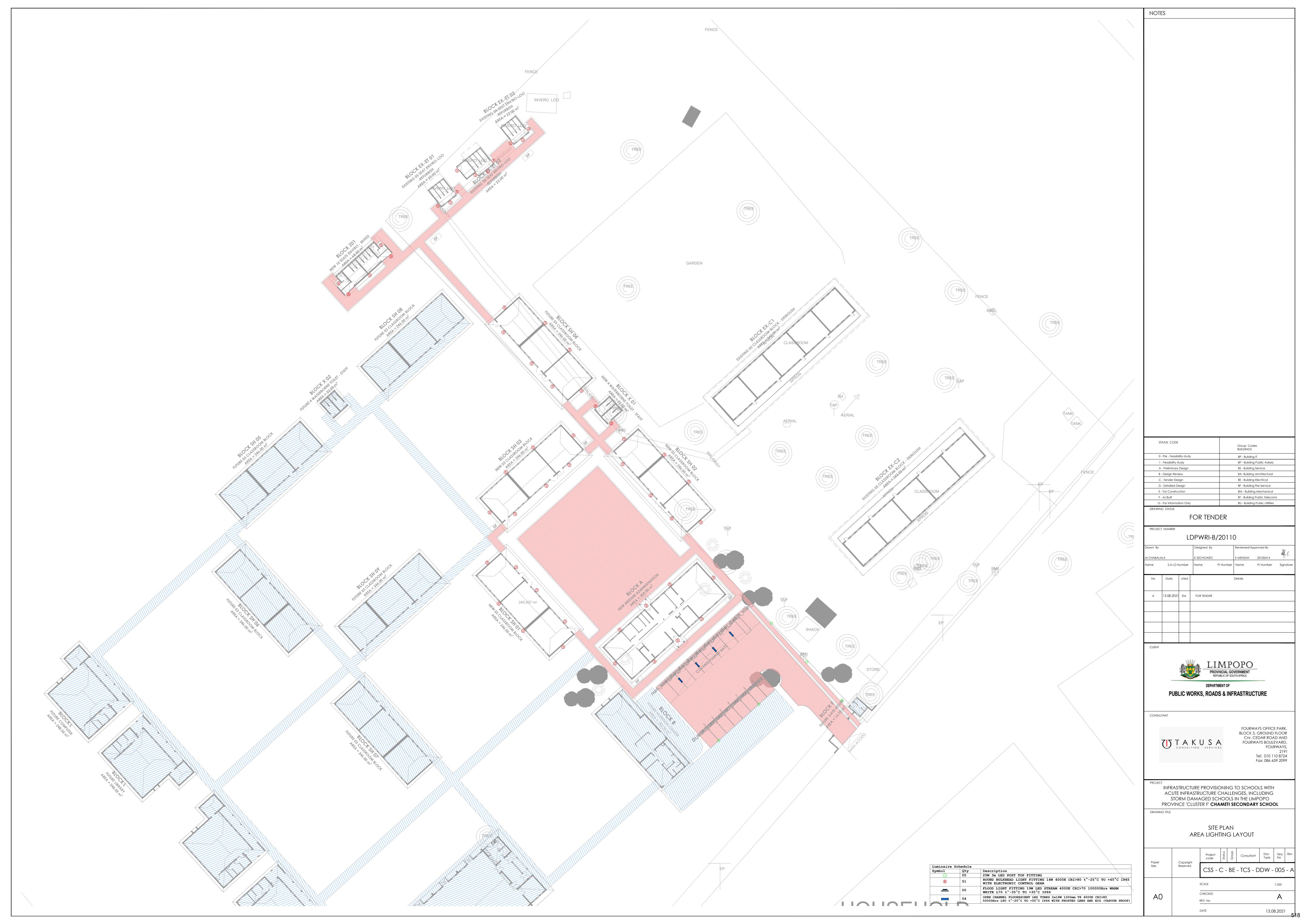
SLAB REINFORCED USING MESH REF. 245. CONCRETE CLASS 20MPa

Head Office LOWFLOW CONSTRUCTION & ENGINEERING 26 Peace Street Tzaneen 0850
Tel: 060 311 2170 Fax: 086 541 0992
E-mail: lowflowsa@gmail.com

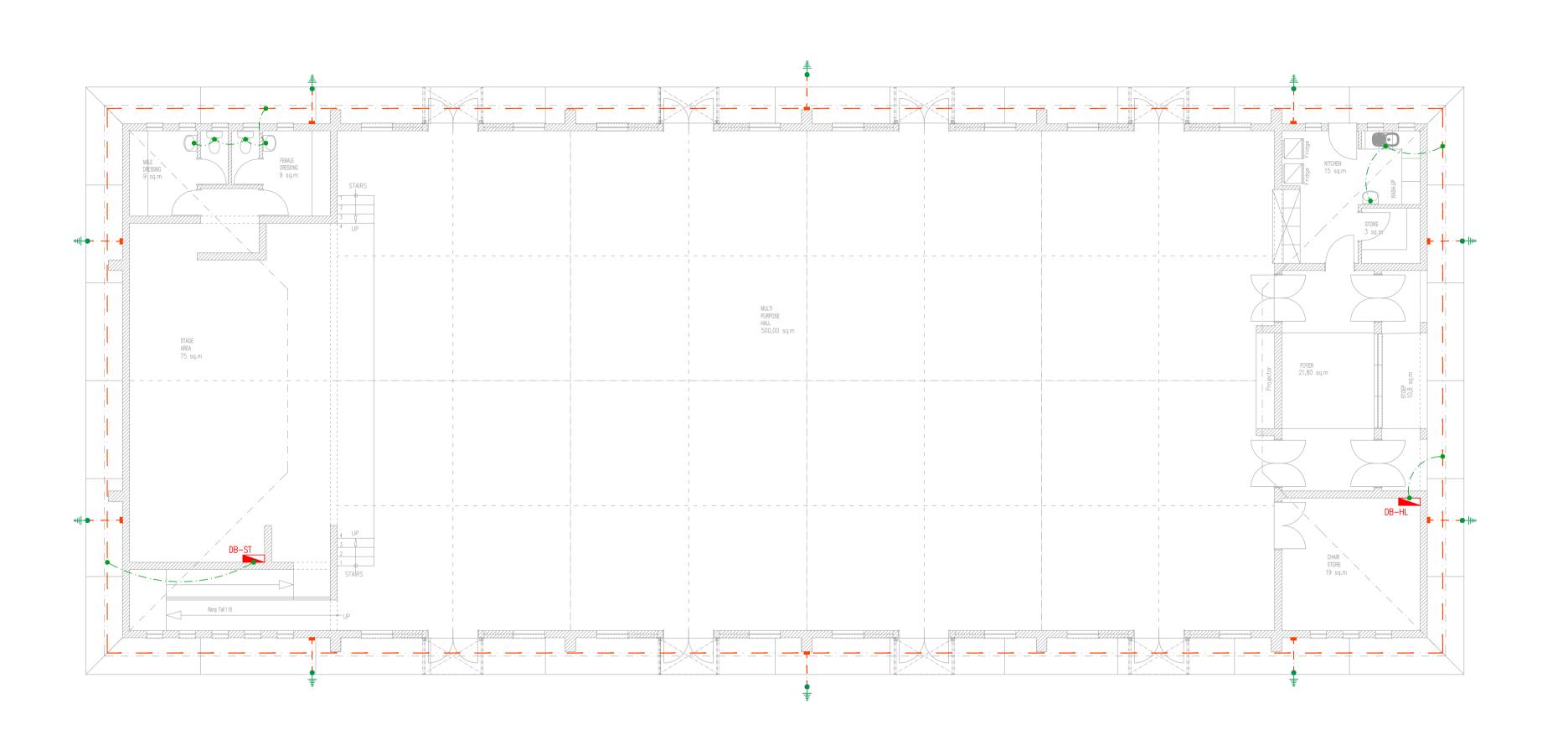
		ISSUED FOR TENDER	
	CONTRACT NO.: LDPW.PROF/11026	(Full Signature)	SHEET 1 OF 1
	CHAMETI SECONDARY SCHOOL	2016/ /	
IIEF ENGINEER-LPG-DPWR&I DATE	• · · · · · · · · · · · · · · · · · · ·	For: Department of Public Works	SCALE:
		2016/ / For: Consultant	AS SHOWN
		For: Consultant	
	SEPTIC TANK DETAIL	CONSULTANT DRAWING NUMBER:	DRAWING NUMBER:
CONSULTING ENGINEER DATE		LFCM-005-BOS-201/1	LFCM005-BOS-201/1



ELECTRICAL DRAWINGS







GENERAL NOTES: 1. EARTH TERMINATION CONDUCTOR TO BE 50mm2 BCEW. 2. BONDING CONDUCTOR TO BE 16mm2 BCEW. 3. EARTH ELECTRODE (SPIKE) TO BE Ø15mm x 1.5m LONG COPPER SOLID ROUND BAR, AND MUST BE 0.5m BURIED BELOW GROUND LEVEL. 4. EARTH CONDUCTOR TO BE 0.5m BURIED BELOW GROUND LEVEL. 5. ALL WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH: GP/E6/1 REV.1 - STANDARD QUALITY SPECIFICATION FOR GENERAL INSTALLATIONS (SCHOOLS) GP/E6/2 REV.1 - STANDARD QUALITY SPECIFICATION FOR MATERIALS AND EQUIPMENT (SCHOOLS) EARTH TERMINATION NOTES: EARTH TERMINATION SYSTEM GENERAL REQUIREMENTS: 2. TYPE B EARTHING ARRANGEMENT SHALL BE USED FOR ANY BUILDING INSTALLATION. THE RING EARTH ELECTRODE (TYPE B ARRANGEMENT) SHOULD PREFERABLY: - BE BURIED AT A DEPTH OF AT LEAST 0.5m AND - AT A DISTANCE OF ABOUT 1.5m AWAY FROM THE EXTERNAL WALLS UNLESS STATED OTHERWISE. 3. THE CALCULATION OF AN EARTH TERMINATION SYSTEM SHALL BE DONE IN ACCORDANCE WITH THE FORMULAE IN SANS 10199. DOWN CONDUCTORS: 1. DOWN CONDUCTORS MUST BE INSULATED BY AT LEAST 3mm CROSS LINKED 2. WARNING NOTICES TO BE INSTALLED TO MINIMISE THE PROBABILITY OF

EARTHING TEST POINT:

DOWN CONDUCTORS BEING TOUCHED.

1. EARTHING TEST POINT SHOULD BE CAPABLE OF BEING OPENED WITH THE AID OF TOOL.

THE COMPLETE INSTALLATION MUST COMPLY TO THE FOLLOWING SANS SPECIFICATION: - SANS 10142: THE WIRING OF PREMISES.

- SANS 10198: PART 3: EARTHING SYSTEMS GENERAL PROVISIONS.

- SANS 10198: PART 12: INSTALLATION OF EARTHING SYSTEMS.

- 10199: THE DESIGN AND INSTALLATION OF AN EARTH ELECTRODE.

- 10313: THE PROTECTION OF STRUCTURES AGAINST LIGHTNING.

- SANS 1063: EARTHING SYSTEMS GENERAL PROVISIONS.

SYMBOL DESCRIPTION EARTH CONDUCTOR DOWN CONDUCTOR EARTH ELECTRODE (SPIKE) BONDING TERMINATION EARTHING TEST POINT

STATUS CODE		DRAWING STATUS					No	Date	chkd	Details
	Group Codes BUILDINGS	FOF	RTENDER							
0 - Pre - Feasibility study	BP - Building IT	PROJECT NUMBER					Δ	14.08.2021	EM	FOR TENDER
1 - Feasibility study	BP - Building Public Adress							14.00.2021	LIVI	TORTENDER
A - Preliminary Design	BS - Building Service	LDF	WRI-B/20110							
B - Design Review	BA- Building Architectural									
C - Tender Design	BE - Building Electrical	Drawn By	Designed By	Reviewed/A	Approved By	1:1				
D - Detailed Design	BF - Building Fire Service	AA CHADALALA	K CECHO A DO	E A 4ENICALI	00100414	dy_(.				
E - For Construction	BM - Building Mechanical	M CHABALALA	K SECHOARO	E MENSAH	20100414	ı				
F - As Built	BT - Building Public Telecoms	Name S.A.I.D Nur	nber Name Pr Numbe	r Name	Pr Number	Signature				
G - For Information Only	BU - Building Public Utilities									

CLIENT LIMPOPO PROVINCIAL GOVERNMENT REPUBLIC OF SOUTH AFRICA DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE

TAKUSA CONSULTING - SERVICES

CONSULTANT

FOURWAYS OFFICE PARK, BLOCK 5, GROUND FLOOR Cnr. CEDAR ROAD AND FOURWAYS BOULEVARD, FOURWAYS,

Tel: (+27) 10 110 8724 HALL FLOOR PLAN Fax: (+27) 86 659 2099 EARTHING & LIGHTNING PROTECTION LAYOUT

ACUTE INFRASTRUCTURE CHALLENGES,

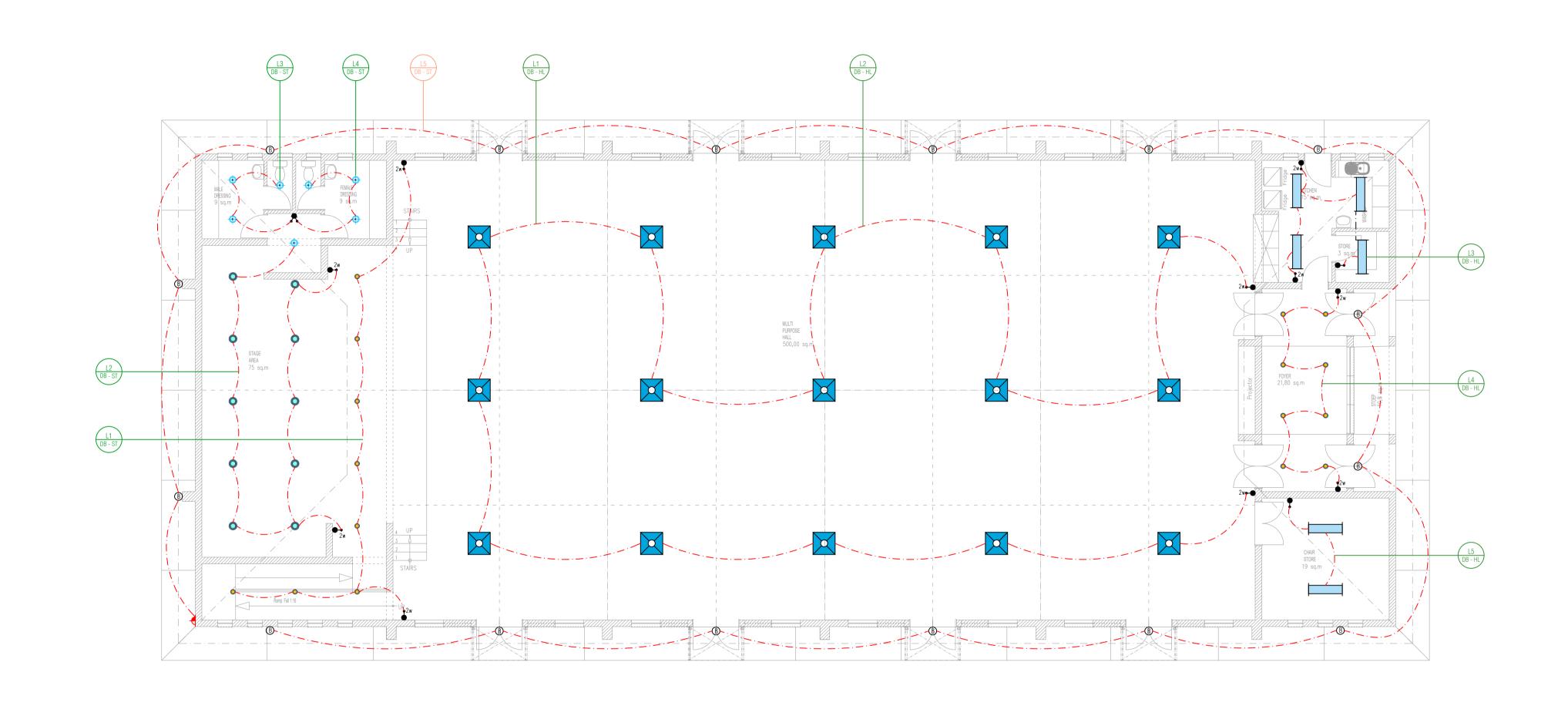
INCLUDING STORM DAMAGED SCHOOLS IN

THE LIMPOPO PROVINCE CLUSTER E

CHAMETI SECONDARY SCHOOL

Consultant INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH Copyright Reserved CSS - C - BE - TCS - TDW - 004/1 - A SCALE

1:100 CHECKED REV. No DATE 14.08.2021



LIGHTING LEGEND

ITE	и			DESCRIPTION	ON		QTY					
i	16A SING	LE LEV	ER LIGHT	SWITCH			02					
‡ 2	w 2WAY 16	A SINGL	E LEVER	LIGHT SWITCH			10					
¥	16A DOU	16A DOUBLE LEVER LIGHT SWITCH										
P	90 DEG. 1	90 DEG. MOTION SENSOR										
_	180 DEG.	180 DEG. MOTION SENSOR										
*	360 DEG.	360 DEG. MOTION SENSOR										
	DAY/NIGH	IT SWIT	гсн				01					
0	8 INCH 15	W LED	DOWNLIG	SHT			16					
0	TYPE B: 8	TYPE B: 8 INCH 15W LED DOWNLIGHT WITH DALI MODIFICATION										
•	10W LED	10W LED RONDO DOWNLIGHT WITH DALI MODIFICATION										
B	15W LED	ROUNE	BULKHE	AD WITH DALI MODIFICA	ATION		16					
	- VISUAL L	ED IP40) - 18W 120	00x50mm WITH DALI MO	DIFICATION		00					
	- VISUAL L	ED IP40) - 18W 150	00x50mm WITH DALI MO	DIFICATION		00					
				RROSION PROOF LIGH - EMERGENCY	T FITTING		00					
			D IP66 CO FICATION	RROSION PROOF LIGH	T FITTING		06					
	1200mm 2	2x 14W	LED OPEN	I CHANNEL FLUORESCE	ENT LUMINAIRE	=	00					
Þ		140W 90° IP65 SURFACE MOUNT LED LOW BAY WITH DALI MODIFICATION										
	60W EME WITH DAI			00mm LED PANEL RECE	SSED LIGHT FI	TTING	00					
			n LED PAN FICATION	IEL RECESSED LIGHT F	ITTING		00					
Project \$\frac{\partial}{2} & \frac{\partial}{2} &				Consultant	Doc Type	Sed	q Re					

STATUS CODE		DRAWING STATUS				No	Date	chkd	Details	
0W 1100 CCS2	Group Codes BUILDINGS	F(OR TENDER							
0 - Pre - Feasibility study	BP - Building IT	DDO IFOT AND ARED					٨	14.08.2021	EM	FOR TENDER
1 - Feasibility study	BP - Building Public Adress	PROJECT NUMBER				^	14.00.2021	LIVI	TORTENDER	
A - Preliminary Design	BS - Building Service	L[
B - Design Review	BA- Building Architectural									
C - Tender Design	BE - Building Electrical	Drawn By	Designed By	Reviewed/A	approved By	1.1				
D - Detailed Design	BF - Building Fire Service					AL_(.				
E - For Construction	BM - Building Mechanical	M CHABALALA	K SECHOARO	E MENSAH	20100414	ļ				
F - As Built	BT - Building Public Telecoms	Name S.A.I.D	Number Name Pr Num	ber Name	Pr Number	Signature				
G - For Information Only	BU - Building Public Utilities									

LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE

FOURWAYS OFFICE PARK,
BLOCK 5, GROUND FLOOR
Cnr. CEDAR ROAD AND
FOURWAYS BOULEVARD,
FOURWAYS,

CONSULTANT

FOURWAYS, DRAWING TITLE 2191 Tel: (+27) 10 110 8724 Fax: (+27) 86 659 2099

INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH ACUTE INFRASTRUCTURE CHALLENGES,
INCLUDING STORM DAMAGED SCHOOLS IN
THE LIMPOPO PROVINCE CLUSTER E
CHAMETI SECONDARY SCHOOL

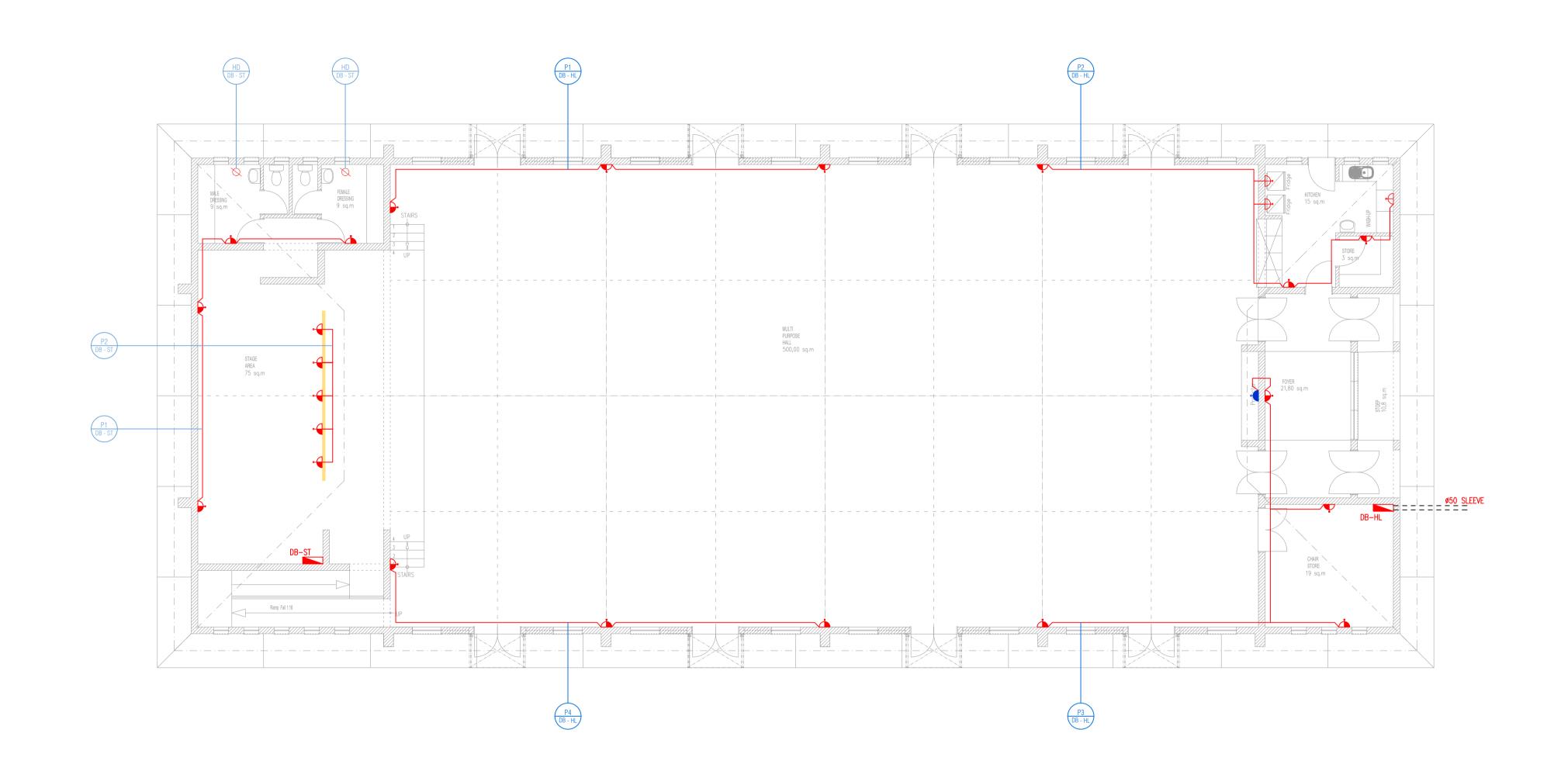
LIGHTING LAYOUT

HALL FLOOR PLAN

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DATE

1:100 CHECKED REV. No



POWER LEGEND

ITEM	DESCRIPTION
\triangle	TV POINT
\triangle	TELEPHONE POINT
\triangle	DATA POINT
Ø	SINGLE PHASE ISOLATOR
th.	SINGLE PHASE ISOLATOR
\triangle	SINGLE 16A NORMAL SWITCHED SOCKET OUTLET @1000 A.F.F.L
ф	ZA PLUG 16A SOCKET OUTLET @1200 A.F.F.L
<u></u>	ZA PLUG 16A SOCKET OUTLET @300 A.F.F.L
<u></u>	SINGLE 16A NORMAL SWITCHED SOCKET OUTLET IN CEILING VOID
<u></u>	DOUBLE 16A NORMAL SWITCHED SOCKET OUTLET @300 A.F.F.L
<u></u>	DOUBLE 16A NORMAL SWITCHED SOCKET OUTLET @1200 A.F.F.L
	P8000 ELECTRICAL TRUNKING @CEILING LEVEL
F	PEDESTAL FOR MEETING/PRESENTER'S TABLE CONSISTING OF THE FF: 16A NORMAL SOCKET UN-SWITCHED 16A DEDICATED SOCKET UN-SWITCHED 5A 2 PIN SOCKET UN-SWITCHED DATA & TELEPHONE POINTS
D	ONE TIER CLUSTER WALL BOX CONSISTING OF THE FOLLOWING: - 16A NORMAL SOCKET UN-SWITCHED - 16A DEDICATED SOCKET UN-SWITCHED - 5A 2 PIN SOCKET UN-SWITCHED - 2x RJ45 DATA & TELEPHONE POINTS
	ELECTRICAL DISTRIBUTION BOARD

STATUS CODE		DRAWING STATUS	S						No	Date	chkd	Details
0,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Group Codes BUILDINGS	F	FOR TENDER									
0 - Pre - Feasibility study	BP - Building IT										EM	FOR TENDER
1 - Feasibility study	BP - Building Public Adress	PROJECT NUMBER	R							14.08.2021	LIVI	TOR TENDER
A - Preliminary Design	BS - Building Service		LDPWRI-B/20110									
B - Design Review	BA- Building Architectural			•								
C - Tender Design	BE - Building Electrical	Drawn By		Designed By		Reviewed/A	oproved By	1.1				
D - Detailed Design	BF - Building Fire Service							dy_(.				
E - For Construction	BM - Building Mechanical	M CHABALALA		K SECHOARO		E MENSAH	20100414	ı				
F - As Built	BT - Building Public Telecoms	Name S.A.I.	.D Number	Name	Pr Number	Name	Pr Number	Signature				
G - For Information Only	BU - Building Public Utilities											

LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE

FOURWAYS OFFICE PARK,
BLOCK 5, GROUND FLOOR
Cnr. CEDAR ROAD AND
FOURWAYS BOULEVARD,
FOURWAYS,

CONSULTANT

2191 Tel: (+27) 10 110 8724 Fax: (+27) 86 659 2099

INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH ACUTE INFRASTRUCTURE CHALLENGES,

DRAWING TITLE

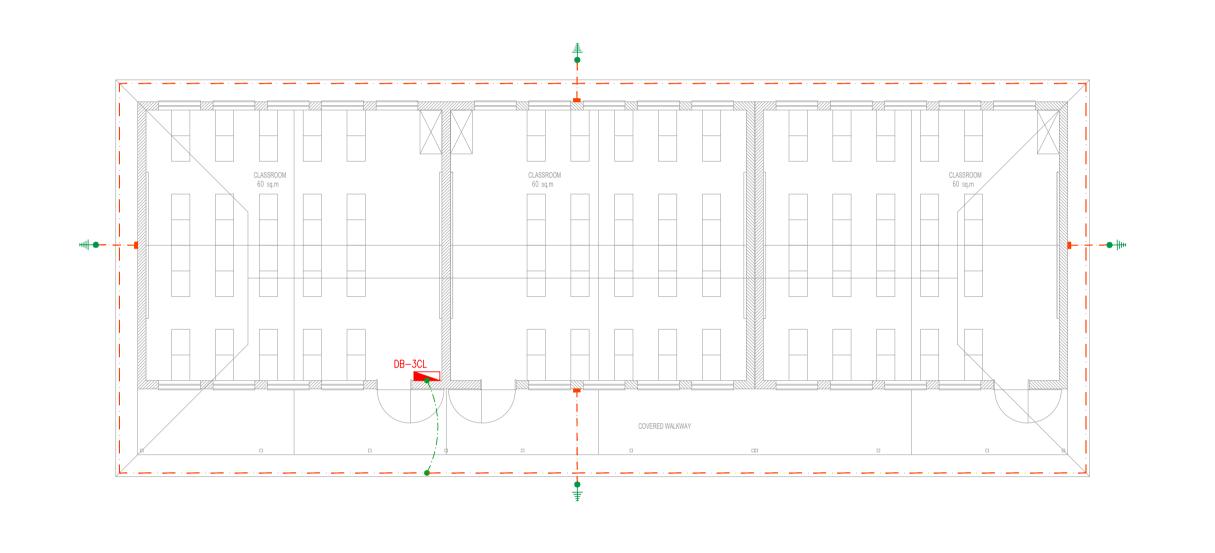
INCLUDING STORM DAMAGED SCHOOLS IN
THE LIMPOPO PROVINCE CLUSTER E
CHAMETI SECONDARY SCHOOL HALL FLOOR PLAN

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DATE

CSS - C - BE - TCS - TDW - 001/1 - A SCALE 1:100 CHECKED

POWER LAYOUT REV. No



Details

EARTH CONDUCTOR DOWN CONDUCTOR EARTH ELECTRODE (SPIKE) BONDING TERMINATION EARTHING TEST POINT CONSULTANT Consultant INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH ACUTE INFRASTRUCTURE CHALLENGES,

GENERAL NOTES:

1. EARTH TERMINATION CONDUCTOR TO BE 50mm2 BCEW.

4. EARTH CONDUCTOR TO BE 0.5m BURIED BELOW GROUND LEVEL. 5. ALL WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH:

EARTH TERMINATION SYSTEM GENERAL REQUIREMENTS: 2. TYPE B EARTHING ARRANGEMENT SHALL BE USED FOR ANY

THE RING EARTH ELECTRODE (TYPE B ARRANGEMENT) SHOULD PREFERABLY:

3. THE CALCULATION OF AN EARTH TERMINATION SYSTEM SHALL BE DONE IN

1. DOWN CONDUCTORS MUST BE INSULATED BY AT LEAST 3mm CROSS LINKED

1. EARTHING TEST POINT SHOULD BE CAPABLE OF BEING OPENED WITH THE AID OF TOOL.

THE COMPLETE INSTALLATION MUST COMPLY TO THE FOLLOWING SANS SPECIFICATION:

2. WARNING NOTICES TO BE INSTALLED TO MINIMISE THE PROBABILITY OF

- SANS 10198: PART 3: EARTHING SYSTEMS GENERAL PROVISIONS. - SANS 10198: PART 12: INSTALLATION OF EARTHING SYSTEMS. - 10199: THE DESIGN AND INSTALLATION OF AN EARTH ELECTRODE. - 10313: THE PROTECTION OF STRUCTURES AGAINST LIGHTNING. - SANS 1063: EARTHING SYSTEMS GENERAL PROVISIONS.

