



LIMPOPO

PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF
PUBLIC WORKS, ROADS & INFRASTRUCTURE

**LIMPOPO DEPARTMENT OF PUBLIC WORKS, ROADS AND
INFRASTRUCTURE**

BID NUMBER: LDPWRI-B/20113

**PROVISIONAL
BILL OF QUANTITIES**

For the

UPGRADES AND ADDITIONS AT VUTIVI PRIMARY SCHOOL

For the

**DEPARTMENT OF EDUCATION,
LIMPOPO PROVINCE**

CIDB CLASS GRADING: 7GB OR HIGHER



CIDB CLASS GRADING 7GB OR HIGHER

BID NUMBER: LDPWRI-B/20113

UPGRADES AND ADDITIONS AT VUTIVI PRIMARY SCHOOL

PROCUREMENT DOCUMENT

Name of Tenderer:

CIDB CRS Number:

CSD Registration Number:

Tax Pin:

Tender 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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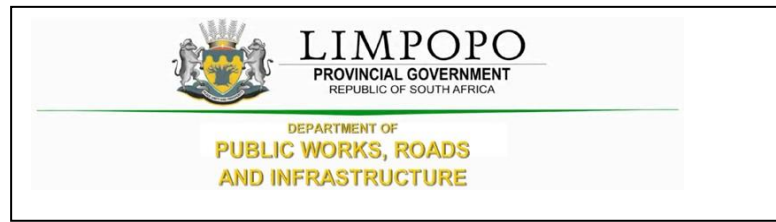
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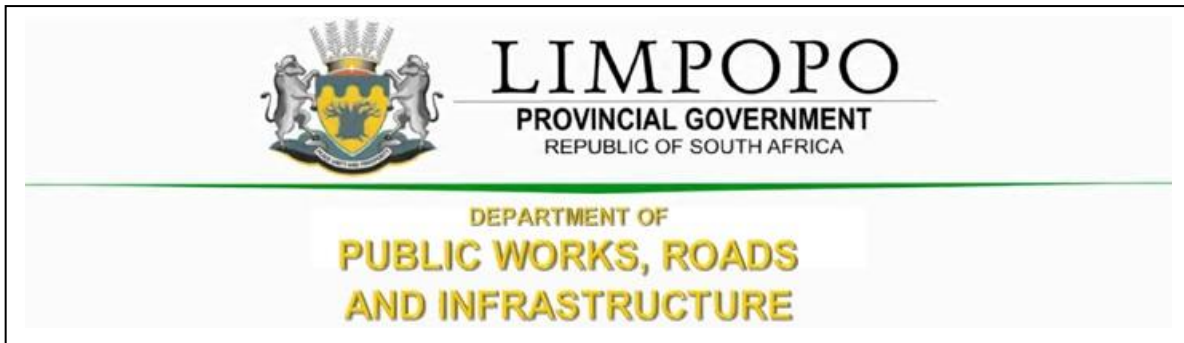
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PART A: SPECIAL NOTES TO BIDDERS



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

Tel: 082 460 6271

Contact:

Name: Makape P

Email: makapep@dpw.limpopo.gov.za.

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

Address

Irene Corporate Corner

37 Via Salara Crescent

SPECIAL NOTES TO TENDERERS

Cnr Nellmaphius & Van Reyneveld Rd
Irene,
Pretoria
Tel: 012 661 3435

Contact:

Name: Duduzile Ruwuya

Email: Druwuya@proservegroup.co.za

Civil Engineers:

Lowflow Construction & Engineering

26 Peace Street
Tzaneen
Tel: 060 311 2170

Contact:

Name: Tashinga Muronda

Email: tashy1902@live.com

Mechanical Engineers:

Muteo Consulting

39 Grobler Street
Polokwane
0699
Tel: 015 291 4611

Contact:

Name: Edwin Khumalo

Email: Edwink@muteo.co.za

Electrical Engineers:

Takusa Consulting Services

Fourways Office Park
Block 5, Ground Floor
Roos Street, Fourways Boulevard
Sandton
Polokwane
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 of the construction of administration block, 8 classrooms, 2 grade R classrooms, 4 seats waterborne toilets and 20 seats enviro-loo toilets as well as all related external works and services 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

SPECIAL NOTES TO TENDERERS

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
Vutivi Primary School
Archibuilt Village
Mokhurumela,
Buchum

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.

SPECIAL NOTES TO TENDERERS

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 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:

SPECIAL NOTES TO TENDERERS

- 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
- 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

SPECIAL NOTES TO TENDERERS

- (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;

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

SPECIAL NOTES TO TENDERERS

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, 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.

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 compiled 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 filling 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.

2.38 THE CONTRACT PERIOD

The contract period shall be 18 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

SPECIAL NOTES TO TENDERERS

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.

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.

SPECIAL NOTES TO TENDERERS

- 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

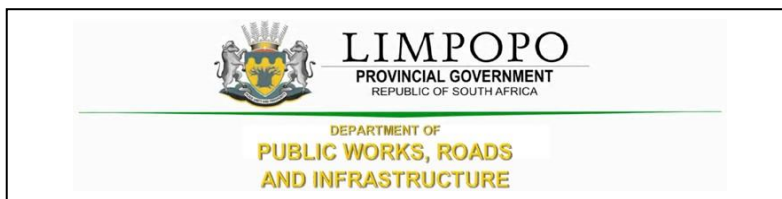
The Contractor will be expected to take the following insurance with a deductible to be determined by the Contractor. In addition to the above-mentioned, the Contractor should take any other insurances relevant to the proper execution of the works.

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 for construction of administration block, 8 classrooms, 2 grade R classrooms, 4 seats waterborne toilets and 20 seats environmental toilets as well as all related external works and services at Vutivi Primary School in Archibuilt Village, Mokhurumela in Buchum District

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 the Vutivi Primary School in Archibuilt Village, Mokhurumela in Buchum District

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.

T1.2 TENDER 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

<p>F.1.2</p>	<p>For this contract, the following documents will be adopted: The single-volume procurement document issued by the employer comprises of the following:</p> <p>Part A1: Special Notes to Bidders</p> <p>The Tender Part T1: Tendering procedures T1.1 Tender notice and invitation to tender T1.2 Tender data</p> <p>Part T2: Returnable documents T2.1 List of returnable documents T2.2 Returnable schedules</p> <p>The Contract PartC1: Agreements and contract data C1.1 Form of offer and acceptance C1.2 Contract data</p> <p>The Contract PartC3: Pricing data C3.1 Pricing instructions</p> <p>The Contract PartC4: Provisional Bills of Quantities C4.1 Preliminaries C4.2 Building Works C4.3 Civil Works C4.5 Electrical Installation</p> <p>Part 5: Scope of work C5.1 Scope of work</p> <p>Part 6: EPWP Infrastructure Guideline 2015 C6.1 Data Collection Tool</p> <p>Part 7: Site information and drawings C7.1 Site information C7.2 Drawings</p>
<p>F.1.3</p>	<p>The employer's representative is:</p> <p>Name :Makape P. Address : Department of Public Works, Roads and Infrastructure. Works Towers, 43 Church Street. Tel :082 460 6271 Email: makapep@dpw.limpopo.gov.za</p>
<p>F.1.4</p>	<p>The language for communications is English</p>
<p>F.2.1</p>	<p>Only those Bidders who satisfy the following eligibility criteria are eligible to submit tenders:</p> <ol style="list-style-type: none"> 1. The Bidder is a Firm. 2. Bidders that satisfy the criteria stated in the tender data and the tenderer or any of his principles is not under any restriction to do business with the employer.

T1.2 TENDER DATA

F.2.2	<p>Compulsory site briefing</p> <p>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 Vutivi Primary School in Archibuilt Village, Mokhurumela in Buchum District.</p>
F.2.3	<p>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.</p>
F.2.4	<p>No alternative tender offers will be considered.</p>
F.2.5	<p>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.</p>
F.2.6	<p>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.</p>
F.2.7	<p>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:</p>
F.2.8	<p>Location of the tender box: Department of Public Works, Roads and Infrastructure,</p> <p>Physical Address: Department of Public Works, Roads and Infrastructure. Works Towers, 43 Church Street</p> <p>Identification details: Tender reference number, Title of Tender and the closing date and time of the tender.</p>
F.2.9	<p>Telephonic, telegraphic, telex, facsimile or e-mailed tender offers will not be accepted.</p>
F.2.10	<p>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.</p>
F.2.11	<p>The closing time for submission of tender offers is as stated in the Tender Notice and Invitation to Tender.</p>
F.2.12	<p>The tender offer validity period is 180 Days.</p>
F.3.1	<p>Tenders will not be opened immediately after the closing time for tenders.</p>
F.3.2	<p>The tenderers will be evaluated in four stages</p> <ul style="list-style-type: none"> (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)

T1.2TENDER DATA

F.3.3	<p>Scoring Financial Offer:</p> <p>Tender offers will be scored using the following formula: $NFO = \left(\frac{Pm}{P}\right) \times 100$</p> <p>Where</p> <p>NFO = number of tender evaluation points awarded for the financial offer.</p> <p>W1 = the percentage score given for financial offer as stated in the Notice and Invitation to Tender T1.1</p> <p>Pm = the comparative offer of the most favourable tender offer. P = the comparative offer of the tender offer under consideration.</p> <p>Where</p> <p>W1 = the number of tender evaluation points for the financial offer and equals:</p> <ol style="list-style-type: none">1) 90 where the financial value inclusive of VAT of all responsive tenders received has a value above R 50 000 000; or2) 80 where the financial value inclusive of VAT of one or more responsive tender offers equals or is less than R 50 000 000. <p>Scoring Preferences:</p> <p>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</p>
	<p><i>The Department is not obliged to award the tender to the bidder with the highest number of tender points.</i></p>

TENDER EVALUATION CRITERIA AND WEIGHTINGS

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/20113 will be evaluated in terms of minimum thresholds for local content stipulated in the LDPWRI-B/20113 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/20113**

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.

TENDER EVALUATION CRITERIA AND WEIGHTINGS

A. BID EVALUATION STAGE 3 - FUNCTIONALITY

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

Functionality	Weighting
<p>Current Workload of Bidder</p> <ul style="list-style-type: none"> • 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 <p>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.</p> <p>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.</p> <p>Misrepresentation of facts will render your bid non-responsive.</p>	<p>15</p>

TENDER EVALUATION CRITERIA AND WEIGHTINGS

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 Value	Start date	Planned end date	Client Name	Contact Person number

TENDER EVALUATION CRITERIA AND WEIGHTINGS

<p>Profile of key staff (the key staff must be linked to project-specific organogram). 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.</p>	<p>Weighting</p>
<p>Project Supervisor/Site Agent</p> <p>Qualification</p> <ul style="list-style-type: none"> • Registration as professional engineer, technologist, architect, construction manager or quantity surveyor = 5 • Degree in built environment = 3 • National Diploma in Built environment = 1 <p>Relevant experience in general building projects</p> <ul style="list-style-type: none"> • More than 5 years' experience = 5 • Between 2 and 5 years' experience = 3 • Less than 2 years = 1 <p>Construction Manager</p> <p>Qualification</p> <ul style="list-style-type: none"> • Registration as professional engineer, technologist, architect, construction manager or quantity surveyor = 5 • Degree in built environment = 3 • National Diploma in Built environment = 1 <p>Relevant experience in general building projects</p> <ul style="list-style-type: none"> • More than 5 years' experience = 5 • Between 2 and 5 years' experience = 3 • Less than 2 years = 1 <p>Site Safety Officer</p> <ul style="list-style-type: none"> • 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 environment=1 <p>Relevant experience in general building projects</p> <ul style="list-style-type: none"> • More than 5 years' experience = 5 • Between 2 and 5 years' experience = 3 • Less than 2 years = 1 	<p style="text-align: center;">30</p>

TENDER EVALUATION CRITERIA AND WEIGHTINGS

Table 2 Details of key staff.

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

TENDER EVALUATION CRITERIA AND WEIGHTINGS

Experience in similar projects in the last 10 years	Weighting
<p>Number of projects completed within CIDB grade 6GB or higher. The grading applies at the time of award of the project.</p> <p>Completed Projects must be classified as General Building (GB) works in terms of CIDB for points to be allocated.</p> <ul style="list-style-type: none"> • 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 6 or higher= 0 <p>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.</p>	<p>25</p>

TENDER EVALUATION CRITERIA AND WEIGHTINGS

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)

TENDER EVALUATION CRITERIA AND WEIGHTINGS

Proposal and methodology	Weighting
<ul style="list-style-type: none"> <p>Project Proposal/Method Statement</p> <p>The Bidder does not cover any aspect of the scope of work or no information submitted/attached = 0</p> <p>The bidder does not deal with the critical aspects of the project associated with the scope of work =5</p> <p>The bidder addresses the scope of work, provides a methodology to deal with the critical aspects of the project associated with the works =10</p> <p>Project Schedule/programme (acceptable scheduling software)</p> <p>Programme not submitted =0</p> <p>Programme not aligned to Bill of Quantities (BOQ) = 2</p> <p>Programme is aligned to the Bill of Quantities (BOQ) =5</p> <p>Cashflow projections</p> <p>Cashflow not submitted =0</p> <p>The cash flow projections not aligned to the programme and BOQ=2</p> <p>The cash flow projections, programme and BOQ are aligned=5</p> 	<p>20</p>

TENDER EVALUATION CRITERIA AND WEIGHTINGS

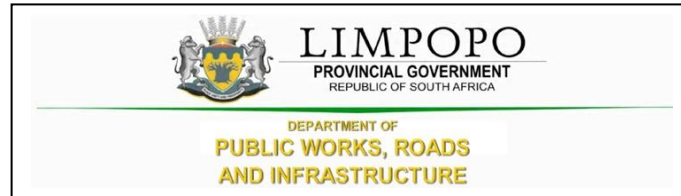
Safety, Health and Environmental Plan (SHEQ)	Weighting
<p>The Bidder does not cover any aspect of the scope of work or no information submitted/attached = 0</p>	
<p>The bidder does not address safety and health issues related to the works – i.e. there is no cognisance to the safety of the learners, teachers and workers and the impact of their work on the environment=5</p>	10
<p>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</p>	
Total	100
<p>NB: To qualify for final evaluation the bidder must obtain a minimum score of 70% on functionality</p>	

NB: ADDITIONAL EVALUATION CRITERIA

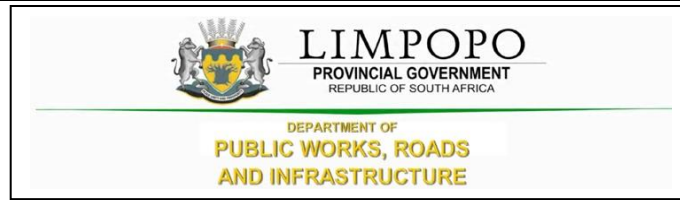
1. This project forms part of the Twenty-Five (25) schools programme (See table below)
2. Should one bidder score high points on more than three (3) projects, Bidders will be required to meet the minimum requirements as listed below to qualify for additional appointment:
 - 2.1 Bidder should have a minimum 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
 - 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.

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.

PART T2: RETURNABLE DOCUMENTS

T2.2: RETURNABLE SCHEDULE

Bidders shall indicate whether the list of returnables has been submitted together with the following completed documents or attachments (by indicating Yes or No)		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.	Form of offer	Yes	No
13.	CSD (Summary)	Yes	No
14.	COIDA	Yes	No
15.	Valid tax clearance or tax pin	Yes	No
16.	Certified copy of Contractor Registration for Incorporation or of Company Registration Document	Yes	No
17.	Joint venture certificate (where applicable)	Yes	No
18.	B-BBEE Verification Certificates issued by a verification agency accredited by the South African National Accreditation System (SANAS)	Yes	No
19.	Certified copies of Qualifications, Professional registration, and Training for Key persons	Yes	No
20.	Methodology/Method statement	Yes	No
21.	Certificates or letters of completed or current similar projects, with Contactable references and on the Client's letterhead	Yes	No
22.	Certified copy of directors' identity documents	Yes	No
23.	Minimum CIDB class grading: 6GB or higher (CIDB Certificate)	Yes	No
24.	Preliminary Programme/schedule and cash flow	Yes	No
25.	Safety, Health and Environmental Plan (SHEQ)	Yes	No

BID NUMBER: LDPWRI-B/20113

PART T2: RETURNABLE DOCUMENTS

SBD1: INVITATION TO BID

PART A

YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF THE (NAME OF DEPARTMENT/PUBLIC ENTITY)					
BID NUMBER:	LDPWRI-B/20113	CLOSING DATE:	As per advert	CLOSING TIME:	As per advert
DESCRIPTION	Upgrades and Additions at Vutivi Primary School				
THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FILL IN AND SIGN A WRITTEN CONTRACT FORM (SBD7).					
BID RESPONSE DOCUMENTS MAY BE DEPOSITED IN THE BID BOX SITUATED AT (STREET ADDRESS)					
Department of Public Works, Roads and Infrastructure					
Works Towers					
43 Church Street.					
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 VERIFICATION CERTIFICATE [TICK APPLICABLE BOX]	<input type="checkbox"/> Yes		B-BBEE STATUS LEVEL SWORN AFFIDAVIT	<input type="checkbox"/> Yes	
	<input type="checkbox"/> No			<input type="checkbox"/> No	
IF YES, WHO WAS THE CERTIFICATE ISSUED BY?					
AN ACCOUNTING OFFICER AS CONTEMPLATED IN THE CLOSE CORPORATION ACT (CCA) AND NAME THE APPLICABLE IN THE TICK BOX	<input type="checkbox"/>	AN ACCOUNTING OFFICER AS CONTEMPLATED IN THE CLOSE CORPORATION ACT (CCA)			
	<input type="checkbox"/>	A VERIFICATION AGENCY ACCREDITED BY THE SOUTH AFRICAN ACCREDITATION SYSTEM (SANAS)			
	<input type="checkbox"/>	A REGISTERED AUDITOR			
		NAME:			
[A B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE/SWORN AFFIDAVIT (FOR EMEs& QSEs) MUST BE SUBMITTED IN ORDER TO QUALIFY FOR PREFERENCE POINTS FOR B-BBEE]					

PART T2: RETURNABLE DOCUMENTS

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

PART T2: RETURNABLE DOCUMENTS

PART B: TERMS AND CONDITIONS FOR BIDDING

1. BID SUBMISSION:	
1.1. BIDS MUST BE DELIVERED BY THE STIPULATED TIME TO THE CORRECT ADDRESS. LATE BIDS WILL NOT BE ACCEPTED FOR CONSIDERATION.	
1.2. ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS PROVIDED– (NOT TO BE RE-TYPED) OR 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)?	<input type="checkbox"/> YES <input type="checkbox"/> NO
3.2. DOES THE BIDDER HAVE A BRANCH IN THE RSA?	<input type="checkbox"/> YES <input type="checkbox"/> NO
3.3. DOES THE BIDDER HAVE A PERMANENT ESTABLISHMENT IN THE RSA?	<input type="checkbox"/> YES <input type="checkbox"/> NO
3.4. DOES THE BIDDER HAVE ANY SOURCE OF INCOME IN THE RSA?	<input type="checkbox"/> YES <input type="checkbox"/> NO
IF THE ANSWER IS "NO" TO ALL OF THE ABOVE, THEN, IT IS NOT A REQUIREMENT TO OBTAIN A TAX COMPLIANCE STATUS / TAX COMPLIANCE SYSTEM PIN CODE FROM THE SOUTH AFRICAN REVENUE SERVICE (SARS) AND IF NOT REGISTER AS PER 2.3 ABOVE.	

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

A. CERTIFICATE FOR COMPANY

I,....., chairperson of the board of directors of hereby confirm that by resolution of the board (copy attached) taken on20..., Mr/Mrs.....acting in the capacity of.....,was authorized to sign all documents in connection with this tender and any contract resulting from it on behalf of the company.

As witness

1.....
 . Chairperson
 2.....
 Date

B. CERTIFICATE OF PARTNERSHIP

We, the undersigned, being the key partners in the business trading as hereby authorize Mr/Mrs....., acting in the capacity of.....to sign all documents in connection with the tender for Contract.....and any contract resulting from it on our behalf.

NAME	ADDRESS	SIGNATURE	DATE

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, are submitting this tender offer in Joint Venture and hereby authorize Mr/Mrs....., authorized signatory of the company,acting in the capacity of lead partner, to sign all documents in connection with the tender offer for Contract.....and any other contract resulting from it on our behalf.

This authorization is evidenced by the attached power of attorney signed by legally authorized signatories of all the partners to the Joint Venture.