3. EARTH ELECTRODE (SPIKE) TO BE Ø15mm x 1.5m LONG COPPER SOLID ROUND BAR,

GP/E6/1 REV.1 - STANDARD QUALITY SPECIFICATION FOR GENERAL INSTALLATIONS (SCHOOLS) GP/E6/2 REV.1 - STANDARD QUALITY SPECIFICATION FOR MATERIALS AND EQUIPMENT (SCHOOLS)

- AT A DISTANCE OF ABOUT 1.5m AWAY FROM THE EXTERNAL WALLS UNLESS STATED OTHERWISE.

2. BONDING CONDUCTOR TO BE 16mm2 BCEW.

EARTH TERMINATION NOTES:

BUILDING INSTALLATION.

DOWN CONDUCTORS:

EARTHING TEST POINT:

DOWN CONDUCTORS BEING TOUCHED.

- SANS 10142: THE WIRING OF PREMISES.

POLYETHYLENE.

AND MUST BE 0.5m BURIED BELOW GROUND LEVEL.

BE BURIED AT A DEPTH OF AT LEAST 0.5m AND

ACCORDANCE WITH THE FORMULAE IN SANS 10199.

Group Codes BUILDINGS FOR TENDER 0 - Pre - Feasibility study BP - Building IT FOR TENDER 16.08.2021 EM 1 - Feasibility study BP - Building Public Adress LDPWRI-B/20110 BS - Building Service A - Preliminary Design B - Design Review BA- Building Architectural C - Tender Design BE - Building Electrical Designed By Reviewed/Approved By D - Detailed Design BF - Building Fire Service E - For Construction BM - Building Mechanical Pr Number Signature

STATUS CODE

F - As Built

G - For Information Only

BT - Building Public Telecoms

BU - Building Public Utilities

No Date chkd

LIMPOPO PROVINCIAL GOVERNMENT REPUBLIC OF SOUTH AFRICA DEPARTMENT OF

PUBLIC WORKS, ROADS & INFRASTRUCTURE

CLIENT

TAKUSA CONSULTING + SERVICES

FOURWAYS OFFICE PARK, BLOCK 5, GROUND FLOOR Cnr. CEDAR ROAD AND FOURWAYS BOULEVARD, FOURWAYS,

Tel: (+27) 10 110 8724

Fax: (+27) 86 659 2099

INCLUDING STORM DAMAGED SCHOOLS IN THE LIMPOPO PROVINCE CLUSTER E CHAMETI SECONDARY SCHOOL DRAWING TITLE

3x CLASSROOM FLOOR PLAN **EARTHING & LIGHTNING PROTECTION LAYOUT**

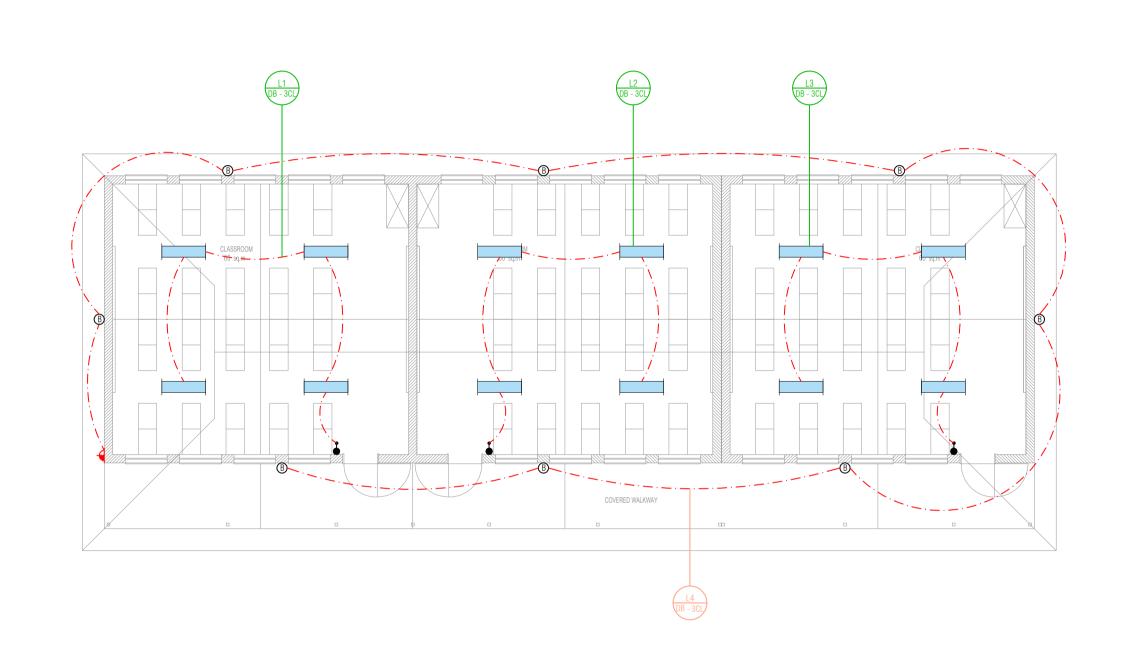
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DESCRIPTION

SYMBOL

REV. No

DATE



LIGHTING LEGEND

ITE	M				DESCRIPTIO	N		QTY				
i		16A SINGL	E LEVE	ER LIGHT	SWITCH			03				
i	2w	2WAY 16A	SINGL	E LEVER I	LIGHT SWITCH			00				
¥	2w	2WAY 16A DOUBLE LEVER LIGHT SWITCH										
P	-	90 DEG. M	OTION	SENSOR				00				
À	Δ.	180 DEG. N	NOTION	N SENSOF	₹			00				
*	→	360 DEG. N	NOTION	N SENSOF	₹			00				
	7	DAY/NIGH	T SWIT	СН				01				
0)	8 INCH 15\	W LED	DOWNLIG	нт			00				
0):	TYPE B: 8	INCH 1	5W LED D	OWNLIGHT WITH DALI	MODIFICATION		00				
•)	10W LED RONDO DOWNLIGHT WITH DALI MODIFICATION										
B		15W LED F	ROUND	BULKHEA	AD WITH DALI MODIFICA	TION		08				
		VISUAL LE	D IP40	- 18W 120	00x50mm WITH DALI MO	DIFICATION		00				
		VISUAL LE	D IP40	- 18W 150	00x50mm WITH DALI MO	DIFICATION		00				
					RROSION PROOF LIGHT	FITTING		00				
		1200mm 34 WITH DALI			RROSION PROOF LIGHT	FITTING		12				
	≡	1200mm 2	x 14W L	ED OPEN	CHANNEL FLUORESCE	NT LUMINAIRE		00				
		140W 90° IP65 SURFACE MOUNT LED LOW BAY WITH DALI MODIFICATION										
		60W EMER WITH DALI			0mm LED PANEL RECES	SSED LIGHT FIT	TTING	00				
		60W 1200x WITH DALI			EL RECESSED LIGHT FI	TTING		00				
			St	Ω								

STATUS CODE		DRAWING	STATUS						No	Date	chkd	Details
37/103 CODE	Group Codes BUILDINGS		FOR TENDER									
0 - Pre - Feasibility study	BP - Building IT											FOR TENDER
1 - Feasibility study	BP - Building Public Adress	PROJECT 1	NUMBER						A	16.08.2021	EM	TORTENDER
A - Preliminary Design	BS - Building Service		LDPWRI-B/20110									
B - Design Review	BA- Building Architectural			-								
C - Tender Design	BE - Building Electrical	Drawn By		Designed By		Reviewed/A	pproved By	1.1				
D - Detailed Design	BF - Building Fire Service							Al-(.				
E - For Construction	BM - Building Mechanical	N NGCEMU	A13204	N NTUTA		E MENSAH	20100414	l l				
F - As Built	BT - Building Public Telecoms	Name	S.A.I.D Number	Name	Pr Number	Name	Pr Number	Signature				
G - For Information Only	BU - Building Public Utilities											

PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE

FOURWAYS OFFICE PARK,
BLOCK 5, GROUND FLOOR
Cnr. CEDAR ROAD AND
FOURWAYS BOULEVARD,
FOURWAYS,

INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH ACUTE INFRASTRUCTURE CHALLENGES, INCLUDING STORM DAMAGED SCHOOLS IN THE LIMPOPO PROVINCE CLUSTER E CHAMETI SECONDARY SCHOOL FOURWAYS, DRAWING TITLE

Tel: (+27) 10 110 8724 Fax: (+27) 86 659 2099

3x CLASSROOM FLOOR PLAN

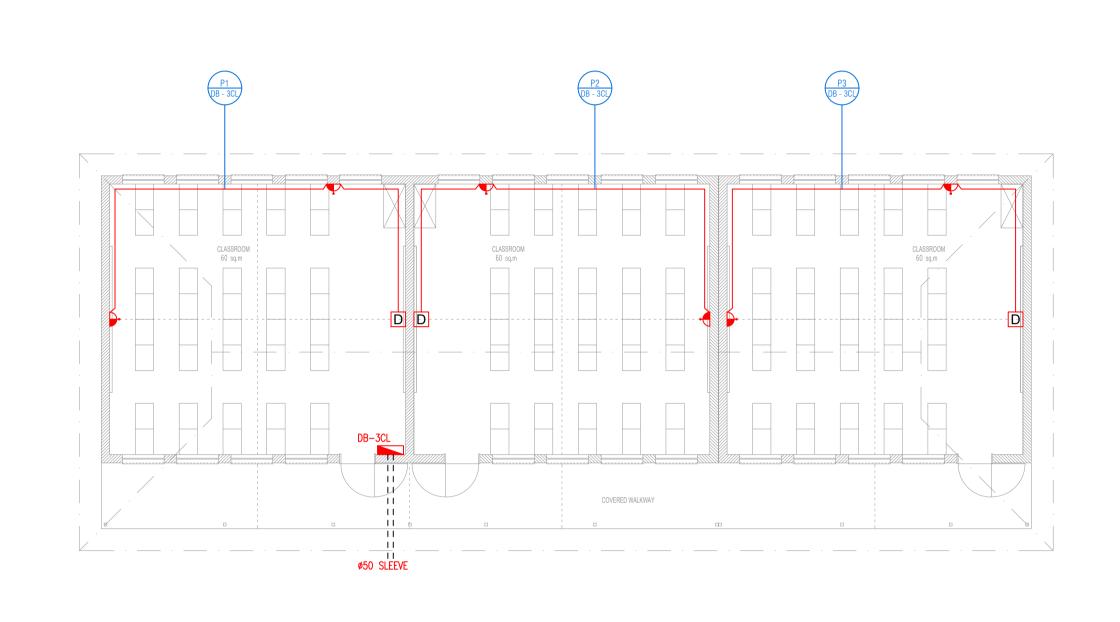
CSS - C - BE - TCS - TDW - 002/3 - A

CHECKED REV. No

DATE

LIGHTING LAYOUT

1:100



POWER LEGEND

ITEM				DESCRIPTION	ON								
\triangle	1	TV POII	NT										
\triangle	1	ΓELEΡΙ	HONE POI	NT									
\triangle		DATA POINT											
Ø	8	SINGLE	PHASE IS	SOLATOR									
#	8	SINGLE PHASE ISOLATOR											
\triangle	s	SINGLE	16A NOR	MAL SWITCHED SOCKE	ET OUTLET @10	000 A.F.F.L							
₫	Z	ZA PLU	G 16A SO	CKET OUTLET @1200 A	.F.F.L								
<u></u>	Z	ZA PLUG 16A SOCKET OUTLET @300 A.F.F.L											
_	s	SINGLE 16A NORMAL SWITCHED SOCKET OUTLET IN CEILING VOID											
<u> </u>		OOUBL	E 16A NOI	RMAL SWITCHED SOCK	ET OUTLET @3	300 A.F.F.L							
<u></u>	С	OOUBL	E 16A NOI	RMAL SWITCHED SOCK	ET OUTLET @1	1200 A.F.F.L							
	F	POWER	R SKIRTIN	G									
F	F	- 16 - 16 - 5	6A NORMA 6A DEDICA A 2 PIN SC	MEETING/PRESENTER'S AL SOCKET UN-SWITCH ATED SOCKET UN-SWIT DCKET UN-SWITCHED LEPHONE POINTS	ED	STING OF T	HE FF:						
D	C	ONE TIER CLUSTER WALL BOX CONSISTING OF THE FOLLOWING: - 16A NORMAL SOCKET UN-SWITCHED - 16A DEDICATED SOCKET UN-SWITCHED - 5A 2 PIN SOCKET UN-SWITCHED - 2x RJ45 DATA & TELEPHONE POINTS											
] [ELECT	RICAL DIS	TRIBUTION BOARD									
Projec	~†	tus	dna	Coursellbaueb	Doc	Sea	Rev						

STATUS CODE		DRAWING	G STATUS						No	Date	chkd	Details
000 0002	Group Codes BUILDINGS		FOR TENDER									
0 - Pre - Feasibility study	BP - Building IT								Δ	16.08.2021	EM	FOR TENDER
1 - Feasibility study	BP - Building Public Adress	PROJECT	NUMBER							10.00.2021	L/V1	TORTENDER
A - Preliminary Design	BS - Building Service	LDPWRI-B/20110										
B - Design Review	BA- Building Architectural											
C - Tender Design	BE - Building Electrical	Drawn By		Designed By		Reviewed/A	pproved By	1.1				
D - Detailed Design	BF - Building Fire Service							dy_(.				
E - For Construction	BM - Building Mechanical	N NGCEMU	A13204	N NTUTA		E MENSAH	20100414	I.				
F - As Built	BT - Building Public Telecoms	Name	S.A.I.D Number	Name	Pr Number	Name	Pr Number	Signature				
G - For Information Only	BU - Building Public Utilities											

LIMPOPO PROVINCIAL GOVERNMENT REPUBLIC OF SOUTH AFRICA DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE

TAKUSA FOURWAYS BOULEVARD, FOURWAYS,

CONSULTANT

FOURWAYS OFFICE PARK, BLOCK 5, GROUND FLOOR Cnr. CEDAR ROAD AND FOURWAYS, 2191

Fax: (+27) 86 659 2099

DRAWING TITLE Tel: (+27) 10 110 8724

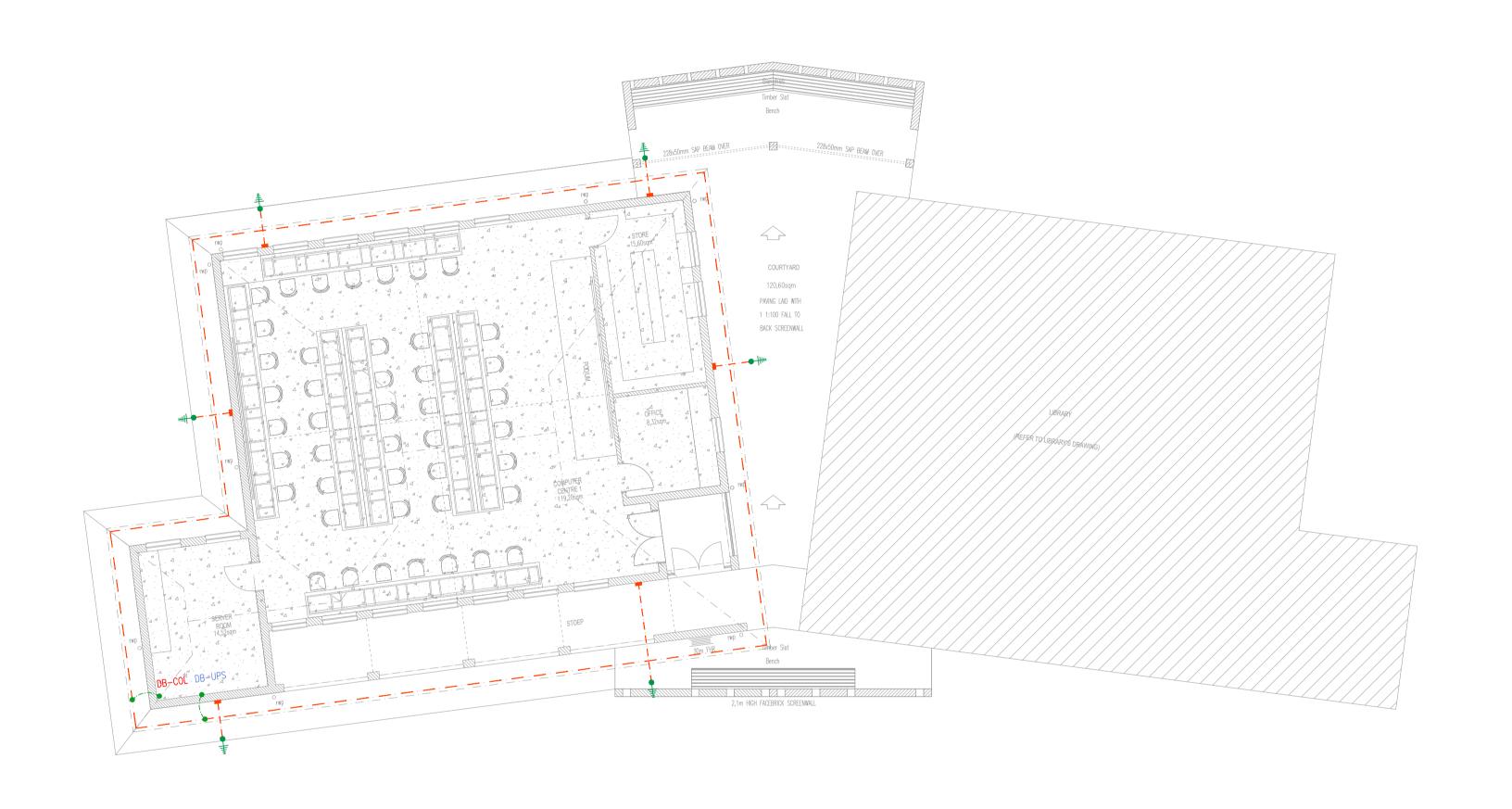
ACUTE INFRASTRUCTURE CHALLENGES, INCLUDING STORM DAMAGED SCHOOLS IN THE LIMPOPO PROVINCE CLUSTER E CHAMETI SECONDARY SCHOOL 3x Classroom floor plan

POWER LAYOUT

INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH

Copyright Reserved CSS - C - BE - TCS - TDW - 001/3 - A

SCALE 1:100 CHECKED Α REV. No DATE 16.08.2021



DESCRIPTION SYMBOL EARTH CONDUCTOR DOWN CONDUCTOR EARTH ELECTRODE (SPIKE) BONDING TERMINATION EARTHING TEST POINT

STATUS CODE Group Codes BUILDINGS FOR TENDER 0 - Pre - Feasibility study BP - Building IT 14.08.2021 EM FOR TENDER BP - Building Public Adress 1 - Feasibility study LDPWRI-B/20110 BS - Building Service A - Preliminary Design BA- Building Architectural B - Design Review C - Tender Design BE - Building Electrical Designed By Reviewed/Approved By D - Detailed Design BF - Building Fire Service E - For Construction BM - Building Mechanical BT - Building Public Telecoms

G - For Information Only

BU - Building Public Utilities

No Date chkd

Details

LIMPOPO PROVINCIAL GOVERNMENT REPUBLIC OF SOUTH AFRICA DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE TAKUSA CONSULTING + SERVICES

CONSULTANT

FOURWAYS OFFICE PARK, BLOCK 5, GROUND FLOOR Cnr. CEDAR ROAD AND FOURWAYS BOULEVARD,

Fax: (+27) 86 659 2099

CHAMETI SECONDARY SCHOOL DRAWING TITLE FOURWAYS, Tel: (+27) 10 110 8724

COMPUTER CENTRE FLOOR PLAN **EARTHING & LIGHTNING PROTECTION LAYOUT**

INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH

ACUTE INFRASTRUCTURE CHALLENGES,

INCLUDING STORM DAMAGED SCHOOLS IN THE LIMPOPO PROVINCE CLUSTER E

Consultant Copyright Reserved CSS - C - BE - TCS - TDW - 004/5 - A SCALE

GENERAL NOTES:

1. EARTH TERMINATION CONDUCTOR TO BE 50mm2 BCEW.

4. EARTH CONDUCTOR TO BE 0.5m BURIED BELOW GROUND LEVEL. 5. ALL WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH:

EARTH TERMINATION SYSTEM GENERAL REQUIREMENTS: 2. TYPE B EARTHING ARRANGEMENT SHALL BE USED FOR ANY

THE RING EARTH ELECTRODE (TYPE B ARRANGEMENT) SHOULD PREFERABLY:

3. THE CALCULATION OF AN EARTH TERMINATION SYSTEM SHALL BE DONE IN

1. DOWN CONDUCTORS MUST BE INSULATED BY AT LEAST 3mm CROSS LINKED

1. EARTHING TEST POINT SHOULD BE CAPABLE OF BEING OPENED WITH THE AID OF TOOL.

THE COMPLETE INSTALLATION MUST COMPLY TO THE FOLLOWING SANS SPECIFICATION:

2. WARNING NOTICES TO BE INSTALLED TO MINIMISE THE PROBABILITY OF

- SANS 10198: PART 3: EARTHING SYSTEMS GENERAL PROVISIONS. - SANS 10198: PART 12: INSTALLATION OF EARTHING SYSTEMS. - 10199: THE DESIGN AND INSTALLATION OF AN EARTH ELECTRODE. - 10313: THE PROTECTION OF STRUCTURES AGAINST LIGHTNING. - SANS 1063: EARTHING SYSTEMS GENERAL PROVISIONS.

3. EARTH ELECTRODE (SPIKE) TO BE Ø15mm x 1.5m LONG COPPER SOLID ROUND BAR,

GP/E6/1 REV.1 - STANDARD QUALITY SPECIFICATION FOR GENERAL INSTALLATIONS (SCHOOLS) GP/E6/2 REV.1 - STANDARD QUALITY SPECIFICATION FOR MATERIALS AND EQUIPMENT (SCHOOLS)

- AT A DISTANCE OF ABOUT 1.5m AWAY FROM THE EXTERNAL WALLS UNLESS STATED OTHERWISE.

2. BONDING CONDUCTOR TO BE 16mm2 BCEW.

EARTH TERMINATION NOTES:

BUILDING INSTALLATION.

DOWN CONDUCTORS:

EARTHING TEST POINT:

DOWN CONDUCTORS BEING TOUCHED.

- SANS 10142: THE WIRING OF PREMISES.

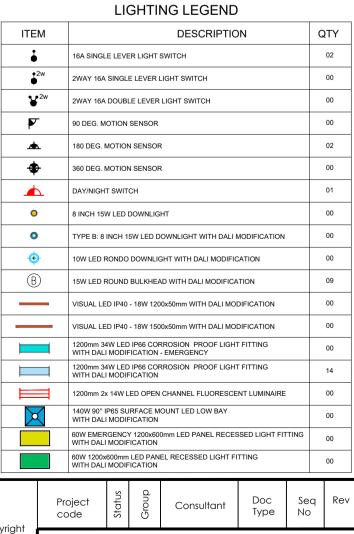
AND MUST BE 0.5m BURIED BELOW GROUND LEVEL.

- BE BURIED AT A DEPTH OF AT LEAST 0.5m AND

ACCORDANCE WITH THE FORMULAE IN SANS 10199.

1:100 CHECKED REV. No DATE 14.08.2021





STATUS CODE		DRAWING	STATUS						No	Date	chkd	Details
37/103 GGDE	Group Codes BUILDINGS		FOR TENDER									
0 - Pre - Feasibility study	BP - Building IT											FOR TENDER
1 - Feasibility study	BP - Building Public Adress	PROJECT NUMBER								14.08.2021	LIVI	TOR TENDER
A - Preliminary Design	BS - Building Service	LDPWRI-B/20110										
B - Design Review	BA- Building Architectural			•						1		
C - Tender Design	BE - Building Electrical	Drawn By		Designed By		Reviewed/A	pproved By	1.1				
D - Detailed Design	BF - Building Fire Service							dy_(.		1		
E - For Construction	BM - Building Mechanical	N NGCEMU	A13204	N NTUTA		E MENSAH	20100414					
F - As Built	BT - Building Public Telecoms	Name	S.A.I.D Number	Name	Pr Number	Name	Pr Number	Signature		1		
G - For Information Only	BU - Building Public Utilities											

PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE

CLIENT

TAKUSA CONSULTING · SERVICES

CONSULTANT

FOURWAYS OFFICE PARK,
BLOCK 5, GROUND FLOOR
Cnr. CEDAR ROAD AND
FOURWAYS BOULEVARD, fourways, 2191 Tel: (+27) 10 110 8724

Fax: (+27) 86 659 2099

INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH ACUTE INFRASTRUCTURE CHALLENGES, THE LIMPOPO PROVINCE CLUSTER E
CHAMETI SECONDARY SCHOOL DRAWING TITLE

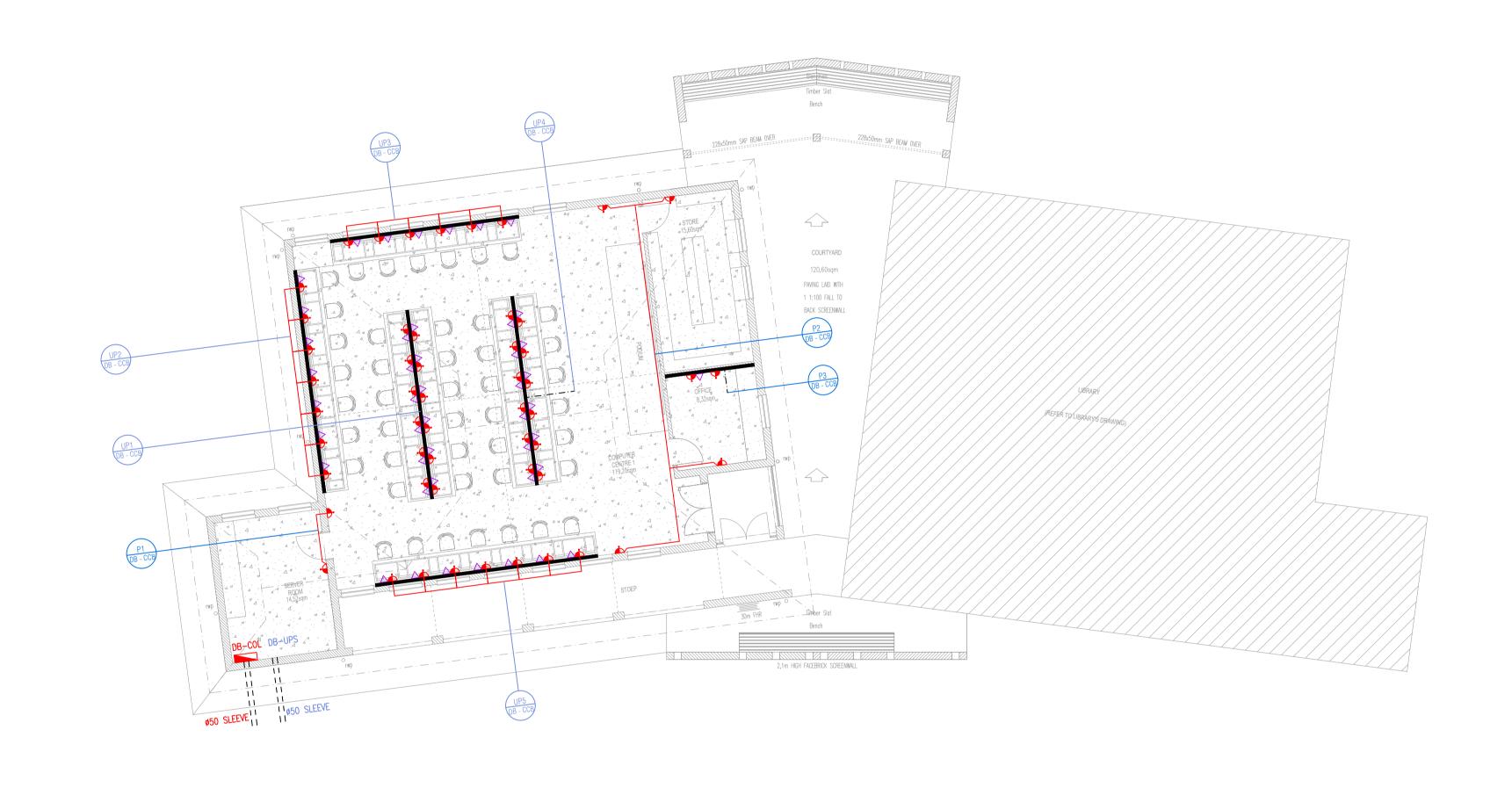
COMPUTER CENTRE FLOOR PLAN

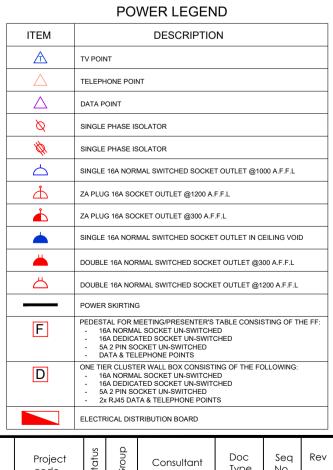
LIGHTING LAYOUT

INCLUDING STORM DAMAGED SCHOOLS IN

Copyright Reserved CSS - C - BE - TCS - TDW - 002/5 - A SCALE 1:100

CHECKED REV. No DATE 14.08.2021





STATUS CODE		DRAWING	STATUS					No	Date	chkd	Details
0,,,,,,,,	Group Codes BUILDINGS		FOR TE	ENDER							
0 - Pre - Feasibility study	BP - Building IT							^	14.08.2021	EM	FOR TENDER
1 - Feasibility study	BP - Building Public Adress	PROJECT	NUMBER					^	14.00.2021	LIVI	TOR TENDER
A - Preliminary Design	BS - Building Service		LDPWRI-B/20110								
B - Design Review	BA- Building Architectural			•							
C - Tender Design	BE - Building Electrical	Drawn By		Designed By	Reviewed/A	pproved By	1.1				
D - Detailed Design	BF - Building Fire Service						M_(.				
E - For Construction	BM - Building Mechanical	N NGCEMU	A13204	N NTUTA	E MENSAH	20100414	ı				
F - As Built	BT - Building Public Telecoms	Name	S.A.I.D Number	Name Pr Numbe	r Name	Pr Number	Signature				
G - For Information Only	BU - Building Public Utilities										

LIMPOPO PROVINCIAL GOVERNMENT REPUBLIC OF SOUTH AFRICA DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE

CLIENT

TAKUSA CONSULTING + SERVICES Tel: (+27) 10 110 8724

CONSULTANT

FOURWAYS OFFICE PARK, BLOCK 5, GROUND FLOOR Cnr. CEDAR ROAD AND FOURWAYS BOULEVARD, FOURWAYS, 2191

Fax: (+27) 86 659 2099

INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH ACUTE INFRASTRUCTURE CHALLENGES, INCLUDING STORM DAMAGED SCHOOLS IN THE LIMPOPO PROVINCE CLUSTER E CHAMETI SECONDARY SCHOOL

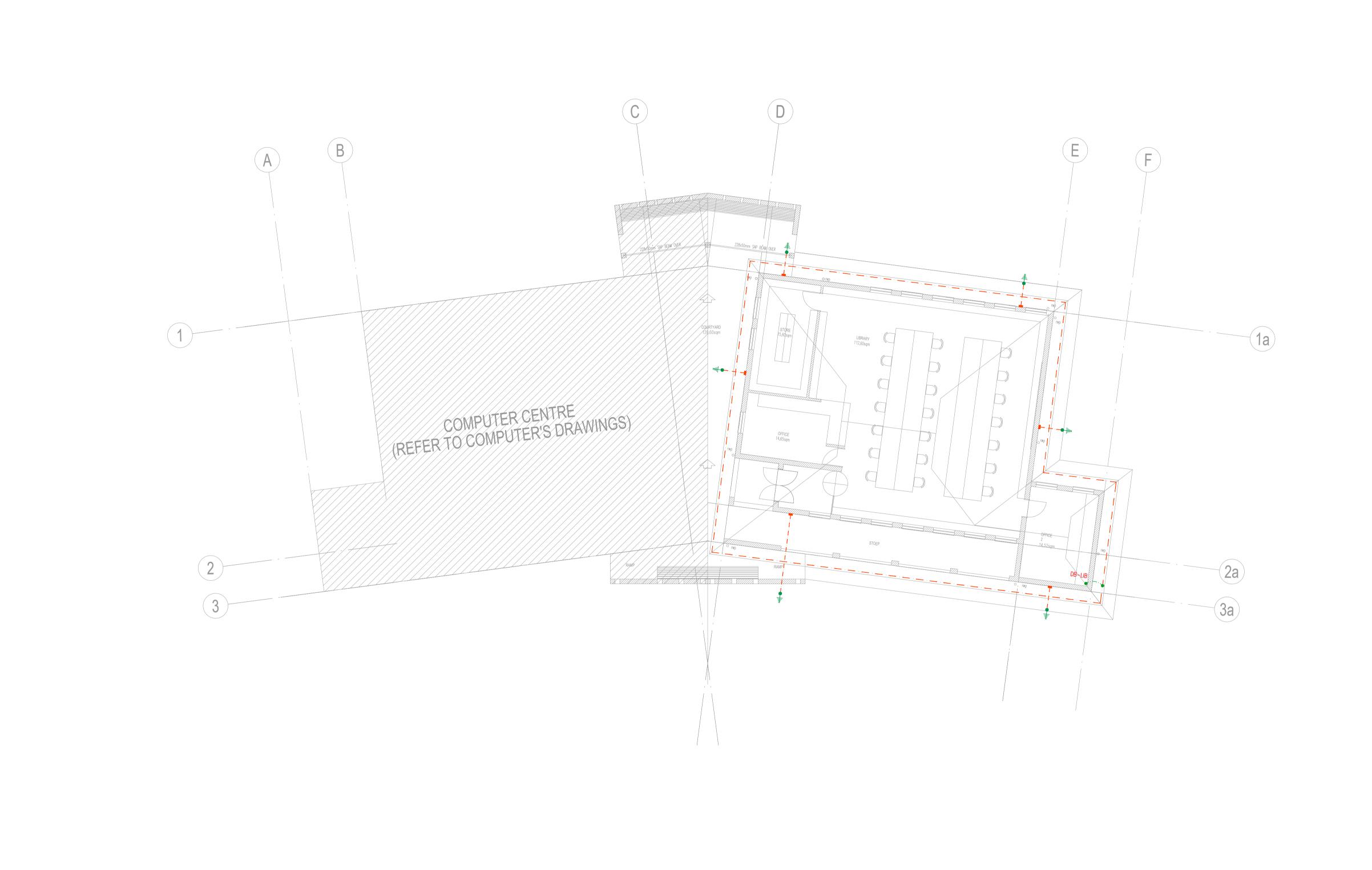
POWER LAYOUT

DRAWING TITLE COMPUTER CENTRE FLOOR PLAN

Copyright Reserved

Project code CSS - C - BE - TCS - TDW - 001/5 - A

SCALE 1:100 CHECKED REV. No DATE 14.08.2021



GENERAL NOTES: 1. EARTH TERMINATION CONDUCTOR TO BE 50mm2 BCEW. 2. BONDING CONDUCTOR TO BE 16mm2 BCEW. 3. EARTH ELECTRODE (SPIKE) TO BE Ø15mm x 1.5m LONG COPPER SOLID ROUND BAR, AND MUST BE 0.5m BURIED BELOW GROUND LEVEL. 4. EARTH CONDUCTOR TO BE 0.5m BURIED BELOW GROUND LEVEL.

5. ALL WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH: GP/E6/1 REV.1 - STANDARD QUALITY SPECIFICATION FOR GENERAL INSTALLATIONS (SCHOOLS) GP/E6/2 REV.1 - STANDARD QUALITY SPECIFICATION FOR MATERIALS AND EQUIPMENT (SCHOOLS) EARTH TERMINATION NOTES:

2. TYPE B EARTHING ARRANGEMENT SHALL BE USED FOR ANY BUILDING INSTALLATION. THE RING EARTH ELECTRODE (TYPE B ARRANGEMENT) SHOULD PREFERABLY: - BE BURIED AT A DEPTH OF AT LEAST 0.5m AND - AT A DISTANCE OF ABOUT 1.5m AWAY FROM THE EXTERNAL WALLS UNLESS STATED OTHERWISE.

EARTH TERMINATION SYSTEM GENERAL REQUIREMENTS:

ACCORDANCE WITH THE FORMULAE IN SANS 10199.

DOWN CONDUCTORS: 1. DOWN CONDUCTORS MUST BE INSULATED BY AT LEAST 3mm CROSS LINKED

3. THE CALCULATION OF AN EARTH TERMINATION SYSTEM SHALL BE DONE IN

2. WARNING NOTICES TO BE INSTALLED TO MINIMISE THE PROBABILITY OF DOWN CONDUCTORS BEING TOUCHED.

EARTHING TEST POINT:

1. EARTHING TEST POINT SHOULD BE CAPABLE OF BEING OPENED WITH THE AID OF TOOL.

THE COMPLETE INSTALLATION MUST COMPLY TO THE FOLLOWING SANS SPECIFICATION:

- SANS 10142: THE WIRING OF PREMISES. - SANS 10198: PART 3: EARTHING SYSTEMS GENERAL PROVISIONS.

- SANS 10198: PART 12: INSTALLATION OF EARTHING SYSTEMS.

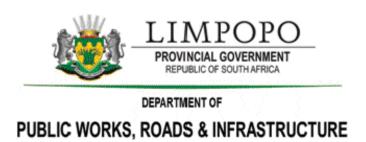
- 10199: THE DESIGN AND INSTALLATION OF AN EARTH ELECTRODE.

- 10313: THE PROTECTION OF STRUCTURES AGAINST LIGHTNING.

- SANS 1063: EARTHING SYSTEMS GENERAL PROVISIONS.

SYMBOL	DESCRIPTION
	EARTH CONDUCTOR
	DOWN CONDUCTOR
<u> </u>	EARTH ELECTRODE (SPIKE)
•	BONDING TERMINATION
	EARTHING TEST POINT

STATUS CODE		DRAWING	G STATUS					No	Date	chkd	Details	
	Group Codes BUILDINGS		FOR T	ENDER								
0 - Pre - Feasibility study	BP - Building IT								^	14.08.2021	EM	FOR TENDER
1 - Feasibility study	BP - Building Public Adress	PROJECT	NUMBER						^	14.00.202	LIVI	TOR TENDER
A - Preliminary Design	BS - Building Service		LDPWRI-B/20110									
B - Design Review	BA- Building Architectural											
C - Tender Design	BE - Building Electrical	Drawn By		Designed By		Reviewed/A	Approved By	1.4				
D - Detailed Design	BF - Building Fire Service							dy_(.				
E - For Construction	BM - Building Mechanical	N NGCEMU	A13204	N NTUTA		E MENSAH	20100414	I.				
F - As Built	BT - Building Public Telecoms	Name	S.A.I.D Number	Name	Pr Number	Name	Pr Number	Signature				
G - For Information Only	BU - Building Public Utilities											





FOURWAYS OFFICE PARK, BLOCK 5, GROUND FLOOR Cnr. CEDAR ROAD AND FOURWAYS BOULEVARD, FOURWAYS,

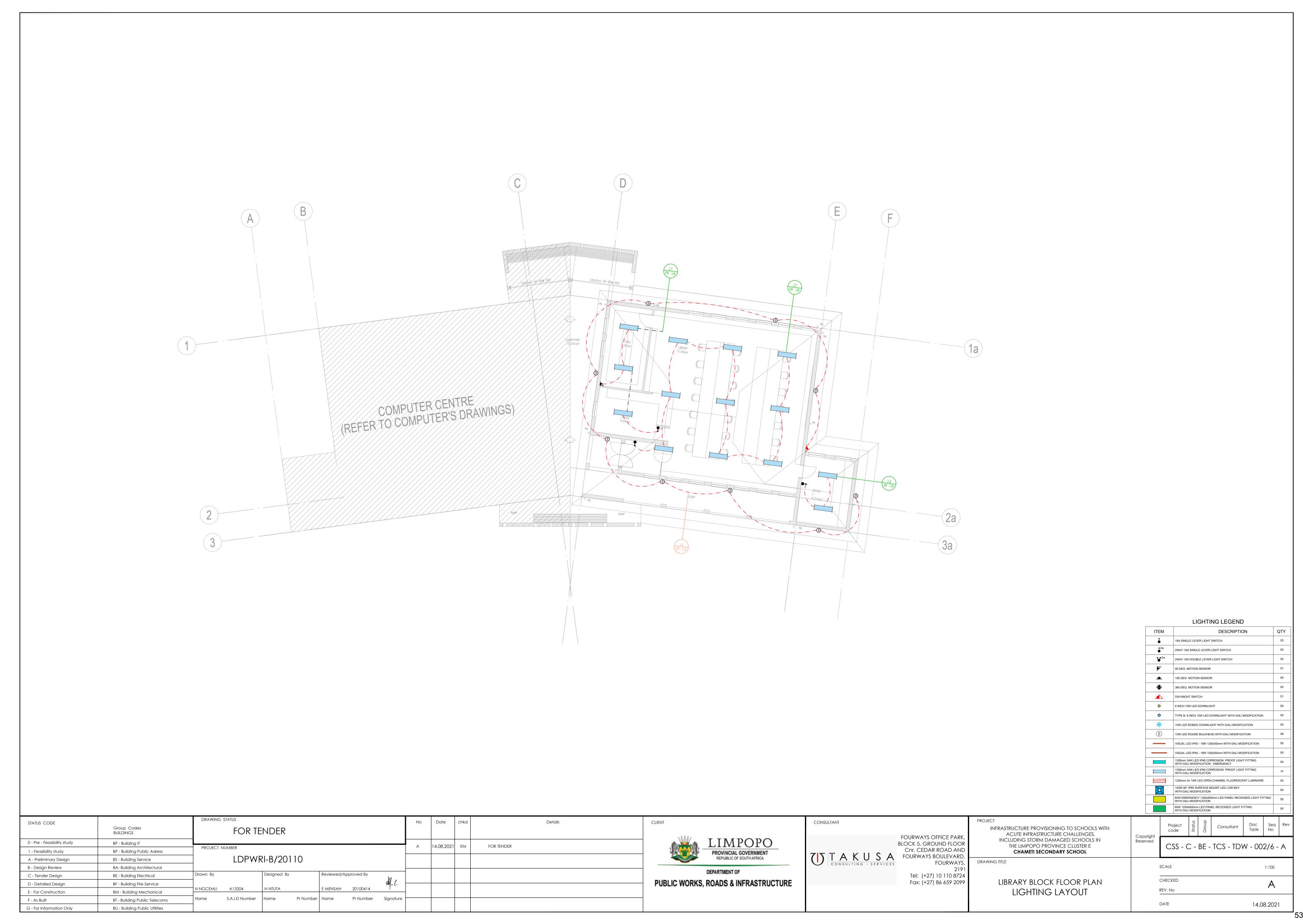
2191 Tel: (+27) 10 110 8724 Fax: (+27) 86 659 2099

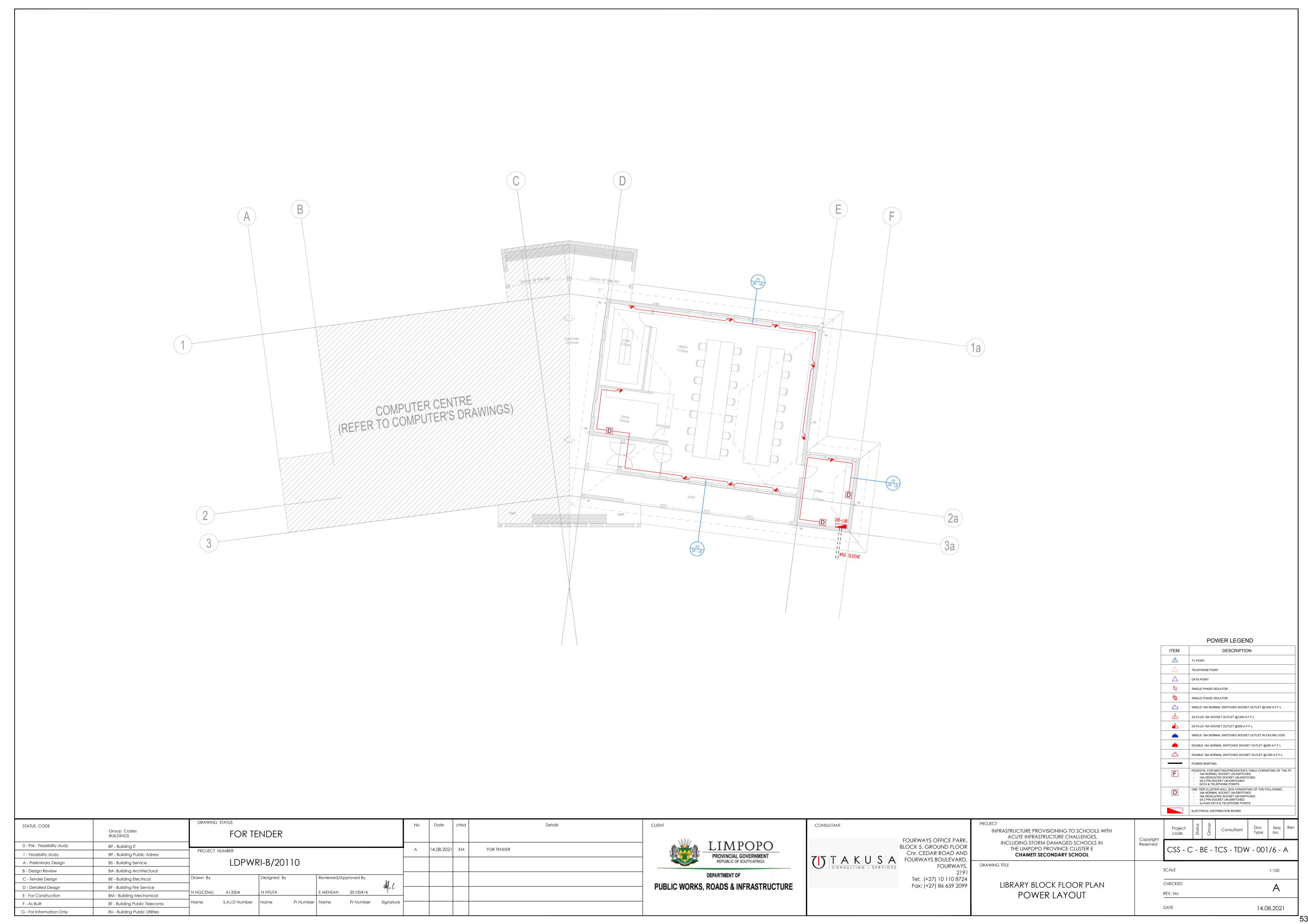
INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH ACUTE INFRASTRUCTURE CHALLENGES, INCLUDING STORM DAMAGED SCHOOLS IN THE LIMPOPO PROVINCE CLUSTER E
CHAMETI SECONDARY SCHOOL

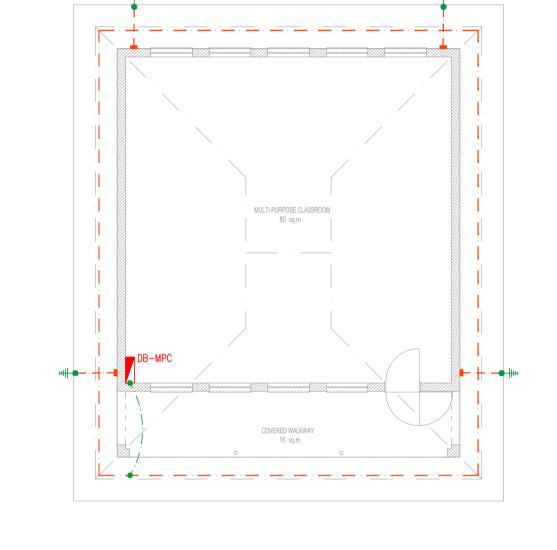
LIBRARY BLOCK FLOOR PLAN EARTHING & LIGHTNING PROTECTION LAYOUT

CSS - C - BE - TCS - TDW - 004/6 - A

SCALE	1:100
CHECKED	٨
REV. No	\wedge
DATE	14.08.2021







Details

No Date chkd

16.08.2021 EM

FOR TENDER

STATUS CODE

0 - Pre - Feasibility study

1 - Feasibility study

B - Design Review

C - Tender Design

D - Detailed Design

E - For Construction

G - For Information Only

A - Preliminary Design

Group Codes BUILDINGS

BP - Building IT

BP - Building Public Adress

BA- Building Architectural

BS - Building Service

BE - Building Electrical

BF - Building Fire Service

BM - Building Mechanical

BU - Building Public Utilities

BT - Building Public Telecoms

FOR TENDER

LDPWRI-B/20110

Designed By

Reviewed/Approved By

Pr Number Signature

LIMPOPO PROVINCIAL GOVERNMENT REPUBLIC OF SOUTH AFRICA DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE

TAKUSA CONSULTING + SERVICES

FOURWAYS OFFICE PARK, BLOCK 5, GROUND FLOOR Cnr. CEDAR ROAD AND FOURWAYS BOULEVARD, FOURWAYS,

Tel: (+27) 10 110 8724 Fax: (+27) 86 659 2099

DRAWING TITLE

BONDING TERMINATION EARTHING TEST POINT Consultant INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH ACUTE INFRASTRUCTURE CHALLENGES, Copyright Reserved INCLUDING STORM DAMAGED SCHOOLS IN THE LIMPOPO PROVINCE CLUSTER E CHAMETI SECONDARY SCHOOL

DATE

SYMBOL

GENERAL NOTES:

1. EARTH TERMINATION CONDUCTOR TO BE 50mm2 BCEW.

4. EARTH CONDUCTOR TO BE 0.5m BURIED BELOW GROUND LEVEL. 5. ALL WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH:

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GP/E6/1 REV.1 - STANDARD QUALITY SPECIFICATION FOR GENERAL INSTALLATIONS (SCHOOLS) GP/E6/2 REV.1 - STANDARD QUALITY SPECIFICATION FOR MATERIALS AND EQUIPMENT (SCHOOLS)

- AT A DISTANCE OF ABOUT 1.5m AWAY FROM THE EXTERNAL WALLS UNLESS STATED OTHERWISE.

2. BONDING CONDUCTOR TO BE 16mm2 BCEW.

EARTH TERMINATION NOTES:

BUILDING INSTALLATION.

DOWN CONDUCTORS:

EARTHING TEST POINT:

DOWN CONDUCTORS BEING TOUCHED.

- SANS 10142: THE WIRING OF PREMISES.

POLYETHYLENE.

AND MUST BE 0.5m BURIED BELOW GROUND LEVEL.

- BE BURIED AT A DEPTH OF AT LEAST 0.5m AND

ACCORDANCE WITH THE FORMULAE IN SANS 10199.

CSS - C - BE - TCS - TDW - 004/7 - A

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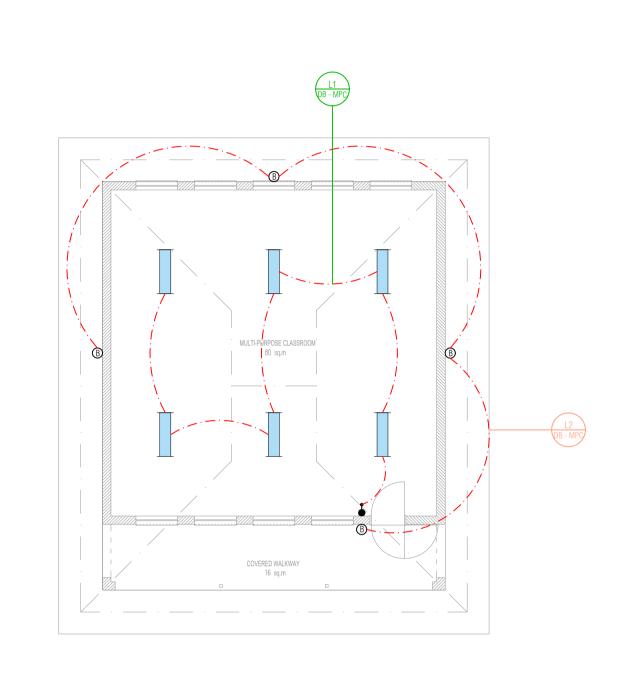
DESCRIPTION

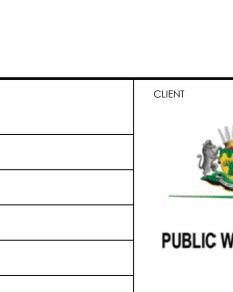
EARTH CONDUCTOR

DOWN CONDUCTOR

EARTH ELECTRODE (SPIKE)

MULTI-PURPOSE CLASSROOM FLOOR PLAN EARTHING & LIGHTNING PROTECTION LAYOUT





CONSULTANT TAKUSA CONSULTING - SERVICES

BLOCK 5, GROUND FLOOR
Cnr. CEDAR ROAD AND
FOURWAYS BOULEVARD,
FOURWAYS.

FOURWAYS OFFICE PARK, BLOCK 5, GROUND FLOOR 2191 Tel: (+27) 10 110 8724

Fax: (+27) 86 659 2099

INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH ACUTE INFRASTRUCTURE CHALLENGES, CHAMETI SECONDARY SCHOOL DRAWING TITLE

INCLUDING STORM DAMAGED SCHOOLS IN THE LIMPOPO PROVINCE CLUSTER E

60W EMERGENCY 1200x600mm LED PANEL RECESSED LIGHT FITTING WITH DALI MODIFICATION 60W 1200x600mm LED PANEL RECESSED LIGHT FITTING WITH DALI MODIFICATION Copyright Reserved CSS - C - BE - TCS - TDW - 002/7 - A SCALE CHECKED REV. No

ITEM

å 16A SINGLE LEVER LIGHT SWITCH 2WAY 16A SINGLE LEVER LIGHT SWITCH 2WAY 16A DOUBLE LEVER LIGHT SWITCH

90 DEG. MOTION SENSOR ▲ 180 DEG. MOTION SENSOR 360 DEG. MOTION SENSOR DAY/NIGHT SWITCH 8 INCH 15W LED DOWNLIGHT

DATE

LIGHTING LEGEND

TYPE B: 8 INCH 15W LED DOWNLIGHT WITH DALI MODIFICATION

B 15W LED ROUND BULKHEAD WITH DALI MODIFICATION VISUAL LED IP40 - 18W 1200x50mm WITH DALI MODIFICATION VISUAL LED IP40 - 18W 1500x50mm WITH DALI MODIFICATION 1200mm 34W LED IP66 CORROSION PROOF LIGHT FITTING WITH DALI MODIFICATION - EMERGENCY

1200mm 2x 14W LED OPEN CHANNEL FLUORESCENT LUMINAIRE

Consultant

DESCRIPTION

QTY

PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE Pr Number Name Pr Number Signature

Details

No Date chkd

A 14.08.2021 EM

FOR TENDER

STATUS CODE

0 - Pre - Feasibility study

1 - Feasibility study

B - Design Review

C - Tender Design

D - Detailed Design

E - For Construction

G - For Information Only

A - Preliminary Design

Group Codes BUILDINGS

BP - Building IT

BP - Building Public Adress

BA- Building Architectural

BS - Building Service

BE - Building Electrical

BF - Building Fire Service

BM - Building Mechanical

BU - Building Public Utilities

BT - Building Public Telecoms

FOR TENDER

A13204

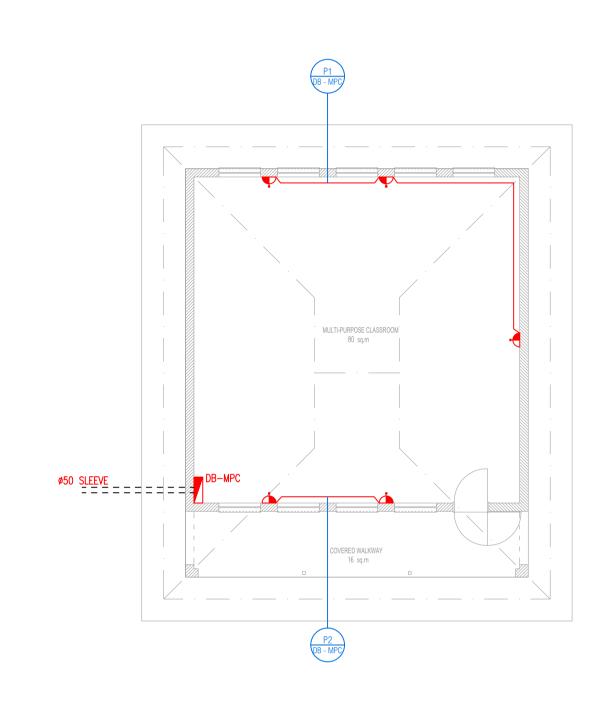
LDPWRI-B/20110

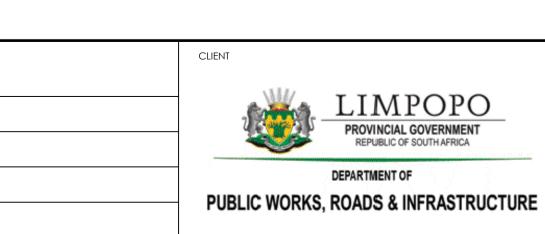
Designed By

Reviewed/Approved By

MULTI-PURPOSE CLASSROOM FLOOR PLAN LIGHTING LAYOUT

1:100





CONSULTANT TAKUSA FOURWAYS BOULEVARD, FOURWAYS,

LIMPOPO

PROVINCIAL GOVERNMENT REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF

FOURWAYS OFFICE PARK, BLOCK 5, GROUND FLOOR Cnr. CEDAR ROAD AND 2191

THE LIMPOPO PROVINCE CLUSTER E CHAMETI SECONDARY SCHOOL DRAWING TITLE FOURWAYS,

MULTI-PURPOSE CLASSROOM FLOOR PLAN

ACUTE INFRASTRUCTURE CHALLENGES,

INCLUDING STORM DAMAGED SCHOOLS IN

ONE TIER CLUSTER WALL BOX CONSISTING OF THE FOLLOWING:

- 16A NORMAL SOCKET UN-SWITCHED

- 16A DEDICATED SOCKET UN-SWITCHED

- 5A 2 PIN SOCKET UN-SWITCHED

- 2x RJ45 DATA & TELEPHONE POINTS ELECTRICAL DISTRIBUTION BOARD Project code Consultant INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH Copyright Reserved

POWER SKIRTING

C22 - C - BE - IC2 -	IDW - 001// -
SCALE	1:100
CHECKED	٨
REV. No	
DATE	14.08.202

POWER LEGEND

SINGLE 16A NORMAL SWITCHED SOCKET OUTLET @1000 A.F.F.L

SINGLE 16A NORMAL SWITCHED SOCKET OUTLET IN CEILING VOID DOUBLE 16A NORMAL SWITCHED SOCKET OUTLET @300 A.F.F.L DOUBLE 16A NORMAL SWITCHED SOCKET OUTLET @1200 A.F.F.L

PEDESTAL FOR MEETING/PRESENTER'S TABLE CONSISTING OF THE FF:

- 16A NORMAL SOCKET UN-SWITCHED

- 16A DEDICATED SOCKET UN-SWITCHED

- 5A 2 PIN SOCKET UN-SWITCHED

- DATA & TELEPHONE POINTS

TELEPHONE POINT

SINGLE PHASE ISOLATOR

SINGLE PHASE ISOLATOR

ZA PLUG 16A SOCKET OUTLET @1200 A.F.F.L ZA PLUG 16A SOCKET OUTLET @300 A.F.F.L

DESCRIPTION

STATUS CODE		Drawing status						No	Date	chkd	Details
	Group Codes BUILDINGS	FC	OR TEI	NDER							
0 - Pre - Feasibility study	BP - Building IT							^	14.08.2021	EM	FOR TENDER
1 - Feasibility study	BP - Building Public Adress	PROJECT NUMBER						^	14.00.2021	LIVI	TONILIADEN
A - Preliminary Design	BS - Building Service	LD	PWRI	I-B/20110							
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C - Tender Design	BE - Building Electrical	Drawn By	1	Designed By	Reviewed/A	Approved By	1.1				
D - Detailed Design	BF - Building Fire Service						dy_(.				
E - For Construction	BM - Building Mechanical	N NGCEMU A13204	4	N NTUTA	E MENSAH	20100414	l l				
F - As Built	BT - Building Public Telecoms	Name S.A.I.D N	Number 1	Name Pr Number	Name	Pr Number	Signature				
G For Information Only	RLL Building Public Utilities										

Tel: (+27) 10 110 8724 Fax: (+27) 86 659 2099 **POWER LAYOUT**

IND OF THE PROPERTY OF THE PRO		SCIENCE LAB 34 SEATS 119,20sqm	STORAGE ,8,32skm STORE 3,32skm PREP 5,60skm	TWP
OFFICE 14,52sqm		STOEP	WASHUP 5,60km	rwp

No Date chkd

16.08.2021 EM

FOR TENDER

STATUS CODE

0 - Pre - Feasibility study

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BE - Building Electrical

BF - Building Fire Service

BM - Building Mechanical

BU - Building Public Utilities

BT - Building Public Telecoms

FOR TENDER

LDPWRI-B/20110

Designed By

Reviewed/Approved By

Pr Number Signature

Details

CLIENT

CONSULTANT LIMPOPO PROVINCIAL GOVERNMENT REPUBLIC OF SOUTH AFRICA DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE

TAKUSA CONSULTING + SERVICES

FOURWAYS OFFICE PARK, BLOCK 5, GROUND FLOOR

Cnr. CEDAR ROAD AND FOURWAYS BOULEVARD, FOURWAYS,

DRAWING TITLE

ACUTE INFRASTRUCTURE CHALLENGES, CHAMETI SECONDARY SCHOOL

INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH

EARTHING TEST POINT Consultant Copyright Reserved 1:100

DESCRIPTION

EARTH CONDUCTOR

DOWN CONDUCTOR

BONDING TERMINATION

EARTH ELECTRODE (SPIKE)

INCLUDING STORM DAMAGED SCHOOLS IN THE LIMPOPO PROVINCE CLUSTER E CSS - C - BE - TCS - TDW - 004/8 - A CHECKED REV. No 16.08.2021

SYMBOL

GENERAL NOTES:

1. EARTH TERMINATION CONDUCTOR TO BE 50mm2 BCEW.

4. EARTH CONDUCTOR TO BE 0.5m BURIED BELOW GROUND LEVEL.

EARTH TERMINATION SYSTEM GENERAL REQUIREMENTS: 2. TYPE B EARTHING ARRANGEMENT SHALL BE USED FOR ANY

THE RING EARTH ELECTRODE (TYPE B ARRANGEMENT) SHOULD PREFERABLY:

3. THE CALCULATION OF AN EARTH TERMINATION SYSTEM SHALL BE DONE IN

1. DOWN CONDUCTORS MUST BE INSULATED BY AT LEAST 3mm CROSS LINKED

1. EARTHING TEST POINT SHOULD BE CAPABLE OF BEING OPENED WITH THE AID OF TOOL.

THE COMPLETE INSTALLATION MUST COMPLY TO THE FOLLOWING SANS SPECIFICATION:

2. WARNING NOTICES TO BE INSTALLED TO MINIMISE THE PROBABILITY OF

- SANS 10198: PART 3: EARTHING SYSTEMS GENERAL PROVISIONS. - SANS 10198: PART 12: INSTALLATION OF EARTHING SYSTEMS. - 10199: THE DESIGN AND INSTALLATION OF AN EARTH ELECTRODE. - 10313: THE PROTECTION OF STRUCTURES AGAINST LIGHTNING. - SANS 1063: EARTHING SYSTEMS GENERAL PROVISIONS.