NAME OF FIRM	ADDRESS	AUTHORIZING SIGNATURE, NAME & CAPACITY

D. CERTIFICATE FOR THE SOLE PROPRIETOR

I,, hereby confirm that I am the sole owner of the business trading as.....

As Witness:

1..... Signature: Sole owner
 2..... Date

E. CERTIFICATE FOR CLOSE CORPORATION

We, the undersigned, being the key members in the business trading as.....hereby authorise Mr/Mrs.....acting in the capacity of....., to sign all documents in connection with the tender for Contract.....and any contract resulting from it on our behalf.

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 confirm that the following communications received from the Employer before the submission of this tender offer, amending the tender documents, have been taken into account in this tender offer:		
	Date	Title or Details
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

Attach additional pages if more space is required.

Signed Date

Name Position

Tenderer

Compulsory Declaration

The following particulars must be furnished. In the case of a joint venture, a separate declaration in respect of each partner must be completed and submitted.

Section 1: Enterprise Details

Name of enterprise:	
Contact person:	
Email:	
Telephone:	
Cell no	
Fax:	
Physical address	
Postal address	

Section 2: Particulars of companies and close corporations

Company / Close Corporation registration number	
--	--

Section 3: SARS Information

Tax reference number	
VAT registration number:	<i>State Not Registered if not registered for VAT</i>

Section 4: CIDB registration number

Section 5: National Treasury Central Supplier Database

Supplier number	
Unique registration reference number	

Section 6: Particulars of principals

principal: means a natural person who is a partner in a partnership, a sole proprietor, a director of a company established in terms of the Companies Act of 2008 (Act No. 71 of 2008) or a member of a close corporation registered in terms of the Close Corporation Act, 1984, (Act No. 69 of 1984).

Full name of the principal	Identity number	Personal tax reference number

Attach a separate page if necessary

PART T2: RETURNABLE DOCUMENTS

Section 7: Record in the service of the state

Indicate by marking the relevant boxes with a cross, if any principal is currently or has been within the last 12 months in the service of any of the following:

- a member of any municipal council
- a member of any provincial legislature
- a member of the National Assembly or the National Council of Province
- a member of the board of directors of any municipal entity
- an official of any municipality or municipal entity
- an employee of any department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act of 1999 (Act No. 1 of 1999)
- a member of an accounting authority of any national or provincial public entity
- an employee of Parliament or a provincial legislature

If any of the above boxes are marked, disclose the following:

Name of principal	Name of institution, public office, board or organ of state and position held	Status of service (tick appropriate column)	
		Current	Within the last 12 months

*insert separate page if necessary

Section 8: Record of a family member in the service of the state

family member: a person's spouse, whether in a marriage or in a customary union according to indigenous law, a domestic partner in a civil union, or child, parent, brother, sister, whether such a relationship results from birth, marriage or adoption

Indicate by marking the relevant boxes with a cross, if any family member of a principal as defined in section 5 is currently or has been within the last 12 months been in the service of any of the following:

- a member of any municipal council
- a member of any provincial legislature
- a member of the National Assembly or the National Council of Province
- a member of the board of directors of any municipal entity
- an official of any municipality or municipal entity
- an employee of any provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act 1 of 1999)
- a member of an accounting authority of any national or provincial public entity
- an employee of Parliament or a provincial legislature

Name of a family member	Name of institution, public office, board or organ of state and position held	Status of service (tick appropriate column)	
		Current	Within the last 12 m

*insert separate page if necessary

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 or 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

Enterprise
.....

PART T2: RETURNABLE DOCUMENTS

- NOTE 2: Section 30(1) of the Public Service Act, 1994, prohibits an employee (person who is 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:

B-BBEE status level of contributor	Status level of a tenderer <i>(tick relevant level)</i>	Number of preference points	
		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 undersigned, who warrants that he/she is duly authorized to do so on behalf of the tenderer, confirms that he/she understands the conditions under which such preferences are granted and confirms that the tenderer satisfies the conditions about the granting of tender preferences.

Signature:

Name:

Duly authorized to sign on behalf of:

Telephone:

Fax: Date:

Name of witness: Signature of witness:

Note: 1) Failure to complete the declaration will lead to the rejection of a claim for preference.
2) Supporting documentation of the abovementioned claim for preference must be submitted with the tender submission to be eligible for a preference

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 completed and submitted with the bid.

2.1 Full Name of bidder or his or her representative:

2.2 Identity Number.....

2.3 The position occupied in the Company (director, trustee, shareholder², member):
.....

2.4 Registration number of company, enterprise, close corporation, partnership agreement or trust:
.....

2.5 Tax Reference Number:

2.6 VAT Registration Number:

2.6.1 The names of all directors/trustees/shareholders/members, their identity numbers, tax reference numbers and, if applicable, employee / PERSAL numbers must be indicated in paragraph 3 below.

¹"State" means –

- (a) any national or provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No. 1 of 1999);
- (b) any municipality or municipal entity;
- (c) provincial legislature;
- (d) national Assembly or the national Council of provinces; or
- (e) Parliament.

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

2.7 Are you or any person connected with the bidder? YES / NO
Presently employed by the state?

2.7.1 If so, furnish the following particulars:

Name of person / director / trustee / shareholder/ member:

Name of state institution at which you or the person connected to the bidder is employed:

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.
.....
.....
.....

SBD 4: DECLARATION OF INTEREST

2.11 Do you or any of the directors / trustees / shareholders / members of the company have any interest in any other related companies whether or not they are bidding for this contract? **YES/NO**

2.11.1 If so, furnish particulars:

.....

3 Full details of directors / trustees / members / shareholders.

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

4 DECLARATION

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

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

.....
 Signature Date

.....
 Position Name of bidder

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 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;

3. 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**

$$P_s = 80 \left(1 - \frac{P_t - P_{\min}}{P_{\min}} \right) \quad \text{or} \quad P_s = 90 \left(1 - \frac{P_t - P_{\min}}{P_{\min}} \right)$$

Where

BID NUMBER: LDPWRI-B/20113

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.

7. SUB-CONTRACTING

7.1 Will any portion of the contract be sub-contracted?

(Tick applicable box)

BID NUMBER: LDPWRI-B/20113

YES	<input type="checkbox"/>	NO	<input type="checkbox"/>
-----	--------------------------	----	--------------------------

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	<input type="checkbox"/>	NO	<input type="checkbox"/>
-----	--------------------------	----	--------------------------

v) Specify, by ticking the appropriate box, if subcontracting with an enterprise in terms of Preferential Procurement Regulations,2017:

Designated Group: An EME or QSE which is at last 51% owned by:	EME √	QSE √
Black people		
Black people who are youth		
Black people who are women		
Black people with disabilities		
Black people living in rural or underdeveloped areas or townships		
Cooperative owned by black people		
Black people who are military veterans		
OR		
Any EME		
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]

8.5 DESCRIBE PRINCIPAL BUSINESS ACTIVITIES

.....

.....

.....
.....

8.6 COMPANY CLASSIFICATION

- Manufacturer
 - 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, qualifies 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;
 - (c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation;
 - (d) recommend that the bidder or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be 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.

.....
SIGNATURE(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](http://www.dti.gov.za/industrial%20development/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 64 to 66)

3.

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

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

(Tick applicable box)

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.

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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)

LOCAL CONTENT DECLARATION BY CHIEF FINANCIAL OFFICER OR OTHER LEGALLY RESPONSIBLE PERSON NOMINATED IN WRITING BY THE CHIEF EXECUTIVE OR SENIOR MEMBER/PERSON WITH MANAGEMENT RESPONSIBILITY (CLOSE CORPORATION, PARTNERSHIP OR INDIVIDUAL)

IN RESPECT OF BID NO.

ISSUED 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/industrialdevelopment/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.

I, the undersigned, (full names),
do 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) 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;

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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						
Item	Section	Bill No	Description	Unit	Qty	Local Content Threshold
Reinforcement (Foundations)						
10	2	2	All diameter bars	t	5	100%
11	2	2	Type 245 fabric reinforcement	m2	739	100%
11	3	2	All diameter bars	t	2	100%
12	3	2	Type 245 fabric reinforcement	m2	134	100%
9	4	2	All diameter bars	t	1	100%
10	4	2	Type 245 fabric reinforcement	m2	179	100%
9	5	2	All diameter bars	t	0.4	100%
10	5	2	Type 245 fabric reinforcement	m2	22	100%
10	6	2	All diameter bars	t	2	100%
11	6	2	Type 245 fabric reinforcement	m2	259	100%
17	3 (Part C)	5	Type 245 fabric reinforcement	m2	152	100%
Brick Reinforcement (Masonry)						
9	2	3	150mm Brick Reinforcement	m	4 065	100%
13	3	3	75mm Brick Reinforcement	m	164	100%
14	3	3	150mm Brick Reinforcement	m	2 112	100%
11	4	3	75mm Brick Reinforcement	m	391	100%
12	4	3	150mm Brick Reinforcement	m	1 190	100%
10	5	3	75mm Brick Reinforcement	m	66	100%
11	5	3	150mm Brick Reinforcement	m	357	100%
10	6	3	75mm Brick Reinforcement	m	190	100%
11	6	3	150mm Brick Reinforcement	m	1 642	100%
			Masonry Cement	t	122	100%

Item	Section	Bill No	Description	Unit	Qty	Local Content Threshold
Fabricated Structural Steel (Ironmongery)						
2	2	8	Stainless Steel Door stopper	No	16	100%
1	2	8	Pinning Boards	No	8	100%
2	2	8	Chalkboards	No	8	100%
1	3	8	Stainless Steel Door stopper	No	50	100%
1	4	8	Stainless Steel Door stopper	No	6	100%
1	5	8	Stainless Steel Door stopper	No	4	100%
1	6	8	Stainless Steel Door stopper	No	17	100%
Steel Gates						
1	2	9	Steel gate to door size 813 x 2032	No	8	100%
1	3	9	Steel gate to door size 813 x 2032	No	10	100%
1	6	9	Steel gate to door size 813 x 2032	No	5	100%
Door Frames						
2/9/1	2	9	Door Frames size 925 x 2032	No	8	100%
2/9/2	2	9	Door Frames size 813 x 2032	No	16	100%
3/9/2	3	9	Door Frames size 813 x 2032	No	20	100%
3/9/3	3	9	Door Frames size 813 x 2032	No	10	100%
3/9/4	3	9	Door Frames size 914 x 2032	No	20	100%
4/9/1	4	9	Door Frames size 813 x 2032	No	6	100%
5/9/1	5	9	Door Frames size 914 x 2032	No	4	100%
6/9/2	6	9	Door Frames size 813 x 2032	No	8	100%
6/9/3	6	9	Door Frames size 813 x 2032	No	7	100%
6/9/4	6	9	Door Frames size 914 x 2032	No	2	100%
Window Frames						
3	2	9	Window frame size 1143 x 1272	No	72	100%
4	2	9	Window frame size 1143 x 900	No	8	100%
5	3	9	Window frame size 533 x 950	No	20	100%
3	4	9	Window frame size 1200 x 1800	No	13	100%
4	4	9	Window frame size 1200 x 1200	No	2	100%
5	4	9	Window frame size 900 x 1200	No	2	100%
6	4	9	Window frame size 900 x 1240	No	2	100%
2	5	9	Window frame size 1022 x 949	No	4	100%
5	6	9	Window frame size 881 x 1240	No	12	100%
6	6	9	Window frame size 881 x 820	No	8	100%
7	6	9	Window frame size 534 x 648	No	4	100%

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Roofs and Cladding						
1	2	5	Roof sheeting	m2	1094	100%
2	2	5	500mm girth Ridge	m	79	100%
3	2	5	500mm girth Hip	m	41	100%
14	2	3	30 x 1.2 galvanized steel roof ties	No	172	100%
1	3	5	Roof sheeting	m2	201	100%
2	3	5	500mm girth Ridge	m	29	100%
3	3	5	500mm girth Hip	m	51	100%
19	3	3	30 x 1.2 galvanized steel roof ties	No	97	100%
1	4	5	Roof sheeting	m2	237	100%
2	4	5	500mm girth Ridge	m	22	100%
3	4	5	500mm girth Hip	m	6	100%
18	4	3	30 x 1.2 galvanized steel roof ties	No	50	100%
1	5	5	Roof sheeting	m2	37	100%
2	5	5	500mm girth Ridge	m	6	100%
3	5	5	500mm girth Hip	m	10	100%
17	5	3	30 x 1.2 galvanized steel roof ties	No	19	100%
1	6	5	Roof sheeting	m2	366	100%
2	6	5	500mm girth Ridge	m	28	100%
3	6	5	500mm girth Hip	m	21	100%
20	6	3	30 x 1.2 galvanized steel roof ties	No	64	100%
Draw wires						
3.3.1	B		0.6mm diameter galvanized draw wire	m	610	100%
4.3.1	B		0.6mm diameter galvanized draw wire	m	1000	100%
5.3.1	B		0.6mm diameter galvanized draw wire	m	440	100%
6.3.1	B		0.6mm diameter galvanized draw wire	m	790	100%
7.3.1	B		0.6mm diameter galvanized draw wire	m	55	100%
8.3.1	B		0.6mm diameter galvanized draw wire	m	50	100%
Tubing column						
6	2	9	76 x 76 x 3mm x 6.54kg/m Mild steel square tubing column	Kg	560	100%
Gutters, Downpipe and Lauders						
1	2	12	100 x 100mm seamless eaves gutters	m	204	70%
2	2	12	Extra over eaves gutter for stopped ends	No	16	70%
3	2	12	Extra over eaves gutter for corner	No	131	70%
4	2	12	Extra over eave gutter for outlet	No	32	70%
5	2	12	100mm Diameter downpipe	m	111	70%
6	2	12	Extra over downpipe for eaves or plinths offset	No	64	70%
7	2	12	Extra over downpipe for shoe	No	32	70%
1	3	12	100 x 100mm seamless eaves gutters	m	116	70%
2	3	12	Extra over eaves gutter for stopped ends	No	40	70%

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3	3	12	Extra over eaves gutter for corner	No	87	70%
4	3	12	Extra over eave gutter for outlet	No	20	70%
5	3	12	100mm Diameter downpipe	m	69	70%
6	3	12	Extra over downpipe for eaves or plinths offset	No	40	70%
7	3	12	Extra over downpipe for shoe	No	20	70%
1	4	12	100 x 100mm seamless eaves gutters	m	35	70%
2	4	12	Extra over eaves gutter for stopped ends	No	6	70%
3	4	12	Extra over eaves gutter for corner	No	17	70%
4	4	12	Extra over eave gutter for outlet	No	4	70%
5	4	12	100mm Diameter downpipe	m	14	70%
6	4	12	Extra over downpipe for eaves or plinths offset	No	8	70%
7	4	12	Extra over downpipe for shoe	No	4	70%
1	5	12	100 x 100mm seamless eaves gutters	m	23	70%
2	5	12	Extra over eaves gutter for stopped ends	No	8	70%
3	5	12	Extra over eaves gutter for corner	No	17	70%
4	5	12	Extra over eave gutter for outlet	No	4	70%
5	5	12	100mm Diameter downpipe	m	14	70%
6	5	12	Extra over downpipe for eaves or plinths offset	No	8	70%
7	5	12	Extra over downpipe for shoe	No	4	70%
1	6	12	100 x 100mm seamless eaves gutters	m	77	70%
2	6	12	Extra over eaves gutter for stopped ends	No	8	70%
3	6	12	Extra over eaves gutter for corner	No	33	70%
4	6	12	Extra over eave gutter for outlet	No	8	70%
5	6	12	100mm Diameter downpipe	m	28	70%
6	6	12	Extra over downpipe for eaves or plinths offset	No	16	70%
7	6	12	Extra over downpipe for shoe	No	8	70%
PVC Pipes, etc						
2.7.1	B		16mm ² 4core	m	100	100%
2.7.2	B		16mm ² 2core	m	120	100%
2.7.3	B		10mm ² 2core	m	80	100%
2.7.4	B		6mm ² 2core	m	120	100%
2.7.5	B		4mm ² 2core	m	120	100%
2.9.1	B		16mm ² BCEW	m	220	100%
2.9.2	B		10mm ² BCEW	m	80	100%
2.9.3	B		6mm ² BCEW	m	120	100%
2.9.4	B		4mm ² BCEW	m	120	100%
3.6.1	B		20mm PVC Conduit	m	110	100%
3.6.2	B		25mm PVC Conduit	m	200	100%
3.6.3	B		20mm PVC Conduit	m	210	100%
3.6.4	B		25mm PVC Conduit	m	70	100%
3.8.1	B		2.5mm ² PVC Wiring	m	630	100%
3.8.2	B		4mm ² PVC Wiring	m	400	100%

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3.8.3	B		2.5mm ² BCEW	m	630	100%
3.8.4	B		4mm ² BCEW	m	400	100%
4.6.1	B		20mm PVC Conduit	m	120	100%
4.6.2	B		25mm PVC Conduit	m	440	100%
4.6.3	B		20mm PVC Conduit	m	400	100%
4.6.4	B		25mm PVC Conduit	m	40	100%
4.8.1	B		2.5mm ² PVC Wiring	m	800	100%
4.8.2	B		4mm ² PVC Wiring	m	470	100%
4.8.3	B		2.5mm ² BCEW	m	800	100%
4.8.4	B		4mm ² BCEW	m	470	100%
5.6.1	B		20mm PVC Conduit	m	60	100%
5.6.2	B		25mm PVC Conduit	m	120	100%
5.6.3	B		20mm PVC Conduit	m	200	100%
5.6.4	B		25mm PVC Conduit	m	60	100%
5.8.1	B		2.5mm ² PVC Wiring	m	400	100%
5.8.2	B		4mm ² PVC Wiring	m	235	100%
5.8.3	B		2.5mm ² BCEW	m	400	100%
5.8.4	B		4mm ² BCEW	m	235	100%
6.6.1	B		20mm PVC Conduit	m	80	100%
6.6.2	B		25mm PVC Conduit	m	180	100%
6.6.3	B		20mm PVC Conduit	m	450	100%
6.6.4	B		25mm PVC Conduit	m	80	100%
6.8.1	B		2.5mm ² PVC Wiring	m	350	100%
6.8.2	B		4mm ² PVC Wiring	m	250	100%
6.8.3	B		2.5mm ² BCEW	m	350	100%
6.8.4	B		4mm ² BCEW	m	250	100%
7.6.1	B		20mm PVC Conduit	m	5	100%
7.6.2	B		25mm PVC Conduit	m	5	100%
7.6.4	B		20mm PVC Conduit	m	50	100%
7.6.4	B		25mm PVC Conduit	m	10	100%
7.8.1	B		2.5mm ² PVC Wiring	m	55	100%
7.8.3	B		2.5mm ² BCEW	m	55	100%
8.6.2	B		25mm PVC Conduit	m	15	100%
8.6.3	B		20mm PVC Conduit	m	10	100%
8.8.1	B		2.5mm ² PVC Wiring	m	20	100%
8.8.3	B		2.5mm ² BCEW	m	20	100%
9..2.1	B		4mm ² PVC Wiring	m	400	100%
9.2.2	B		2.5mm ² BCEW	m	400	100%
13	3	2	75mm uPVC pipe	m	235	70%
15	3	2	90mm uPVC pipe	m	655	70%
12	3	3	110mm pipe for 90 degrees plain bend	m	8	70%
13	3	3	110mm pipe for 45 degrees 110mm plain bend	m	4	70%
14	3	3	110mm pipe for 45 degrees 110mm plain bend	m	6	70%

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15	3	3	160mm pipe for 90 degrees plain bend	m	3	70%
16	3	3	160mm pipe for 45 degrees plain bend	m	3	70%
17	3	3	160mm pipe for 45 degrees plain junction	m	2	70%
Valves products and actuators						
14	3	12	Bib tap	No	10	70%
14	4	12	Bib tap	No	1	70%
14	5	12	Bib tap	No	4	70%
15	6	12	Bib tap	No	2	70%
16	6	12	Sink mixer	No	2	70%
8	2	12	9kg DCP Fire Extinguisher	No	16	70%
15	4	12	9kg DCP Fire Extinguisher	No	2	70%
17	6	12	9kg DCP Fire Extinguisher	No	4	70%
8	2	12	Hose reel	No	4	70%
18	6	12	Hose reel	No	2	70%
26	3	2	90 mm diam. Gate valve	No	2	70%
27	3	2	75 mm diam. Gate valve	No	2	70%
Transformers and Shunt Reactors						
1.1	B		Class 1 transformer (75Kva 11kV/400V)	No	1	70%
Pumps, Medium Voltage (MV) Motor and Associated Accessories						
2.1.1	B		Main Kiosk	No	1	100%
Electrical Cables						
PVC Cables						
9.2.1	10		4mm ² x 2 Core Cu Cables	m	400	90%
9.2.2	10		2.5mm ² bare copper earth wire (BCEW)	m	400	90%

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 and D15. 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 column D18. 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

BID NUMBER: LDPWRI-B/20113

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 as per 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

ANNEX C: LOCAL CONTENT DECLARATION – SUMMARY SCHEDULE

SATS 1286.2011

Annex C

- (C1) Tender No.
- (C2) Tender description:
- (C3) Designated product(s)
- (C4) Tender Authority:
- (C5) Tendering Entity name:
- (C6) Tender Exchange Rate:
- (C7) Specified local content %

Note: VAT to be excluded from all calculations

Pula EU GBP

Tender item no's	List of items	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)
2-2-10	All diameter bars							11.00			
2-2-11	Type 245 fabric reinforcement							739.00			
3-2-11	All diameter bars							2.00			
3-2-12	Type 245 fabric reinforcement							134.00			
4-2-9	All diameter bars							1.00			
4-2-10	Type 245 fabric reinforcement							179.00			
5-2-9	All diameter bars							0.4			
5-2-10	Type 245 fabric reinforcement							22.00			
6-2-10	All diameter bars							2.00			
6-2-11	Type 245 fabric reinforcement							259.00			
3-5-17 (Part C)	Type 245 fabric reinforcement							152.00			
2-2-9	150mm Brick Reinforcement							4 065			
3-3-13	75mm Brick Reinforcement							164			
3-3-14	150mm Brick Reinforcement							2 112			
4-3-11	75mm Brick Reinforcement							391			
4-3-12	150mm Brick Reinforcement							1 190			
5-3-10	150mm Brick Reinforcement							66			
5-3-11	75mm Brick Reinforcement							357			
6-3-10	150mm Brick Reinforcement							190			
6-3-11	75mm Brick Reinforcement							1 642			
	Masonry Cement							122			

(C20) Total tender value

(C21) Total Exempt imported content

(C22) Total Tender value net of exempt imported content

(C23) Total Imported content

(C24) Total local content

(C25) Average local content % of tender

Signature of tenderer from Annex B

Date: _____

SBD 6.2: DECLARATION OF LOCAL CONTENT

SATS 1286.2011

Annex C

(C1) Tender No.
 (C2) Tender description:
 (C3) Designated product(s)
 (C4) Tender Authority:
 (C5) Tendering Entity name:
 (C6) Tender Exchange Rate:
 (C7) Specified local content %

Note: VAT to be excluded from all calculations

Pula EU GBP

Tender item no's	List of items	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)
2-8-2	Door Stopper							16.00			
2-8-1	Pinning Boards							8.00			
2-8-3	Green Chalkboard							8.00			
3-8-1	Door Stopper							50.00			
4-8-1	Door Stopper							6.00			
5-8-1	Door Stopper							4.00			
6-8-1	Door Stopper							17.00			
2-9-1	Door Frames size 925 x 2032mm high							8.00			
2-9-2	Door Frames size 813 x 2032mm high							16.00			
3-9-2	Door Frames size 813 x 2032mm high							20.00			
3-9-3	Door Frames size 813 x 2032mm high							10.00			
3-9-4	Door Frames size 914 x 2032mm high							20.00			
4-9-1	Door Frames size 813 x 2032mm high							6.00			
5-9-1	Door Frames size 914 x 2032mm high							4.00			
6-9-2	Door Frames size 813 x 2032mm high							8.00			
6-9-3	Door Frames size 813 x 2032mm high							7.00			
6-9-4	Door Frames size 914 x 2032mm high							2.00			
2-9-3	Window frame size 1143 x 1272							72.00			
2-9-4	Window frame size 1143 x 900							8.00			
3-9-5	Window frame size 533 x 950							20.00			
4-9-3	Window frame size 1200 x 1800							13.00			
4-9-4	Window frame size 1200 x 1200							2.00			
4-9-5	Window frame size 900 x 1200							2.00			
4-9-6	Window frame size 900 x 1240							2.00			
5-9-2	Window frame size 1022 x 949							4.00			
6-9-5	Window frame size 881 x 1240							12.00			
6-9-6	Window frame size 881 x 820							8.00			
6-9-7	Window frame size 534 x 648							4.00			

(C20) Total tender value
 (C21) Total Exempt imported content
 (C22) Total Tender value net of exempt imported content
 (C23) Total Imported content
 (C24) Total local content
 (C25) Average local content % of tender

Signature of tenderer from Annex B

Date: _____

SBD 6.2: DECLARATION OF LOCAL CONTENT

SATS 1286.2011

Annex C

- (C1) Tender No.
- (C2) Tender description:
- (C3) Designated product(s)
- (C4) Tender Authority:
- (C5) Tendering Entity name:
- (C6) Tender Exchange Rate:
- (C7) Specified local content %

Note: VAT to be excluded from all calculations

Pula EU GBP

Tender item no's	List of items	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)
2-5-1	Roof sheeting							1 094.00			
2-5-2	500mm girth Ridge							79.00			
2-5-3	500mm girth Hip							41.00			
2-3-14	30 x 1.2 galvanized steel roof ties							172.00			
3-5-1	Roof sheeting							201.00			
3-5-2	500mm girth Ridge							29.00			
3-5-3	500mm girth Hip							51.00			
3-3-19	30 x 1.2 galvanized steel roof ties							97.00			
4-5-1	Roof sheeting							237.00			
4-5-2	500mm girth Ridge							22.00			
4-5-3	500mm girth Hip							6.00			
4-3-18	30 x 1.2 galvanized steel roof ties							50.00			
5-5-1	Roof sheeting							37.00			
5-5-2	500mm girth Ridge							6.00			
5-5-3	500mm girth Hip							10.00			
5-3-17	30 x 1.2 galvanized steel roof ties							19.00			
6-5-1	Roof sheeting							366.00			
6-5-2	500mm girth Ridge							28.00			
6-5-3	500mm girth Hip							21.00			
6-2-8	30 x 1.2 galvanized steel roof ties							64.00			
6-8-4	Steel gate to door, size 813 x 2032mm high							8			
5-9-1	Steel gate to door, size 813 x 2032mm high							5			
6-8-1	Steel gate to door, size 1500 x 2400mm high							48			
3.3.1 (Part B)	0.6mm diameter galvanized draw wire							610			
4.3.1 (Part B)	0.6mm diameter galvanized draw wire							1 000			
5.3.1 (Part B)	0.6mm diameter galvanized draw wire							440			
6.3.1 (Part B)	0.6mm diameter galvanized draw wire							790			
7.3.1 (Part B)	0.6mm diameter galvanized draw wire							55			
8.3.1 (Part B)	0.6mm diameter galvanized draw wire							50			
2-9-5	76 x 76 x 3mm x 6.54kg/m Mild steel square tubing column							560			

(C20) Total tender value

(C21) Total Exempt imported content

(C22) Total Tender value net of exempt imported content

(C23) Total Imported content

(C24) Total local content

(C25) Average local content % of tender

Signature of tenderer from Annex B

Date: _____

SBD 6.2: DECLARATION OF LOCAL CONTENT

SATS 1286.2011

Annex C

(C1) **Tender No.**
 (C2) **Tender description:**
 (C3) **Designated product(s)**
 (C4) **Tender Authority:**
 (C5) **Tendering Entity name:**
 (C6) **Tender Exchange Rate:**
 (C7) **Specified local content %**

Note: VAT to be excluded from all calculations

Pula EU GBP

Tender item no's	List of items	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)
2-12-1	100 x 100 Eaves gutters							204.00			
2-12-2	Extra over eaves gutter for stopped end							16.00			
2-12-3	Extra over eaves gutter for corner							131.00			
2-12-4	Extra over eave gutter for outlet							32.00			
2-12-5	100mm Diameter downpipe							111.00			
2-12-6	Extra over downpipe for offset							64.00			
2-12-7	Extra over downpipe for Shoe							32.00			
3-12-1	100 x 100 Eaves gutters							116.00			
3-12-2	Extra over eaves gutter for stopped end							40.00			
3-12-3	Extra over eaves gutter for corner							87.00			
3-12-4	Extra over eave gutter for outlet							20.00			
3-12-5	100mm Diameter downpipe							69.00			
3-12-6	Extra over downpipe for offset							40.00			
3-12-7	Extra over downpipe for Shoe							20.00			
4-12-1	100 x 100 Eaves gutters							35.00			
4-12-2	Extra over eaves gutter for stopped end							6.00			
4-12-3	Extra over eaves gutter for corner							17.00			
4-12-4	Extra over eave gutter for outlet							4.00			
4-12-5	100mm Diameter downpipe							14.00			
4-12-6	Extra over downpipe for offset							8.00			
4-12-7	Extra over downpipe for Shoe							4.00			
5-12-1	100 x 100 Eaves gutters							23.00			
5-12-2	Extra over eaves gutter for stopped end							8.00			
5-12-3	Extra over eaves gutter for corner							17.00			
5-12-4	Extra over eave gutter for outlet							4.00			
5-12-5	100mm Diameter downpipe							14.00			
5-12-6	Extra over downpipe for offset							8.00			
5-12-7	Extra over downpipe for Shoe							4.00			

Signature of tenderer from Annex B _____

Date: _____

(C20) Total tender value _____
 (C21) Total Exempt imported content _____
 (C22) Total Tender value net of exempt imported content _____
 (C23) Total Imported content _____
 (C24) Total local content _____
 (C25) Average local content % of tender _____

SBD 6.2: DECLARATION OF LOCAL CONTENT

SATS 1286.2011

Annex C

(C1) **Tender No.**
 (C2) **Tender description:**
 (C3) **Designated product(s)**
 (C4) **Tender Authority:**
 (C5) **Tendering Entity name:**
 (C6) **Tender Exchange Rate:**
 (C7) **Specified local content %**

Note: VAT to be excluded from all calculations

Pula EU GBP

Tender item no's	List of items	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)
6-12-1	100 x 100mm seamless eaves gutters							77.00			
6-12-2	Extra over eaves gutter for stopped ends							8.00			
6-12-3	Extra over eaves gutter for corner							33.00			
6-12-4	Extra over eave gutter for outlet							8.00			
6-12-5	100mm Diameter downpipe							28.00			
6-12-6	Extra over downpipe for eaves or plinths offset							16.00			
6-12-7	Extra over downpipe for shoe							8.00			
3-12-14	Bib tap							10.00			
4-12-14	Bib tap							1.00			
5-12-17	Bib tap							4.00			
6-12-15	Bib tap							2.00			
6-12-16	Sink mixer							2.00			
2-12-8	9kg DCP Fire Extinguisher							16.00			
4-12-15	9kg DCP Fire Extinguisher							2.00			
6-12-17	9kg DCP Fire Extinguisher							4.00			
2-12-8	Hose Reel							4.00			
6-12-18	Hose Reel							2.00			
3-2-26	90 mm diam. Gate valve							2.00			
3-2-27	75 mm diam. Gate valve							2.00			
B-1.1	Class 1 transformer (25kva 11kv/400V)							1.00			
B-2.1.1	Main Kiosk							1.00			
								(C20) Total tender value			
								(C21) Total Exempt imported content			
								(C22) Total Tender value net of exempt imported content			
								(C23) Total Imported content			
								(C24) Total local content			
								(C25) Average local content % of tender			

Signature of tenderer from Annex B

Date: _____

SBD 6.2: DECLARATION OF LOCAL CONTENT

SATS 1286.2011

Annex C

- (C1) Tender No.
- (C2) Tender description:
- (C3) Designated product(s)
- (C4) Tender Authority:
- (C5) Tendering Entity name:
- (C6) Tender Exchange Rate:
- (C7) Specified local content %

Note: VAT to be excluded from all calculations

Pula EU GBP

Tender item no's	List of items	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)
B-2.7.1	16mm ² 4 core cable							100.00			
B-2.7.2	16mm ² 2 core cable							120.00			
B-2.7.3	10mm ² 2 core cable							80.00			
B-2.7.4	6mm ² 2 core cable							120.00			
B-2.7.5	4mm ² 2 core cable							120.00			
B-2.9.1	16mm ² BCEW							220.00			
B-2.9.2	10mm ² BCEW							80.00			
B-2.9.3	6mm ² BCEW							120.00			
B-2.9.4	4mm ² BCEW							120.00			
B-3.6.1	20mm PVC Conduit							110.00			
B-3.6.2	25mm PVC Conduit							200.00			
B-3.6.3	20mm PVC Conduit							210.00			
B-3.6.4	25mm PVC Conduit							70.00			
B-3.8.1	2.5mm ² PVC Wiring							630.00			
B-3.8.2	4mm ² PVC Wiring							400.00			
B-3.8.3	2.5mm ² BCEW							630.00			
B-3.8.4	4mm ² BCEW							400.00			
								(C20) Total tender value			
								(C21) Total Exempt imported content			
								(C22) Total Tender value net of exempt imported content			
								(C23) Total Imported content			
								(C24) Total local content			
								(C25) Average local content % of tender			

Signature of tenderer from Annex B

Date: _____

SBD 6.2: DECLARATION OF LOCAL CONTENT

SATS 1286.2011

Annex C

(C1) Tender No.
 (C2) Tender description:
 (C3) Designated product(s)
 (C4) Tender Authority:
 (C5) Tendering Entity name:
 (C6) Tender Exchange Rate:
 (C7) Specified local content %

Note: VAT to be excluded from all calculations

Pula EU GBP

Tender item no's	List of items	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)
B-4.6.1	20mm PVC Conduit							120.00			
B-4.6.2	25mm PVC Conduit							440.00			
B-4.6.3	20mm PVC Conduit							400.00			
B-4.6.4	25mm PVC Conduit							40.00			
B-4.8.1	2.5mm ² PVC Wiring							800.00			
B-4.8.2	4mm ² PVC Wiring							470.00			
B-4.8.3	2.5mm ² BCEW							800.00			
B-4.8.4	4mm ² BCEW							470.00			
B-5.6.1	20mm PVC Conduit							60.00			
B-5.6.2	25mm PVC Conduit							120.00			
B-5.6.3	20mm PVC Conduit							200.00			
B-5.6.4	25mm PVC Conduit							60.00			
B-5.8.1	2.5mm ² PVC Wiring							400.00			
B-5.8.2	4mm ² PVC Wiring							235.00			
B-5.8.3	2.5mm ² BCEW							400.00			
B-5.8.4	4mm ² BCEW							235.00			
B-6.6.1	20mm PVC Conduit							80.00			
B-6.6.2	25mm PVC Conduit							180.00			
B-6.6.3	20mm PVC Conduit							450.00			
B-6.6.4	25mm PVC Conduit							80.00			
B-6.8.1	2.5mm ² PVC Wiring							350.00			
B-6.8.2	4mm ² PVC Wiring							250.00			
B-6.8.3	2.5mm ² BCEW							350.00			
B-6.8.4	4mm ² BCEW							250.00			
								(C20) Total tender value			
								(C21) Total Exempt imported content			
								(C22) Total Tender value net of exempt imported content			
								(C23) Total Imported content			
								(C24) Total local content			
								(C25) Average local content % of tender			

Signature of tenderer from Annex B

Date: _____

SBD 6.2: DECLARATION OF LOCAL CONTENT

SATS 1286.2011

Annex C

- (C1) Tender No.
- (C2) Tender description:
- (C3) Designated product(s)
- (C4) Tender Authority:
- (C5) Tendering Entity name:
- (C6) Tender Exchange Rate:
- (C7) Specified local content %

Note: VAT to be excluded from all calculations

Pula EU GBP

Tender item no's	List of items	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)
B-7.6.1	20mm PVC Conduit							5.00			
B-7.6.2	25mm PVC Conduit							5.00			
B-7.6.3	20mm PVC Conduit							50.00			
B-7.6.4	25mm PVC Conduit							10.00			
B-7.8.1	2.5mm ² PVC Wiring							55.00			
B-7.8.3	2.5mm ² BCEW							55.00			
B-8.6.2	25mm PVC Conduit							15.00			
B-8.6.3	20mm PVC Conduit							10.00			
B-8.8.1	2.5mm ² PVC Wiring							20.00			
B-8.8.3	2.5mm ² BCEW							20.00			
B-9.2.1	4mm ² PVC Wiring							400.00			
B-9.2.2	2.5mm ² BCEW							400.00			
3-2-13	75mm uPVC pipe							235.00			
3-2-15	90mm uPVC pipe							655.00			
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							6.00			
3-3-15	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			

(C20) Total tender value

(C21) Total Exempt imported content

(C22) Total Tender value net of exempt imported content

(C23) Total Imported content

(C24) Total local content

(C25) Average local content % of tender

Signature of tenderer from Annex B

Date: _____

SBD 6.2: DECLARATION OF LOCAL CONTENT

ANNEX D: IMPORTED CONTENT DECLARATION – SUPPORTING SCHEDULE TO ANNEX C

SATS 1286.2011

Annex D

Imported Content Declaration - Supporting Schedule to Annex C

(D1) Tender No. _____
 (D2) Tender description: _____
 (D3) Designated Products: _____
 (D4) Tender Authority: _____
 (D5) Tendering Entity name: _____
 (D6) Tender Exchange Rate: _____ Pula _____

Note: VAT to be excluded from all calculations

EU R 9.00 GBP R 12.00

A. Exempted imported content

Tender item no's	Description of imported content	Local supplier	Overseas Supplier	Calculation of imported content						Summary	
				Foreign 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 imported value
(D7)	(D8)	(D9)	(D10)	(D11)	(D12)	(D13)	(D14)	(D15)	(D16)	(D17)	(D18)
										(D19) Total exempt imported value	

This total must correspond with Annex C - C 21

B. Imported directly by the Tenderer

Tender item no's	Description of imported content	Unit of measure	Overseas Supplier	Calculation of imported content						Summary	
				Foreign currency value as per Commercial Invoice	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 value
(D20)	(D21)	(D22)	(D23)	(D24)	(D25)	(D26)	(D27)	(D28)	(D29)	(D30)	(D31)
										(D32) Total imported value by tenderer	

C. Imported by a 3rd party and supplied to the Tenderer

Description of imported content	Unit of measure	Local supplier	Overseas Supplier	Calculation of imported content						Summary	
				Foreign currency value as per Commercial Invoice	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	Quantity Imported	Total imported value
(D33)	(D34)	(D35)	(D36)	(D37)	(D38)	(D39)	(D40)	(D41)	(D42)	(D43)	(D44)
										(D45) Total imported value by 3rd party	

D. Other foreign currency payments

Type of payment	Local supplier making the payment	Overseas beneficiary	Calculation of foreign currency payments		Summary of payments
			Foreign currency value paid	Tender Rate of Exchange	
(D46)	(D47)	(D48)	(D49)	(D50)	(D51)

(D52) Total of foreign currency payments declared by tenderer and/or 3rd party

(D53) Total of imported content & foreign currency payments - (D32), (D45) & (D52) above

This total must correspond with Annex C - C 23

Signature of tenderer from Annex B _____

Date: _____

SBD 6.2: DECLARATION OF LOCAL CONTENT

SATS 1286.2011

Annex E

Local Content Declaration - Supporting Schedule to Annex C

(E1)	Tender No.	
(E2)	Tender description:	
(E3)	Designated products:	
(E4)	Tender Authority:	
(E5)	Tendering Entity name:	

Note: VAT to be excluded from all calculations

Local Products (Goods, Services and Works)	Description of items purchased <i>(E6)</i>	Local suppliers <i>(E7)</i>	Value <i>(E8)</i>
	<i>(E9)</i> Total local products (Goods, Services and Works)		

(E10)	Manpower costs	(Tenderer's manpower cost)	
(E11)	Factory overheads	(Rental, depreciation & amortisation, utility costs, consumables etc.)	
(E12)	Administration overheads and mark-up	(Marketing, insurance, financing, interest etc.)	
	<i>(E13)</i> Total local content		
			This total must correspond with Annex C - C24

Signature of tenderer from Annex B

Date: _____

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

- 1 This Standard Bidding Document must form part of all bids invited.
- 2 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 <i>audi alteram partem</i> 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 <input type="checkbox"/>	No <input type="checkbox"/>
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 <input type="checkbox"/>	No <input type="checkbox"/>
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 <input type="checkbox"/>	No <input type="checkbox"/>
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 <input type="checkbox"/>	No <input type="checkbox"/>
4.4.1	If so, furnish particulars:		

CERTIFICATION

I, THE UNDERSIGNED (FULL NAME)
CERTIFY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM IS TRUE AND CORRECT.