3. EARTH ELECTRODE (SPIKE) TO BE Ø15mm x 1.5m LONG COPPER SOLID ROUND BAR,

- AT A DISTANCE OF ABOUT 1.5m AWAY FROM THE EXTERNAL WALLS UNLESS STATED OTHERWISE.

2. BONDING CONDUCTOR TO BE 16mm2 BCEW.

EARTH TERMINATION NOTES:

BUILDING INSTALLATION.

DOWN CONDUCTORS:

EARTHING TEST POINT:

DOWN CONDUCTORS BEING TOUCHED.

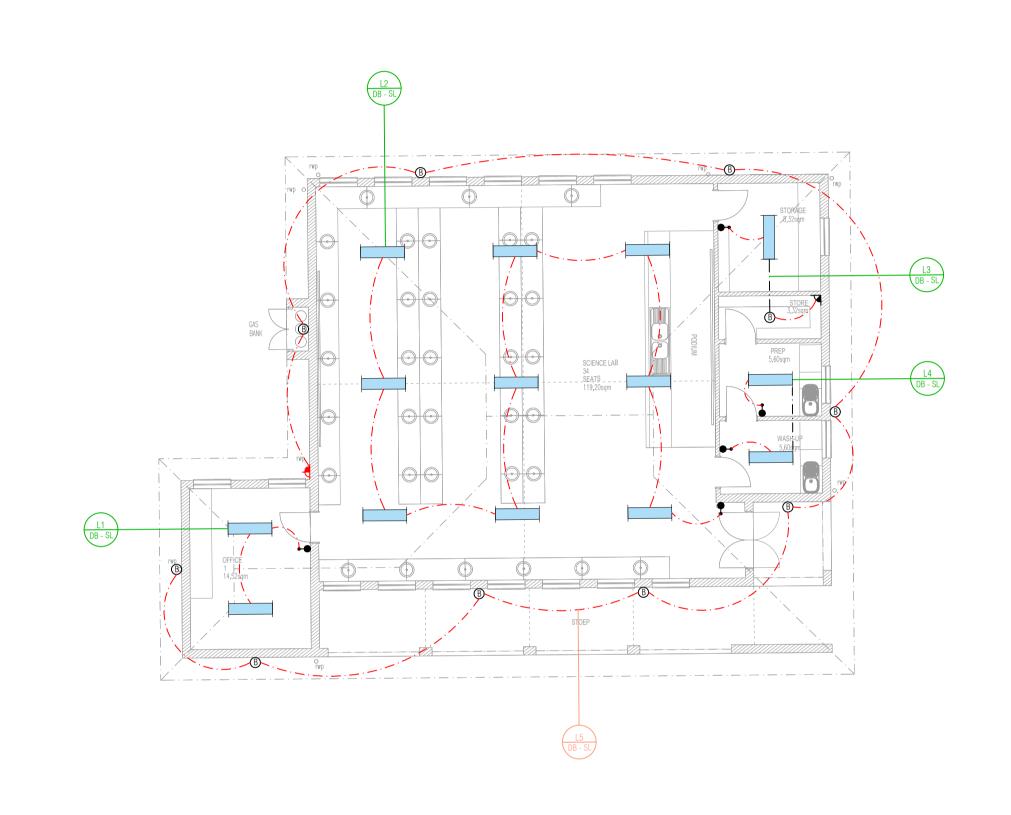
- SANS 10142: THE WIRING OF PREMISES.

POLYETHYLENE.

AND MUST BE 0.5m BURIED BELOW GROUND LEVEL.

BE BURIED AT A DEPTH OF AT LEAST 0.5m AND

ACCORDANCE WITH THE FORMULAE IN SANS 10199.



LIGHTING LEGEND

ITEM	DESCRIPTION	QTY
i	16A SINGLE LEVER LIGHT SWITCH	05
‡ 2w	2WAY 16A SINGLE LEVER LIGHT SWITCH	00
¥²w	2WAY 16A DOUBLE LEVER LIGHT SWITCH	00
F	90 DEG. MOTION SENSOR	01
A	180 DEG. MOTION SENSOR	00
*	360 DEG. MOTION SENSOR	00
_	DAY/NIGHT SWITCH	01
•	8 INCH 15W LED DOWNLIGHT	00
•	TYPE B: 8 INCH 15W LED DOWNLIGHT WITH DALI MODIFICATION	00
•	10W LED RONDO DOWNLIGHT WITH DALI MODIFICATION	00
B	15W LED ROUND BULKHEAD WITH DALI MODIFICATION	10
	VISUAL LED IP40 - 18W 1200x50mm WITH DALI MODIFICATION	00
	VISUAL LED IP40 - 18W 1500x50mm WITH DALI MODIFICATION	00
	1200mm 34W LED IP66 CORROSION PROOF LIGHT FITTING WITH DALI MODIFICATION - EMERGENCY	00
	1200mm 34W LED IP66 CORROSION PROOF LIGHT FITTING WITH DALI MODIFICATION	14
	1200mm 2x 14W LED OPEN CHANNEL FLUORESCENT LUMINAIRE	00
X	140W 90° IP65 SURFACE MOUNT LED LOW BAY WITH DALI MODIFICATION	00
	60W EMERGENCY 1200x600mm LED PANEL RECESSED LIGHT FITTING WITH DALI MODIFICATION	00
	60W 1200x600mm LED PANEL RECESSED LIGHT FITTING WITH DALI MODIFICATION	00
	N Q	

STATUS CODE		DRAWING	G STATUS						No	Date	chkd	Details
31/1103 CODE	Group Codes BUILDINGS		FOR T	ENDER								
0 - Pre - Feasibility study	BP - Building IT	222 1507					Δ	16.08.2021	EM	FOR TENDER		
1 - Feasibility study	BP - Building Public Adress	PROJECT					^	10.00.2021	LIVI	TORTENDER		
A - Preliminary Design	BS - Building Service	LDPWRI-B/20110										
B - Design Review	BA- Building Architectural			•								
C - Tender Design	BE - Building Electrical	Drawn By Designed By Reviewed/Approved By										
D - Detailed Design	BF - Building Fire Service							dy_(.				
E - For Construction	BM - Building Mechanical	N NGCEMU	A13204	N NTUTA		E MENSAH	20100414	l l				
F - As Built	BT - Building Public Telecoms	Name	S.A.I.D Number	Name	Pr Number	Name	Pr Number	Signature				
G - For Information Only	BU - Building Public Utilities											

LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE

FOURWAYS OFFICE PARK,
BLOCK 5, GROUND FLOOR
Cnr. CEDAR ROAD AND
FOURWAYS,
2191
Tel: (+27) 10 110 8724
Fax: (+27) 86 659 2099

SCIENCE OF The services of the s

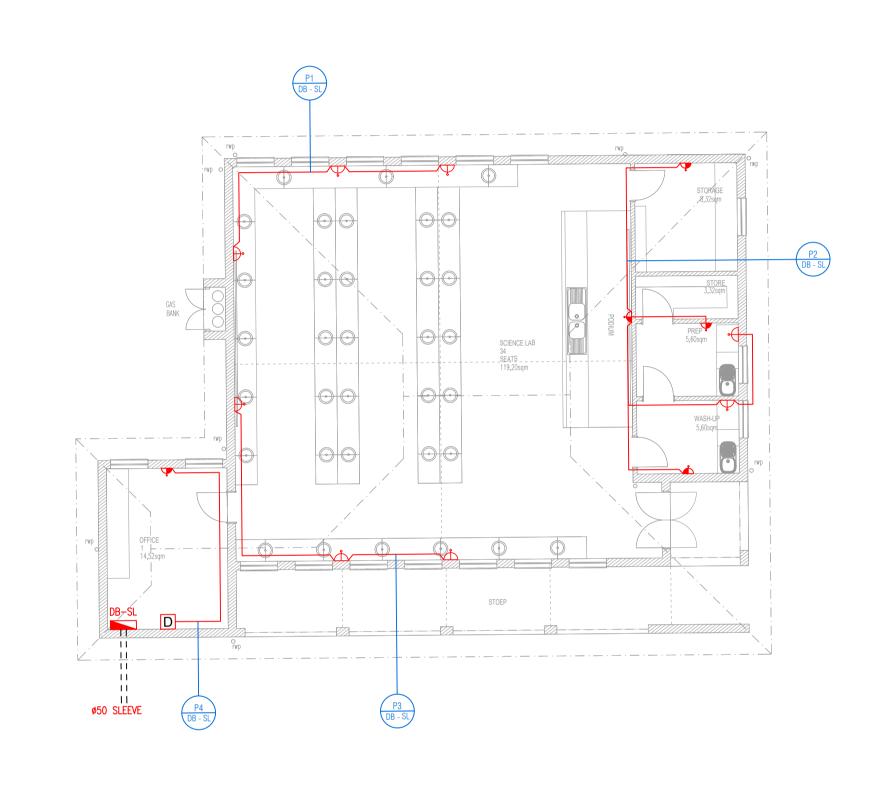
CONSULTANT

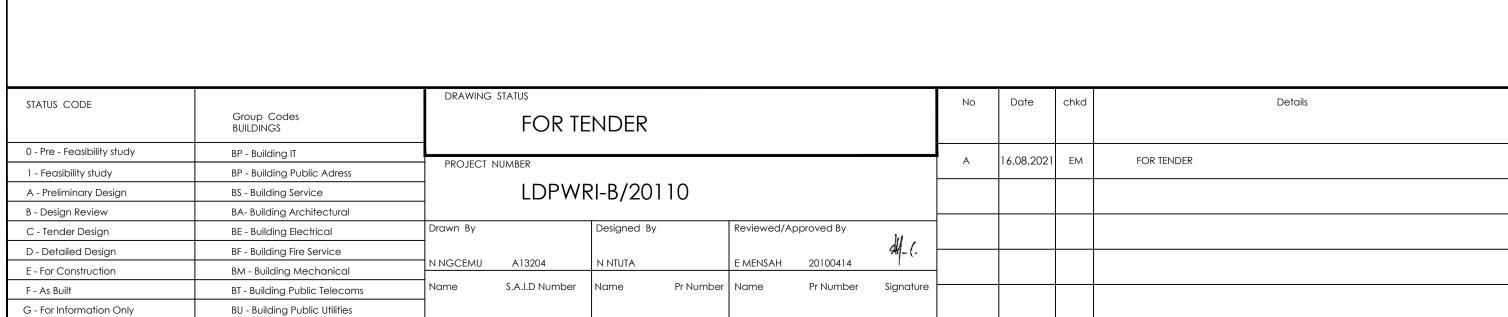
INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH
ACUTE INFRASTRUCTURE CHALLENGES,
INCLUDING STORM DAMAGED SCHOOLS IN
THE LIMPOPO PROVINCE CLUSTER E
CHAMETI SECONDARY SCHOOL

CSS - C - BE - TCS - TDW - 002/8 - A

SCIENCE LABORATORY FLOOR PLAN LIGHTING LAYOUT

SCALE 1:100 CHECKED Α REV. No DATE 16.08.2021







TAKUSA CONSULTING + SERVICES

CONSULTANT

FOURWAYS OFFICE PARK, BLOCK 5, GROUND FLOOR Cnr. CEDAR ROAD AND FOURWAYS BOULEVARD, 2191

FOURWAYS, Tel: (+27) 10 110 8724 Fax: (+27) 86 659 2099

INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH ACUTE INFRASTRUCTURE CHALLENGES, INCLUDING STORM DAMAGED SCHOOLS IN THE LIMPOPO PROVINCE CLUSTER E CHAMETI SECONDARY SCHOOL

DRAWING TITLE

SCIENCE LABORATORY FLOOR PLAN POWER LAYOUT

ONE TIER CLUSTER WALL BOX CONSISTING OF THE FOLLOWING:

16A NORMAL SOCKET UN-SWITCHED

16A DEDICATED SOCKET UN-SWITCHED

5A 2 PIN SOCKET UN-SWITCHED

2x RJ45 DATA & TELEPHONE POINTS ELECTRICAL DISTRIBUTION BOARD Project code Copyright Reserved

ITEM

Consultant CSS - C - BE - TCS - TDW - 001/8 - A 1:100

POWER LEGEND

SINGLE 16A NORMAL SWITCHED SOCKET OUTLET @1000 A.F.F.L ZA PLUG 16A SOCKET OUTLET @1200 A.F.F.L

DOUBLE 16A NORMAL SWITCHED SOCKET OUTLET @300 A.F.F.L

SINGLE 16A NORMAL SWITCHED SOCKET OUTLET IN CEILING VOID

DOUBLE 16A NORMAL SWITCHED SOCKET OUTLET @1200 A.F.F.L

PEDESTAL FOR MEETING/PRESENTER'S TABLE CONSISTING OF THE FF:

- 16A NORMAL SOCKET UN-SWITCHED

- 16A DEDICATED SOCKET UN-SWITCHED

- 5A 2 PIN SOCKET UN-SWITCHED

- DATA & TELEPHONE POINTS

TELEPHONE POINT

SINGLE PHASE ISOLATOR

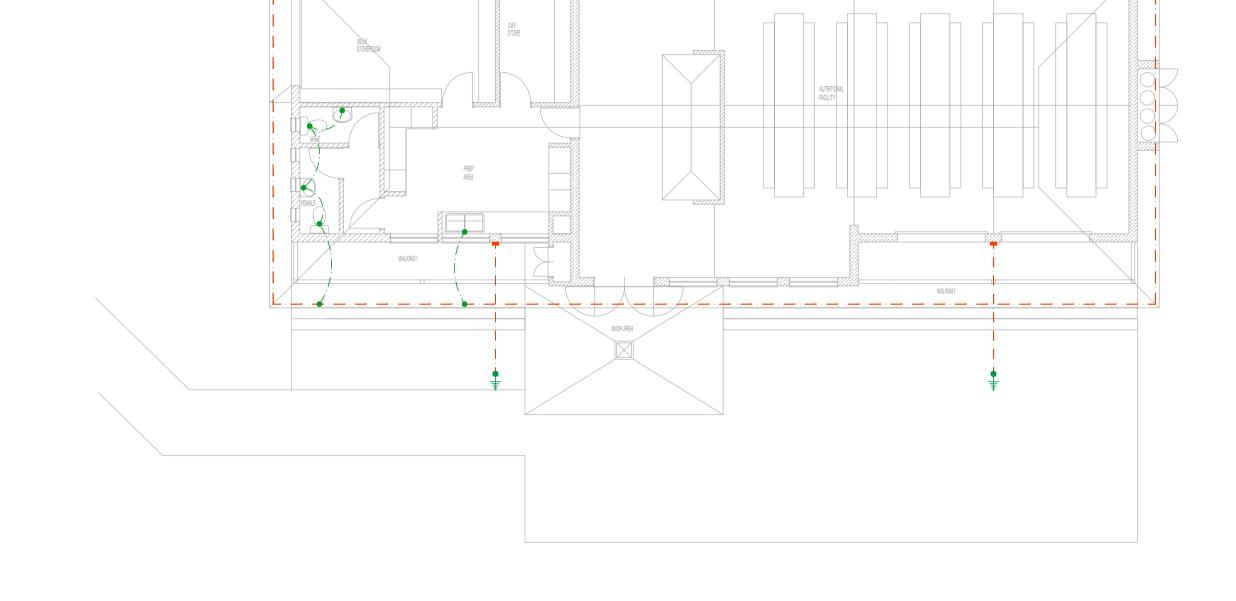
SINGLE PHASE ISOLATOR

ZA PLUG 16A SOCKET OUTLET @300 A.F.F.L

DATA POINT

DESCRIPTION

SCALE CHECKED REV. No DATE 16.08.2021



Details

CLIENT

No Date chkd

16.08.2021 EM

FOR TENDER

STATUS CODE

0 - Pre - Feasibility study

1 - Feasibility study

B - Design Review

C - Tender Design

D - Detailed Design

E - For Construction

G - For Information Only

A - Preliminary Design

Group Codes BUILDINGS

BP - Building IT

BP - Building Public Adress

BA- Building Architectural

BS - Building Service

BE - Building Electrical

BF - Building Fire Service

BM - Building Mechanical

BU - Building Public Utilities

BT - Building Public Telecoms

FOR TENDER

LDPWRI-B/20110

Designed By

Reviewed/Approved By

Pr Number Signature

LIMPOPO PROVINCIAL GOVERNMENT REPUBLIC OF SOUTH AFRICA DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE

TAKUSA CONSULTING + SERVICES

CONSULTANT

FOURWAYS OFFICE PARK, BLOCK 5, GROUND FLOOR Cnr. CEDAR ROAD AND FOURWAYS BOULEVARD, FOURWAYS, Tel: (+27) 10 110 8724

Fax: (+27) 86 659 2099

DRAWING TITLE

INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH ACUTE INFRASTRUCTURE CHALLENGES, INCLUDING STORM DAMAGED SCHOOLS IN THE LIMPOPO PROVINCE CLUSTER E CHAMETI SECONDARY SCHOOL

Copyright Reserved SCALE CHECKED

SYMBOL

GENERAL NOTES:

1. EARTH TERMINATION CONDUCTOR TO BE 50mm2 BCEW.

4. EARTH CONDUCTOR TO BE 0.5m BURIED BELOW GROUND LEVEL.

EARTH TERMINATION SYSTEM GENERAL REQUIREMENTS: 2. TYPE B EARTHING ARRANGEMENT SHALL BE USED FOR ANY

THE RING EARTH ELECTRODE (TYPE B ARRANGEMENT) SHOULD PREFERABLY:

3. THE CALCULATION OF AN EARTH TERMINATION SYSTEM SHALL BE DONE IN

1. DOWN CONDUCTORS MUST BE INSULATED BY AT LEAST 3mm CROSS LINKED

1. EARTHING TEST POINT SHOULD BE CAPABLE OF BEING OPENED WITH THE AID OF TOOL.

THE COMPLETE INSTALLATION MUST COMPLY TO THE FOLLOWING SANS SPECIFICATION:

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- AT A DISTANCE OF ABOUT 1.5m AWAY FROM THE EXTERNAL WALLS UNLESS STATED OTHERWISE.

2. BONDING CONDUCTOR TO BE 16mm2 BCEW.

EARTH TERMINATION NOTES:

BUILDING INSTALLATION.

DOWN CONDUCTORS:

EARTHING TEST POINT:

AND MUST BE 0.5m BURIED BELOW GROUND LEVEL.

BE BURIED AT A DEPTH OF AT LEAST 0.5m AND

ACCORDANCE WITH THE FORMULAE IN SANS 10199.

DOWN CONDUCTORS BEING TOUCHED.

- SANS 10142: THE WIRING OF PREMISES.

Consultant CSS - C - BE - TCS - TDW - 004/10 - A

REV. No

NUTRITION CENTRE FLOOR PLAN EARTHING & LIGHTNING PROTECTION LAYOUT

1:100 DATE 16.08.2021

DESCRIPTION

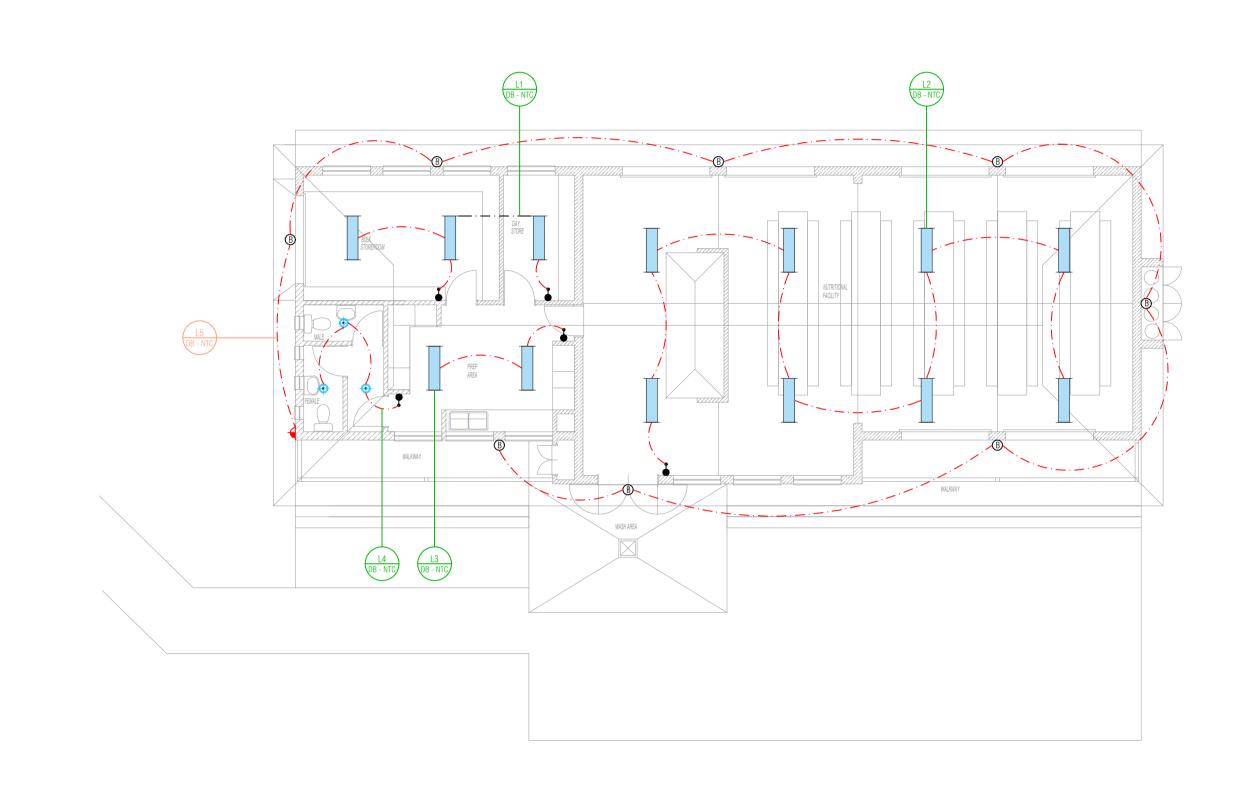
EARTH CONDUCTOR

DOWN CONDUCTOR

EARTH ELECTRODE (SPIKE)

BONDING TERMINATION

EARTHING TEST POINT



LIGHTING LEGEND

ITE	M	DESCRIPTION									
i	,	16A SINGLE LEVER LIGHT SWITCH									
i	2w	2WAY 16A SINGLE LEVER LIGHT SWITCH									
¥	2w	2WAY 16A DOUBLE LEVER LIGHT SWITCH									
₽	-	90 DEG. M	OTION	SENSOR					00		
	Δ.	180 DEG. N	OITON	N SENSOF	₹				00		
*	→	360 DEG. N	OITON	N SENSOF	₹				00		
	7	DAY/NIGH	T SWIT	СН					01		
0)	8 INCH 15\	W LED I	DOWNLIG	нт				00		
0).	TYPE B: 8 INCH 15W LED DOWNLIGHT WITH DALI MODIFICATION							00		
•)	10W LED RONDO DOWNLIGHT WITH DALI MODIFICATION							03		
B		15W LED ROUND BULKHEAD WITH DALI MODIFICATION							08		
_	_	VISUAL LED IP40 - 18W 1200x50mm WITH DALI MODIFICATION							00		
		VISUAL LED IP40 - 18W 1500x50mm WITH DALI MODIFICATION							00		
					RROSION PROOF LIGHT - EMERGENCY	FITTING			00		
		1200mm 34 WITH DALI			RROSION PROOF LIGHT	FITTING			13		
	=	1200mm 2x 14W LED OPEN CHANNEL FLUORESCENT LUMINAIRE							00		
		140W 90° IP65 SURFACE MOUNT LED LOW BAY WITH DALI MODIFICATION							00		
		60W EMERGENCY 1200x600mm LED PANEL RECESSED LIGHT FITTING WITH DALI MODIFICATION									
		60W 1200x WITH DALI			EL RECESSED LIGHT FI	TTING			00		
	Pro	oject	atus	dno	Consultant	Doc	Se	q	Rev		

STATUS CODE		DRAWING	STATUS					No	Date	chkd	Details	
SIN NOS CODE	Group Codes BUILDINGS		FOR TENDER									
0 - Pre - Feasibility study	BP - Building IT										EM	FOR TENDER
1 - Feasibility study	BP - Building Public Adress	PROJECT I						16.08.2021	LIVI	TON ILNOLK		
A - Preliminary Design	BS - Building Service	LDPWRI-B/20110										
B - Design Review	BA- Building Architectural			-				-				
C - Tender Design	BE - Building Electrical	Drawn By		Designed By		Reviewed/A	pproved By	1.1				
D - Detailed Design	BF - Building Fire Service							M_(.				
E - For Construction	BM - Building Mechanical	N NGCEMU	A13204	N NTUTA		E MENSAH	20100414	ļ				
F - As Built	BT - Building Public Telecoms	Name	S.A.I.D Number	Name	Pr Number	Name	Pr Number	Signature				
G - For Information Only	BU - Building Public Utilities											

PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE

FOURWAYS OFFICE PARK,
BLOCK 5, GROUND FLOOR
Cnr. CEDAR ROAD AND
FOURWAYS BOULEVARD,
FOURWAYS,

POURWAYS,

T

DRAWING TITLE

CONSULTANT

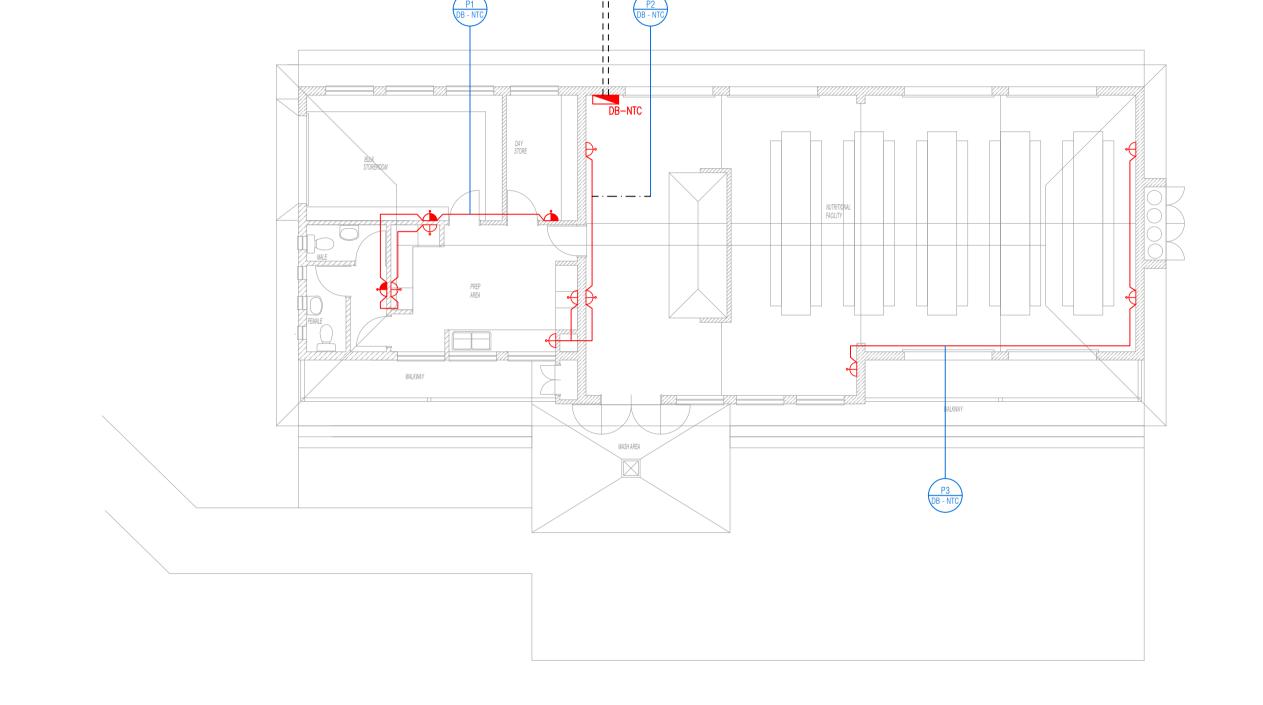
2191 Tel: (+27) 10 110 8724 Fax: (+27) 86 659 2099

INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH
ACUTE INFRASTRUCTURE CHALLENGES,
INCLUDING STORM DAMAGED SCHOOLS IN
THE LIMPOPO PROVINCE CLUSTER E
CHAMETI SECONDARY SCHOOL

NUTRITION CENTRE FLOOR PLAN LIGHTING LAYOUT

CSS - C - BE - TCS - TDW - 002/10 - A

1:100 CHECKED REV. No DATE 16.08.2021



Details

CLIENT

LIMPOPO

PROVINCIAL GOVERNMENT REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF

PUBLIC WORKS, ROADS & INFRASTRUCTURE

No Date chkd

A 16.08.2021 EM

FOR TENDER

STATUS CODE

0 - Pre - Feasibility study

1 - Feasibility study

B - Design Review

C - Tender Design

D - Detailed Design

E - For Construction

G - For Information Only

F - As Built

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Group Codes BUILDINGS

BP - Building IT

BP - Building Public Adress

BA- Building Architectural

BS - Building Service

BE - Building Electrical

BF - Building Fire Service

BM - Building Mechanical

BU - Building Public Utilities

BT - Building Public Telecoms

FOR TENDER

A13204

LDPWRI-B/20110

Designed By

N NTUTA

Reviewed/Approved By

E MENSAH 20100414

Pr Number Signature

Pr Number Name

SINGLE 16A NORMAL SWITCHED SOCKET OUTLET IN CEILING VOID DOUBLE 16A NORMAL SWITCHED SOCKET OUTLET @300 A.F.F.L DOUBLE 16A NORMAL SWITCHED SOCKET OUTLET @1200 A.F.F.L ONE TIER CLUSTER WALL BOX CONSISTING OF THE FOLLOWING:

- 16A NORMAL SOCKET UN-SWITCHED

- 16A LORIGATED SOCKET UN-SWITCHED

- 5A 2 PIN SOCKET UN-SWITCHED

- 2x RJ45 DATA & TELEPHONE POINTS ELECTRICAL DISTRIBUTION BOARD Project code Consultant Copyright Reserved CSS - C - BE - TCS - TDW - 001/10 - A

POWER LEGEND DESCRIPTION TELEPHONE POINT

SINGLE PHASE ISOLATOR SINGLE PHASE ISOLATOR SINGLE 16A NORMAL SWITCHED SOCKET OUTLET @1000 A.F.F.L ZA PLUG 16A SOCKET OUTLET @1200 A.F.F.L ZA PLUG 16A SOCKET OUTLET @300 A.F.F.L PEDESTAL FOR MEETING/PRESENTER'S TABLE CONSISTING OF THE FF:

- 16A NORMAL SOCKET UN-SWITCHED

- 16A DEDICATED SOCKET UN-SWITCHED

- 5A 2 PIN SOCKET UN-SWITCHED

- DATA & TELEPHONE POINTS

FOURWAYS OFFICE PARK, BLOCK 5, GROUND FLOOR

FOURWAYS,

2191

Cnr. CEDAR ROAD AND

FOURWAYS BOULEVARD,

Tel: (+27) 10 110 8724

Fax: (+27) 86 659 2099

CONSULTANT

TAKUSA CONSULTING · SERVICES

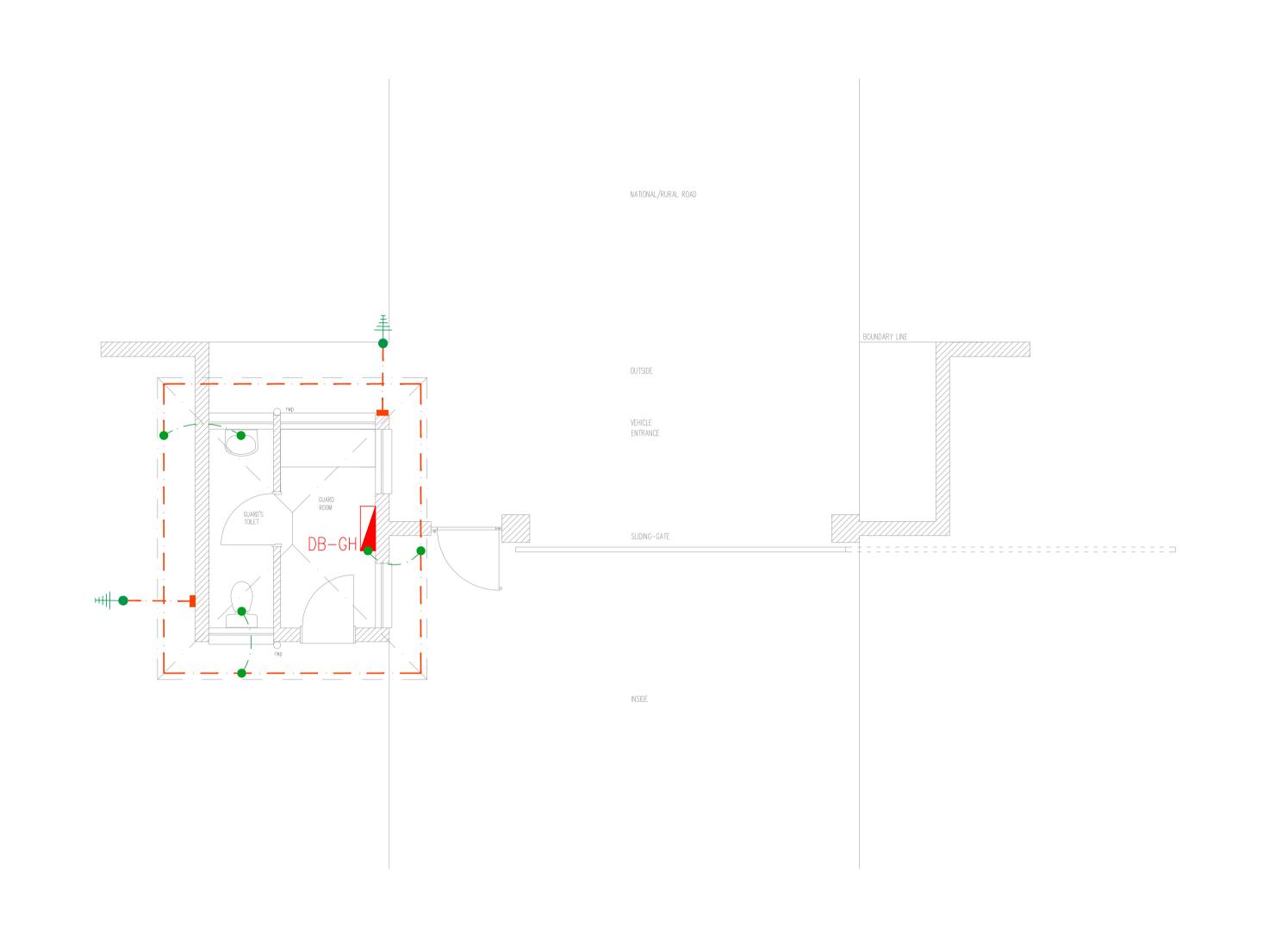
ACUTE INFRASTRUCTURE CHALLENGES,

INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH INCLUDING STORM DAMAGED SCHOOLS IN THE LIMPOPO PROVINCE CLUSTER E CHAMETI SECONDARY SCHOOL DRAWING TITLE

1:100

NUTRITION CENTRE FLOOR PLAN POWER LAYOUT

SCALE CHECKED REV. No DATE



SYMBOL DESCRIPTION

----- EARTH CONDUCTOR

DOWN CONDUCTOR

EARTH ELECTRODE (SPIKE)

BONDING TERMINATION

EARTHING TEST POINT

GENERAL NOTES:

1. EARTH TERMINATION CONDUCTOR TO BE 50mm2 BCEW.

4. EARTH CONDUCTOR TO BE 0.5m BURIED BELOW GROUND LEVEL.

EARTH TERMINATION SYSTEM GENERAL REQUIREMENTS:
2. TYPE B EARTHING ARRANGEMENT SHALL BE USED FOR ANY

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1. EARTHING TEST POINT SHOULD BE CAPABLE OF BEING OPENED WITH THE AID OF TOOL.

THE COMPLETE INSTALLATION MUST COMPLY TO THE FOLLOWING SANS SPECIFICATION:

2. WARNING NOTICES TO BE INSTALLED TO MINIMISE THE PROBABILITY OF

SANS 10198: PART 3: EARTHING SYSTEMS GENERAL PROVISIONS.
SANS 10198: PART 12: INSTALLATION OF EARTHING SYSTEMS.
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- AT A DISTANCE OF ABOUT 1.5m AWAY FROM THE EXTERNAL WALLS UNLESS STATED OTHERWISE.

2. BONDING CONDUCTOR TO BE 16mm2 BCEW.

EARTH TERMINATION NOTES:

BUILDING INSTALLATION.

DOWN CONDUCTORS:

EARTHING TEST POINT:

POLYETHYLENE.

AND MUST BE 0.5m BURIED BELOW GROUND LEVEL.

BE BURIED AT A DEPTH OF AT LEAST 0.5m AND

ACCORDANCE WITH THE FORMULAE IN SANS 10199.

DOWN CONDUCTORS BEING TOUCHED.

- SANS 10142: THE WIRING OF PREMISES.

STATUS CODE		DRAWING	S STATUS						No	Date	chkd	Details	CLIENT
000 0022	Group Codes BUILDINGS		FOR T	ENDER									
0 - Pre - Feasibility study	BP - Building IT									14.08.2021	EM	FOR TENDER	
1 - Feasibility study	BP - Building Public Adress	PROJECT	NUMBER							14.00.2021	LIVI	TOR ILINDER	
A - Preliminary Design	BS - Building Service		LDPWRI-B/20110										
B - Design Review	BA- Building Architectural			•									- 1
C - Tender Design	BE - Building Electrical	Drawn By		Designed By	,	Reviewed/A	Approved By	1.1]				
D - Detailed Design	BF - Building Fire Service							Al_ (.				+	PUBL
E - For Construction	BM - Building Mechanical	N NGCEMU	A13204	N NTUTA		E MENSAH	20100414	l	-				
F - As Built	BT - Building Public Telecoms	Name	S.A.I.D Number	Name	Pr Number	Name	Pr Number	Signature					
G - For Information Only	BU - Building Public Utilities												

LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF

PUBLIC WORKS, ROADS & INFRASTRUCTURE

				В
Ü	TA	KL	J S SERVI	A CES

CONSULTANT

FOURWAYS OFFICE PARK,
BLOCK 5, GROUND FLOOR
Cnr. CEDAR ROAD AND
FOURWAYS BOULEVARD,
FOURWAYS,

FOURWAYS, 2191 Tel: (+27) 10 110 8724 Fax: (+27) 86 659 2099

INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH	
ACUTE INFRASTRUCTURE CHALLENGES,	
INCLUDING STORM DAMAGED SCHOOLS IN	
THE LIMPOPO PROVINCE CLUSTER E	
CHAMETI SECONDARY SCHOOL	

DRAWING TITLE

GUARD HOUSE FLOOR PLAN
EARTHING & LIGHTNING PROTECTION LAYOUT

Project code 5 0 Consultant Doc Type No Rev

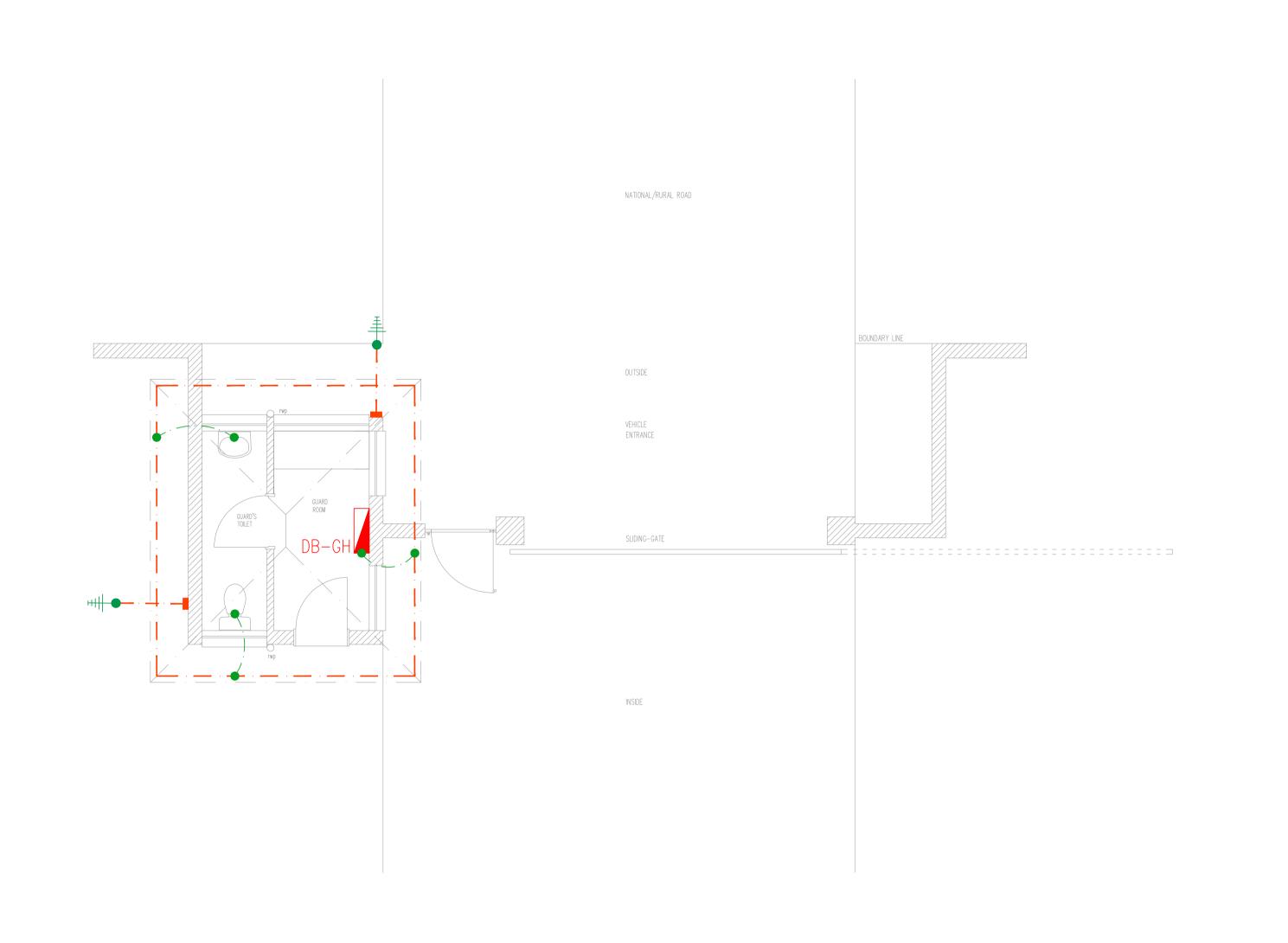
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SCALE 1:50

CHECKED

REV. No

DATE 14.08.2021



SYMBOL DESCRIPTION

----- EARTH CONDUCTOR

DOWN CONDUCTOR

EARTH ELECTRODE (SPIKE)

BONDING TERMINATION

EARTHING TEST POINT

STATUS CODE		DRAWING	STATUS					No	Date	chkd	Details
	Group Codes BUILDINGS		FOR TE	ENDER							
0 - Pre - Feasibility study	BP - Building IT							^	14.08.2021	EM	FOR TENDER
1 - Feasibility study	BP - Building Public Adress	PROJECT	NUMBER						14.00.2021	LIVI	TOR TENDER
A - Preliminary Design	BS - Building Service		LDPWF	RI-B/20110							
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F - As Built	BT - Building Public Telecoms	Name	S.A.I.D Number	Name Pr Numbe	Name	Pr Number	Signature				
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LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF

PUBLIC WORKS, ROADS & INFRASTRUCTURE

CLIENT

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Ü	TA	K	J S + SERV	A I C E S

CONSULTANT

FOURWAYS OFFICE PARK,
BLOCK 5, GROUND FLOOR
Cnr. CEDAR ROAD AND
FOURWAYS BOULEVARD,
FOURWAYS,

FOURWAYS, 2191 Tel: (+27) 10 110 8724 Fax: (+27) 86 659 2099

INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH
ACUTE INFRASTRUCTURE CHALLENGES,
INCLUDING STORM DAMAGED SCHOOLS IN
THE LIMPOPO PROVINCE CLUSTER E
CHAMETI SECONDARY SCHOOL

DRAWING TITLE

GUARD HOUSE FLOOR PLAN
EARTHING & LIGHTNING PROTECTION LAYOUT

Copyright	Project code	Doc Type	Seq No	Rev			
Reserved	CSS - C	: - E	3E -	TCS - TDV	V - 00	4/11	- A
	SCALE					1:50	

GENERAL NOTES:

1. EARTH TERMINATION CONDUCTOR TO BE 50mm2 BCEW.

4. EARTH CONDUCTOR TO BE 0.5m BURIED BELOW GROUND LEVEL.

EARTH TERMINATION SYSTEM GENERAL REQUIREMENTS:
2. TYPE B EARTHING ARRANGEMENT SHALL BE USED FOR ANY

THE RING EARTH ELECTRODE (TYPE B ARRANGEMENT) SHOULD PREFERABLY:

3. THE CALCULATION OF AN EARTH TERMINATION SYSTEM SHALL BE DONE IN

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THE COMPLETE INSTALLATION MUST COMPLY TO THE FOLLOWING SANS SPECIFICATION:

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10313: THE PROTECTION OF STRUCTURES AGAINST LIGHTNING.
SANS 1063: EARTHING SYSTEMS GENERAL PROVISIONS.

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- AT A DISTANCE OF ABOUT 1.5m AWAY FROM THE EXTERNAL WALLS UNLESS STATED OTHERWISE.

2. BONDING CONDUCTOR TO BE 16mm2 BCEW.

EARTH TERMINATION NOTES:

BUILDING INSTALLATION.

DOWN CONDUCTORS:

EARTHING TEST POINT:

POLYETHYLENE.

AND MUST BE 0.5m BURIED BELOW GROUND LEVEL.

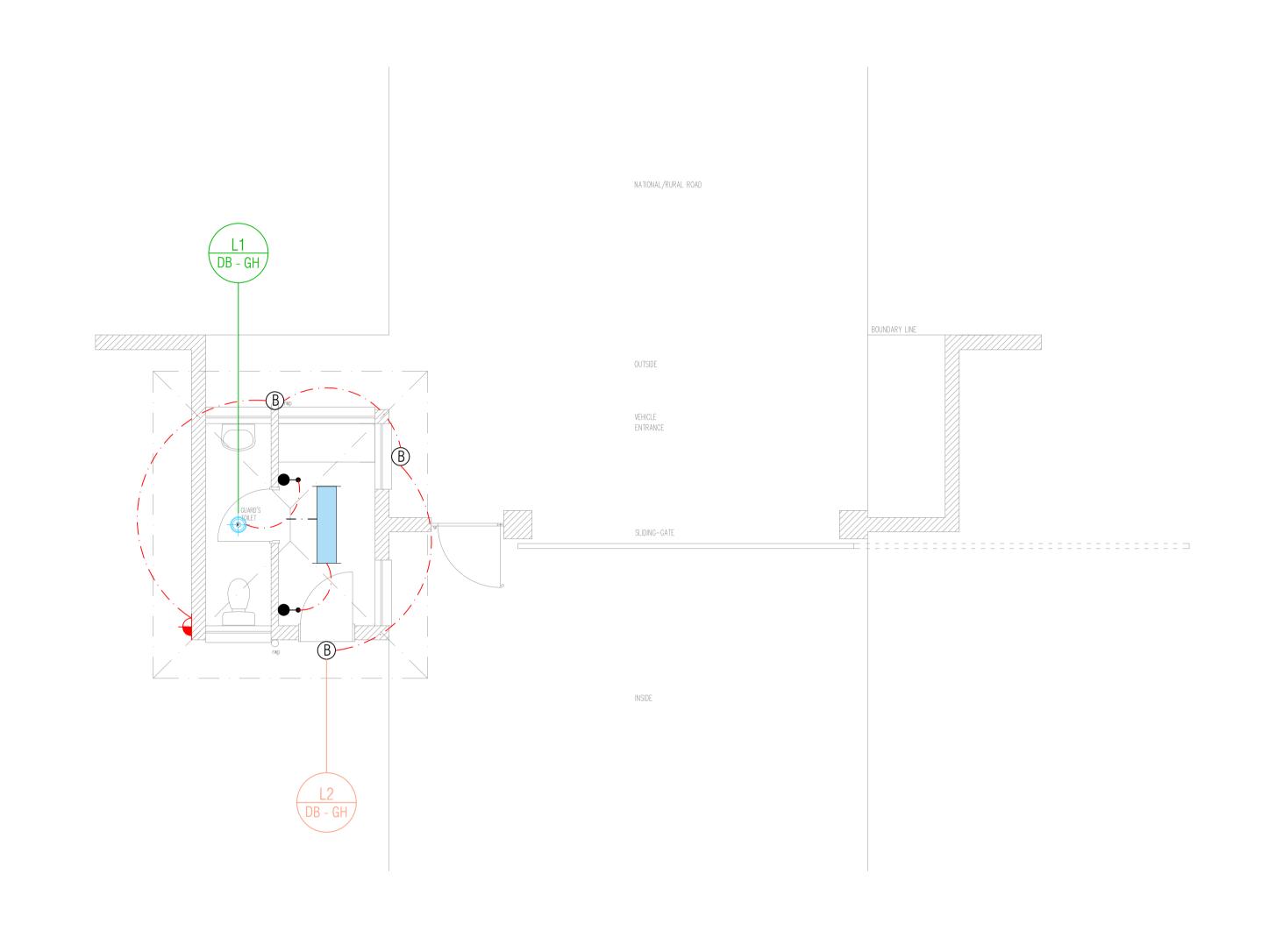
BE BURIED AT A DEPTH OF AT LEAST 0.5m AND

ACCORDANCE WITH THE FORMULAE IN SANS 10199.

DOWN CONDUCTORS BEING TOUCHED.

- SANS 10142: THE WIRING OF PREMISES.

 \square_{54}



ITEM	DESCRIPTION		QTY								
÷	16A SINGLE LEVER LIGHT SWITCH		02								
‡ ^{2w}	2WAY 16A SINGLE LEVER LIGHT SWITCH		00								
¥²w	2WAY 16A DOUBLE LEVER LIGHT SWITCH										
F	90 DEG. MOTION SENSOR										
.	180 DEG. MOTION SENSOR										
*	360 DEG. MOTION SENSOR		00								
<u> </u>	DAY/NIGHT SWITCH		01								
•	8 INCH 15W LED DOWNLIGHT		00								
•	TYPE B: 8 INCH 15W LED DOWNLIGHT WITH DALI MODIFICATION										
•	10W LED RONDO DOWNLIGHT WITH DALI MODIFICATION		01								
B	15W LED ROUND BULKHEAD WITH DALI MODIFICATION		03								
	VISUAL LED IP40 - 18W 1200x50mm WITH DALI MODIFICATION		00								
	VISUAL LED IP40 - 18W 1500x50mm WITH DALI MODIFICATION		00								
	1200mm 34W LED IP66 CORROSION PROOF LIGHT FITTING WITH DALI MODIFICATION - EMERGENCY		00								
	1200mm 34W LED IP66 CORROSION PROOF LIGHT FITTING WITH DALI MODIFICATION		01								
	1200mm 2x 14W LED OPEN CHANNEL FLUORESCENT LUMINAIRE		00								
	140W 90° IP65 SURFACE MOUNT LED LOW BAY WITH DALI MODIFICATION										
	60W EMERGENCY 1200x600mm LED PANEL RECESSED LIGHT FITTING WITH DALI MODIFICATION										
	60W 1200x600mm LED PANEL RECESSED LIGHT FITTING WITH DALI MODIFICATION		00								
	ν α		\top								

STATUS CODE		DRAWING	STATUS						No	Date	chkd		Details	
31/1103 CODE	Group Codes BUILDINGS		FOR TE	ENDER										
0 - Pre - Feasibility study	BP - Building IT								٨	14.08.2021	I EM	FOR TENDER		
1 - Feasibility study	BP - Building Public Adress	PROJECT	NUMBER							14.00.2021	LIVI	TORTENDER		
A - Preliminary Design	BS - Building Service		LDPWF	RI-B/201	10									
B - Design Review	BA- Building Architectural			•										
C - Tender Design	BE - Building Electrical	Drawn By		Designed By		Reviewed/Ap	oproved By	1.1						
D - Detailed Design	BF - Building Fire Service							Al_(.						
E - For Construction	BM - Building Mechanical	N NGCEMU	A13204	N NTUTA		E MENSAH	20100414	l						
F - As Built	BT - Building Public Telecoms	Name	S.A.I.D Number	Name	Pr Number	Name	Pr Number	Signature						
G - For Information Only	BU - Building Public Utilities													

PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE

FOURWAYS OFFICE PARK,
BLOCK 5, GROUND FLOOR
Cnr. CEDAR ROAD AND
FOURWAYS,
2191
Tel: (+27) 10 110 8724
Fax: (+27) 86 659 2099

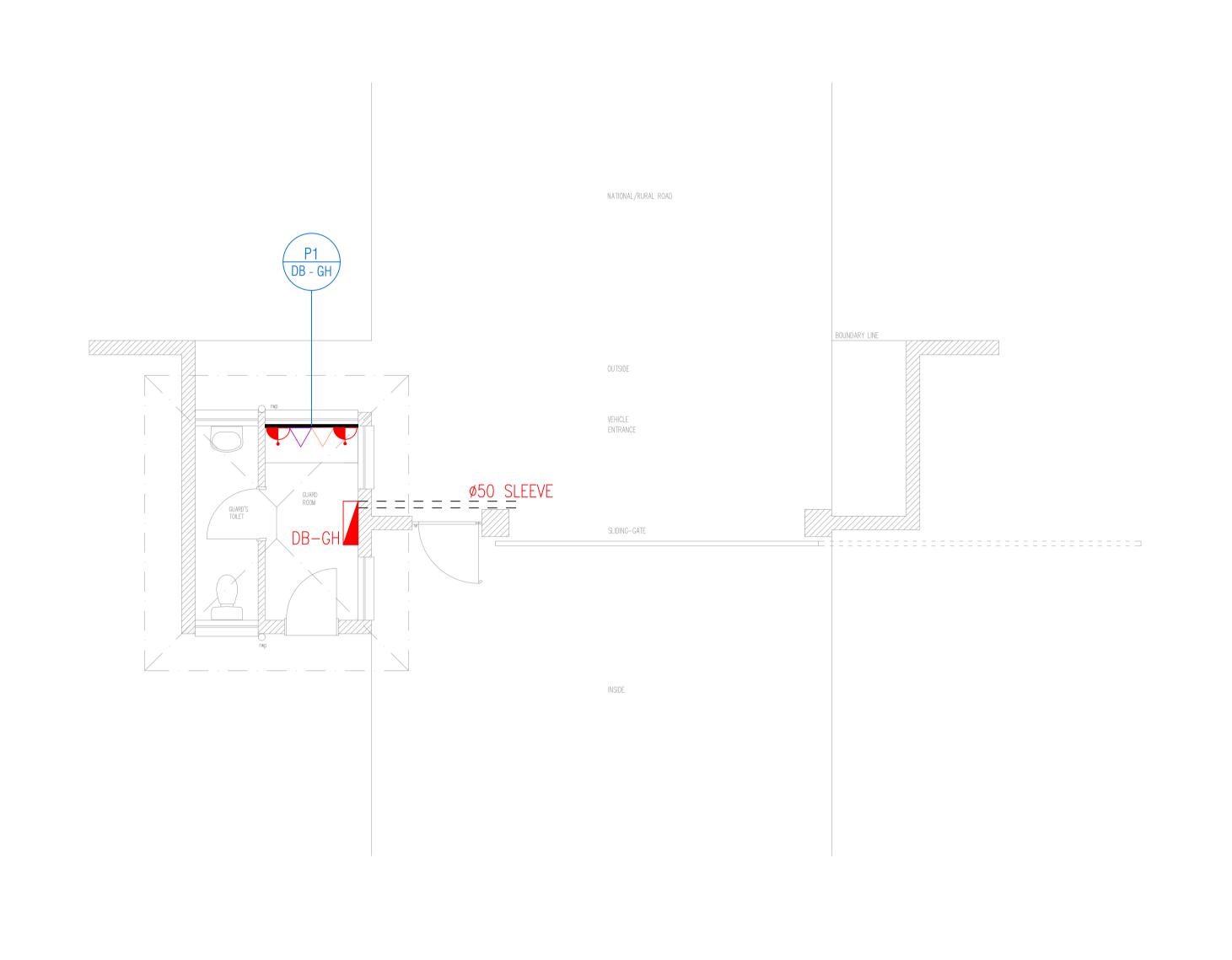
GIADD:

CONSULTANT

INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH
ACUTE INFRASTRUCTURE CHALLENGES,
INCLUDING STORM DAMAGED SCHOOLS IN
THE LIMPOPO PROVINCE CLUSTER E
CHAMETI SECONDARY SCHOOL

CSS - C - BE - TCS - TDW - 002/11 - A

SCALE 1:50 GUARD HOUSE FLOOR PLAN CHECKED REV. No LIGHTING LAYOUT 14.08.2021 DATE



POWER LEGEND DESCRIPTION TELEPHONE POINT SINGLE PHASE ISOLATOR SINGLE PHASE ISOLATOR SINGLE 16A NORMAL SWITCHED SOCKET OUTLET @1000 A.F.F.L ZA PLUG 16A SOCKET OUTLET @1200 A.F.F.L ZA PLUG 16A SOCKET OUTLET @300 A.F.F.L SINGLE 16A NORMAL SWITCHED SOCKET OUTLET IN CEILING VOID DOUBLE 16A NORMAL SWITCHED SOCKET OUTLET @300 A.F.F.L DOUBLE 16A NORMAL SWITCHED SOCKET OUTLET @1200 A.F.F.L POWER SKIRTING PEDESTAL FOR MEETING/PRESENTER'S TABLE CONSISTING OF THE FF:

- 16A NORMAL SOCKET UN-SWITCHED

- 16A DEDICATED SOCKET UN-SWITCHED

- 5A 2 PIN SOCKET UN-SWITCHED

- DATA & TELEPHONE POINTS ONE TIER CLUSTER WALL BOX CONSISTING OF THE FOLLOWING:

- 16A NORMAL SOCKET UN-SWITCHED

- 16A DEDICATED SOCKET UN-SWITCHED

- 5A 2 PIN SOCKET UN-SWITCHED

- 2x RJ45 DATA & TELEPHONE POINTS ELECTRICAL DISTRIBUTION BOARD

STATUS CODE Group Codes BUILDINGS FOR TE	NDER						1			
BOILDINGS										
0 - Pre - Feasibility study BP - Building IT						٨	14.08.2021	EM	FOR TENDER	
1 - Feasibility study BP - Building Public Adress PROJECT NUMBER							14.00.2021	LIVI	TORTENDER	
A - Preliminary Design BS - Building Service LDPWR	1-B/201	10								
B - Design Review BA- Building Architectural										
C - Tender Design BE - Building Electrical Drawn By	Designed By	Revi	riewed/App	proved By	14					
D - Detailed Design BF - Building Fire Service			=> 10		M-(.					
E - For Construction BM - Building Mechanical N NGCEMU A13204	N NTUTA	E ME	ENSAH	20100414	1					
F - As Built BT - Building Public Telecoms Name S.A.I.D Number	Name	Pr Number Nan	me	Pr Number	Signature					

BU - Building Public Utilities

G - For Information Only

CLIENT LIMPOPO PROVINCIAL GOVERNMENT REPUBLIC OF SOUTH AFRICA DEPARTMENT OF **PUBLIC WORKS, ROADS & INFRASTRUCTURE**

TAKUSA FOURWAYS BOULEVARD, FOURWAYS,

CONSULTANT

FOURWAYS OFFICE PARK, BLOCK 5, GROUND FLOOR Cnr. CEDAR ROAD AND FOURWAYS, 2191 Tel: (+27) 10 110 8724

Fax: (+27) 86 659 2099

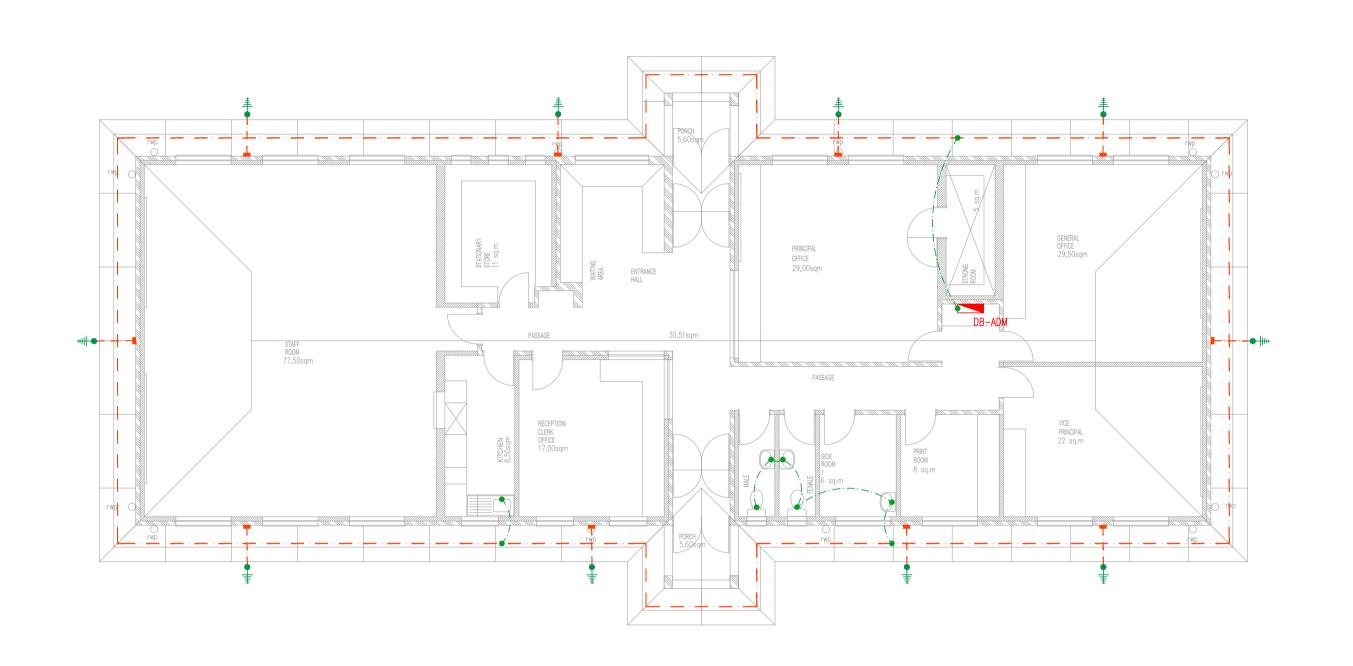
INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH ACUTE INFRASTRUCTURE CHALLENGES, INCLUDING STORM DAMAGED SCHOOLS IN THE LIMPOPO PROVINCE CLUSTER E CHAMETI SECONDARY SCHOOL DRAWING TITLE

GUARD HOUSE FLOOR PLAN

POWER LAYOUT

Project code Consultant Copyright Reserved CSS - C - BE - TCS - TDW - 001/11 - A

1:50
Λ
A
14.08.2021



EARTH CONDUCTOR DOWN CONDUCTOR EARTH ELECTRODE (SPIKE) BONDING TERMINATION EARTHING TEST POINT INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH ACUTE INFRASTRUCTURE CHALLENGES, INCLUDING STORM DAMAGED SCHOOLS IN

GENERAL NOTES:

1. EARTH TERMINATION CONDUCTOR TO BE 50mm2 BCEW.

4. EARTH CONDUCTOR TO BE 0.5m BURIED BELOW GROUND LEVEL. 5. ALL WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH:

EARTH TERMINATION SYSTEM GENERAL REQUIREMENTS: 2. TYPE B EARTHING ARRANGEMENT SHALL BE USED FOR ANY

THE RING EARTH ELECTRODE (TYPE B ARRANGEMENT) SHOULD PREFERABLY:

3. THE CALCULATION OF AN EARTH TERMINATION SYSTEM SHALL BE DONE IN

1. DOWN CONDUCTORS MUST BE INSULATED BY AT LEAST 3mm CROSS LINKED

1. EARTHING TEST POINT SHOULD BE CAPABLE OF BEING OPENED WITH THE AID OF TOOL.

THE COMPLETE INSTALLATION MUST COMPLY TO THE FOLLOWING SANS SPECIFICATION:

2. WARNING NOTICES TO BE INSTALLED TO MINIMISE THE PROBABILITY OF

- SANS 10198: PART 3: EARTHING SYSTEMS GENERAL PROVISIONS. - SANS 10198: PART 12: INSTALLATION OF EARTHING SYSTEMS. - 10199: THE DESIGN AND INSTALLATION OF AN EARTH ELECTRODE. - 10313: THE PROTECTION OF STRUCTURES AGAINST LIGHTNING. - SANS 1063: EARTHING SYSTEMS GENERAL PROVISIONS.