I ACCEPT THAT, IN ADDITION TO CANCELLATION OF A CONTRACT, ACTION MAY BE TAKEN AGAINST
ME SHOULD THIS DECLARATION PROVE TO BE 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.
- 2 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 *per 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.
- 4 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.
- 5 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

I, the undersigned, in submitting the accompanying bid:

(Bid Number and Description)

in response to the invitation for the bid made by:

(Name of Institution)

do hereby make the following statements that I certify to be true and complete in every respect:

I certify, on behalf
of: _____ 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:
 - (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.
- 9. 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.

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
..... (hereafter referred to as)

of the second part;

PREAMBLE

WHEREAS the Parties have formed a Joint Venture in order to submit tenders to the

..... for the construction of
.....
(hereafter referred to as the "works").

SAFCEC JOINT VENTURE AGREEMENT

NOW THEREFORE, IT IS AGREED AS FOLLOWS:

1. FORMATION OF JOINT VENTURE

- 1.1 The Parties hereby associate themselves into and as a Joint Venture in accordance with the provisions of this Agreement under the style or firm name 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

- 3.1 The profits and losses of the Joint Venture shall be borne by and In the proportions% and% respectively (hereinafter referred to as "the Specified Proportions").
- 3.2 In addition to any other provisions contained in this Agreement, the functions, duties, obligations and responsibilities of and under this Joint Venture agreement and in the execution of the Works will be to provide all bridging finance, guarantees and resources necessary to successfully carry out the project in proportion to the specified proportions, in which proportions all profits, losses, costs, liabilities and assets and any other responsibilities, whether pecuniary or otherwise, shall be shared equally, as far as possible.

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.

SAFCEC JOINT VENTURE AGREEMENT

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

- 6.1 All costs incurred by the Parties prior to the day of 20...., shall be for their own account.
- 6.2 Costs incurred by the Parties after the day of 20... and approved by the Management Committee, shall be borne by the Parties in the Specified Proportions.

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.
- 7.3 The Chairman at meetings of the Management Committee shall be a representative from and respectively on a six months rotation basis commencing with
- 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.

SAFCEC JOINT VENTURE AGREEMENT

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:

- 8.1 To appoint the Project Manager who shall be nominated by and and who shall attend all meetings of the Management Committee for the implementation of its policies and act only in accordance with its directives and its established procedures. The Project Manager shall be removed in terms of 10 hereof and his successor(s) shall be nominated by and And approved by the Management Committee.
- 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.

SAFCEC JOINT VENTURE AGREEMENT

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.
- 10.3 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

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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 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.

10.5 shall be appointed as Secretaries to the Joint Venture. Save for matters pertaining to the works and the contract, Shall be consulted on all matters of an administrative and financial nature arising in connection with the business of the Joint Venture where their particular experience, knowledge, facilities and skills in matters of this nature shall be considered to be of benefit to the Joint Venture.

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 banking 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

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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.

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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.
- 16.4 If agreement cannot be reached within seven business days after the arbitration has been demanded as to whether the question in issue falls under 16.3.1, 16.3.2 or 16.3.3, then a practising Senior Counsel of not less than five years' standing as such agreed upon between the parties, and failing agreement appointed by the President for the time being of the Society of Chartered Accountants as soon as possible, thereafter, shall determine whether the question in issue falls under 16.3.1, 16.3.2 or 16.3.3 so that an arbitrator can be appointed, and the arbitration can be held and concluded, if possible, within the prescribed period of twenty-one days.

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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

SAFCEC JOINT VENTURE AGREEMENT

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 contract 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.

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.

THUS DONE AND SIGNED AT THISDAY OF 20....

For and behalf of:

.....

AS WITNESS:

1.

2.

THUS DONE AND SIGNED AT THISDAY OF 20...

For and behalf of:

.....

AS WITNESS:

1.

2.



THE CONTRACT

PART C1: AGREEMENT AND CONTRACT DATA

PART C.1: AGREEMENT AND CONTRACT DATA



C1.1. FORM OF OFFER AND ACCEPTANCE

Offer

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

The Limpopo Department of Public Works, Roads and Infrastructure invites tenders for the construction of administration block, 8 classrooms, 2 grade R classrooms, 4 seats waterborne toilets and 20 seats enviro-loo toilets as well as all related external works and services in accordance with the drawings and specifications that will be provided to the contractor, at Vutivi Primary School.

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.....

This offer may be accepted by the employer by signing the acceptance part of this form of offer and acceptance and returning one copy of this document to the tenderer before the end of the period of validity stated in the tender data, whereupon the tenderer becomes the party named as the contractor in the conditions of contract identified in the contract data.

Signature(s)

Name(s)

Capacity

For the tenderer:

Name & signature of witness

Date

PART C1.1: AGREEMENT 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 and Name of Witness

Signature

Name

Capacity

Schedule of Deviations

- 1 Subject
- Details
-
-
-

- 2 Subject
- Details
-
-
-

- 3 Subject
- Details
-
-
-

- 4 Subject
- Details
-
-
-

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

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

.....



C2 CONTRACT DATA

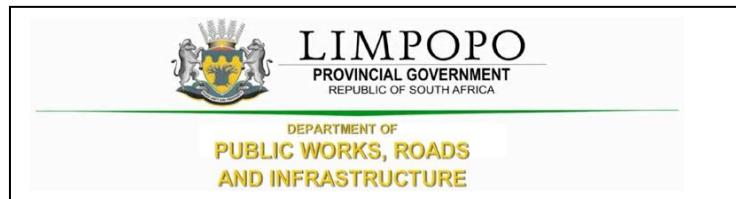
The Conditions of Contract are clauses 1 to 41 of the **JBCC Series 2000 Principal Building Agreement (Edition 4.1 of March 2005)** published by the Joint Building Contracts Committee.

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.



PART C4: PROVISIONAL BILLS OF QUANTITIES



C4.1 PRELIMINARIES

**LIMPOPO DEPARTMENT OF EDUCATION
UPGRADES AND ADDITIONS AT
VUTIVI PRIMARY SCHOOL**

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO. 1</u></p> <p><u>BILL NO. 1</u></p> <p><u>PRELIMINARIES NOTES</u></p> <p><u>PREAMBLES</u></p> <p>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.</p> <p><u>NOTES</u></p> <p>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".</p> <p>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</p> <p>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</p>			
	Carried Forward		R	
	Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES			

	Brought Forward		R	
	<p>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</p> <p>v) Where any item is not relevant to this specific contract such item is marked N/A (signifying "not applicable")</p> <p>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.</p> <p><u>PRICING OF PRELIMINARIES</u></p> <p>Items not priced in these Preliminaries shall be deemed to be included elsewhere in these Bills of Quantities.</p> <p><u>SECTION A: JBCC PRINCIPAL BUILDING AGREEMENT - (Edition 4.1, March 2005)</u></p> <p><u>DEFINITIONS AND INTERPRETATION (A1)</u></p> <p>1/1/1 Clause 1.0</p> <p>F:..... V:..... T:.....</p> <p style="text-align: right;">Item</p> <p><u>OFFER, ACCEPTANCE AND PERFORMANCE OBLIGATIONS (A2)</u></p> <p>1/1/2 Clause 2.0</p> <p>F:..... V:..... T:.....</p> <p style="text-align: right;">Item</p> <p><u>DOCUMENTS (A3)</u></p> <p>1/1/3 Clause 3.0</p> <p>F:..... V:..... T:.....</p> <p style="text-align: right;">Item</p>			
	Carried Forward		R	
	<p>Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES</p>			

	Brought Forward		R	
	<u>DESIGN RESPOSIBILITY (A4)</u>			
1/1/4	Clause 4.0 F:..... V:..... T:.....	Item		
	<u>EMPLOYERS AGENTS (A5)</u>			
1/1/5	Clause 5.0 F:..... V:..... T:.....	Item		
	<u>SITE REPRESENTATIVE (A6)</u>			
1/1/6	Clause 6.0 F:..... V:..... T:.....	Item		
	<u>COMPLIANCE WITH LAWS AND REGULATIONS (A7)</u>			
1/1/7	Clause 7.0 F:..... V:..... T:.....	Item		
	<u>INSURANCE AND SECURITY</u>			
	<u>WORKS RISK (A8)</u>			
1/1/8	Clause 8.0 F:..... V:..... T:.....	Item		
	<u>INDEMNITIES (A9)</u>			
1/1/9	Clause 9.0 F:..... V:..... T:.....	Item		
	Carried Forward		R	
	Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES			

	Brought Forward		R	
	<u>WORKS INSURANCES (A10)</u>			
1/1/10	Clause 10.0 F:..... V:..... T:.....	Item		
	<u>LIABILITY INSURANCES (A11)</u>			
1/1/11	Clause 11.0 F:..... V:..... T:.....	Item		
	<u>EFFECTING INSURANCES (A12)</u>			
1/1/12	Clause 12.0 F:..... V:..... T:.....	Item		
	<u>NO CLAUSE (A13)</u>			
1/1/13	Clause 13.0 F:..... V:..... T:.....	Item		
	<u>SECURITY (A14)</u>			
1/1/14	Clause 14.0 F:..... V:..... T:.....	Item		
	Carried Forward		R	
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	Brought Forward		R	
	<u>EXECUTION</u>			
	<u>PREPARATION FOR AND EXECUTION OF THE WORKS (A15)</u>			
1/1/15	Clause 15.0 F:..... V:..... T:.....	Item		
	<u>ACCESS TO THE WORKS (A13)</u>			
1/1/16	Clause 16.0 F:..... V:..... T:.....	Item		
	<u>CONTRACT INSTRUCTION (A17)</u>			
1/1/17	Clause 17.0 F:..... V:..... T:.....	Item		
	<u>SETTING OUT OF THE WORKS (A18)</u>			
1/1/18	Clause 18.0 F:..... V:..... T:.....	Item		
	<u>ASSIGNMENT (A19)</u>			
1/1/19	Clause 19.0 F:..... V:..... T:.....	Item		
	<u>NOMINATED SUBCONTRACTORS (A20)</u>			
1/1/20	Clause 20.0 F:..... V:..... T:.....	Item		
	Carried Forward		R	
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	Brought Forward		R	
	<u>SELECTED SUBCONTRACTORS (A21)</u>			
1/1/21	Clause 21.0 F:..... V:..... T:.....	Item		
	<u>EMPLOYERS DIRECT CONTRACTORS (A22)</u>			
1/1/22	Clause 22.0 F:..... V:..... T:.....	Item		
	<u>CONTRACTORS DOMESTIC SUBCONTRACTORS (A23)</u>			
1/1/23	Clause 23.0 F:..... V:..... T:.....	Item		
	<u>COMPLETION</u>			
	<u>PRACTICAL COMPLETION (A24)</u>			
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:..... V:..... T:.....	Item		
	<u>WORKS COMPLETION (A25)</u>			
1/1/25	Clause 25.0 F:..... V:..... T:.....	Item		
	Carried Forward		R	
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	Brought Forward		R	
	<u>FINAL COMPLETION (A26)</u>			
1/1/26	Clause 26.0 F:..... V:..... T:.....	Item		
	<u>LATENT DEFECT'S LIABILITY PERIOD (A27)</u>			
1/1/27	Clause 27.0 F:..... V:..... T:.....	Item		
	<u>SECTIONAL COMPLETION (A28)</u>			
1/1/28	Clause 28.0 F:..... V:..... T:.....	Item		
	<u>REVISION OF THE DATE FOR PRACTICAL COMPLETION (A29)</u>			
1/1/29	Clause 29.0 F:..... V:..... T:.....	Item		
	<u>PENALTY FOR LATE OR NON-COMPLETION (A30)</u>			
1/1/30	Clause 30.0 F:..... V:..... T:.....	Item		
	<u>PAYMENT</u>			
	<u>INTERIM PAYMENT TO THE CONTRACTOR (A31)</u>			
1/1/31	Clause 31.0 F:..... V:..... T:.....	Item		
	Carried Forward		R	
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	Brought Forward		R	
	<u>ADJUSTMENT OF THE CONTRACT VALUE (A32)</u>			
1/1/32	Clause 32.0 F:..... V:..... T:.....	Item		
	<u>RECOVERY OF EXPENSE AND/OR LOSS (A33)</u>			
1/1/33	Clause 33.0 F:..... V:..... T:.....	Item		
	<u>FINAL ACCOUNT AND FINAL PAYMENT (A34)</u>			
1/1/34	Clause 34.0 F:..... V:..... T:.....	Item		
	<u>PAYMENT TO OTHER PARTIES (A35)</u>			
1/1/35	Clause 35.0 F:..... V:..... T:.....	Item		
	<u>CANCELLATION</u>			
	<u>CANCELLATION BY EMPLOYER - CONTRACTOR'S DEFAULT (A36)</u>			
1/1/36	Clause 36.0 F:..... V:..... T:.....	Item		
	<u>CANCELLATION BY EMPLOYER - LOSS AND DAMAGE (A37)</u>			
1/1/37	Clause 37.0 F:..... V:..... T:.....	Item		
	Carried Forward		R	
	Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES			

	Brought Forward		R	
	<u>CANCELLATION BY CONTRACTOR - EMPLOYER'S DEFAULT (A38)</u>			
1/1/38	Clause 38.0 F:..... V:..... T:.....	Item		
	<u>CANCELLATION - CESSATION OF THE WORKS (A39)</u>			
1/1/39	Clause 39.0 F:..... V:..... T:.....	Item		
	<u>CANCELLATION - CESSATION OF THE WORKS (A39)</u>			
1/1/40	Clause 39.0 F:..... V:..... T:.....	Item		
	<u>DISPUTE</u>			
	<u>SETTLEMENT OF DISAGREEMENTS AND DISPUTES (A40)</u>			
1/1/41	Clause 40.0 F:..... V:..... T:.....	Item		
	<u>SUBSTITUTE PROVISIONS</u>			
	<u>STATE CLAUSES (A41)</u>			
1/1/42	Clause 41.0 F:..... V:..... T:.....	Item		
	Carried Forward		R	
	Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES			

	Brought Forward		R	
	<u>SCHEDULE OF VARIABLES (A42)</u>			
1/1/43	<p>Clause 42.0</p> <p>F:..... V:..... T:.....</p> <p><u>AGREEMENT</u></p> <p><u>AGREEMENT</u></p>	Item		
1/1/44	<p>Clause</p> <p>F:..... V:..... T:.....</p> <p>Information necessary for completion of those clauses contained in the schedule which are necessary for tender purposes is given hereunder</p> <p>CONTRACT DETAILS</p> <p>Works Description:</p> <p>Construction of administration block, 8 classrooms, 2 grade R classrooms, 4 seats waterborne toilets and 20 seats enviro-loo toilets, as well as related external works.</p> <p>Site Description:</p> <p>Vutivi Primary School Archibuilt Village Mokhurumela, Buchum</p> <p>Work for installation by direct contractors: TBC</p>	Item		
	Carried Forward		R	
	<p>Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES</p>			

	Brought Forward		R	
	<p>This agreement is for a government contract: Yes</p> <p>Date on which possession of the site is intended to be given: TBC</p> <p>Period for the commencement of the works after the contractor takes possession of the site: 10 days</p> <p>Completions in sections are required: No</p> <p>Intended date of practical completion and the penalty per calendar day for the works as a whole: R4 800per day</p> <p>Contract duration : 18 months including national builder's break</p> <p>SPECIAL COMPLETION REQUIREMENTS</p> <p>Beneficial occupation dates: TBC</p> <p>Tenant Installations beneficial occupation</p> <p>F..... V..... T</p>			
1/1/45	<p>Arbitration rules as recommended by the Association of Arbitrators (SA)</p> <p>F V T</p>	Item		
1/1/46	<p>The law applicable to this agreement shall be that of South Africa</p> <p>F V T</p>	Item		
	Carried Forward		R	
	<p>Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES</p>			

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

<p style="text-align: center;">Brought Forward</p> <p>Details of changes made to the provision of JBCC standard documentation:.....</p> <p>The Contractor shall issue a Tax Invoice immediately to enable the Employer to process payment.</p>				R
<p style="text-align: center;">Carried Forward</p> <p>Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES</p>				R

	Brought Forward		R	
	<u>SECTION B: PRELIMINARIES</u>			
	<u>Definition and interpretation (B1)</u>			
1/1/49	Definition and interpretation (B1.1 - B1.6.5) F:..... V:..... T:.....	Item		
	<u>Documents (B2)</u>			
1/1/50	Checking of documents (B2.1) F:..... V:..... 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:..... V:..... T:.....	Item		
1/1/52	Provisional bills of quantities (B2.2) F:..... V:..... T:.....	Item		
1/1/53	Availability of construction documentation for contracts based on provisional bills of quantities (B2.3) F:..... V:..... T:.....	Item		
1/1/54	Interests of agents (B2.4) F:..... V:..... T:.....	Item		
	Carried Forward		R	
	Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES			

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	Brought Forward		R	
1/1/55	Priced documents (B2.5) F:..... V:..... T:.....	Item		
1/1/56	Tender submission (B2.6) F:..... V:..... 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:..... V:..... T:.....	Item		
	<u>The site (B3)</u>			
1/1/58	Defined works area (B3.1) F:..... V:..... 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:..... V:..... T:.....	Item		
1/1/60	Inspection of the site (B3.3) F:..... V:..... T:.....	Item		
	Carried Forward		R	
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	Brought Forward		R	
1/1/61	<p>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 Vutivi Primary School</p> <p>F:..... V:..... T:.....</p>	Item		
1/1/62	<p>Existing premises occupied (B3.4)</p> <p>F:..... V:..... T:.....</p>	Item		
1/1/63	<p>Previous work - dimensional accuracy (B3.5)</p> <p>F:..... V:..... T:.....</p>	Item		
1/1/64	<p>Previous work - defects (B3.6)</p> <p>F:..... V:..... T:.....</p>	Item		
1/1/65	<p>Services - known (B3.7)</p> <p>F:..... V:..... T:.....</p>	Item		
1/1/66	<p>Services - unknown (B3.8)</p> <p>F:..... V:..... T:.....</p>	Item		
1/1/67	<p>Protection of trees etc (B3.9)</p> <p>F:..... V:..... T:.....</p>	Item		
1/1/68	<p>Articles of value (B3.10)</p> <p>F:..... V:..... T:.....</p>	Item		
	Carried Forward		R	
	<p>Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES</p>			

	Brought Forward		R	
1/1/69	<p>Inspection of adjoining properties etc (B3.11)</p> <p>F:..... V:..... T:.....</p> <p><u>Management of contract (B4)</u></p>	Item		
1/1/70	<p>Management of the works (B4.1)</p> <p>The contractor is to submit with his tender a synopsis of the proposed management team envisaged for this project.</p> <p>F:..... V:..... T:.....</p>	Item		
1/1/71	<p>Programme for the works</p> <p>The contractor is to submit with his tender a detailed program outlining the envisaged programming of the works</p> <p>F:..... V:..... T:.....</p>	Item		
1/1/72	<p>Progress meetings (B4.3)</p> <p>F:..... V:..... T:.....</p>	Item		
1/1/73	<p>Technical meetings (B4.4)</p> <p>F:..... V:..... T:.....</p> <p><u>Samples and shop drawings and manufacturer's instructions (B5)</u></p>	Item		
1/1/74	<p>Samples of materials (B5.1)</p> <p>F:..... V:..... T:.....</p>	Item		
	Carried Forward		R	
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	Brought Forward		R	
1/1/75	<p>Workmanship samples (B5.2)</p> <p>F:..... V:..... T:.....</p>	Item		
1/1/76	<p>Shop drawings (B5.3)</p> <p>F:..... V:..... T:.....</p>	Item		
<u>Temporary works and plant (B6)</u>				
1/1/77	<p>Deposits and fees (B6.1)</p> <p>F:..... V:..... T:.....</p>	Item		
1/1/78	<p>Enclosure of the works (B6.2)</p> <p>F:..... V:..... T:.....</p>	Item		
1/1/79	<p>Advertising (B6.3)</p> <p>F:..... V:..... T:.....</p>	Item		
1/1/80	<p>Plant, equipment, sheds and offices (B6.4)</p> <p>F:..... V:..... T:.....</p>	Item		
1/1/81	<p>Main notice board (B6.5)</p> <p>Provision shall be made for 1 set of Professional boards</p> <p>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.</p> <p>F:..... V:..... T:.....</p>	Item		
Carried Forward			R	
<p>Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES</p>				