3. EARTH ELECTRODE (SPIKE) TO BE Ø15mm x 1.5m LONG COPPER SOLID ROUND BAR,

GP/E6/1 REV.1 - STANDARD QUALITY SPECIFICATION FOR GENERAL INSTALLATIONS (SCHOOLS) GP/E6/2 REV.1 - STANDARD QUALITY SPECIFICATION FOR MATERIALS AND EQUIPMENT (SCHOOLS)

- AT A DISTANCE OF ABOUT 1.5m AWAY FROM THE EXTERNAL WALLS UNLESS STATED OTHERWISE.

2. BONDING CONDUCTOR TO BE 16mm2 BCEW.

EARTH TERMINATION NOTES:

BUILDING INSTALLATION.

DOWN CONDUCTORS:

EARTHING TEST POINT:

POLYETHYLENE.

AND MUST BE 0.5m BURIED BELOW GROUND LEVEL.

- BE BURIED AT A DEPTH OF AT LEAST 0.5m AND

ACCORDANCE WITH THE FORMULAE IN SANS 10199.

DOWN CONDUCTORS BEING TOUCHED.

- SANS 10142: THE WIRING OF PREMISES.

STATUS CODE		DRAWING	G STATUS					No	Date	chkd	Details	CLIENT
	Group Codes BUILDINGS		FOR TI	ENDER								
0 - Pre - Feasibility study	BP - Building IT							_	16.08.2021	EM	FOR TENDER	
1 - Feasibility study	BP - Building Public Adress	PROJECT	NUMBER					A	16.06.2021		FOR TEINDER	7
A - Preliminary Design	BS - Building Service		LDPWRI-B/20110									
B - Design Review	BA- Building Architectural			•								
C - Tender Design	BE - Building Electrical	Drawn By		Designed By	Reviewed//	Approved By	1.1					
D - Detailed Design	BF - Building Fire Service						A)_(.					PUBL
E - For Construction	BM - Building Mechanical	N NGCEMU	A13204	N NTUTA	E MENSAH	20100414	ļ					
F - As Built	BT - Building Public Telecoms	Name	S.A.I.D Number	Name Pr Num	oer Name	Pr Number	Signature					

BU - Building Public Utilities

G - For Information Only

PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE

TAKUSA CONSULTING - SERVICES

FOURWAYS OFFICE PARK, BLOCK 5, GROUND FLOOR Cnr. CEDAR ROAD AND FOURWAYS BOULEVARD, FOURWAYS, 2191 Tel: (+27) 10 110 8724 Fax: (+27) 86 659 2099

THE LIMPOPO PROVINCE CLUSTER E CHAMETI SECONDARY SCHOOL

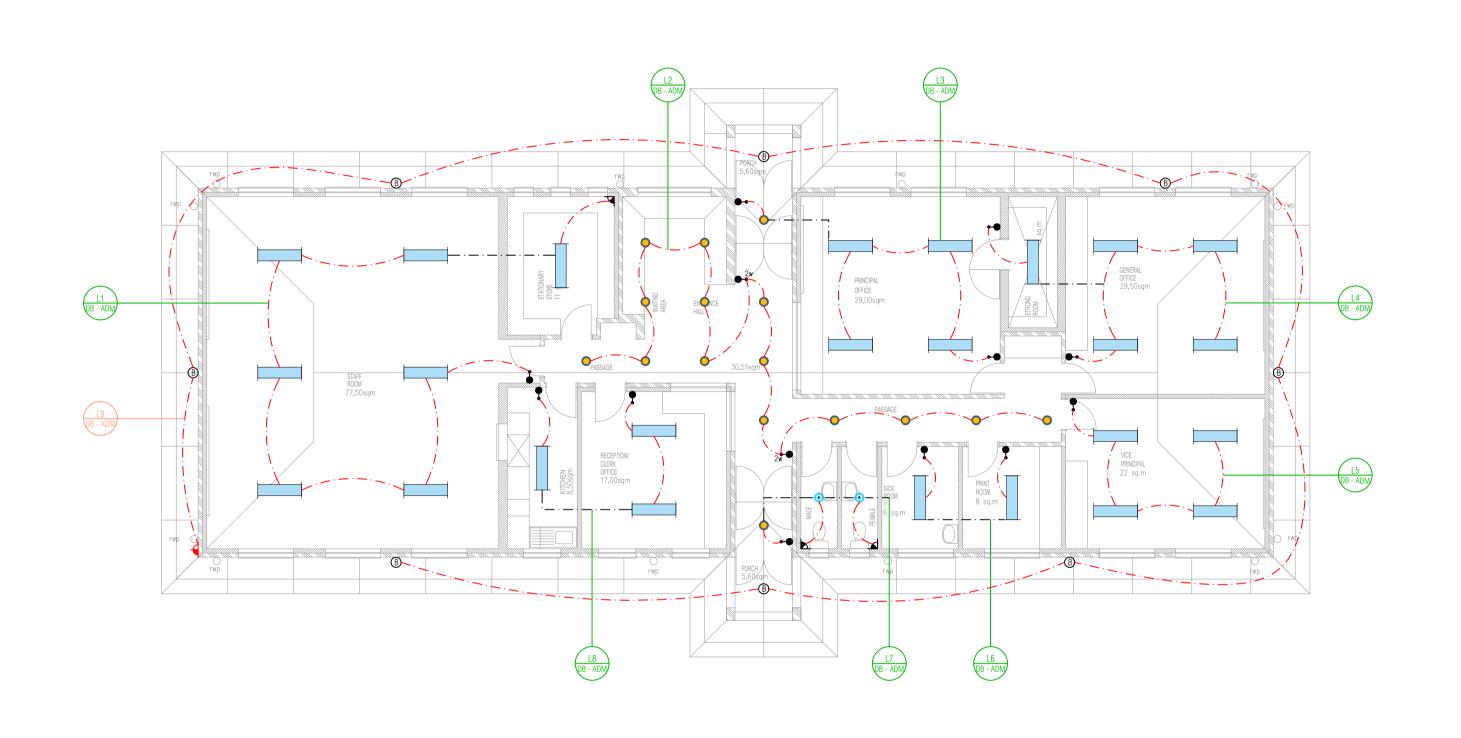
ADMINISTRATION FLOOR PLAN **EARTHING & LIGHTNING PROTECTION LAYOUT**

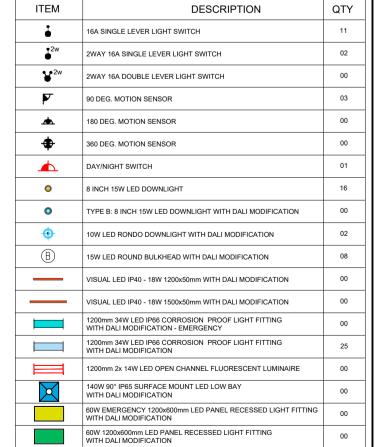
Copyright	Project code	Statu	Group	Consultant	Doc Type	Seq No	Re
Copyright Reserved	CSS - C	- E	BE - ⁻	TCS - TDW	/ - 004	/12 -	- A
	SCALE					1:100	
	CHECKED					Α	
I	REV. No						

DESCRIPTION

SYMBOL

DATE





STATUS CODE		DRAWING	G STATUS						No	Date	chkd	Details
0,,,,,,,,	Group Codes BUILDINGS		FOR T	ENDER								
0 - Pre - Feasibility study	BP - Building IT								٨	16.08.2021	EM	FOR TENDER
1 - Feasibility study	BP - Building Public Adress	PROJECT	NUMBER							16.06.2021	LIVI	TOK IENDER
A - Preliminary Design	BS - Building Service		LDPW	RI-B/20	110							
B - Design Review	BA- Building Architectural			•								
C - Tender Design	BE - Building Electrical	Drawn By		Designed By	′	Reviewed/A	pproved By	1.1				
D - Detailed Design	BF - Building Fire Service							Al-(.				
E - For Construction	BM - Building Mechanical	N NGCEMU	A13204	N NTUTA		E MENSAH	20100414	ı				
F - As Built	BT - Building Public Telecoms	Name	S.A.I.D Number	Name	Pr Number	Name	Pr Number	Signature				
G - For Information Only	BU - Building Public Utilities											

LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE

FOURWAYS OFFICE PARK, BLOCK 5, GROUND FLOOR Cnr. CEDAR ROAD AND FOURWAYS BOULEVARD, FOURWAYS,

CONSULTANT

INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH ACUTE INFRASTRUCTURE CHALLENGES, INCLUDING STORM DAMAGED SCHOOLS IN THE LIMPOPO PROVINCE CLUSTER E CHAMETI SECONDARY SCHOOL

2191

Tel: (+27) 10 110 8724

Fax: (+27) 86 659 2099

DRAWING TITLE

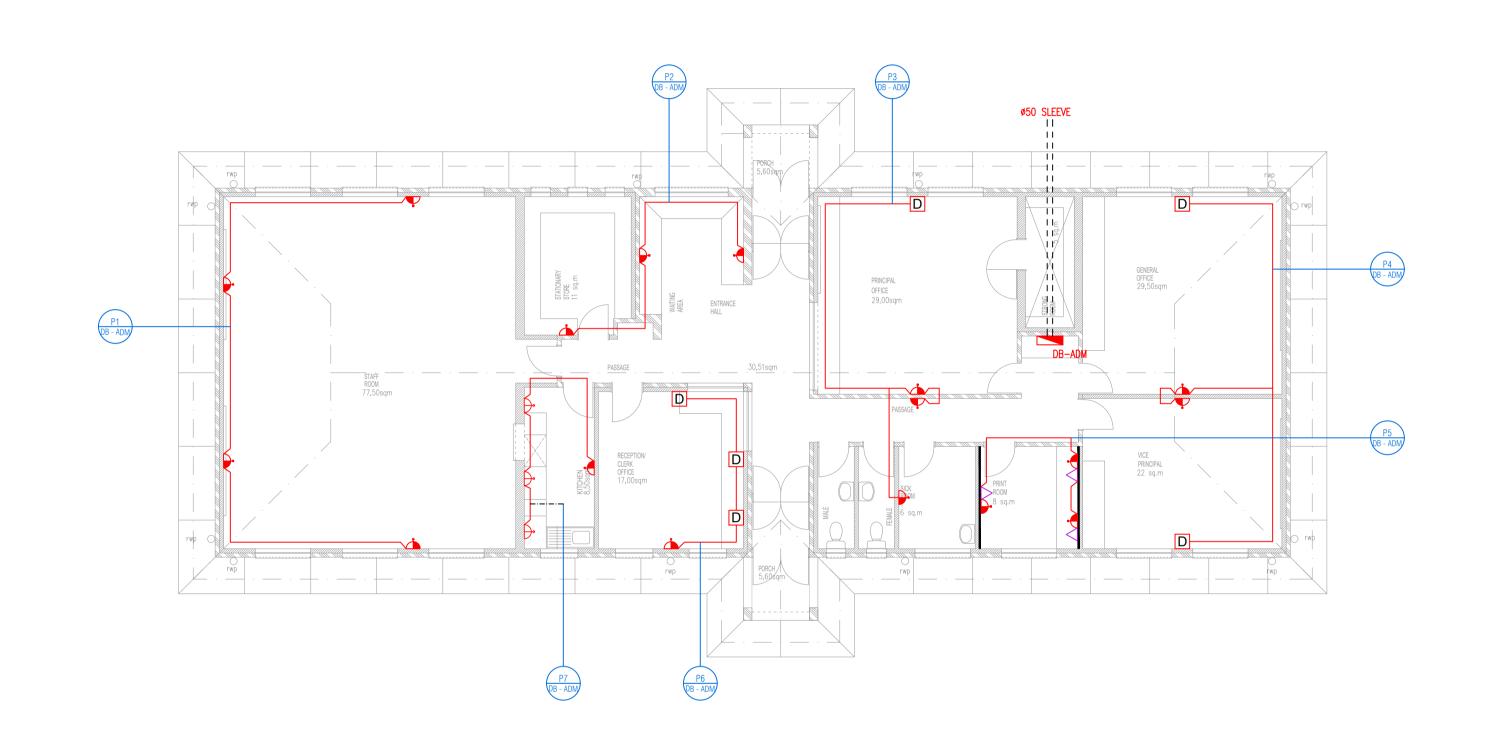
ADMINISTRATION FLOOR PLAN LIGHTING LAYOUT

Consultant Copyright Reserved CSS - C - BE - TCS - TDW - 002/12 - A SCALE

CHECKED REV. No DATE 16.08.2021

1:100

Α



POWER LEGEND

	POWER LEGEND
ITEM	DESCRIPTION
A	TV POINT
\triangle	TELEPHONE POINT
\triangle	DATA POINT
Ø	SINGLE PHASE ISOLATOR
th.	SINGLE PHASE ISOLATOR
\triangle	SINGLE 16A NORMAL SWITCHED SOCKET OUTLET @1000 A.F.F.L
占	ZA PLUG 16A SOCKET OUTLET @1200 A.F.F.L
<u></u>	ZA PLUG 16A SOCKET OUTLET @300 A.F.F.L
_	SINGLE 16A NORMAL SWITCHED SOCKET OUTLET IN CEILING VOID
<u> </u>	DOUBLE 16A NORMAL SWITCHED SOCKET OUTLET @300 A.F.F.L
<u> </u>	DOUBLE 16A NORMAL SWITCHED SOCKET OUTLET @1200 A.F.F.L
	POWER SKIRTING
F	PEDESTAL FOR MEETING/PRESENTER'S TABLE CONSISTING OF THE FF: 16A NORMAL SOCKET UN-SWITCHED 16A DEDICATED SOCKET UN-SWITCHED 5 A 2 PIN SOCKET UN-SWITCHED DATA & TELEPHONE POINTS
D	ONE TIER CLUSTER WALL BOX CONSISTING OF THE FOLLOWING: 16A NORMAL SOCKET UN-SWITCHED 16A DEDICATED SOCKET UN-SWITCHED 5A 2 PIN SOCKET UN-SWITCHED 2x RJ45 DATA & TELEPHONE POINTS
	ELECTRICAL DISTRIBUTION BOARD
	χ <u> </u>

STATUS CODE		DRAWING STATUS					No	Date	chkd	Details
	Group Codes BUILDINGS	FOR T	ENDER							
0 - Pre - Feasibility study	BP - Building IT	DDO IFOT AUGUSED					Α	16.08.2021	EM	FOR TENDER
1 - Feasibility study	BP - Building Public Adress	PROJECT NUMBER						10.00.2021		TORTENDER
A - Preliminary Design	BS - Building Service	LDPW	RI-B/20110							
B - Design Review	BA- Building Architectural		•			-				
C - Tender Design	BE - Building Electrical	Drawn By	Designed By	Reviewed/Appr	roved By	1.1				
D - Detailed Design	BF - Building Fire Service					M_(.				
E - For Construction	BM - Building Mechanical	N NGCEMU A13204	N NTUTA	E MENSAH	20100414	ı				
F - As Built	BT - Building Public Telecoms	Name S.A.I.D Number	Name Pr Number	Name	Pr Number	Signature				
G - For Information Only	BU - Building Public Utilities									

LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE

INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH ACUTE INFRASTRUCTURE CHALLENGES,
INCLUDING STORM DAMAGED SCHOOLS IN
THE LIMPOPO PROVINCE CLUSTER E
CHAMETI SECONDARY SCHOOL FOURWAYS OFFICE PARK,
BLOCK 5, GROUND FLOOR
Cnr. CEDAR ROAD AND
FOURWAYS BOULEVARD,
FOURWAYS,

POURWAYS,

ACI
INCLUI
THE
OFFICE PARK,
BLOCK 5, GROUND FLOOR
Chr. CEDAR ROAD AND
FOURWAYS,
FOURWAYS,

DRAWING TITLE 2191

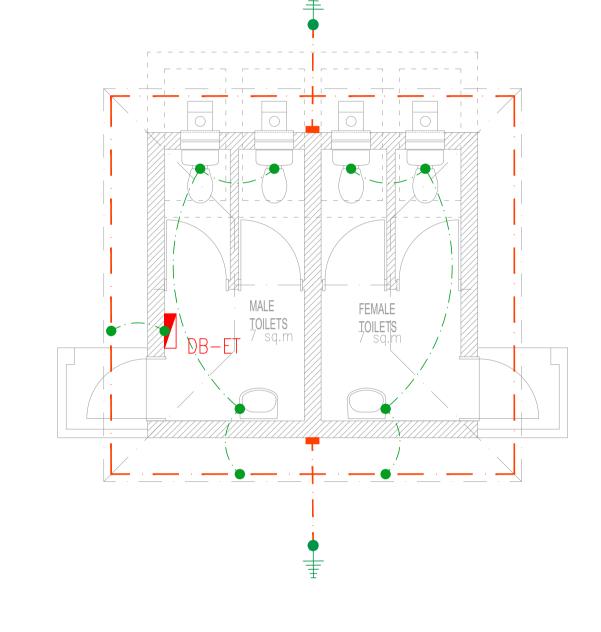
Tel: (+27) 10 110 8724 Fax: (+27) 86 659 2099

ADMINISTRATION FLOOR PLAN

CSS - C - BE - TCS - TDW - 001/12 - A

CHECKED REV. No

POWER LAYOUT DATE 1:100



CONSULTANT

TAKUSA FOURWAYS BOULEVARD, FOURWAYS,

FOURWAYS OFFICE PARK, BLOCK 5, GROUND FLOOR Cnr. CEDAR ROAD AND FOURWAYS, Tel: (+27) 10 110 8724

ENVIROLOO 4x SEAT A TOILETS FLOOR PLAN Fax: (+27) 86 659 2099 EARTHING & LIGHTNING PROTECTION

LAYOUT

INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH ACUTE INFRASTRUCTURE CHALLENGES, INCLUDING STORM DAMAGED SCHOOLS IN THE LIMPOPO PROVINCE CLUSTER E CHAMETI SECONDARY SCHOOL

SCALE REV. No

SYMBOL

GENERAL NOTES:

1. EARTH TERMINATION CONDUCTOR TO BE 50mm2 BCEW.

4. EARTH CONDUCTOR TO BE 0.5m BURIED BELOW GROUND LEVEL. 5. ALL WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH:

EARTH TERMINATION SYSTEM GENERAL REQUIREMENTS: 2. TYPE B EARTHING ARRANGEMENT SHALL BE USED FOR ANY

THE RING EARTH ELECTRODE (TYPE B ARRANGEMENT) SHOULD PREFERABLY:

3. THE CALCULATION OF AN EARTH TERMINATION SYSTEM SHALL BE DONE IN

1. DOWN CONDUCTORS MUST BE INSULATED BY AT LEAST 3mm CROSS LINKED

1. EARTHING TEST POINT SHOULD BE CAPABLE OF BEING OPENED WITH THE AID OF TOOL.

THE COMPLETE INSTALLATION MUST COMPLY TO THE FOLLOWING SANS SPECIFICATION:

2. WARNING NOTICES TO BE INSTALLED TO MINIMISE THE PROBABILITY OF

- SANS 10198: PART 3: EARTHING SYSTEMS GENERAL PROVISIONS. - SANS 10198: PART 12: INSTALLATION OF EARTHING SYSTEMS. - 10199: THE DESIGN AND INSTALLATION OF AN EARTH ELECTRODE. - 10313: THE PROTECTION OF STRUCTURES AGAINST LIGHTNING. - SANS 1063: EARTHING SYSTEMS GENERAL PROVISIONS.

3. EARTH ELECTRODE (SPIKE) TO BE Ø15mm x 1.5m LONG COPPER SOLID ROUND BAR,

GP/E6/1 REV.1 - STANDARD QUALITY SPECIFICATION FOR GENERAL INSTALLATIONS (SCHOOLS) GP/E6/2 REV.1 - STANDARD QUALITY SPECIFICATION FOR MATERIALS AND EQUIPMENT (SCHOOLS)

- AT A DISTANCE OF ABOUT 1.5m AWAY FROM THE EXTERNAL WALLS UNLESS STATED OTHERWISE.

2. BONDING CONDUCTOR TO BE 16mm2 BCEW.

EARTH TERMINATION NOTES:

BUILDING INSTALLATION.

DOWN CONDUCTORS:

EARTHING TEST POINT:

DOWN CONDUCTORS BEING TOUCHED.

- SANS 10142: THE WIRING OF PREMISES.

POLYETHYLENE.

AND MUST BE 0.5m BURIED BELOW GROUND LEVEL.

- BE BURIED AT A DEPTH OF AT LEAST 0.5m AND

ACCORDANCE WITH THE FORMULAE IN SANS 10199.

CSS - C - BE - TCS - TDW - 004/13 - A CHECKED

DESCRIPTION

EARTH CONDUCTOR

DOWN CONDUCTOR

BONDING TERMINATION

EARTHING TEST POINT

EARTH ELECTRODE (SPIKE)

Consultant

1:50 DATE 14.08.2021

0 - Pre - Feasibility study	BP - Building IT								14.08.2021 EM	FOR TENDER		LIMPOPO
1 - Feasibility study	BP - Building Public Adress	PROJECT NUM							14.00.2021 LW	TORTENDER	s - 1	PROVINCIAL GOVERNMENT
A - Preliminary Design	BS - Building Service		LDPWR	RI-B/20110								REPUBLIC OF SOUTH AFRICA
B - Design Review	BA- Building Architectural											DEDICTION
C - Tender Design	BE - Building Electrical	Drawn By		Designed By	Reviewed/A	Approved By	1.1					DEPARTMENT OF
D - Detailed Design	BF - Building Fire Service						dy_(.				PUBLIC WORKS,	ROADS & INFRASTRUCTURE
E - For Construction	BM - Building Mechanical	N NGCEMU /	A13204	K SECHOARO	E MENSAH	20100414	ı	-				
F - As Built	BT - Building Public Telecoms	Name S.	S.A.I.D Number	Name Pr Number	Name	Pr Number	Signature					

STATUS CODE

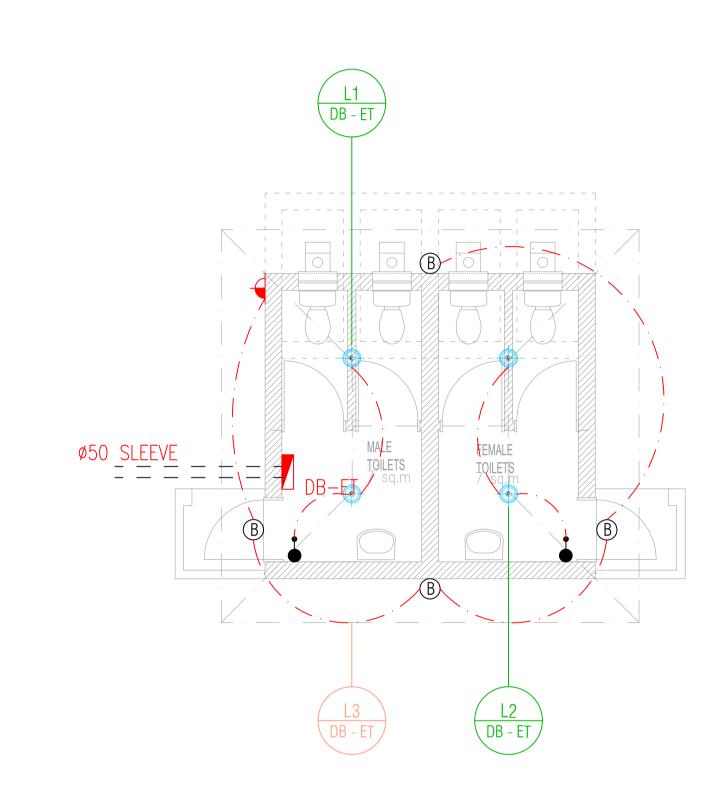
G - For Information Only

Group Codes BUILDINGS

BU - Building Public Utilities

FOR TENDER

URE





ITE	M				DESCRIPTIO	N		C	ΣΤΥ			
i)	16A SINGLE LEVER LIGHT SWITCH										
i	2w	2WAY 16A	SINGL	E LEVER	LIGHT SWITCH				00			
¥	₽2w	2WAY 16A	DOUB	LE LEVER	LIGHT SWITCH				00			
P	-	90 DEG. M	OTION	SENSOR					00			
<u> </u>	7	180 DEG. I	мотю	N SENSOF	₹				00			
*)	360 DEG. I	мотю	N SENSOF	₹				00			
	7	DAY/NIGH	T SWIT	СН					01			
0)	8 INCH 15	W LED	DOWNLIG	НТ				00			
0):	TYPE B: 8	INCH 1	5W LED D	OOWNLIGHT WITH DALI I	MODIFICATION	1		00			
•)	10W LED RONDO DOWNLIGHT WITH DALI MODIFICATION										
B)	15W LED ROUND BULKHEAD WITH DALI MODIFICATION										
_	_	VISUAL LE	D IP40	- 18W 120	00x50mm WITH DALI MO	DIFICATION			00			
		VISUAL LE	D IP40	- 18W 150	00x50mm WITH DALI MO	DIFICATION			00			
					RROSION PROOF LIGH - EMERGENCY	T FITTING			00			
		1200mm 34 WITH DAL			RROSION PROOF LIGH	T FITTING			00			
=	=	1200mm 2	x 14W l	ED OPEN	CHANNEL FLUORESCE	NT LUMINAIRE			00			
		ELECTRIC	AL DIS	TRIBUTIO	N BOARD		01					
	60W EMERGENCY 1200x600mm LED PANEL RECESSED LIGHT FITTING WITH DALI MODIFICATION											
		60W 1200x WITH DALI			EL RECESSED LIGHT F	TTING			00			
		oject de	Status	Group	Consultant	Doc Type	Se No		Rev			

STATUS CODE		DRAWING	STATUS						No	Date	chkd	Details
31/1103 GGBE	Group Codes BUILDINGS		FOR TE	ENDER								
0 - Pre - Feasibility study	BP - Building IT								^	14.08.2021	EM	FOR TENDER
1 - Feasibility study	BP - Building Public Adress	PROJECT	NUMBER							14.00.2021	LIVI	TORTENDER
A - Preliminary Design	BS - Building Service		LDPWI	RI-B/201	10							
B - Design Review	BA- Building Architectural			•								
C - Tender Design	BE - Building Electrical	Drawn By		Designed By		Reviewed/Ap	oproved By	1.1				
D - Detailed Design	BF - Building Fire Service							M_(.				
E - For Construction	BM - Building Mechanical	N NGCEMU	A13204	K SECHOARO		E MENSAH	20100414	- 1				
F - As Built	BT - Building Public Telecoms	Name	S.A.I.D Number	Name	Pr Number	Name	Pr Number	Signature				
G - For Information Only	BU - Building Public Utilities											

PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE

FOURWAYS OFFICE PARK,
BLOCK 5, GROUND FLOOR
Cnr. CEDAR ROAD AND
FOURWAYS BOULEVARD,
FOURWAYS,

POURWAYS,

ORAWING TITLE

CONSULTANT

Tel: (+27) 10 110 8724 Fax: (+27) 86 659 2099

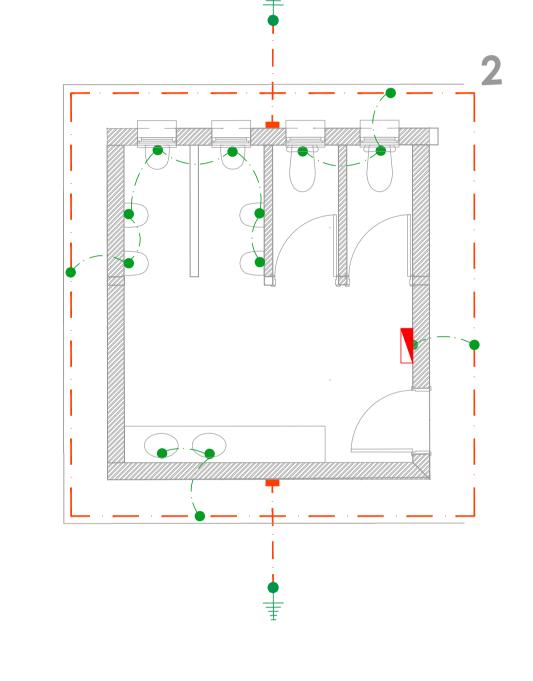
INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH ACUTE INFRASTRUCTURE CHALLENGES,
INCLUDING STORM DAMAGED SCHOOLS IN
THE LIMPOPO PROVINCE CLUSTER E
CHAMETI SECONDARY SCHOOL

CSS - C - BE - TCS - TDW - 002/13 - A

CHECKED REV. No DATE 14.08.2021

ENVIROLOO 4x SEAT A TOILETS FLOOR PLAN LIGHTING LAYOUT

1:50



Details

CLIENT

No Date chkd

14.08.2021 EM

FOR TENDER

DRAWING STATUS

PROJECT NUMBER

FOR TENDER

LDPWRI-B/20110

Designed By

Reviewed/Approved By

Pr Number Signature

STATUS CODE

0 - Pre - Feasibility study

1 - Feasibility study

B - Design Review

C - Tender Design

D - Detailed Design

E - For Construction

G - For Information Only

A - Preliminary Design

Group Codes BUILDINGS

BP - Building IT

BP - Building Public Adress

BA- Building Architectural

BS - Building Service

BE - Building Electrical

BF - Building Fire Service

BM - Building Mechanical

BU - Building Public Utilities

BT - Building Public Telecoms

LIMPOPO PROVINCIAL GOVERNMENT REPUBLIC OF SOUTH AFRICA DEPARTMENT OF

TAKUSA CONSULTING - SERVICES

CONSULTANT

FOURWAYS OFFICE PARK, BLOCK 5, GROUND FLOOR Cnr. CEDAR ROAD AND FOURWAYS BOULEVARD, FOURWAYS, Tel: (+27) 10 110 8724

Fax: (+27) 86 659 2099

ACUTE INFRASTRUCTURE CHALLENGES,
INCLUDING STORM DAMAGED SCHOOLS IN
THE LIMPOPO PROVINCE CLUSTER E
CHAMETI SECONDARY SCHOOL ENVIROLOO 2x SEAT - MALE TOILETS FLOOR PLAN EARTHING & LIGHTNING PROTECTION

LAYOUT

INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH

BONDING TERMINATION EARTHING TEST POINT Consultant CSS - C - BE - TCS - TDW - 004/14 - A SCALE 1:50 CHECKED REV. No

DATE

SYMBOL DESCRIPTION EARTH CONDUCTOR DOWN CONDUCTOR EARTH ELECTRODE (SPIKE)

GENERAL NOTES:

1. EARTH TERMINATION CONDUCTOR TO BE 50mm2 BCEW.

4. EARTH CONDUCTOR TO BE 0.5m BURIED BELOW GROUND LEVEL. 5. ALL WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH:

EARTH TERMINATION SYSTEM GENERAL REQUIREMENTS: 2. TYPE B EARTHING ARRANGEMENT SHALL BE USED FOR ANY

THE RING EARTH ELECTRODE (TYPE B ARRANGEMENT) SHOULD PREFERABLY:

3. THE CALCULATION OF AN EARTH TERMINATION SYSTEM SHALL BE DONE IN

1. DOWN CONDUCTORS MUST BE INSULATED BY AT LEAST 3mm CROSS LINKED

1. EARTHING TEST POINT SHOULD BE CAPABLE OF BEING OPENED WITH THE AID OF TOOL.

THE COMPLETE INSTALLATION MUST COMPLY TO THE FOLLOWING SANS SPECIFICATION:

2. WARNING NOTICES TO BE INSTALLED TO MINIMISE THE PROBABILITY OF

- SANS 10198: PART 3: EARTHING SYSTEMS GENERAL PROVISIONS. - SANS 10198: PART 12: INSTALLATION OF EARTHING SYSTEMS. - 10199: THE DESIGN AND INSTALLATION OF AN EARTH ELECTRODE. - 10313: THE PROTECTION OF STRUCTURES AGAINST LIGHTNING. - SANS 1063: EARTHING SYSTEMS GENERAL PROVISIONS.

3. EARTH ELECTRODE (SPIKE) TO BE Ø15mm x 1.5m LONG COPPER SOLID ROUND BAR,

GP/E6/1 REV.1 - STANDARD QUALITY SPECIFICATION FOR GENERAL INSTALLATIONS (SCHOOLS) GP/E6/2 REV.1 - STANDARD QUALITY SPECIFICATION FOR MATERIALS AND EQUIPMENT (SCHOOLS)

- AT A DISTANCE OF ABOUT 1.5m AWAY FROM THE EXTERNAL WALLS UNLESS STATED OTHERWISE.

2. BONDING CONDUCTOR TO BE 16mm2 BCEW.

EARTH TERMINATION NOTES:

BUILDING INSTALLATION.

DOWN CONDUCTORS:

EARTHING TEST POINT:

POLYETHYLENE.

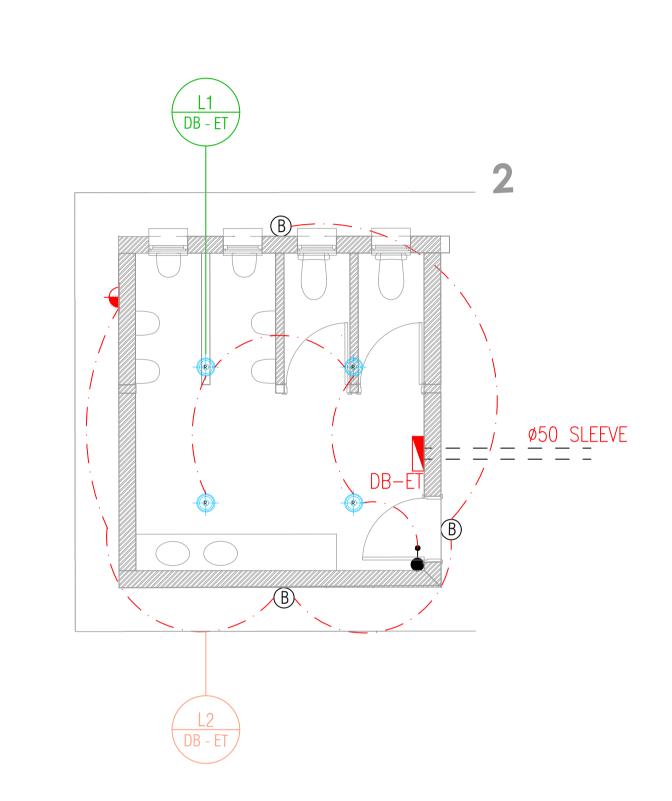
AND MUST BE 0.5m BURIED BELOW GROUND LEVEL.

BE BURIED AT A DEPTH OF AT LEAST 0.5m AND

ACCORDANCE WITH THE FORMULAE IN SANS 10199.

DOWN CONDUCTORS BEING TOUCHED.

- SANS 10142: THE WIRING OF PREMISES.



ITE	M				DESCRIPTIO	N		C	TY
i)	16A SINGLE LEVER LIGHT SWITCH							
i	2w	2WAY 16A	SINGL	E LEVER	LIGHT SWITCH				00
٧	2w	2WAY 16A	DOUB	LE LEVER	LIGHT SWITCH				00
₽	-	90 DEG. MOTION SENSOR							00
	Δ.	180 DEG. MOTION SENSOR							00
4	360 DEG. MOTION SENSOR								00
	DAY/NIGHT SWITCH								01
0	8 INCH 15W LED DOWNLIGHT								00
0	TYPE B: 8 INCH 15W LED DOWNLIGHT WITH DALI MODIFICATION								00
•)	10W LED RONDO DOWNLIGHT WITH DALI MODIFICATION							
B)	15W LED ROUND BULKHEAD WITH DALI MODIFICATION							
	_	VISUAL LE	D IP40	- 18W 120	00x50mm WITH DALI MO	DIFICATION			00
		VISUAL LE	D IP40	- 18W 150	00x50mm WITH DALI MO	DIFICATION			00
					RROSION PROOF LIGH - EMERGENCY	T FITTING			00
		1200mm 34 WITH DAL			RROSION PROOF LIGH	T FITTING			00
	1200mm 2x 14W LED OPEN CHANNEL FLUORESCENT LUMINAIR								00
	ELECTRICAL DISTRIBUTION BOARD								01
		60W EMER WITH DALI			0mm LED PANEL RECES	SSED LIGHT FIT	TTING		00
		60W 1200x WITH DALI			EL RECESSED LIGHT F	TTING			00
riaht .		oject ode	Status	Group	Consultant	Doc Type	Sec No	q	Rev

STATUS CODE		DRAWING STATUS					No	Date	chkd	Details	
SIATOS CODE	Group Codes BUILDINGS	FOR	TENDER								
0 - Pre - Feasibility study	BP - Building IT						۸	14.08.2021	EM	FOR TENDER	
1 - Feasibility study	BP - Building Public Adress	PROJECT NUMBER						14.00.2021	LIVI	TORTENDER	
A - Preliminary Design	BS - Building Service	LDPV	VRI-B/20110								
B - Design Review	BA- Building Architectural		•								
C - Tender Design	BE - Building Electrical	Drawn By	Designed By	Reviewed/A	pproved By	1.1					
D - Detailed Design	BF - Building Fire Service					dy_(.					
E - For Construction	BM - Building Mechanical	N NGCEMU A13204	K SECHOARO	E MENSAH	20100414	l l					
F - As Built	BT - Building Public Telecoms	Name S.A.I.D Numbe	r Name Pr Number	Name	Pr Number	Signature					
G - For Information Only	BU - Building Public Utilities										

PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE

FOURWAYS OFFICE PARK,
BLOCK 5, GROUND FLOOR
Cnr. CEDAR ROAD AND
FOURWAYS BOULEVARD,
FOURWAYS,

POURWAYS,

ORAWING TITLE

CONSULTANT

2191 Tel: (+27) 10 110 8724 Fax: (+27) 86 659 2099

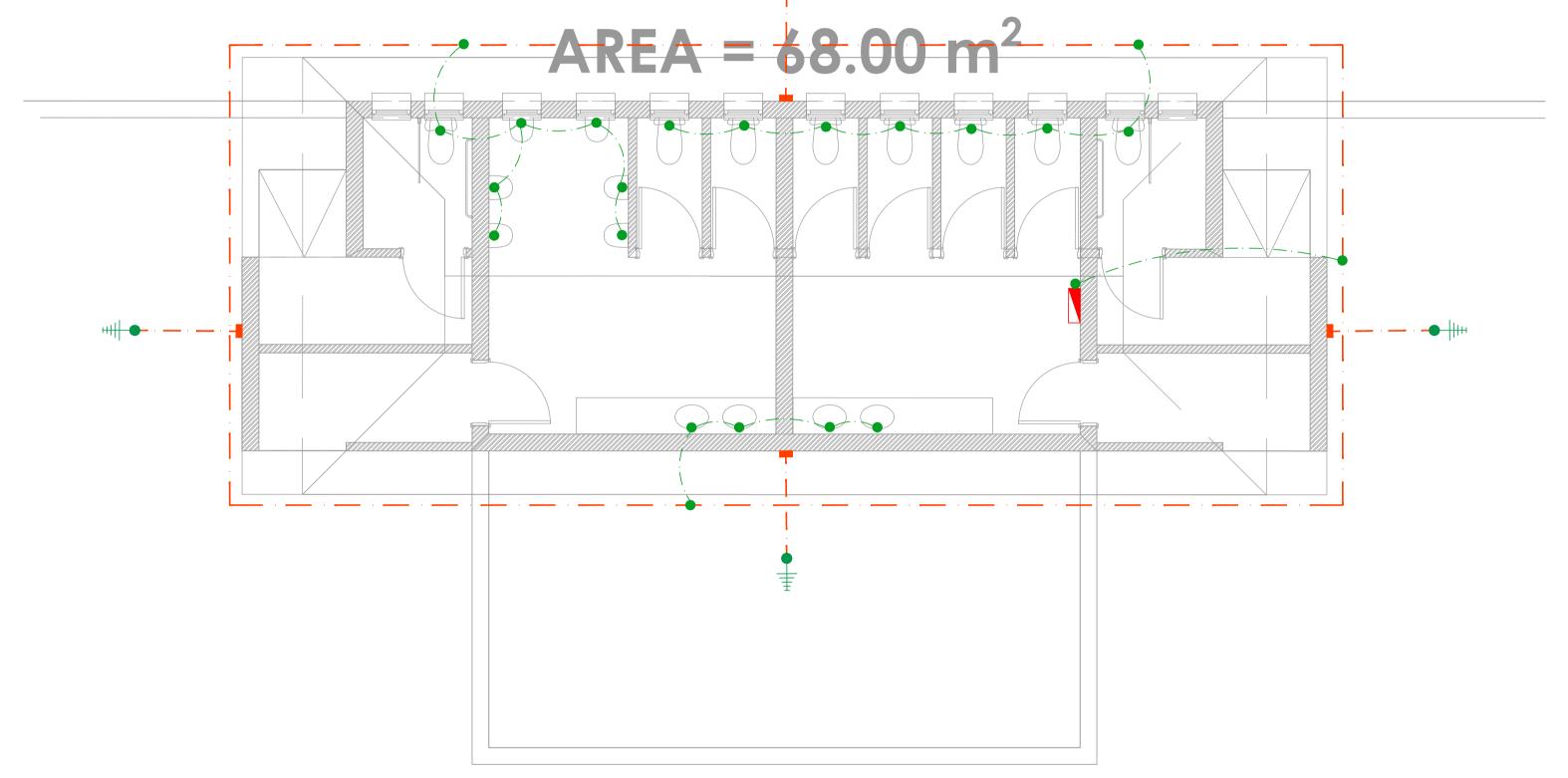
INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH ACUTE INFRASTRUCTURE CHALLENGES,
INCLUDING STORM DAMAGED SCHOOLS IN
THE LIMPOPO PROVINCE CLUSTER E
CHAMETI SECONDARY SCHOOL

CSS - C - BE - TCS - TDW - 002/14 - A

ENVIROLOO 2x SEAT - MALE CHECKED TOILETS FLOOR PLAN REV. No LIGHTING LAYOUT DATE 14.08.2021

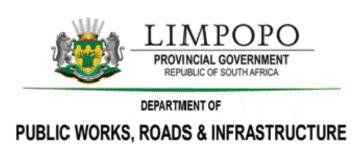
1:50

NEW MIXED ABLUTION 10 SEATS



SYMBOL DESCRIPTION EARTH CONDUCTOR DOWN CONDUCTOR EARTH ELECTRODE (SPIKE) BONDING TERMINATION EARTHING TEST POINT

STATUS CODE		DRAWING STATUS					No	Date chkd	Details	CLIENT
G., 1100 GGG_	Group Codes BUILDINGS	FOR 1	ENDER							
0 - Pre - Feasibility study	BP - Building IT							18.08.2021 EM	FOR TENDER	
1 - Feasibility study	BP - Building Public Adress	PROJECT NUMBER						10.00.2021 EM	FOR TENDER	
A - Preliminary Design	BS - Building Service	LDPW	/RI-B/20110							
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C - Tender Design	BE - Building Electrical	Drawn By	Designed By	Reviewed/A	Approved By	1.1				
D - Detailed Design	BF - Building Fire Service					dy_(.				PUBLI
E - For Construction	BM - Building Mechanical	N NGCEMU A13204	K SECHOARO	E MENSAH	20100414	ı				
F - As Built	BT - Building Public Telecoms	Name S.A.I.D Number	Name Pr Nun	nber Name	Pr Number	Signature				
G - For Information Only	BU - Building Public Utilities									



TAKUSA CONSULTING - SERVICES

FOURWAYS OFFICE PARK, BLOCK 5, GROUND FLOOR Cnr. CEDAR ROAD AND FOURWAYS BOULEVARD, FOURWAYS,

Tel: (+27) 10 110 8724 TOILETS FLOOR PLAN Fax: (+27) 86 659 2099 EARTHING & LIGHTNING PROTECTION

INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH ACUTE INFRASTRUCTURE CHALLENGES, INCLUDING STORM DAMAGED SCHOOLS IN THE LIMPOPO PROVINCE CLUSTER E
CHAMETI SECONDARY SCHOOL ENVIROLOO 10x SEAT - MIXED

LAYOUT

Consultant CSS - C - BE - TCS - TDW - 004/15 - A REV. No

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EARTH TERMINATION NOTES:

BUILDING INSTALLATION.

DOWN CONDUCTORS:

EARTHING TEST POINT:

DOWN CONDUCTORS BEING TOUCHED.

- SANS 10142: THE WIRING OF PREMISES.

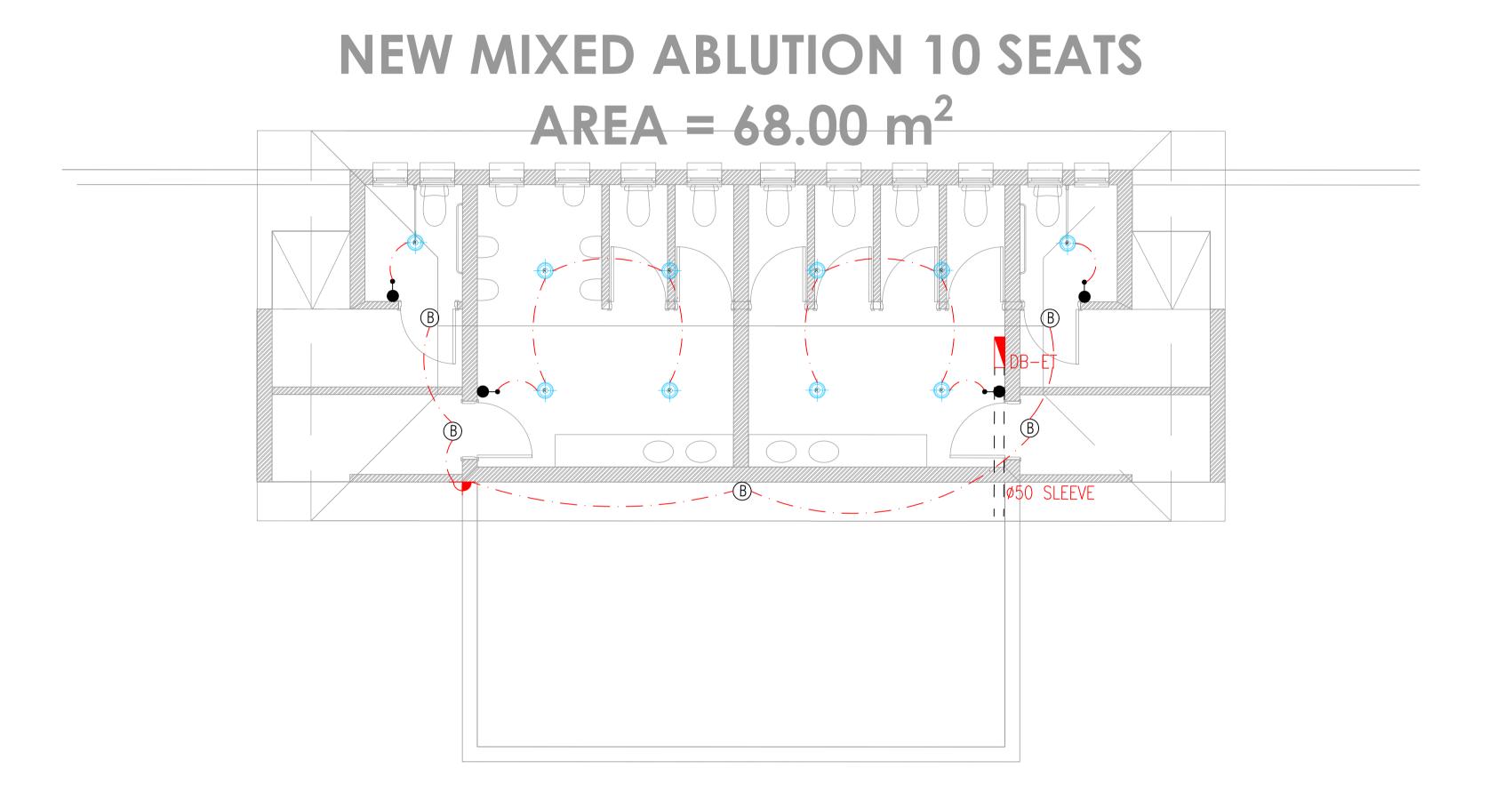
POLYETHYLENE.

AND MUST BE 0.5m BURIED BELOW GROUND LEVEL.

- BE BURIED AT A DEPTH OF AT LEAST 0.5m AND

ACCORDANCE WITH THE FORMULAE IN SANS 10199.

1:50 18.08.2021



ITE	M				DESCRIPTION	N		Q	TY			
å	,	16A SINGL	SINGLE LEVER LIGHT SWITCH									
i	2w	2WAY 16A	SINGL	E LEVER	LIGHT SWITCH				00			
٧	2w	2WAY 16A	DOUB	LE LEVER	LIGHT SWITCH				00			
F	<i>-</i>	90 DEG. M	OTION	SENSOR					00			
<u> </u>	A	180 DEG. I	мотю	N SENSOF	₹				00			
4	>	360 DEG. I	мотю	N SENSOF	₹				00			
	7	DAY/NIGH	T SWIT	СН					01			
C)	8 INCH 15	W LED	DOWNLIG	нт				00			
C		TYPE B: 8	INCH 1	5W LED D	OOWNLIGHT WITH DALI I	MODIFICATION	l		00			
4)	10W LED F		10								
(8	3)	15W LED F		05								
_	_	VISUAL LE	D IP40	- 18W 120	00x50mm WITH DALI MO	DIFICATION			00			
		VISUAL LE	SUAL LED IP40 - 18W 1500x50mm WITH DALI MODIFICATION						00			
					RROSION PROOF LIGH - EMERGENCY	T FITTING	00					
		1200mm 34 WITH DAL			RROSION PROOF LIGH	T FITTING			00			
	≡	1200mm 2	x 14W l	ED OPEN	I CHANNEL FLUORESCE	NT LUMINAIRE			00			
		ELECTRICAL DISTRIBUTION BOARD						DISTRIBUTION BOARD 01				
		60W EMERGENCY 1200x600mm LED PANEL RECESSED LIGHT FITTING WITH DALI MODIFICATION										
		60W 1200x WITH DALI			EL RECESSED LIGHT F	TTING			00			
	l .	oject ode	Status	Group	Consultant	Doc Type	Se No		Rev			

STATUS CODE		DRAWING	STATUS					No	Date	chkd	Details
000 0022	Group Codes BUILDINGS		FOR TE	ENDER							
0 - Pre - Feasibility study	BP - Building IT							^	18.08.2021	EM	FOR TENDER
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D - Detailed Design	BF - Building Fire Service						d4_(.				
E - For Construction	BM - Building Mechanical	N NGCEMU	A13204	K SECHOARO	E MENSAH	20100414	l l				
F - As Built	BT - Building Public Telecoms	Name	S.A.I.D Number	Name Pr Number	Name	Pr Number	Signature				
G - For Information Only	BU - Building Public Utilities										

EVE

LIMPOPO

PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE



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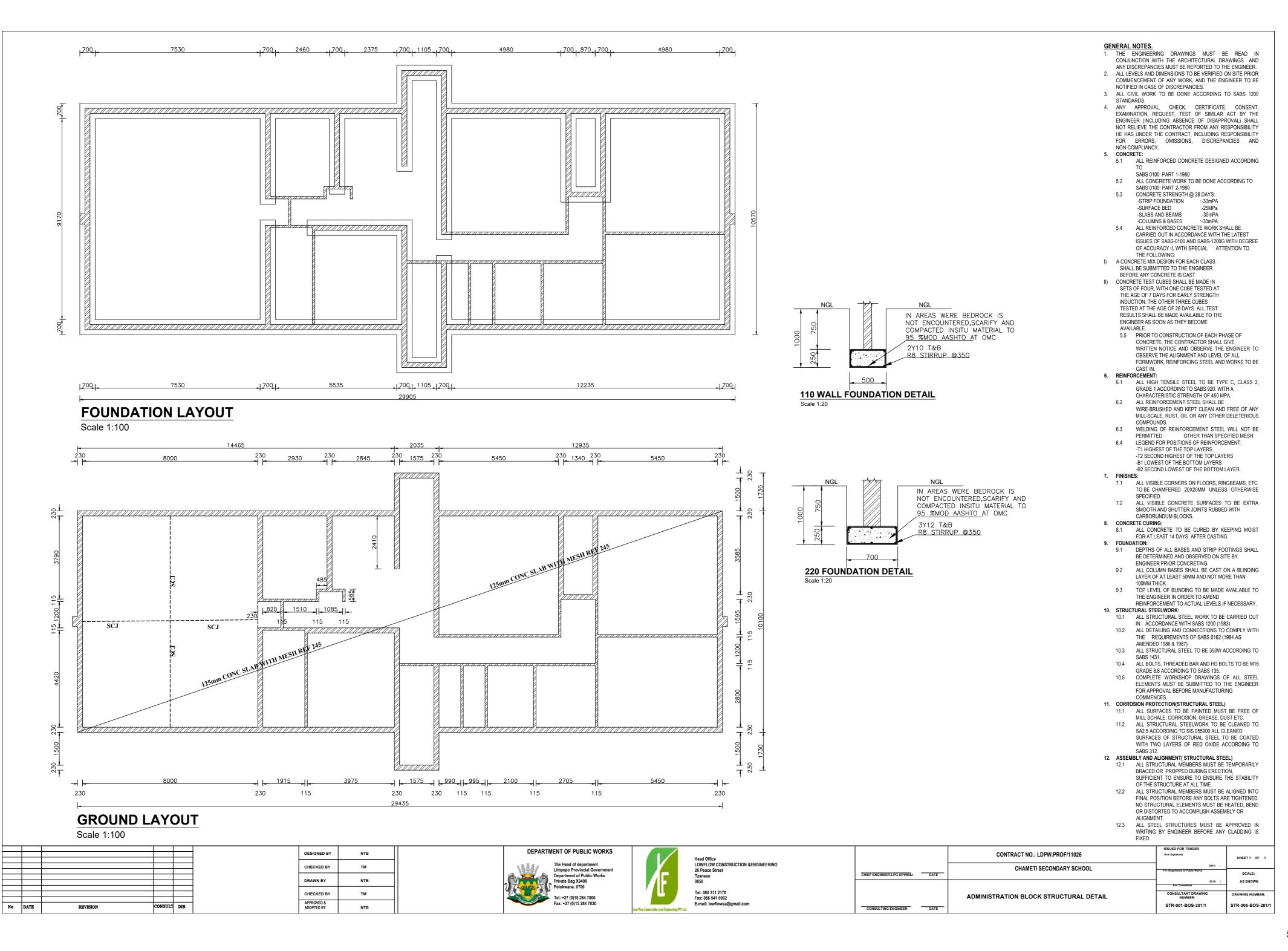
INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH ACUTE INFRASTRUCTURE CHALLENGES, INCLUDING STORM DAMAGED SCHOOLS IN THE LIMPOPO PROVINCE CLUSTER E CHAMETI SECONDARY SCHOOL ENVIROLOO 10x SEAT - MIXED TOILETS FLOOR PLAN

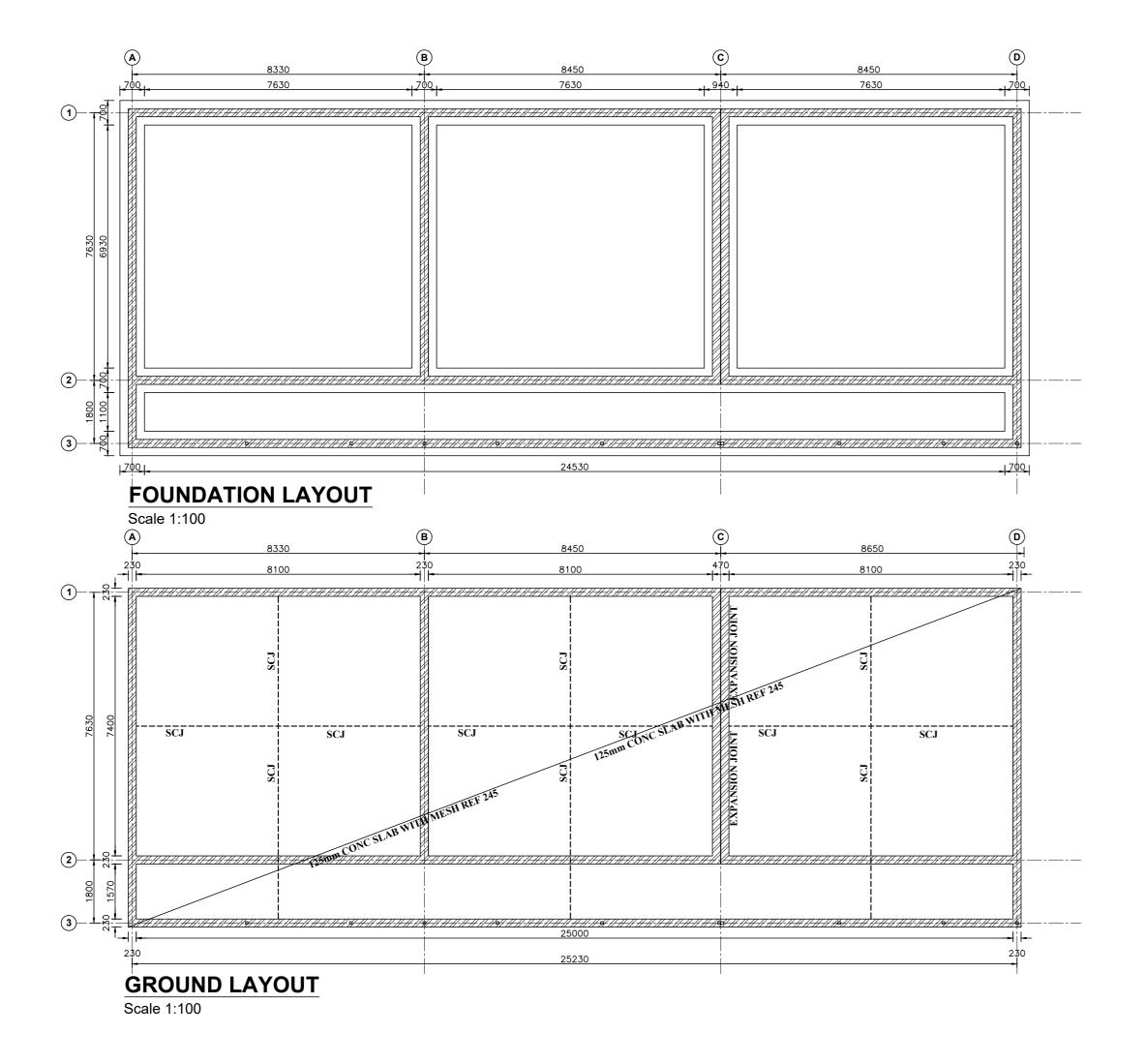
LIGHTING LAYOUT

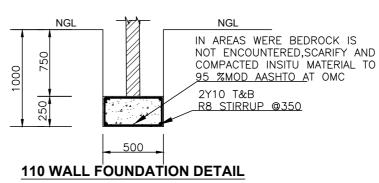
CSS - C - BE - TCS - TDW - 002/15 - A

1:50 CHECKED REV. No DATE 18.08.2021

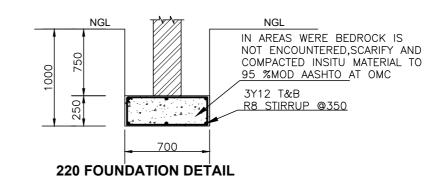
STRUCTURAL DRAWINGS







Scale 1:20



GENERAL NOTES.