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	Brought Forward		R	
1/1/82	Subcontractors notice board (B6.6) F:..... V:..... T:.....	Item		
	<u>Temporary services (B7)</u>			
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:..... 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		
	<u>Prime cost amounts (B8)</u>			
1/1/88	Responsibility for prime cost amounts (B8.1) F:..... V:..... T:.....	Item		
	Carried Forward		R	
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Brought Forward			R
<u>Attendance on N/S Subcontractors (B9)</u>			
1/1/89	General attendance (B9.1) F:..... V:..... T:.....	Item	
1/1/90	Special attendance (B9.2) F:..... V:..... T:.....	Item	
1/1/91	Commissioning - Fuel, water and power (B9.3) F:..... V:..... T:.....	Item	
<u>Financial aspects (B10)</u>			
1/1/92	Statutory taxes, duties and levies (B10.1) F:..... V:..... T:.....	Item	
1/1/93	Provision for Value Added Tax (VAT) is made in the Final Summary F:..... V:..... T:.....	Item	
1/1/94	Payment of preliminaries (B10.2) F:..... V:..... T:.....	Item	
1/1/95	Adjustment of preliminaries (B10.3) F:..... V:..... T:.....	Item	
1/1/96	Payment certificate cash flow (B10.4) F:..... V:..... T:.....	Item	
Carried Forward			R
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Brought Forward			R
1/1/97	Contractor information supply (B10.5) F:..... V:..... T:.....	Item	
<u>General (B11)</u>			
1/1/98	Protection of works (B11.1) F:..... V:..... T:.....	Item	
1/1/99	Protection/isolation of existing/sectionally occupied works (B11.2) F:..... V:..... T:.....	Item	
1/1/100	Site security (B11.3) F:..... V:..... T:.....	Item	
1/1/101	Notice before covering work (B11.4) F:..... V:..... T:.....	Item	
1/1/102	Disturbance (B11.5) F:..... V:..... T:.....	Item	
1/1/103	Works cleaning and clearing (B11.6) F:..... V:..... T:.....	Item	
1/1/104	Vermin (B11.7) F:..... V:..... T:.....	Item	
1/1/105	Overhand work (B11.8) F:..... V:..... T:.....	Item	
Carried Forward			R
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Brought Forward		R
<u>Schedule of variables (B12)</u>		
1/1/106	<p>Pre-tender information (B12.1)</p> <p>F:..... V:..... T:.....</p> <p>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</p>	Item
1/1/107	<p>12.1.1 Provisional bills of quantities (B2.2) The quantities are provisional: Yes</p> <p>F:..... V:..... T:.....</p>	Item
1/1/108	<p>12.1.2 Availability of construction documentation (B2.3) Construction documentation is not complete: Yes</p> <p>F:..... V:..... T:.....</p>	Item
1/1/109	<p>12.1.3 Interest of agents (B2.4)</p> <p>F:..... V:..... T:.....</p>	Item
1/1/110	<p>12.1.4 Defined works area (B3.1)</p> <p>F:..... V:..... T:.....</p>	Item
1/1/111	<p>12.1.5 Geotechnical investigation (B3.2)</p> <p>F:..... V:..... T:.....</p>	Item
1/1/112	<p>12.1.6 Existing premises occupied (B3.4)</p> <p>F:..... V:..... T:.....</p>	Item
Carried Forward		R
<p>Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES</p>		

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	Brought Forward		R	
1/1/113	12.1.7 Services - known (B3.7) F:..... V:..... T:.....	Item		
1/1/114	12.1.8 Protection of trees (B3.9) F:..... V:..... T:.....	Item		
1/1/115	12.1.9 Inspection of adjoining properties (B3.11) F:..... V:..... T:.....	Item		
1/1/116	12.1.10 Enclosure of the works (B6.2) F:..... V:..... T:.....	Item		
1/1/117	12.1.11 Offices (B6.4.3) F:..... V:..... 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:..... V:..... T:.....	Item		
1/1/119	12.1.13 Subcontractors notice board (B6.6) A notice board is required: Yes F:..... V:..... T:.....	Item		
	Carried Forward		R	
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	Brought Forward		R	
1/1/120	<p>12.1.14 Water (B7.2) Alternative Selected: A</p> <p>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.</p> <p>F:..... V:..... T:.....</p>	Item		
1/1/121	<p>12.1.15 Electricity (B7.3) Alternative selected: A</p> <p>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 with the specifications of the Local authority.</p> <p>F:..... V:..... T:.....</p>	Item		
	Carried Forward		R	
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	Brought Forward		R	
1/1/122	<p>12.1.16 Telecommunications (B7.4) Alternative selected: A</p> <p>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.</p> <p>F:..... V:..... T:.....</p>	Item		
1/1/123	<p>12.1.17 Ablution facilities (B7.5) Alternative selected: A</p> <p>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.</p> <p>F:..... V:..... T:.....</p>	Item		
1/1/124	<p>12.1.8 Special attendance (B9.2)</p> <p>F:..... V:..... T:.....</p>	Item		
1/1/125	<p>12.1.19 Protection of the works (B11.1)</p> <p>F:..... V:..... T:.....</p>	Item		
	Carried Forward		R	
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Brought Forward			R
1/1/126	<p>12.1.20 Protection of existing/sectionally occupied works (B11.2) Protection is required: Yes</p> <p>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.</p> <p>F:..... V:..... T:.....</p>	Item	
1/1/127	<p>12.1.21 Disturbance (B11.5)</p> <p>F:..... V:..... T:.....</p>	Item	
1/1/128	<p>Post tender information (B12.2)</p> <p>F:..... V:..... T:.....</p>	Item	
1/1/129	<p>12.2.1 Payment of preliminaries Alternative selected: (A or B)</p> <p>F:..... V:..... T:.....</p>	Item	
1/1/130	<p>12.2.2 Adjustment of preliminaries Alternative selected: (A or B)</p> <p>F:..... V:..... T:.....</p>	Item	
1/1/131	<p>12.2.3 Additional agreed preliminaries items</p> <p>F:..... V:..... T:.....</p>	Item	
Carried Forward			R
<p>Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES</p>			

	Brought Forward		R	
	<u>SECTION C: SPECIFIC PRELIMINARIES</u>			
1/1/132	<p>GUARANTEE</p> <p>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.</p> <p>F:..... V:..... T:.....</p>	Item		
1/1/133	<p>SHOP DRAWINGS</p> <p>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.</p> <p>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) calendar days and shall not proceed with fabrication until so authorised by the principal agent</p> <p>F:..... V:..... T:.....</p>	Item		
	Carried Forward		R	
	<p>Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES</p>			

	Brought Forward		R	
1/1/134	<p>SAMPLES</p> <p>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.</p> <p>Samples must be submitted in duplicate or as instructed and must allow a reasonable time for their consideration.</p> <p>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.</p> <p>F:..... V:..... T:.....</p>	Item		
1/1/135	<p>SITE INSTRUCTIONS</p> <p>Site instructions issued are to be recorded in triplicate in a site instruction book which is to be maintained on site by the contractor.</p> <p>Site instructions to the various sub-contractors may be issued only by the Principal Agent and must be issued via the contractor.</p> <p>Copies of all site instructions issued are to be submitted for the principal agent and the quantity surveyors within two (2) days of issue.</p> <p>F:..... V:..... T:.....</p>	Item		
	Carried Forward		R	
	<p>Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES</p>			

	Brought Forward		R	
1/1/136	<p>OVERTIME</p> <p>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.</p> <p>F:..... V:..... T:.....</p>	Item		
1/1/137	<p>CO-OPERATION OF CONTRACTOR FOR COST CONTROL</p> <p>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.</p> <p>It is specifically agreed that the professionals and the contractor will endeavour to agree and sign off variations within sixty days of them arising.</p> <p>F:..... V:..... T:.....</p>	Item		
1/1/138	<p>SITE LEVELS</p> <p>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.</p> <p>F:..... V:..... T:.....</p>	Item		
1/1/139	<p>PROPRIETARY BRANDED PRODUCTS</p> <p>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</p> <p>F:..... V:..... T:.....</p>	Item		
	Carried Forward		R	
	<p>Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES</p>			

	Brought Forward		R	
1/1/140	<p>AS BUILT DRAWINGS</p> <p>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.</p> <p>F:..... V:..... T:.....</p>	Item		
1/1/141	<p>OCCUPATIONAL HEALTH AND SAFETY ACT</p> <p>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.</p> <p>F: V: T:</p>	Item		
1/1/142	<p>COVID-19 RELATED ITEMS</p> <p>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.</p> <p>F: V: T:</p>	Item		
Carried to Final Summary			R	
<p>Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES</p>				



C4.2 BUILDING WORKS

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO. 2</u></p> <p><u>BILL NO. 1</u></p> <p><u>EARTHWORKS (PROVISIONAL)</u></p> <p><u>PREAMBLES</u></p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.</p> <p><u>GENERAL NOTES TO TENDERERS</u></p> <p>General notes, described in Bill No.1, shall equally apply to this Bill.</p> <p><u>NOTES</u></p> <p><u>Carting away of excavated material</u></p> <p>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</p> <p><u>Filling</u></p> <p>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</p> <p>Excavations measured in successive depths of 2m.</p> <p><u>SITE CLEARANCE ETC</u></p> <p><u>Site clearance</u></p> <p>Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc</p> <p><u>EXCAVATIONS</u></p>			
2/1/1		m2	1 026	
	Carried Forward			R
	<p>Section No. 2 4 CLASSROOM BLOCK WITH STORES X 2 Bill No. 1 Earthworks</p>			

Brought Forward			R
<u>Excavation in earth not exceeding 2m deep</u>			
2/1/2	Trenches	m3	254
<u>Extra over excavations in earth to trenches and holes for</u>			
2/1/3	Excavation in soft rock	m3	25
2/1/4	Excavation in hard rock	m3	13
<u>CARTING AWAY OF EXCAVATED MATERIAL</u>			
<u>Note:</u>			
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.			
2/1/5	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	139
<u>RISK OF COLLAPSE OF EXCAVATIONS</u>			
<u>Risk of collapse to side of excavation in earth not exceeding 1,5m deep</u>			
2/1/6	Trenches and holes	m2	726
<u>KEEPING EXCAVATIONS FREE FROM WATER</u>			
<u>FILLING, ETC.</u>			
<u>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</u>			
2/1/7	Backfilling to trenches, holes, etc	m3	128
2/1/8	Under floors, steps, pavings, etc	m3	499
<u>Imported gravel filling (G7) stabilise with 2-3% cement compacted to 93% Mod AASHTO density in layers not exceeding 150mm thick</u>			
2/1/9	Backfilling to trenches, holes, etc	m3	38
2/1/10	Under floors, steps, pavings, etc	m3	111
Carried Forward			R
Section No. 2 4 CLASSROOM BLOCK WITH STORES X 2 Bill No. 1 Earthworks			

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Brought Forward				R
	<u>Filling supplied by the Contractor under floors, trenches, etc.</u>			
2/1/11	Sub-base filling (G5) from excavations under solid floors, steps, etc. compacted to 95% modified AASHTO density in layers not exceeding 150mm thick	m3	111	
	<u>COMPACTION OF SURFACES</u>			
2/1/12	Prepare ground surface by scarifying sub-grade, rip and re-compact 150mm to 90% modified AASHTO density	m2	923	
	<u>WEED KILLERS, INSECTICIDES, TERMITES, etc.</u>			
	<u>Protection against termites, ants, etc</u>			
2/1/13	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m2	923	
2/1/14	To bottom and sides of excavated trenches, Holes, etc.	m2	979	
Carried Forward to Summary of Section No.				R
Section No. 2				
4 CLASSROOM BLOCK WITH STORES X 2				
Bill No. 1				
Earthworks				

Item No		Quantity	Rate	Amount
	<p><u>BILL NO. 2</u></p> <p><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></p> <p><u>PREAMBLES</u></p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.</p> <p><u>Cost of tests</u></p> <p>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)</p> <p><u>Formwork</u></p> <p>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 re-use. 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.</p> <p>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.</p> <p style="text-align: right;">Carried Forward</p> <p>Section No. 2 4 CLASSROOM BLOCK WITH STORES X 2 Bill No. 2 Concrete,Formwork and Reinforcement</p>			R

	Brought Forward			R	
	<p>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".</p> <p>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:-</p> <ul style="list-style-type: none"> · 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 <p>Structural Concrete</p> <p>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.</p> <p><u>GENERAL NOTES TO TENDERERS</u></p> <p>General notes, described in Bill No.1, shall equally apply to this Bill.</p> <p><u>UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></p> <p><u>15Mpa/19mm concrete</u></p>				
2/2/1	Blinding	m3	13		
	Carried Forward			R	
	<p>Section No. 2 4 CLASSROOM BLOCK WITH STORES X 2 Bill No. 2 Concrete, Formwork and Reinforcement</p>				

Brought Forward			R
<u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACE</u>			
<u>25MPa/19mm Concrete</u>			
2/2/2	Strip footings	m3	63
<u>REINFORCED CONCRETE CAST IN FORMWORK</u>			
<u>20Mpa/19mm concrete</u>			
2/2/3	Concrete Apron cast to fall etc,	m3	18
<u>25MPa/19mm Concrete</u>			
2/2/4	Surface beds cast in panels	m3	96
<u>TEST BLOCKS</u>			
<u>Notes:</u>			
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)			
2/2/5	Making and testing 150 x 150 x 150mm concrete strength test cube (Provisional)	No	90
<u>SUNDRIES TO CONCRETE</u>			
<u>Surface treatment</u>			
2/2/6	Power float top surface of concrete surface bed to a true and even level finish	m2	923
<u>ROUGH FORMWORK (DEGREE OF ACCURACY II)</u>			
<u>Rough formwork to sides</u>			
2/2/7	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	376
<u>MOVEMENTS JOINTS ETC,</u>			
<u>Saw cuts Joints</u>			
2/2/8	3 x 30mm In saw cut joints in floors	m	156
Carried Forward			R
Section No. 2 4 CLASSROOM BLOCK WITH STORES X 2 Bill No. 2 Concrete,Formwork and Reinforcement			

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Brought Forward			R
	<u>Expansion joints</u>		
2/2/9	10mm soft board or similar approved between concrete and brick wall	m	192
	<u>REINFORCEMENT (PROVISIONAL)</u>		
	<u>High and mild tensile steel reinforcement to structural concrete work</u>		
2/2/10	All diameter bars	t	5
	<u>Fabric reinforcement:</u>		
2/2/11	Type 245 fabric reinforcement in concrete surface beds, slabs, etc.	m2	739
Carried Forward to Summary of Section No.			R
Section No. 2			
4 CLASSROOM BLOCK WITH STORES X 2			
Bill No. 2			
Concrete, Formwork and Reinforcement			

Item No		Quantity	Rate	Amount
	<p><u>BILL NO. 3</u></p> <p><u>MASONRY</u></p> <p><u>PREAMBLES</u></p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.</p> <p><u>GENERAL NOTES TO TENDERERS</u></p> <p>General notes, described in Bill No.1, shall equally apply to this Bill.</p> <p><u>Sizes in descriptions</u></p> <p>Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick</p> <p><u>Hollow walls etc</u></p> <p>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.</p> <p><u>Face bricks</u></p> <p>Bricks shall be ordered timeously to obtain uniformity in size and colour</p> <p><u>Pointing</u></p> <p>Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc</p>			
	Carried Forward		R	
	<p>Section No. 2 4 CLASSROOM BLOCK WITH STORES X 2 Bill No. 3 Masonry</p>			

Brought Forward			R
<u>LOCATIONAL SPLIT</u>			
The locational split is a follows:			
[F] - 8 Classroom Blocks			
[G] - 20 Seats Envirolaos			
[JA] - Small Administration Block			
[S] - 4 Seats Waterborne Toilets			
(T) - 2 Grade R Classroom			
[W] - External Works			
<u>BRICKWORK IN FOUNDATION</u>			
<u>Brickwork in 73mm burnt clay masonry units class NFP in Class II mortar, laid in stretcher bond with 10mm flush joints</u>			
2/3/1	One brick wall	m2	272
<u>SUPERSTRUCTURE BRICKWORK</u>			
<u>Brickwork of NFP brick in class II mortar laid in stretcher bond with 10mm flush joints</u>			
2/3/2	One brick wall	m2	838
2/3/3	Half brick wall, in beamfilling	m2	31
<u>FACE BRICKWORK</u>			
Bricks shall be ordered timeously to obtain uniformity in size and colour			
<u>"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</u>			
2/3/4	Extra over brickwork for face brickwork in foundations (Provisional)	m2	544
2/3/5	Extra over brickwork for face brickwork in superstructure	m2	557
2/3/6	Extra over brickwork for face brickwork in brick-on-edge header course lintel	m	98
2/3/7	Extra over brickwork for face brickwork in brick-on-edge header course sills, bedded in mortar and set slightly sloped	m	91
2/3/8	Extra over brickwork for face brickwork in beamfilling	m2	31
Carried Forward			R
Section No. 2 4 CLASSROOM BLOCK WITH STORES X 2 Bill No. 3 Masonry			

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Brought Forward			R
<u>BRICKWORK SUNDRIES</u>			
<u>Brickwork reinforcement</u>			
2/3/9	150mm Wide reinforcement built in horizontally.	m	4 065
<u>"Allied concrete" or similar approved prestressed fabricated lintels</u>			
2/3/10	100 x 75mm Lintels in lengths not exceeding 3m	m	115
2/3/11	175 x 70mm Lintels in lengths not exceeding 3m	m	18
<u>Turning pieces</u>			
2/3/12	110mm Wide turning piece to flat brick lintels	m	104
<u>Air bricks etc</u>			
2/3/13	Set of 2, 240 x 155mm Terracota air bricks as per architects specification	No	8
<u>Roof ties</u>			
2/3/14	30 x 1.2mm galvanised steel strapping, built into wall for 5 courses and minimum 800mm to be fixed to trusses	No	172
<u>MOVEMENTS JOINTS ETC,</u>			
<u>Expansion joints</u>			
2/3/15	30mm softboard between vertical brick surfaces not exceeding 300mm wide	m2	53
Carried Forward to Summary of Section No.			R
Section No. 2			
4 CLASSROOM BLOCK WITH STORES X 2			
Bill No. 3			
Masonry			

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Item No		Quantity	Rate	Amount
	<u>BILL NO. 4</u>			
	<u>WATERPROOFING</u>			
	<u>PREAMBLES</u>			
	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.			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.			
	<u>GENERAL NOTES TO TENDERERS</u>			
	General notes, described in Bill No.1, shall equally apply to this Bill.			
	<u>DAMP PROOFING OF WALLS AND FLOORS</u>			
	<u>One layer of 375 micron "Consol Plastic Brikgrip DPC" embossed damp proof course</u>			
2/4/1	Under walls	m2	7	
2/4/2	Under cills, etc.	m2	20	
	<u>One layer of 250 micron "USB Green" or similar approved dampproof membrane sealed at laps with PVC self -adhesive tape</u>			
2/4/3	Under surface beds.	m2	923	
	<u>JOINTS SEALANTS, ETC.</u>			
	<u>Mastic grey polysulphide sealing compound including raking out of joints filler as necessary</u>			
2/4/4	3 x 30mm In saw cut joints in floors	m	156	
2/4/5	10mm Isolation Joints between surface bed concrete and brick wall	m	192	
	Carried Forward to Summary of Section No.			
	Section No. 2 4 CLASSROOM BLOCK WITH STORES X 2 Bill No. 4 Waterproofing			R

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Item No		Quantity	Rate	Amount
	<u>BILL NO. 5</u>			
	<u>ROOF COVERINGS</u>			
	<u>PREAMBLES</u>			
	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.			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.			
	<u>GENERAL NOTES TO TENDERERS</u>			
	General notes, described in Bill No.1, shall equally apply to this Bill.			
	<u>ROOF SHEETING</u>			
	<u>Similar Approved</u>			
	<u>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</u>			
2/5/1	Roof sheeting pitch not exceeding 25 degrees	m2	1 094	
2/5/2	220mm girth Ridge capping, 3 times bent and notched on site to suit roof profile	m	79	
2/5/3	550mm girth Hip capping, 3 times bent and notched on site to suit roof profile.	m	41	
	<u>ROOF AND WALL INSULATION</u>			
	<u>Similar Approved</u>			
	Carried Forward			
				R
	Section No. 2 4 CLASSROOM BLOCK WITH STORES X 2 Bill No. 5 Roof Coverings			

	Brought Forward			R	
2/5/4	<p><u>Sisalation "Bubble Foil" aluminium foil banded insulation</u></p> <p>135mm thick Insulation laid over purlins (at approximately 750mm centres), fixed concurrent with sheeting with and including galvanised steel accessories</p>	m2	1 094		
	Carried Forward to Summary of Section No.			R	
	<p>Section No. 2 4 CLASSROOM BLOCK WITH STORES X 2 Bill No. 5 Roof Coverings</p>				