- THE ENGINEERING DRAWINGS MUST BE READ IN CONJUNCTION WITH THE ARCHITECTURAL DRAWINGS AND ANY DISCREPANCIES MUST BE REPORTED TO THE ENGINEER. 2. ALL LEVELS AND DIMENSIONS TO BE VERIFIED ON SITE PRIOR COMMENCEMENT OF ANY WORK, AND THE ENGINEER TO BE NOTIFIED IN CASE OF DISCREPANCIES.
- 3. ALL CIVIL WORK TO BE DONE ACCORDING TO SABS 1200
- 4. ANY APPROVAL, CHECK, CERTIFICATE, CONSENT, EXAMINATION, REQUEST, TEST OF SIMILAR ACT BY THE ENGINEER (INCLUDING ABSENCE OF DISAPPROVAL) SHALL NOT RELIEVE THE CONTRACTOR FROM ANY RESPONSIBILITY HE HAS UNDER THE CONTRACT, INCLUDING RESPONSIBILITY FOR ERRORS, OMISSIONS, DISCREPANCIES AND NON-COMPLIANCY. CONCRETE:
- ALL REINFORCED CONCRETE DESIGNED ACCORDING
 - SABS 0100: PART 1-1980
- ALL CONCRETE WORK TO BE DONE ACCORDING TO SABS 0100: PART 2-1980
- CONCRETE STRENGTH @ 28 DAYS: -STRIP FOUNDATION -SURFACE BED :-25MPa -SLABS AND BEAMS :-30mPA -COLUMNS & BASES
- ALL REINFORCED CONCRETE WORK SHALL BE CARRIED OUT IN ACCORDANCE WITH THE LATEST ISSUES OF SABS-0100 AND SABS-1200G WITH DEGREE OF ACCURACY II, WITH SPECIAL ATTENTION TO THE FOLLOWING:

 I) A CONCRETE MIX DESIGN FOR EACH CLASS
- SHALL BE SUBMITTED TO THE ENGINEER BEFORE ANY CONCRETE IS CAST
- CONCRETE TEST CUBES SHALL BE MADE IN SETS OF FOUR, WITH ONE CUBE TESTED AT THE AGE OF 7 DAYS FOR EARLY STRENGTH INDUCTION. THE OTHER THREE CUBES TESTED AT THE AGE OF 28 DAYS. ALL TEST RESULTS SHALL BE MADE AVAILABLE TO THE ENGINEER AS SOON AS THEY BECOME
 - AVAILABLE. 5.5 PRIOR TO CONSTRUCTION OF EACH PHASE OF CONCRETE, THE CONTRACTOR SHALL GIVE WRITTEN NOTICE AND OBSERVE THE ENGINEER TO OBSERVE THE ALIGNMENT AND LEVEL OF ALL FORMWORK, REINFORCING STEEL AND WORKS TO BE

CAST IN. 6. REINFORCEMENT:

- ALL HIGH TENSILE STEEL TO BE TYPE C, CLASS 2, GRADE 1 ACCORDING TO SABS 920. WITH A CHARACTERISTIC STRENGTH OF 450 MPA.
- ALL REINFORCEMENT STEEL SHALL BE WIRE-BRUSHED AND KEPT CLEAN AND FREE OF ANY MILL-SCALE, RUST, OIL OR ANY OTHER DELETERIOUS
- WELDING OF REINFORCEMENT STEEL WILL NOT BE PERMITTED OTHER THAN SPECIFIED MESH. LEGEND FOR POSITIONS OF REINFORCEMENT:
- -T1 HIGHEST OF THE TOP LAYERS -T2 SECOND HIGHEST OF THE TOP LAYERS -B1 LOWEST OF THE BOTTOM LAYERS -B2 SECOND LOWEST OF THE BOTTOM LAYER.

FINISHES:

- ALL VISIBLE CORNERS ON FLOORS, RINGBEAMS, ETC. TO BE CHAMFERED 20X20MM UNLESS OTHERWISE SPECIFIED. ALL VISIBLE CONCRETE SURFACES TO BE EXTRA
- SMOOTH AND SHUTTER JOINTS RUBBED WITH CARBORUNDUM BLOCKS. 8. CONCRETE CURING:

ALL CONCRETE TO BE CURED BY KEEPING MOIST FOR AT LEAST 14 DAYS AFTER CASTING. 9. FOUNDATION:

DEPTHS OF ALL BASES AND STRIP FOOTINGS SHALL BE DETERMINED AND OBSERVED ON SITE BY ENGINEER PRIOR CONCRETING.

- ALL COLUMN BASES SHALL BE CAST ON A BLINDING LAYER OF AT LEAST 50MM AND NOT MORE THAN 100MM THICK.
- TOP LEVEL OF BLINDING TO BE MADE AVAILABLE TO THE ENGINEER IN ORDER TO AMEND

REINFORCEMENT TO ACTUAL LEVELS IF NECESSARY. 10. STRUCTURAL STEELWORK: 10.1 ALL STRUCTURAL STEEL WORK TO BE CARRIED OUT

- IN ACCORDANCE WITH SABS 1200 (1983) ALL DETAILING AND CONNECTIONS TO COMPLY WITH
- THE REQUIREMENTS OF SABS 0162 (1984 AS AMENDED 1986 & 1987) ALL STRUCTURAL STEEL TO BE 350W ACCORDING TO

ALL BOLTS, THREADED BAR AND HD BOLTS TO BE M16 $\,$

GRADE 8.8 ACCORDING TO SABS 135.
COMPLETE WORKSHOP DRAWINGS OF ALL STEEL ELEMENTS MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL BEFORE MANUFACTURING

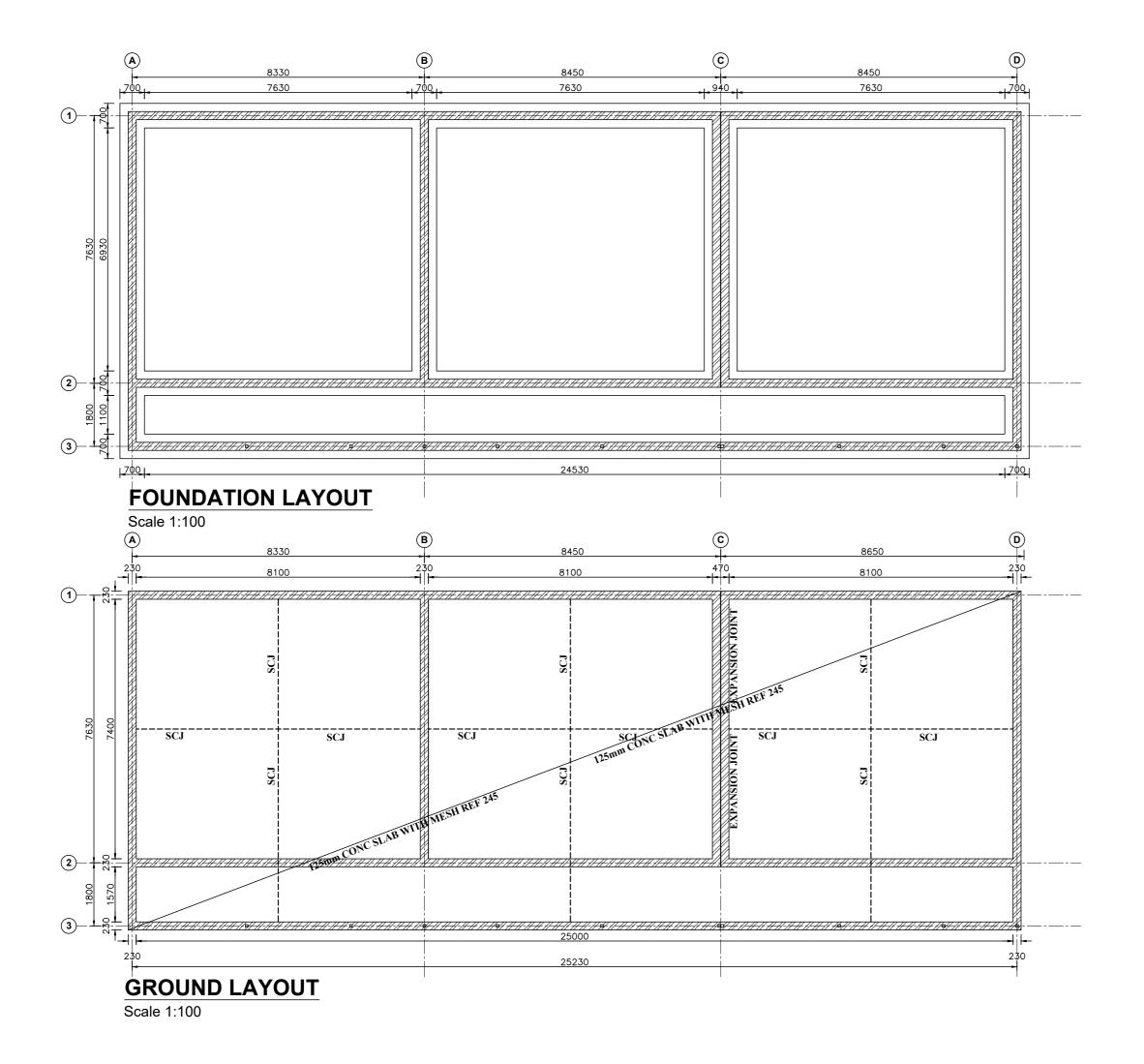
COMMENCES 11. CORROSION PROTECTION(STRUCTURAL STEEL)

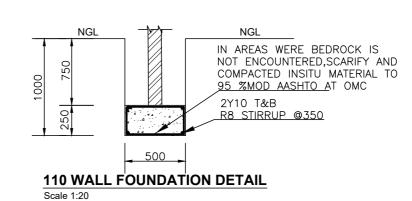
- 11.1 ALL SURFACES TO BE PAINTED MUST BE FREE OF
- 11.2 ALL STRUCTURAL STEELWORK TO BE CLEANED TO SA2.5 ACCORDING TO SIS 055900.ALL CLEANED SURFACES OF STRUCTURAL STEEL TO BE COATED WITH TWO LAYERS OF RED OXIDE ACCORDING TO SABS 312.

12. ASSEMBLY AND ALIGNMENT(STRUCTURAL STEEL)

- 12.1 ALL STRUCTURAL MEMBERS MUST BE TEMPORARILY BRACED OR PROPPED DURING ERECTION, SUFFICIENT TO ENSURE TO ENSURE THE STABILITY OF THE STRUCTURE AT ALL TIME.
- 12.2 ALL STRUCTURAL MEMBERS MUST BE ALIGNED INTO FINAL POSITION BEFORE ANY BOLTS ARE TIGHTENED. NO STRUCTURAL ELEMENTS MUST BE HEATED, BEND OR DISTORTED TO ACCOMPLISH ASSEMBLY OR ALIGNMENT.
- 12.3 ALL STEEL STRUCTURES MUST BE APPROVED IN WRITING BY ENGINEER BEFORE ANY CLADDING IS FIXED.







NGL IN AREAS WERE BEDROCK IS NOT ENCOUNTERED, SCARIFY AND COMPACTED INSITU MATERIAL TO 95 %MOD AASHTO AT OMC 3Y12 T&B R8 STIRRUP @350

220 FOUNDATION DETAIL

Scale 1:20

GENERAL NOTES.

- THE ENGINEERING DRAWINGS MUST BE READ IN CONJUNCTION WITH THE ARCHITECTURAL DRAWINGS AND ANY DISCREPANCIES MUST BE REPORTED TO THE ENGINEER. 2. ALL LEVELS AND DIMENSIONS TO BE VERIFIED ON SITE PRIOR COMMENCEMENT OF ANY WORK, AND THE ENGINEER TO BE NOTIFIED IN CASE OF DISCREPANCIES.
- 3. ALL CIVIL WORK TO BE DONE ACCORDING TO SABS 1200
- 4. ANY APPROVAL, CHECK, CERTIFICATE, CONSENT, EXAMINATION, REQUEST, TEST OF SIMILAR ACT BY THE ENGINEER (INCLUDING ABSENCE OF DISAPPROVAL) SHALL NOT RELIEVE THE CONTRACTOR FROM ANY RESPONSIBILITY HE HAS UNDER THE CONTRACT, INCLUDING RESPONSIBILITY FOR ERRORS, OMISSIONS, DISCREPANCIES AND NON-COMPLIANCY. CONCRETE:
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 - SABS 0100: PART 1-1980
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- -COLUMNS & BASES ALL REINFORCED CONCRETE WORK SHALL BE CARRIED OUT IN ACCORDANCE WITH THE LATEST ISSUES OF SABS-0100 AND SABS-1200G WITH DEGREE OF ACCURACY II, WITH SPECIAL ATTENTION TO
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- TO BE CHAMFERED 20X20MM UNLESS OTHERWISE SPECIFIED. ALL VISIBLE CONCRETE SURFACES TO BE EXTRA
- SMOOTH AND SHUTTER JOINTS RUBBED WITH CARBORUNDUM BLOCKS. 8. CONCRETE CURING:

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- TOP LEVEL OF BLINDING TO BE MADE AVAILABLE TO THE ENGINEER IN ORDER TO AMEND REINFORCEMENT TO ACTUAL LEVELS IF NECESSARY.

10. STRUCTURAL STEELWORK: 10.1 ALL STRUCTURAL STEEL WORK TO BE CARRIED OUT

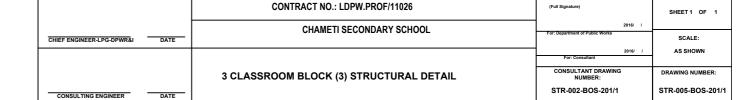
- IN ACCORDANCE WITH SABS 1200 (1983) ALL DETAILING AND CONNECTIONS TO COMPLY WITH THE REQUIREMENTS OF SABS 0162 (1984 AS
- AMENDED 1986 & 1987) ALL STRUCTURAL STEEL TO BE 350W ACCORDING TO ALL BOLTS, THREADED BAR AND HD BOLTS TO BE M16 $\,$
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 COMPLETE WORKSHOP DRAWINGS OF ALL STEEL ELEMENTS MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL BEFORE MANUFACTURING

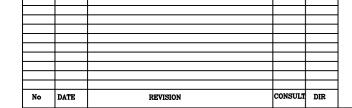
COMMENCES 11. CORROSION PROTECTION(STRUCTURAL STEEL)

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- 12.3 ALL STEEL STRUCTURES MUST BE APPROVED IN WRITING BY ENGINEER BEFORE ANY CLADDING IS FIXED.

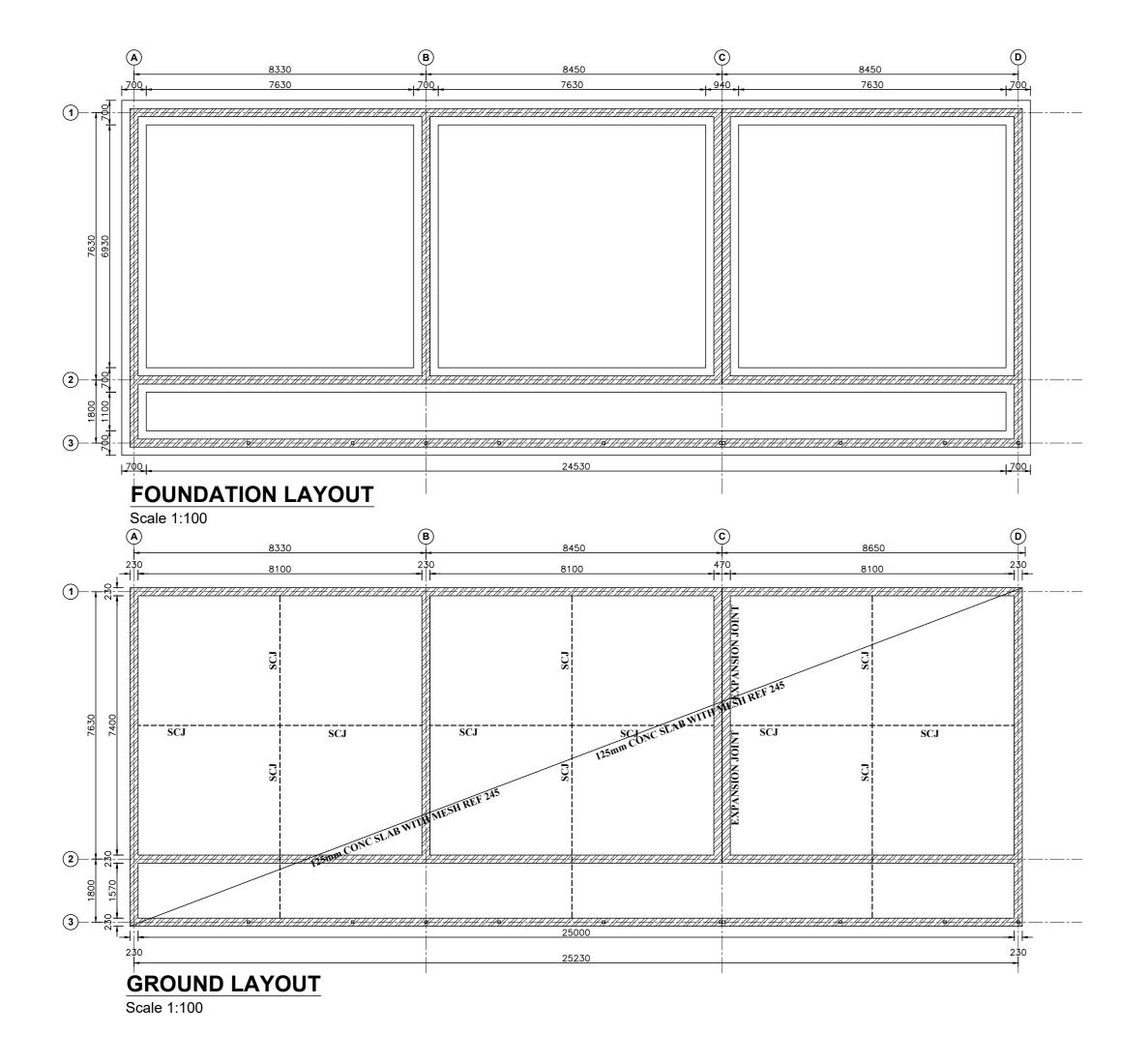


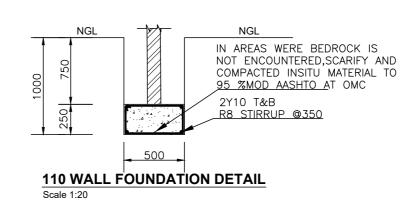


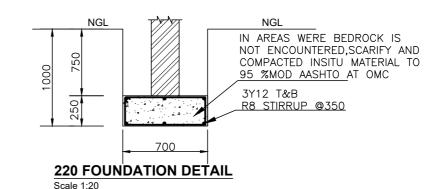












GENERAL NOTES.

- THE ENGINEERING DRAWINGS MUST BE READ IN CONJUNCTION WITH THE ARCHITECTURAL DRAWINGS AND ANY DISCREPANCIES MUST BE REPORTED TO THE ENGINEER.

 ALL LEVELS AND DIMENSIONS TO BE VERIFIED ON SITE PRIOR COMMENCEMENT OF ANY WORK, AND THE ENGINEER TO BE NOTIFIED IN CASE OF DISCREPANCIES.
- 3. ALL CIVIL WORK TO BE DONE ACCORDING TO SABS 1200
- 4. ANY APPROVAL, CHECK, CERTIFICATE, CONSENT, EXAMINATION, REQUEST, TEST OF SIMILAR ACT BY THE ENGINEER (INCLUDING ABSENCE OF DISAPPROVAL) SHALL NOT RELIEVE THE CONTRACTOR FROM ANY RESPONSIBILITY HE HAS UNDER THE CONTRACT, INCLUDING RESPONSIBILITY FOR ERRORS, OMISSIONS, DISCREPANCIES AND NON-COMPLIANCY.

 5. CONCRETE:
 - 5.1 ALL REINFORCED CONCRETE DESIGNED ACCORDING

SABS 0100: PART 1-1980

- 5.2 ALL CONCRETE WORK TO BE DONE ACCORDING TO SABS 0100: PART 2-1980
- 5.3 CONCRETE STRENGTH @ 28 DAYS:
 -STRIP FOUNDATION :-30mPA
 -SURFACE BED :-25MPa
 -SLABS AND BEAMS :-30mPA
 -COLUMNS & BASES :-30mPA
- 5.4 ALL REINFORCED CONCRETE WORK SHALL BE
 CARRIED OUT IN ACCORDANCE WITH THE LATEST
 ISSUES OF SABS-0100 AND SABS-1200G WITH DEGREE
 OF ACCURACY II, WITH SPECIAL ATTENTION TO
 THE FOLLOWING:

 I) A CONCRETE MIX DESIGN FOR EACH CLASS
- SHALL BE SUBMITTED TO THE ENGINEER
 BEFORE ANY CONCRETE IS CAST
- II) CONCRETE TEST CUBES SHALL BE MADE IN SETS OF FOUR, WITH ONE CUBE TESTED AT THE AGE OF 7 DAYS FOR EARLY STRENGTH INDUCTION. THE OTHER THREE CUBES TESTED AT THE AGE OF 28 DAYS. ALL TEST RESULTS SHALL BE MADE AVAILABLE TO THE ENGINEER AS SOON AS THEY BECOME AVAILABLE.
 - 5.5 PRIOR TO CONSTRUCTION OF EACH PHASE OF CONCRETE, THE CONTRACTOR SHALL GIVE WRITTEN NOTICE AND OBSERVE THE ENGINEER TO OBSERVE THE ALIGNMENT AND LEVEL OF ALL FORMWORK, REINFORCING STEEL AND WORKS TO BE CAST IN.

6. REINFORCEMENT:

- 6.1 ALL HIGH TENSILE STEEL TO BE TYPE C, CLASS 2,
 GRADE 1 ACCORDING TO SABS 920. WITH A
 CHARACTERISTIC STRENGTH OF 450 MPA.
- 6.2 ALL REINFORCEMENT STEEL SHALL BE
 WIRE-BRUSHED AND KEPT CLEAN AND FREE OF ANY
 MILL-SCALE, RUST, OIL OR ANY OTHER DELETERIOUS
 COMPOUNDS.
- 6.3 WELDING OF REINFORCEMENT STEEL WILL NOT BE PERMITTED OTHER THAN SPECIFIED MESH.
 6.4 LEGEND FOR POSITIONS OF REINFORCEMENT:
- -T1 HIGHEST OF THE TOP LAYERS
 -T2 SECOND HIGHEST OF THE TOP LAYERS
 -B1 LOWEST OF THE BOTTOM LAYERS
 -B2 SECOND LOWEST OF THE BOTTOM LAYER.

7. FINISHES:

- 7.1 ALL VISIBLE CORNERS ON FLOORS, RINGBEAMS, ETC.
 TO BE CHAMFERED 20X20MM UNLESS OTHERWISE
 SPECIFIED.
 7.2 ALL VISIBLE CONCRETE SURFACES TO BE EXTRA
- SMOOTH AND SHUTTER JOINTS RUBBED WITH CARBORUNDUM BLOCKS.

 8. CONCRETE CURING:

8.1 ALL CONCRETE TO BE CURED BY KEEPING MOIST

FOR AT LEAST 14 DAYS AFTER CASTING.
9. FOUNDATION:

9.1 DEPTHS OF ALL BASES AND STRIP FOOTINGS SHALL BE DETERMINED AND OBSERVED ON SITE BY

- ENGINEER PRIOR CONCRETING.

 9.2 ALL COLUMN BASES SHALL BE CAST ON A BLINDING LAYER OF AT LEAST 50MM AND NOT MORE THAN 100MM THICK.
- 9.3 TOP LEVEL OF BLINDING TO BE MADE AVAILABLE TO THE ENGINEER IN ORDER TO AMEND REINFORCEMENT TO ACTUAL LEVELS IF NECESSARY

REINFORCEMENT TO ACTUAL LEVELS IF NECESSARY. 10. STRUCTURAL STEELWORK:

- 10.1 ALL STRUCTURAL STEEL WORK TO BE CARRIED OUT IN ACCORDANCE WITH SABS 1200 (1983)

 10.2 ALL DETAILING AND CONNECTIONS TO COMPLY WITH
- THE REQUIREMENTS OF SABS 0162 (1984 AS AMENDED 1986 & 1987)

 10.3 ALL STRUCTURAL STEEL TO BE 350W ACCORDING TO

ALL BOLTS, THREADED BAR AND HD BOLTS TO BE M16 $\,$

GRADE 8.8 ACCORDING TO SABS 135.

10.5 COMPLETE WORKSHOP DRAWINGS OF ALL STEEL ELEMENTS MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL BEFORE MANUFACTURING

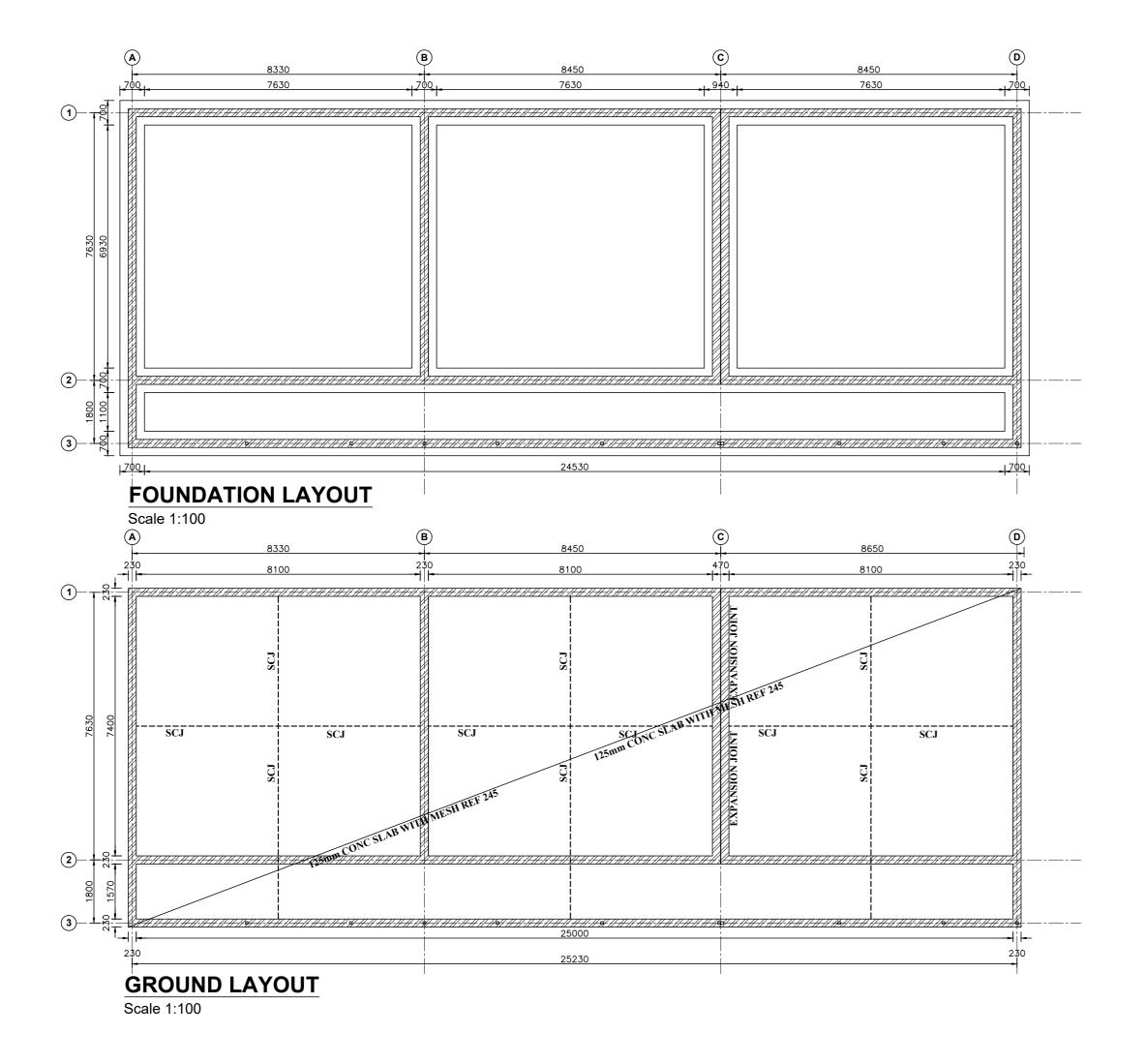
COMMENCES. 11. CORROSION PROTECTION(STRUCTURAL STEEL)

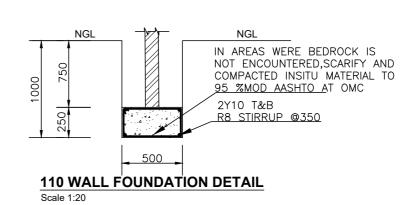
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- 11.2 ALL STRUCTURAL STEELWORK TO BE CLEANED TO SA2.5 ACCORDING TO SIS 055900.ALL CLEANED SURFACES OF STRUCTURAL STEEL TO BE COATED WITH TWO LAYERS OF RED OXIDE ACCORDING TO SABS 312.

12. ASSEMBLY AND ALIGNMENT(STRUCTURAL STEEL) 12.1 ALL STRUCTURAL MEMBERS MUST BE TEMPORARILY

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NGL IN AREAS WERE BEDROCK IS NOT ENCOUNTERED, SCARIFY AND COMPACTED INSITU MATERIAL TO 95 %MOD AASHTO AT OMC 3Y12 T&B R8 STIRRUP @350

220 FOUNDATION DETAIL

Scale 1:20

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