Item No		Quantity	Rate	Amount
	<p><u>BILL NO. 6</u></p> <p><u>CARPENTRY AND JOINERY</u></p> <p><u>PREAMBLES</u></p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.</p> <p><u>GENERAL NOTES TO TENDERERS</u></p> <p>General notes, described in Bill No.1, shall equally apply to this Bill.</p> <p><u>Joinery</u></p> <p>Descriptions of frames shall be deemed to include frames, transoms, mullions, rails, etc.</p> <p>Descriptions of hardwood joinery shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete.</p> <p><u>Fixing</u></p> <p>Items described as nailed shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete</p> <p><u>Decorative laminate finish</u></p> <p>Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish</p> <p><u>Timber</u></p> <p>All softwood to be South African Pine</p> <p><u>Descriptions</u></p> <p>Items described as "bolted" shall be deemed to exclude the bolts and include the holes unless otherwise described.</p> <p style="text-align: right;">Carried Forward</p> <p>Section No. 2 4 CLASSROOM BLOCK WITH STORES X 2 Bill No. 6 Carpentry and Joinery</p>			R

<p style="text-align: center;">Brought Forward</p> <p>Where the fixing of members is not stated it shall mean the nailing of one timber member to another.</p> <p>The term "planted on" shall mean the nailing of one timber member to another</p> <p>The term "screwed on" shall mean the countersunk screwing of one timber member to another.</p> <p>The term "screwed on and pelleted" shall mean the screwing of one timber member to another with the heads of screw sunk and pelleted.</p> <p>The term "plugged" shall mean the countersunk screwing of a timber member to and including plastic plugs in brickwork or concrete.</p> <p>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.</p> <p>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.</p> <p>Descriptions of floors, ceilings, joinery, etc. shall be deemed to include for all square cutting</p> <p>Descriptions of items given in linear metre shall be deemed to include for mitres, stopped ends, fitted intersections, etc.</p> <p>Descriptions of rounded angles, rebates, grooves, chamfers, moulded edges, etc. shall be deemed to include for angles, ends, etc.</p> <p><u>ROOFS, ETC</u></p>		R	
<p style="text-align: center;">Carried Forward</p> <p>Section No. 2 4 CLASSROOM BLOCK WITH STORES X 2 Bill No. 6 Carpentry and Joinery</p>		R	

	Brought Forward			R
	<p><u>Plate nailed timber roof truss construction</u></p> <p>The following is applicable in respect of roof trusses:</p> <p>All timber to be sawn softwood in accordance with V4 or M4 as defined in SABS 563 or SABS 1245.</p> <p>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.</p> <p>All joints to be close fitted butt joints.</p> <p>Trusses shall be designed by a registered supplier of prefabricated trusses who shall issue an Engineers Certificate upon completion of the installation.</p> <p>The dimensions in the descriptions of the trusses are nominal and actual measurements are to be obtained on site before design or fabrication commences.</p> <p>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.</p> <p><u>Roof trusses</u></p>			
2/6/1	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	912	
	<p><u>Sawn softwood</u></p>			
2/6/2	38 x 114mm Wall plates	m	206	
	<p><u>Sundries</u></p>			
2/6/3	Two coats creosote on sawn timbers	m2	76	
	<p><u>Similar Approved</u></p>			
	Carried Forward			R
	<p>Section No. 2 4 CLASSROOM BLOCK WITH STORES X 2 Bill No. 6 Carpentry and Joinery</p>			

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Brought Forward			R
2/6/4	<p><u>"Everite FC77" Fascia and badge boards</u></p> <p>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</p>	m	204
<p><u>DOORS ETC</u></p> <p><u>44mm thick solid R&F panel meranti timber doors with masonite backing with 15 horizontal slates on both sides hung to steel frames</u></p>			
2/6/5	<p>813 x 2032mm single door</p>	No	16
<p><u>WINDOWS</u></p> <p><u>Similar Approved</u></p> <p><u>"Nutec" fibre cement window cills</u></p>			
2/6/6	<p>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</p>	m	91
<p>Carried Forward to Summary of Section No.</p>			
<p>Section No. 2 4 CLASSROOM BLOCK WITH STORES X 2 Bill No. 6 Carpentry and Joinery</p>			R

Item No		Quantity	Rate	Amount
	<p><u>BILL NO. 7</u></p> <p><u>CEILING, PARTITIONS AND ACCESS FLOORING</u></p> <p><u>PREAMBLES</u></p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.</p> <p><u>GENERAL NOTES TO TENDERERS</u></p> <p>General notes, described in Bill No.1, shall equally apply to this Bill.</p> <p><u>Fixing</u></p> <p>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.</p> <p>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</p> <p><u>Ceilings & Bulkheads</u></p> <p>Unless otherwise described ceilings shall be deemed to be horizontal</p> <p><u>Steel components</u></p> <p>All steel components for ceilings, partitions, etc are to be galvanised in accordance with SANS 121</p> <p><u>Proprietary suspended ceilings</u></p> <p>Hangers, suspension grids, "lay-in" panels, etc are to be in accordance with the manufacturers' recommendations</p>			
	Carried Forward		R	
	<p>Section No. 2 4 CLASSROOM BLOCK WITH STORES X 2 Bill No. 7 Ceilings,Partitions and Access Flooring</p>			

Brought Forward				R
	<p>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)</p> <p><u>Suspension systems</u></p> <p>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.</p> <p><u>NAILED UP CEILINGS</u></p> <p><u>FIBRE - CEMENT BOARDS</u></p> <p><u>Similar Approved</u></p> <p><u>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</u></p>			
2/7/1	<p>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</p>	m2	737	
	<p><u>CORNICES</u></p> <p><u>Similar Approved</u></p> <p><u>"Rhino" plasterboard cornice</u></p>			
2/7/2	<p>75mm "Rhino" gypsum plasterboard covered cornice, plugged to brickwork</p>	m	517	
	<p><u>SUNDRIES</u></p> <p><u>Extra over for Trap Doors</u></p>			
2/7/3	<p>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</p>	No	8	
	Carried Forward			R
<p>Section No. 2 4 CLASSROOM BLOCK WITH STORES X 2 Bill No. 7 Ceilings,Partitions and Access Flooring</p>				

	<p style="text-align: right;">Brought Forward</p> <p><u>CEILING INSULATION</u></p> <p><u>Insulation</u></p> <p>2/7/4 125mm thick Glass wool insulation blanket closely fitted and laid on top of ceiling panels, all in strict accordance with the manufacturer's specifications.</p> <p style="text-align: right;">m2</p>	<p style="text-align: center;">737</p>	<p style="text-align: center;">R</p>	
	<p style="text-align: center;">Carried Forward to Summary of Section No.</p> <p>Section No. 2 4 CLASSROOM BLOCK WITH STORES X 2 Bill No. 7 Ceilings,Partitions and Access Flooring</p>		<p style="text-align: center;">R</p>	

Item No		Quantity	Rate	Amount
	<p><u>BILL NO. 8</u></p> <p><u>IRONMONGERY</u></p> <p><u>PREAMBLES</u></p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.</p> <p><u>GENERAL NOTES TO TENDERERS</u></p> <p>General notes, described in Bill No.1, shall equally apply to this Bill.</p> <p>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.</p> <p><u>Proprietary items</u></p> <p>Where applicable the manufacturers' names or product catalogue titles are given in sub-headings preceding the items</p> <p>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</p> <p>On request returnable samples are to be provided to the principal agent for consideration</p>			
	Carried Forward		R	
	<p>Section No. 2 4 CLASSROOM BLOCK WITH STORES X 2 Bill No. 8 Ironmongery</p>			

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	Brought Forward			R
	<p><u>Finishes to ironmongery</u></p> <p>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</p> <p><u>Rates</u></p> <p>The tenderer is to price for supply, taking delivery of, storing and fixing of the ironmongery listed below.</p> <p><u>PINNING BOARDS, WRITING BOARDS, PROJECTION SCREENS, etc.</u></p> <p><u>Approved</u></p>			
2/8/1	<p>White magnetic boards 4000mm x 1200mm high with aluminium frame plugged @ 1100mm above floor level on centre of the wall</p>	No	8	
	<p><u>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</u></p>			
2/8/2	<p>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</p>	No	8	
	<p><u>SUNDRIES</u></p> <p><u>Approved</u></p>			
2/8/3	<p>"CZ8730SC" Door stop or similarly approved to wall or floors</p>	No	16	
	<p>Carried Forward to Summary of Section No.</p>			R
	<p>Section No. 2 4 CLASSROOM BLOCK WITH STORES X 2 Bill No. 8 Ironmongery</p>			

Item No		Quantity	Rate	Amount
	<p><u>BILL NO. 9</u></p> <p><u>METALWORK</u></p> <p><u>PREAMBLES</u></p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.</p> <p><u>GENERAL NOTES TO TENDERERS</u></p> <p>General notes, described in Bill No.1, shall equally apply to this Bill.</p> <p><u>ALUMINIUM</u></p> <p>The contractor is to make due allowance in his prices for complying with the following requirements.</p> <p><u>SPECIFICATIONS</u></p> <p>User Note:</p> <p><u>Glazing</u></p> <p>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.</p> <p><u>Ironmongery</u></p> <p>All rates for windows, shopfronts and doors etc. must include for the supply, taking delivery or/and installation of the ironmongery to be specified.</p> <p><u>Actuators</u></p> <p>All rates for shopfronts with actuators to include for the supply and installation of actuators as specified</p>			
	Carried Forward		R	
	<p>Section No. 2 4 CLASSROOM BLOCK WITH STORES X 2 Bill No. 9 Metalwork</p>			

<p style="text-align: center;">Brought Forward</p> <p><u>Scaffolding</u></p> <p>All scaffolding should be provided by the contractor and no claims/ qualifications will be accepted.</p> <p><u>Protection</u></p> <p>With this tender, the glazing sub-contractor must supply a statement concerning protection that will be provided 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 price.</p> <p><u>Installation</u></p> <p>All measurements to be checked on site prior to ordering and manufacturing.</p> <p>Aluminium sections and shop drawings to be accepted by Architect prior to manufacturing.</p> <p>Allow for water and weather proof polysulphide sealant to approved specifications all around frame junctions to plaster and other materials.</p> <p><u>Profiles</u></p> <p>Tenderers to provide typical details of proposed aluminium section to be used in the design.</p> <p><u>Structural Silicone</u></p> <p>Tenderers to allow a 10 year guarantee on all powdercoating.</p> <p><u>Preliminary and Shop Drawings:</u></p> <p>The contractor shall submit preliminary design drawings showing basic system sections for the Architect's approval.</p> <p>After approval and prior to fabrication detailed shop drawings shall be prepared and submitted to the Architect for approval.</p>		R	
<p style="text-align: center;">Carried Forward</p> <p>Section No. 2 4 CLASSROOM BLOCK WITH STORES X 2 Bill No. 9 Metalwork</p>		R	

<p style="text-align: center;">Brought Forward</p> <p><u>Fixing:</u></p> <p>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.</p> <p><u>Deflection of structure:</u></p> <p>The contractor is advised to make adequate provision for the design deflection of the structure.</p> <p><u>Tolerances:</u></p> <p>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.</p> <p><u>Protection:</u></p> <p>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.</p> <p>Such protection shall only be removed after a written instruction from the Architect.</p> <p><u>Cleaning:</u></p> <p>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.</p> <p>Note: All windows and doors should be read in conjunction with window and door schedules</p> <p><u>WELDED SCREENS, GATES, ETC.</u></p>		R	
<p style="text-align: center;">Carried Forward</p> <p>Section No. 2 4 CLASSROOM BLOCK WITH STORES X 2 Bill No. 9 Metalwork</p>		R	

Brought Forward			R	
2/9/1	<p><u>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</u></p> <p>Steel gate to door, size 925mm x 2032mm high</p>	No	8	
<u>PRESSED STEEL DOOR FRAMES</u>				
2/9/2	<p><u>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</u></p> <p>813 x 2032mm single door</p>	No	16	
<u>WINDOWS FRAMES, etc.</u>				
2/9/3	<p><u>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</u></p> <p>Window size 1143 x 1272mm high</p>	No	72	
2/9/4	<p>Window size 1143 x 900mm high</p>	No	8	
<u>ALUMINIUM WINDOWS, DOORS, ETC</u>				
2/9/5	<p><u>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.</u></p> <p>In Ceiling voids</p>	m2	737	
<u>STEEL COLUMNS AND BEAMS</u>				
Carried Forward			R	
<p>Section No. 2 4 CLASSROOM BLOCK WITH STORES X 2 Bill No. 9 Metalwork</p>				

	<p style="text-align: center;">Brought Forward</p> <p><u>Welded columns and beams in single lengths with flat section bearer and connection plates bolted and welded to</u></p> <p>2/9/6 76 x 76 x 3mm x 6.54kg/m Mild steel square tubing column kg 560</p>		R	
	<p style="text-align: center;">Carried Forward to Summary of Section No.</p> <p>Section No. 2 4 CLASSROOM BLOCK WITH STORES X 2 Bill No. 9 Metalwork</p>		R	

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Item No		Quantity	Rate	Amount
	<u>BILL NO. 10</u>			
	<u>PLASTERING</u>			
	<u>PREAMBLES</u>			
	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.			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.			
	<u>GENERAL NOTES TO TENDERERS</u>			
	General notes, described in Bill No.1, shall equally apply to this Bill.			
	<u>SCREEDS</u>			
	<u>1:4 Cement sand screed on concrete, worked down to a true and even surface with a steel trowel</u>			
2/10/1	30mm Thick on floors and landings	m2	601	
	<u>Granolithic screed on concrete, worked down to a true and even surface with a wood trowel</u>			
2/10/2	30mm Thick on floors	m2	136	
	<u>INTERNAL PLASTER</u>			
	<u>One coat smooth 1:5 cement sand plaster on brickwork to receive finish</u>			
2/10/3	On brick walls	m2	1 085	
2/10/4	On narrow widths	m2	108	
	<u>CORNER PROTECTORS, DIVIDING STRIPS, ETC</u>			
2/10/5	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 to Summary of Section No.			
	Section No. 2 4 CLASSROOM BLOCK WITH STORES X 2 Bill No. 10 Plastering			R

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Item No		Quantity	Rate	Amount
	<p><u>BILL NO. 11</u></p> <p><u>TILING</u></p> <p><u>PREAMBLES</u></p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.</p> <p><u>Pricing</u></p> <p>Prices are to included for the following: Cutting, handling, labour, adhesive etc.</p> <p><u>Fixing</u></p> <p>Tiling described as "fixed with adhesive on power floated concrete" shall be deemed to include for approved tiling key-coat.</p> <p>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.</p> <p>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.</p> <p><u>Wastage</u></p> <p>Tile wastage in excess of 10% will be for the tenderer's account.</p> <p><u>GENERAL NOTES TO TENDERERS</u></p> <p>General notes, described in Bill No. 1, shall equally apply to this Bill.</p> <p style="text-align: right;">Carried Forward</p> <p>Section No. 2 4 CLASSROOM BLOCK WITH STORES X 2 Bill No. 11 Tiling</p>			R

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	Brought Forward			R
	<p><u>Note</u></p> <p>All scaffolding should be provided by the contractor and no claims/qualifications will be accepted.</p> <p><u>FLOOR TILING</u></p> <p><u>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 cementitious grout</u></p>			
2/11/1	On floors	m2	601	
2/11/2	75mm high skirting	m	361	
	<p><u>ATTIC STOCK</u></p>			
2/11/3	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	60	
	<p><u>SUNDRIES</u></p> <p><u>10mm aluminium straight edge trim</u></p>			
2/11/4	Dividing strip between tiles and door frames	m	6	
	Carried Forward to Summary of Section No.			R
	<p>Section No. 2 4 CLASSROOM BLOCK WITH STORES X 2 Bill No. 11 Tiling</p>			

Item No		Quantity	Rate	Amount
	<p><u>BILL NO. 12</u></p> <p><u>PLUMBING AND DRAINAGE (PROVISIONAL)</u></p> <p><u>PREAMBLES</u></p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.</p> <p><u>uPVC pipes and fittings:</u></p> <p>Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings</p> <p><u>uPVC pressure pipes and fittings:</u></p> <p>Pipes for water supply shall be of the class stated</p> <p><u>Excavations:</u></p> <p>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.</p> <p>"Intermediate material" and " hard rock" shall be as defined in "Earthworks".</p> <p>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.</p> <p>Classes of excavation shall be as S.A.B.S 1200D clause 3.1.2.</p> <p><u>Laying, backfilling, bedding, etc., of pipes:</u></p> <p>Pipes shall be laid and bedded, and trenches shall be carefully backfilled, in accordance with the specific instructions</p>			
	Carried Forward		R	
	<p>Section No. 2 4 CLASSROOM BLOCK WITH STORES X 2 Bill No. 12 Plumbing and Drainage</p>			

Brought Forward				R
<u>GENERAL NOTES TO TENDERERS</u>				
General notes, described in Bill No.1, shall equally apply to this Bill.				
<u>RAINWATER GOODS</u>				
<u>Similar Approved</u>				
<u>Gutters</u>				
2/12/1	100 x 100 x 0.6mm thick Ogee profile eaves gutter aluminium box gutter, fixed with and including fixing clips to fascia boards	m	204	
2/12/2	Extra over eaves gutter for stopped end	No	16	
2/12/3	Extra over eaves gutter for corner	No	131	
2/12/4	Extra over eaves gutter for outlet	No	32	
<u>Rainwater downpipes</u>				
2/12/5	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	111	
2/12/6	Extra over downpipe for offset	No	64	
2/12/7	Extra over downpipe for shoe	No	32	
<u>SANITARY FITTINGS</u>				
Refer to sanitary schedule drawing for full description of abbreviations				
<u>FIRE FIGHTING EQUIPMENT</u>				
<u>Extinguishers including initial charge and setting up in position:</u>				
2/12/8	9kg dry chemical powder fire extinguisher	No	16	
2/12/9	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.				
Section No. 2				
4 CLASSROOM BLOCK WITH STORES X 2				
Bill No. 12				
Plumbing and Drainage				
				R

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Item No		Quantity	Rate	Amount
	<p><u>BILL NO. 13</u></p> <p><u>GLAZING</u></p> <p><u>PREAMBLES</u></p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.</p> <p><u>GENERAL NOTES TO TENDERERS</u></p> <p>General notes, described in Bill No. 1, shall equally apply to this Bill.</p> <p><u>Note:</u></p> <p>All glazing to comply with SABS 1263 Part 3:1998. Light and ventilation to comply with Part O if NBR 0400</p> <p><u>GLASS TO STEEL WITH PUTTY</u></p> <p><u>5mm clear floated glass fixed glazing putty</u></p>			
2/13/1	Panes exceeding 0.1m2 and not exceeding 0.5m2	m2	112	
	Carried Forward to Summary of Section No.			R
	<p>Section No. 2 4 CLASSROOM BLOCK WITH STORES X 2 Bill No. 13 Glazing</p>			

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Item No		Quantity	Rate	Amount
	<p><u>BILL NO. 14</u></p> <p><u>PAINTWORK</u></p> <p><u>PREAMBLES</u></p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.</p> <p><u>GENERAL NOTES TO TENDERERS</u></p> <p>General notes, described in Bill No. 1, shall equally apply to this Bill.</p> <p><u>PAINTWORK ETC TO NEW WORK</u></p> <p><u>FIBRE CEMENT</u></p> <p><u>Prepare and apply one coat universal undercoat and two coats Super Acrylic PVA paint or similar approved, colour to be confirmed by architect</u></p>			
2/14/1	On internal ceilings and cornices	m2	781	
2/14/2	Fibre cement fascias boards not exceeding 300mm high or wide painted on both side	m	204	
	<p><u>FLOATED PLASTER INTERNAL WALLS</u></p> <p><u>Prepare and apply one coat merit universal undercoat and two coats Super Acrylic PVA paint or similar approved, colour to be confirmed by architect</u></p>			
2/14/3	Plastered walls	m2	1 085	
	<p><u>METAL SURFACES</u></p> <p><u>Prepare and apply one coat Duraphos, one coat universal under coat and two coats gloss enamel paint, colour to be confirmed by architect</u></p>			
2/14/4	On gates, grilles, burglar screens, balustrades, etc (both sides measured on full flat area)	m2	30	
	Carried Forward			R
	<p>Section No. 2 4 CLASSROOM BLOCK WITH STORES X 2 Bill No. 14 Paintwork</p>			

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Brought Forward				R
2/14/5	On window frames	m2	112	
2/14/6	On door frames	m2	20	
2/14/7	On mild steel columns, beams, etc	m2	26	
2/14/8	On gutters	m	204	
2/14/9	On downpipes	m	114	
<u>WOOD</u>				
<u>Prepare and apply one coat universal undercoat and two coats acrylic PVA, colour to be confirmed by architect</u>				
2/14/10	On door	m2	26	
<u>Prepare and paint three coats clear varnish:</u>				
2/14/11	On door	m2	26	
Carried Forward to Summary of Section No.				
Section No. 2				
4 CLASSROOM BLOCK WITH STORES X 2				
Bill No. 14				
Paintwork				
				R

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Bill No	SECTION SUMMARY	Page No		Amount
2/1	Earthworks	2/3		
2/2	Concrete,Formwork and Reinforcement	2/7		
2/3	Masonry	2/10		
2/4	Waterproofing	2/11		
2/5	Roof Coverings	2/13		
2/6	Carpentry and Joinery	2/17		
2/7	Ceilings,Partitions and Access Flooring	2/20		
2/8	Ironmongery	2/22		
2/9	Metalwork	2/27		
2/10	Plastering	2/28		
2/11	Tiling	2/30		
2/12	Plumbing and Drainage	2/32		
2/13	Glazing	2/33		
2/14	Paintwork	2/35		
	Carried to Final Summary			
	Section No. 2 4 CLASSROOM BLOCK WITH STORES X 2		R	

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO. 3</u></p> <p><u>BILL NO. 1</u></p> <p><u>EARTHWORKS (PROVISIONAL)</u></p> <p><u>PREAMBLES</u></p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.</p> <p><u>GENERAL NOTES TO TENDERERS</u></p> <p>General notes, described in Bill No.1, shall equally apply to this Bill.</p> <p><u>NOTES</u></p> <p><u>Carting away of excavated material</u></p> <p>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</p> <p><u>Filling</u></p> <p>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</p> <p>Excavations measured in successive depths of 2m.</p> <p><u>SITE CLEARANCE ETC</u></p> <p><u>Site clearance</u></p> <p>Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc</p> <p><u>EXCAVATIONS</u></p>			
3/1/1		m2	386	
	Carried Forward			R
	<p>Section No. 3 4 SEAT TOILET ENVIROLOOS BLOCK X 5 Bill No. 1 Earthworks</p>			

Brought Forward				R
<u>Excavation in earth not exceeding 2m deep</u>				
3/1/2	Trenches	m3	90	
3/1/3	Holes	m3	99	
<u>Extra over excavations in earth to trenches and holes for</u>				
3/1/4	Excavation in soft rock	m3	19	
3/1/5	Excavation in hard rock	m3	9	
<u>Back excavation of vertical sides of excavation in earth for working space including backfilling compacted to 93% Mod AASHTO density</u>				
3/1/6	Exceeding 1,5m and not exceeding 3,0m deep for placing and removing formwork to walls etc.. 500mm away from excavated face	m2	133	
<u>CARTING AWAY OF EXCAVATED MATERIAL</u>				
<u>Note:</u>				
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.				
3/1/7	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	148	
<u>RISK OF COLLAPSE OF EXCAVATIONS</u>				
<u>Risk of collapse to side of excavation in earth not exceeding 1,5m deep</u>				
3/1/8	Trenches and holes	m2	389	
<u>FILLING, ETC.</u>				
<u>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</u>				
3/1/9	Backfilling to trenches, holes, etc	m3	45	
3/1/10	Under floors, steps, pavings, etc	m3	114	
Carried Forward				R
Section No. 3 4 SEAT TOILET ENVIROLOOS BLOCK X 5 Bill No. 1 Earthworks				

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Brought Forward			R
	<u>Imported gravel filling (G7) stabilise with 2-3% cement compacted to 93% Mod AASHTO density in layers not exceeding 150mm thick</u>		
3/1/11	Backfilling to trenches, holes, etc	m3	13
3/1/12	Under floors, steps, pavings, etc	m3	16
	<u>Filling supplied by the Contractor under floors, trenches, etc.</u>		
3/1/13	Sub-base filling (G5) from excavations under solid floors, steps, etc. compacted to 95% modified AASHTO density in layers not exceeding 150mm thick	m3	20
	<u>COMPACTION OF SURFACES</u>		
3/1/14	Prepare ground surface by scarifying sub-grade, rip and re-compact 150mm to 90% modified AASHTO density	m2	296
	<u>WEED KILLERS, INSECTICIDES, TERMITES, etc.</u>		
	<u>Protection against termites, ants, etc</u>		
3/1/15	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m2	246
3/1/16	To bottom and sides of excavated trenches, Holes, etc.	m2	528
Carried Forward to Summary of Section No.			R
Section No. 3			
4 SEAT TOILET ENVIROLOOS BLOCK X 5			
Bill No. 1			
Earthworks			

Item No		Quantity	Rate	Amount
	<p><u>BILL NO. 2</u></p> <p><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></p> <p><u>PREAMBLES</u></p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.</p> <p><u>Cost of tests</u></p> <p>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)</p> <p><u>Formwork</u></p> <p>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 re-use. 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.</p> <p>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.</p> <p style="text-align: right;">Carried Forward</p> <p>Section No. 3 4 SEAT TOILET ENVIROLOOS BLOCK X 5 Bill No. 2 Concrete,Formwork and Reinforcement</p>			R

	Brought Forward			R	
	<p>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".</p> <p>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:-</p> <ul style="list-style-type: none"> · 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 <p>Structural Concrete</p> <p>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.</p> <p><u>GENERAL NOTES TO TENDERERS</u></p> <p>General notes, described in Bill No.1, shall equally apply to this Bill.</p> <p><u>UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></p> <p><u>15Mpa/19mm concrete</u></p>				
3/2/1	Blinding	m3	4		
	Carried Forward			R	
	<p>Section No. 3 4 SEAT TOILET ENVIROLOOS BLOCK X 5 Bill No. 2 Concrete, Formwork and Reinforcement</p>				

Brought Forward				R
<u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACE</u>				
<u>25MPa/19mm Concrete</u>				
3/2/2	Strip footings	m3	22	
<u>REINFORCED CONCRETE CAST IN FORMWORK</u>				
<u>20Mpa/19mm concrete</u>				
3/2/3	Concrete Apron cast to fall etc,	m3	11	
<u>25MPa/19mm Concrete</u>				
3/2/4	Surface beds cast in panels	m3	20	
3/2/5	Slabs including beams and inverted beams	m3	5	
<u>TEST BLOCKS</u>				
<u>Notes:</u>				
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)				
3/2/6	Making and testing 150 x 150 x 150mm concrete strength test cube (Provisional)	No	29	
<u>SUNDRIES TO CONCRETE</u>				
<u>Surface treatment</u>				
3/2/7	Power float top surface of concrete surface bed to a true and even level finish	m2	298	
<u>ROUGH FORMWORK (DEGREE OF ACCURACY II)</u>				
<u>Rough formwork to sides</u>				
3/2/8	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	347	
<u>Rough formwork to soffits</u>				
3/2/9	Flat slabs not exceeding 250mm thick, propped up not exceeding 3,5m high from bearing level	m2	52	
<u>MOVEMENTS JOINTS ETC,</u>				
Carried Forward				R
Section No. 3 4 SEAT TOILET ENVIROLOOS BLOCK X 5 Bill No. 2 Concrete,Formwork and Reinforcement				

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Brought Forward			R
<u>Expansion joints</u>			
3/2/10	10mm soft board or similar approved between concrete and brick wall	m	168
<u>REINFORCEMENT (PROVISIONAL)</u>			
<u>High and mild tensile steel reinforcement to structural concrete work</u>			
3/2/11	All diameter bars	t	2
<u>Fabric reinforcement:</u>			
3/2/12	Type 245 fabric reinforcement in concrete surface beds, slabs, etc.	m2	134
Carried Forward to Summary of Section No.			R
Section No. 3			
4 SEAT TOILET ENVIROLOOS BLOCK X 5			
Bill No. 2			
Concrete, Formwork and Reinforcement			

Item No		Quantity	Rate	Amount
	<p><u>BILL NO. 3</u></p> <p><u>MASONRY</u></p> <p><u>PREAMBLES</u></p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.</p> <p><u>GENERAL NOTES TO TENDERERS</u></p> <p>General notes, described in Bill No.1, shall equally apply to this Bill.</p> <p><u>Sizes in descriptions</u></p> <p>Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick</p> <p><u>Hollow walls etc</u></p> <p>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.</p> <p><u>Face bricks</u></p> <p>Bricks shall be ordered timeously to obtain uniformity in size and colour</p> <p><u>Pointing</u></p> <p>Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc</p> <p><u>BRICKWORK IN FOUNDATION</u></p>			
	Carried Forward		R	
	<p>Section No. 3 4 SEAT TOILET ENVIROLOOS BLOCK X 5 Bill No. 3 Masonry</p>			

Brought Forward			R
	<u>Brickwork in 73mm burnt clay masonry units class NFP in Class II mortar, laid in stretcher bond with 10mm flush joints</u>		
3/3/1	One brick wall	m2	96
	<u>SUPERSTRUCTURE BRICKWORK</u>		
	<u>Brickwork of NFP brick in class II mortar laid in stretcher bond with 10mm flush joints</u>		
3/3/2	One brick wall	m2	519
3/3/3	Half brick wall	m2	56
3/3/4	Half brick wall, in beamfilling	m2	30
	<u>Mass brickwork in regular piers of NFP brick in class II mortar laid in stretcher bond</u>		
3/3/5	340 x 230mm Brick Piers	m3	2
3/3/6	360 x 230mm Brick Piers	m3	2
	<u>FACE BRICKWORK</u>		
	Bricks shall be ordered timeously to obtain uniformity in size and colour		
	<u>"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</u>		
3/3/7	Extra over brickwork for face brickwork in foundations (Provisional)	m2	192
3/3/8	Extra over brickwork for face brickwork in superstructure	m2	428
3/3/9	Extra over brickwork for face brickwork in brick-on-edge header course lintel	m	19
3/3/10	Extra over brickwork for face brickwork in brick-on-edge header course sills, bedded in mortar and set slightly sloped	m	11
3/3/11	Extra over brickwork for face brickwork to piers	m2	67
3/3/12	Extra over brickwork for face brickwork in beamfilling	m2	30
	<u>BRICKWORK SUNDRIES</u>		
	Carried Forward		
	Section No. 3 4 SEAT TOILET ENVIROLOOS BLOCK X 5 Bill No. 3 Masonry		
			R

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Brought Forward			R
<u>Brickwork reinforcement</u>			
3/3/13	75mm Wide reinforcement built in horizontally	m	164
3/3/14	150mm Wide reinforcement built in horizontally.	m	2 112
<u>"Allied concrete" or similar approved prestressed fabricated lintels</u>			
3/3/15	100 x 75mm Lintels in lengths not exceeding 3m	m	17
3/3/16	175 x 70mm Lintels in lengths not exceeding 3m	m	58
<u>Turning pieces</u>			
3/3/17	110mm Wide turning piece to flat brick lintels	m	53
<u>Air bricks etc</u>			
3/3/18	Set of 2, 240 x 155mm Terracota air bricks as per architects specification	No	10
<u>Roof ties</u>			
3/3/19	30 x 1.2mm galvanised steel strapping, built into wall for 5 courses and minimum 800mm to be fixed to trusses	No	97
<u>MOVEMENTS JOINTS ETC,</u>			
<u>Expansion joints</u>			
3/3/20	30mm softboard between vertical brick surfaces not exceeding 300mm wide	m2	19
Carried Forward to Summary of Section No.			R
Section No. 3			
4 SEAT TOILET ENVIROLOOS BLOCK X 5			
Bill No. 3			
Masonry			

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Item No		Quantity	Rate	Amount
	<u>BILL NO. 4</u>			
	<u>WATERPROOFING</u>			
	<u>PREAMBLES</u>			
	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.			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.			
	<u>GENERAL NOTES TO TENDERERS</u>			
	General notes, described in Bill No.1, shall equally apply to this Bill.			
	<u>DAMP PROOFING OF WALLS AND FLOORS</u>			
	<u>One layer of 375 micron "Consol Plastic Brikgrip DPC" embossed damp proof course</u>			
3/4/1	Under walls	m2	7	
3/4/2	Under cills, etc.	m2	2	
	<u>One layer of 250 micron "USB Green" or similar approved dampproof membrane sealed at laps with PVC self -adhesive tape</u>			
3/4/3	Under surface beds.	m2	246	
	<u>JOINTS SEALANTS, ETC.</u>			
	<u>Mastic grey polysulphide sealing compound including raking out of joints filler as necessary</u>			
3/4/4	10mm Isolation Joints between surface bed concrete and brick wall	m	168	
	Carried Forward to Summary of Section No.			
	Section No. 3 4 SEAT TOILET ENVIROLOOS BLOCK X 5 Bill No. 4 Waterproofing			R

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Item No		Quantity	Rate	Amount
	<u>BILL NO. 5</u>			
	<u>ROOF COVERINGS</u>			
	<u>PREAMBLES</u>			
	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.			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.			
	<u>GENERAL NOTES TO TENDERERS</u>			
	General notes, described in Bill No.1, shall equally apply to this Bill.			
	<u>ROOF SHEETING</u>			
	<u>Similar Approved</u>			
	<u>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</u>			
3/5/1	Roof sheeting pitch not exceeding 25 degrees	m2	201	
3/5/2	220mm girth Ridge capping, 3 times bent and notched on site to suit roof profile	m	29	
3/5/3	550mm girth Hip capping, 3 times bent and notched on site to suit roof profile.	m	51	
	<u>ROOF AND WALL INSULATION</u>			
	<u>Similar Approved</u>			
	Carried Forward			
	Section No. 3 4 SEAT TOILET ENVIROLOOS BLOCK X 5 Bill No. 5 Roof Coverings			R

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	Brought Forward			R	
3/5/4	<p><u>Sisalation "Bubble Foil" aluminium foil banded insulation</u></p> <p>135mm thick Insulation laid over purlins (at approximately 750mm centres), fixed concurrent with sheeting with and including galvanised steel accessories</p>	m2	201		
	Carried Forward to Summary of Section No.			R	
	<p>Section No. 3 4 SEAT TOILET ENVIROLOOS BLOCK X 5 Bill No. 5 Roof Coverings</p>				

Item No		Quantity	Rate	Amount
	<p><u>BILL NO. 6</u></p> <p><u>CARPENTRY AND JOINERY</u></p> <p><u>PREAMBLES</u></p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.</p> <p><u>GENERAL NOTES TO TENDERERS</u></p> <p>General notes, described in Bill No.1, shall equally apply to this Bill.</p> <p><u>Joinery</u></p> <p>Descriptions of frames shall be deemed to include frames, transoms, mullions, rails, etc.</p> <p>Descriptions of hardwood joinery shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete.</p> <p><u>Fixing</u></p> <p>Items described as nailed shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete</p> <p><u>Decorative laminate finish</u></p> <p>Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish</p> <p><u>Timber</u></p> <p>All softwood to be South African Pine</p> <p><u>Descriptions</u></p> <p>Items described as "bolted" shall be deemed to exclude the bolts and include the holes unless otherwise described.</p> <p style="text-align: right;">Carried Forward</p> <p>Section No. 3 4 SEAT TOILET ENVIROLOOS BLOCK X 5 Bill No. 6 Carpentry and Joinery</p>			R

<p style="text-align: center;">Brought Forward</p> <p>Where the fixing of members is not stated it shall mean the nailing of one timber member to another.</p> <p>The term "planted on" shall mean the nailing of one timber member to another</p> <p>The term "screwed on" shall mean the countersunk screwing of one timber member to another.</p> <p>The term "screwed on and pelleted" shall mean the screwing of one timber member to another with the heads of screw sunk and pelleted.</p> <p>The term "plugged" shall mean the countersunk screwing of a timber member to and including plastic plugs in brickwork or concrete.</p> <p>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.</p> <p>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.</p> <p>Descriptions of floors, ceilings, joinery, etc. shall be deemed to include for all square cutting</p> <p>Descriptions of items given in linear metre shall be deemed to include for mitres, stopped ends, fitted intersections, etc.</p> <p>Descriptions of rounded angles, rebates, grooves, chamfers, moulded edges, etc. shall be deemed to include for angles, ends, etc.</p> <p><u>ROOFS, ETC</u></p>		R	
<p style="text-align: center;">Carried Forward</p> <p>Section No. 3 4 SEAT TOILET ENVIROLOOS BLOCK X 5 Bill No. 6 Carpentry and Joinery</p>		R	

	Brought Forward			R
	<p><u>Plate nailed timber roof truss construction</u></p> <p>The following is applicable in respect of roof trusses:</p> <p>All timber to be sawn softwood in accordance with V4 or M4 as defined in SABS 563 or SABS 1245.</p> <p>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.</p> <p>All joints to be close fitted butt joints.</p> <p>Trusses shall be designed by a registered supplier of prefabricated trusses who shall issue an Engineers Certificate upon completion of the installation.</p> <p>The dimensions in the descriptions of the trusses are nominal and actual measurements are to be obtained on site before design or fabrication commences.</p> <p>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.</p> <p><u>Roof trusses</u></p>			
3/6/1	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	168	
	<p><u>Sawn softwood</u></p>			
3/6/2	38 x 114mm Wall plates	m	116	
	<p><u>Sundries</u></p>			
3/6/3	Two coats creosote on sawn timbers	m2	43	
	<p><u>Similar Approved</u></p>			
	Carried Forward			R
	<p>Section No. 3 4 SEAT TOILET ENVIROLOOS BLOCK X 5 Bill No. 6 Carpentry and Joinery</p>			

**LIMPOPO DEPARTMENT OF EDUCATION
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Brought Forward			R
	<u>"Everite FC77" Fascia and badge boards</u>		
3/6/4	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	116
	<u>DOORS ETC</u>		
	<u>44mm thick solid R&F panel meranti timber doors with masonite backing with 15 horizontal slates on both sides hung to steel frames</u>		
3/6/5	813 x 2032mm single door	No	30
3/6/6	914 x 2032mm single door	No	20
	<u>WINDOWS</u>		
	<u>Similar Approved</u>		
	<u>"Nutec" fibre cement window cills</u>		
3/6/7	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	11
Carried Forward to Summary of Section No.			
Section No. 3			
4 SEAT TOILET ENVIROLOOS BLOCK X 5			
Bill No. 6			
Carpentry and Joinery			
			R

Item No		Quantity	Rate	Amount
	<p><u>BILL NO. 7</u></p> <p><u>CEILING, PARTITIONS AND ACCESS FLOORING</u></p> <p><u>PREAMBLES</u></p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.</p> <p><u>GENERAL NOTES TO TENDERERS</u></p> <p>General notes, described in Bill No.1, shall equally apply to this Bill.</p> <p><u>Fixing</u></p> <p>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.</p> <p>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</p> <p><u>Ceilings & Bulkheads</u></p> <p>Unless otherwise described ceilings shall be deemed to be horizontal</p> <p><u>Steel components</u></p> <p>All steel components for ceilings, partitions, etc are to be galvanised in accordance with SANS 121</p> <p><u>Proprietary suspended ceilings</u></p> <p>Hangers, suspension grids, "lay-in" panels, etc are to be in accordance with the manufacturers' recommendations</p>			
	Carried Forward		R	
	<p>Section No. 3 4 SEAT TOILET ENVIROLOOS BLOCK X 5 Bill No. 7 Ceilings,Partitions and Access Flooring</p>			

	Brought Forward			R
	<p>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)</p> <p><u>Suspension systems</u></p> <p>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.</p> <p><u>NAILED UP CEILINGS</u></p> <p><u>FIBRE - CEMENT BOARDS</u></p> <p><u>Similar Approved</u></p> <p><u>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</u></p>			
3/7/1	<p>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</p>	m2	89	
	<p><u>CORNICES</u></p> <p><u>Similar Approved</u></p> <p><u>"Rhino" plasterboard cornice</u></p>			
3/7/2	<p>75mm "Rhino" gypsum plasterboard coved cornice, plugged to brickwork</p>	m	191	
	<p><u>SUNDRIES</u></p> <p><u>Extra over for Trap Doors</u></p>			
3/7/3	<p>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</p>	No	10	
	Carried Forward			R
	<p>Section No. 3 4 SEAT TOILET ENVIROLOOS BLOCK X 5 Bill No. 7 Ceilings,Partitions and Access Flooring</p>			

	Brought Forward			R
3/7/4	<p><u>CEILING INSULATION</u></p> <p><u>Insulation</u></p> <p>125mm thick Glass wool insulation blanket closely fitted and laid on top of ceiling panels, all in strict accordance with the manufacturer's specifications.</p>	m2	89	
	Carried Forward to Summary of Section No.			R
	<p>Section No. 3 4 SEAT TOILET ENVIROLOOS BLOCK X 5 Bill No. 7 Ceilings,Partitions and Access Flooring</p>			

Item No		Quantity	Rate	Amount
	<p><u>BILL NO. 8</u></p> <p><u>IRONMONGERY</u></p> <p><u>PREAMBLES</u></p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.</p> <p><u>GENERAL NOTES TO TENDERERS</u></p> <p>General notes, described in Bill No.1, shall equally apply to this Bill.</p> <p>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.</p> <p><u>Proprietary items</u></p> <p>Where applicable the manufacturers' names or product catalogue titles are given in sub-headings preceding the items</p> <p>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</p> <p>On request returnable samples are to be provided to the principal agent for consideration</p>			
	Carried Forward		R	
	<p>Section No. 3 4 SEAT TOILET ENVIROLOOS BLOCK X 5 Bill No. 8 Ironmongery</p>			

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	Brought Forward				
	<p><u>Finishes to ironmongery</u></p> <p>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</p> <p><u>Rates</u></p> <p>The tenderer is to price for supply, taking delivery of, storing and fixing of the ironmongery listed below.</p> <p><u>SUNDRIES</u></p> <p><u>Approved</u></p>			R	
3/8/1	"CZ8730SC" Door stop or similarly approved to wall or floors	No	50		
	Carried Forward to Summary of Section No.			R	
	Section No. 3 4 SEAT TOILET ENVIROLOOS BLOCK X 5 Bill No. 8 Ironmongery				

Item No		Quantity	Rate	Amount
	<p><u>BILL NO. 9</u></p> <p><u>METALWORK</u></p> <p><u>PREAMBLES</u></p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.</p> <p><u>GENERAL NOTES TO TENDERERS</u></p> <p>General notes, described in Bill No.1, shall equally apply to this Bill.</p> <p><u>ALUMINIUM</u></p> <p>The contractor is to make due allowance in his prices for complying with the following requirements.</p> <p><u>SPECIFICATIONS</u></p> <p>User Note:</p> <p><u>Glazing</u></p> <p>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.</p> <p><u>Ironmongery</u></p> <p>All rates for windows, shopfronts and doors etc. must include for the supply, taking delivery or/and installation of the ironmongery to be specified.</p> <p><u>Actuators</u></p> <p>All rates for shopfronts with actuators to include for the supply and installation of actuators as specified</p>			
	Carried Forward		R	
	<p>Section No. 3 4 SEAT TOILET ENVIROLOOS BLOCK X 5 Bill No. 9 Metalwork</p>			

<p style="text-align: center;">Brought Forward</p> <p><u>Scaffolding</u></p> <p>All scaffolding should be provided by the contractor and no claims/ qualifications will be accepted.</p> <p><u>Protection</u></p> <p>With this tender, the glazing sub-contractor must supply a statement concerning protection that will be provided 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 price.</p> <p><u>Installation</u></p> <p>All measurements to be checked on site prior to ordering and manufacturing.</p> <p>Aluminium sections and shop drawings to be accepted by Architect prior to manufacturing.</p> <p>Allow for water and weather proof polysulphide sealant to approved specifications all around frame junctions to plaster and other materials.</p> <p><u>Profiles</u></p> <p>Tenderers to provide typical details of proposed aluminium section to be used in the design.</p> <p><u>Structural Silicone</u></p> <p>Tenderers to allow a 10 year guarantee on all powdercoating.</p> <p><u>Preliminary and Shop Drawings:</u></p> <p>The contractor shall submit preliminary design drawings showing basic system sections for the Architect's approval.</p> <p>After approval and prior to fabrication detailed shop drawings shall be prepared and submitted to the Architect for approval.</p>		R	
<p style="text-align: center;">Carried Forward</p> <p>Section No. 3 4 SEAT TOILET ENVIROLOOS BLOCK X 5 Bill No. 9 Metalwork</p>		R	

<p style="text-align: center;">Brought Forward</p> <p><u>Fixing:</u></p> <p>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.</p> <p><u>Deflection of structure:</u></p> <p>The contractor is advised to make adequate provision for the design deflection of the structure.</p> <p><u>Tolerances:</u></p> <p>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.</p> <p><u>Protection:</u></p> <p>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.</p> <p>Such protection shall only be removed after a written instruction from the Architect.</p> <p><u>Cleaning:</u></p> <p>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.</p> <p>Note: All windows and doors should be read in conjunction with window and door schedules</p> <p><u>WELDED SCREENS, GATES, ETC.</u></p>			R	
<p style="text-align: center;">Carried Forward</p> <p>Section No. 3 4 SEAT TOILET ENVIROLOOS BLOCK X 5 Bill No. 9 Metalwork</p>			R	

Brought Forward			R
	<p><u>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</u></p>		
3/9/1	Steel gate to door, size 925mm x 2032mm high	No	10
	<p><u>PRESSED STEEL DOOR FRAMES</u></p> <p><u>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</u></p>		
3/9/2	813 x 2032mm single door	No	20
	<p><u>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</u></p>		
3/9/3	813 x 2032mm single door	No	10
3/9/4	914 x 2032mm single door	No	20
	<p><u>WINDOWS FRAMES, etc.</u></p> <p><u>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</u></p>		
3/9/5	Window size 533 x 950mm high	No	20
	<p><u>ALUMINIUM WINDOWS, DOORS, ETC</u></p> <p><u>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.</u></p>		
3/9/6	In Ceiling voids	m2	89
	<p>Carried Forward to Summary of Section No.</p> <p>Section No. 3 4 SEAT TOILET ENVIROLOOS BLOCK X 5 Bill No. 9 Metalwork</p>		
			R

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Item No		Quantity	Rate	Amount
	<u>BILL NO. 10</u>			
	<u>PLASTERING</u>			
	<u>PREAMBLES</u>			
	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.			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.			
	<u>GENERAL NOTES TO TENDERERS</u>			
	General notes, described in Bill No.1, shall equally apply to this Bill.			
	<u>SCREEDS</u>			
	<u>1:4 Cement sand screed on concrete, worked down to a true and even surface with a steel trowel</u>			
3/10/1	30mm Thick on floors and landings	m2	134	
3/10/2	30mm Thick to falls and currents	m2	13	
	<u>INTERNAL PLASTER</u>			
	<u>One coat smooth 1:5 cement sand plaster on brickwork to receive finish</u>			
3/10/3	On brick walls	m2	468	
3/10/4	On narrow widths	m2	47	
	<u>CORNER PROTECTORS, DIVIDING STRIPS, ETC</u>			
3/10/5	Aluminium straight edge M-trim suitable for under-screed fixing in vinyl/ceramic, etc. installed as per manufactures recommendation and specification.	m	8	
	Carried Forward to Summary of Section No.			
	Section No. 3 4 SEAT TOILET ENVIROLOOS BLOCK X 5 Bill No. 10 Plastering			R

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Item No		Quantity	Rate	Amount
	<p><u>BILL NO. 11</u></p> <p><u>TILING</u></p> <p><u>PREAMBLES</u></p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.</p> <p><u>Pricing</u></p> <p>Prices are to included for the following: Cutting, handling, labour, adhesive etc.</p> <p><u>Fixing</u></p> <p>Tiling described as "fixed with adhesive on power floated concrete" shall be deemed to include for approved tiling key-coat.</p> <p>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.</p> <p>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.</p> <p><u>Wastage</u></p> <p>Tile wastage in excess of 10% will be for the tenderer's account.</p> <p><u>GENERAL NOTES TO TENDERERS</u></p> <p>General notes, described in Bill No. 1, shall equally apply to this Bill.</p> <p style="text-align: right;">Carried Forward</p> <p>Section No. 3 4 SEAT TOILET ENVIROLOOS BLOCK X 5 Bill No. 11 Tiling</p>			R

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Brought Forward			R
<u>Note</u>			
All scaffolding should be provided by the contractor and no claims/qualifications will be accepted.			
<u>WALL TILING</u>			
<u>150 x 150 x 6mm white glazed 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</u>			
3/11/1	Plastered walls	m2	279
3/11/2	On narrow widths	m2	28
3/11/3	Splash backs	m2	4
<u>FLOOR TILING</u>			
<u>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 cementitious grout</u>			
3/11/4	On floors	m2	147
3/11/5	75mm high skirting	m	364
<u>ATTIC STOCK</u>			
3/11/6	150 x 150 x 6mm ceramic tiles(PC allowance of R 120.00/m2 excludes V.A.T. but includes delivery to site)	m2	28
3/11/7	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	14
<u>SUNDRIES</u>			
<u>10mm aluminium straight edge trim</u>			
3/11/8	Dividing strip between tiles and door frames	m	8
Carried Forward to Summary of Section No.			R
Section No. 3			
4 SEAT TOILET ENVIROLOOS BLOCK X 5			
Bill No. 11			
Tiling			

Item No		Quantity	Rate	Amount
	<p><u>BILL NO. 12</u></p> <p><u>PLUMBING AND DRAINAGE (PROVISIONAL)</u></p> <p><u>PREAMBLES</u></p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.</p> <p><u>uPVC pipes and fittings:</u></p> <p>Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings</p> <p><u>uPVC pressure pipes and fittings:</u></p> <p>Pipes for water supply shall be of the class stated</p> <p><u>Excavations:</u></p> <p>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.</p> <p>"Intermediate material" and " hard rock" shall be as defined in "Earthworks".</p> <p>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.</p> <p>Classes of excavation shall be as S.A.B.S 1200D clause 3.1.2.</p> <p><u>Laying, backfilling, bedding, etc., of pipes:</u></p> <p>Pipes shall be laid and bedded, and trenches shall be carefully backfilled, in accordance with the specific instructions</p>			
	Carried Forward		R	
	<p>Section No. 3 4 SEAT TOILET ENVIROLOOS BLOCK X 5 Bill No. 12 Plumbing and Drainage</p>			

Brought Forward		R
<u>GENERAL NOTES TO TENDERERS</u>		
General notes, described in Bill No.1, shall equally apply to this Bill.		
<u>RAINWATER GOODS</u>		
<u>Similar Approved</u>		
<u>Gutters</u>		
3/12/1	100 x 100 x 0.6mm thick Ogee profile eaves gutter aluminium box gutter, fixed with and including fixing clips to fascia boards	m 116
3/12/2	Extra over eaves gutter for stopped end	No 40
3/12/3	Extra over eaves gutter for corner	No 87
3/12/4	Extra over eaves gutter for outlet	No 20
<u>Rainwater downpipes</u>		
3/12/5	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 69
3/12/6	Extra over downpipe for offset	No 40
3/12/7	Extra over downpipe for shoe	No 20
<u>SANITARY FITTINGS</u>		
Refer to sanitary schedule drawing for full description of abbreviations		
<u>WASH HAND BASINS</u>		
<u>Similar Approved</u>		
<u>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</u>		
3/12/8	WHB, installed complete	No 10
<u>WATER CLOSET</u>		
Carried Forward		R
Section No. 3 4 SEAT TOILET ENVIROLOOS BLOCK X 5 Bill No. 12 Plumbing and Drainage		

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Brought Forward			R
	<u>Similar Approved</u>		
	<u>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, fittings 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</u>		
3/12/9	WC, installed complete	No	20
	<u>CHROME PLATED WASTE UNIONS, ETC. (Supply & Fit)</u>		
3/12/10	32mm Basin waste union	No	10
	<u>TOILET ROLL HOLDER</u>		
	<u>To be approved by Architect</u>		
3/12/11	130 x 560 x 130mm mild steel vandal proof Toilet paper roll holder (Colour: White), plugged and screwed to walls	No	20
	<u>SOAP DISPENSER</u>		
	<u>To be approved by Architect</u>		
3/12/12	110 x 170 x 35mm high plastic Soap dispenser (Colour: White and transparent), with lever button and pump, plugged and screwed to wall	No	3
	<u>PAPER TOWEL DISPENSER</u>		
	<u>To be approved by Architect</u>		
3/12/13	360 x 380 x 240mm high lockable auto-cut (reflex) plastic Paper towel dispenser (Colour: White), plugged and screwed to wall	No	3
	<u>TAPS, VALVES, ETC</u>		
	<u>Similar Approved</u>		
3/12/14	15mm Cobra brass watertight hose Bib tap (Code: 108-15)	No	10
Carried Forward to Summary of Section No.			R
Section No. 3			
4 SEAT TOILET ENVIROLOOS BLOCK X 5			
Bill No. 12			
Plumbing and Drainage			

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Item No		Quantity	Rate	Amount
	<p><u>BILL NO. 13</u></p> <p><u>GLAZING</u></p> <p><u>PREAMBLES</u></p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.</p> <p><u>GENERAL NOTES TO TENDERERS</u></p> <p>General notes, described in Bill No. 1, shall equally apply to this Bill.</p> <p><u>Note:</u></p> <p>All glazing to comply with SABS 1263 Part 3:1998. Light and ventilation to comply with Part O if NBR 0400</p> <p><u>GLASS TO STEEL WITH PUTTY</u></p> <p><u>6mm obscure floated glass fixed glazing putty</u></p>			
3/13/1	Panels exceeding 0.5m ² and not exceeding 2.0m ²	m ²	10	
	<p><u>TOPS, SHELVES, DOORS, MIRROR ETC</u></p> <p><u>6mm Polished plate float glass mirrors with square polished edges plugged with chrome plated detachable screws or similarly approved</u></p>			
3/13/2	Mirror 400 x 600 mm high	No	10	
	Carried Forward to Summary of Section No.			R
	Section No. 3 4 SEAT TOILET ENVIROLOOS BLOCK X 5 Bill No. 13 Glazing			

**LIMPOPO DEPARTMENT OF EDUCATION
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VUTIVI PRIMARY SCHOOL**

Item No		Quantity	Rate	Amount
	<p><u>BILL NO. 14</u></p> <p><u>PAINTWORK</u></p> <p><u>PREAMBLES</u></p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.</p> <p><u>GENERAL NOTES TO TENDERERS</u></p> <p>General notes, described in Bill No. 1, shall equally apply to this Bill.</p> <p><u>PAINTWORK ETC TO NEW WORK</u></p> <p><u>FIBRE CEMENT</u></p> <p><u>Prepare and apply one coat universal undercoat and two coats Super Acrylic PVA paint or similar approved, colour to be confirmed by architect</u></p>			
3/14/1	On internal ceilings and cornices	m2	108	
3/14/2	Fibre cement fascias boards not exceeding 300mm high or wide painted on both side	m	116	
	<p><u>Prepare and apply one coat alkali resistant sealer and two coats mat enamel paint, colour to be confirmed by architect</u></p>			
3/14/3	Fiber cement window sill not exceeding 300mm high or wide	m	11	
	<p><u>FLOATED PLASTER INTERNAL WALLS</u></p> <p><u>Prepare and apply one coat merit universal undercoat and two coats Super Acrylic PVA paint or similar approved, colour to be confirmed by architect</u></p>			
3/14/4	Plastered walls	m2	468	
	<p><u>METAL SURFACES</u></p>			
	Carried Forward			R
	<p>Section No. 3 4 SEAT TOILET ENVIROLOOS BLOCK X 5 Bill No. 14 Paintwork</p>			

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Brought Forward			R
<u>Prepare and apply one coat Duraphos, one coat universal under coat and two coats gloss enamel paint, colour to be confirmed by architect</u>			
3/14/5	On gates, grilles, burglar screens, balustrades, etc (both sides measured on full flat area)	m2	38
3/14/6	On window frames	m2	10
3/14/7	On door frames	m2	64
3/14/8	On gutters	m	116
3/14/9	On downpipes	m	71
<u>WOOD</u>			
<u>Prepare and apply one coat universal undercoat and two coats acrylic PVA, colour to be confirmed by architect</u>			
3/14/10	On door	m2	140
<u>Prepare and paint three coats clear varnish:</u>			
3/14/11	On door	m2	33
Carried Forward to Summary of Section No.			R
Section No. 3			
4 SEAT TOILET ENVIROLOOS BLOCK X 5			
Bill No. 14			
Paintwork			

**LIMPOPO DEPARTMENT OF EDUCATION
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Bill No	SECTION SUMMARY	Page No	Amount
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3/3	Masonry	3/10	
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3/5	Roof Coverings	3/13	
3/6	Carpentry and Joinery	3/17	
3/7	Ceilings,Partitions and Access Flooring	3/20	
3/8	Ironmongery	3/22	
3/9	Metalwork	3/26	
3/10	Plastering	3/27	
3/11	Tiling	3/29	
3/12	Plumbing and Drainage	3/32	
3/13	Glazing	3/33	
3/14	Paintwork	3/35	
	Carried to Final Summary		R
	Section No. 3 4 SEAT TOILET ENVIROLOOS BLOCK X 5		

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO. 4</u></p> <p><u>BILL NO. 1</u></p> <p><u>EARTHWORKS (PROVISIONAL)</u></p> <p><u>PREAMBLES</u></p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.</p> <p><u>GENERAL NOTES TO TENDERERS</u></p> <p>General notes, described in Bill No.1, shall equally apply to this Bill.</p> <p><u>NOTES</u></p> <p><u>Carting away of excavated material</u></p> <p>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</p> <p><u>Filling</u></p> <p>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</p> <p>Excavations measured in successive depths of 2m.</p> <p><u>SITE CLEARANCE ETC</u></p> <p><u>Site clearance</u></p> <p>4/1/1 Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc</p> <p><u>EXCAVATIONS</u></p>			
	Carried Forward			R
	Section No. 4 SMALL ADMINISTRATION BLOCK Bill No. 1 Earthworks			

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Brought Forward			R
<u>Excavation in earth not exceeding 2m deep</u>			
4/1/2	Trenches	m3	74
<u>Extra over excavations in earth to trenches and holes for</u>			
4/1/3	Excavation in soft rock	m3	7
4/1/4	Excavation in hard rock	m3	4
<u>CARTING AWAY OF EXCAVATED MATERIAL</u>			
<u>Note:</u>			
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.			
4/1/5	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	43
<u>RISK OF COLLAPSE OF EXCAVATIONS</u>			
<u>Risk of collapse to side of excavation in earth not exceeding 1,5m deep</u>			
4/1/6	Trenches and holes	m2	238
<u>FILLING, ETC.</u>			
<u>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</u>			
4/1/7	Backfilling to trenches, holes, etc	m3	35
4/1/8	Under floors, steps, pavings, etc	m3	126
<u>Imported gravel filling (G7) stabilise with 2-3% cement compacted to 93% Mod AASHTO density in layers not exceeding 150mm thick</u>			
4/1/9	Backfilling to trenches, holes, etc	m3	11
4/1/10	Under floors, steps, pavings, etc	m3	27
Carried Forward			R
Section No. 4 SMALL ADMINISTRATION BLOCK Bill No. 1 Earthworks			

**LIMPOPO DEPARTMENT OF EDUCATION
UPGRADES AND ADDITIONS AT
VUTIVI PRIMARY SCHOOL**

Brought Forward				R
	<u>Filling supplied by the Contractor under floors, trenches, etc.</u>			
4/1/11	Sub-base filling (G5) from excavations under solid floors, steps, etc. compacted to 95% modified AASHTO density in layers not exceeding 150mm thick	m3	27	
	<u>COMPACTION OF SURFACES</u>			
4/1/12	Prepare ground surface by scarifying sub-grade, rip and re-compact 150mm to 90% modified AASHTO density	m2	240	
	<u>WEED KILLERS, INSECTICIDES, TERMITES, etc.</u>			
	<u>Protection against termites, ants, etc</u>			
4/1/13	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m2	240	
4/1/14	To bottom and sides of excavated trenches, Holes, etc.	m2	312	
Carried Forward to Summary of Section No.				R
Section No. 4				
SMALL ADMINISTRATION BLOCK				
Bill No. 1				
Earthworks				

Item No		Quantity	Rate	Amount
	<p><u>BILL NO. 2</u></p> <p><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></p> <p><u>PREAMBLES</u></p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.</p> <p><u>Cost of tests</u></p> <p>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)</p> <p><u>Formwork</u></p> <p>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 re-use. 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.</p> <p>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.</p> <p style="text-align: right;">Carried Forward</p> <p>Section No. 4 SMALL ADMINISTRATION BLOCK Bill No. 2 Concrete, Formwork and Reinforcement</p>			R

	Brought Forward		R	
	<p>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".</p> <p>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:-</p> <ul style="list-style-type: none"> · 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 <p>Structural Concrete</p> <p>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.</p> <p><u>GENERAL NOTES TO TENDERERS</u></p> <p>General notes, described in Bill No.1, shall equally apply to this Bill.</p> <p><u>UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></p> <p><u>15Mpa/19mm concrete</u></p>			
4/2/1	Blinding	m3	4	
	Carried Forward		R	
	<p>Section No. 4 SMALL ADMINISTRATION BLOCK Bill No. 2 Concrete, Formwork and Reinforcement</p>			

Brought Forward			R
<u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACE</u>			
<u>25MPa/19mm Concrete</u>			
4/2/2	Strip footings	m3	18
<u>REINFORCED CONCRETE CAST IN FORMWORK</u>			
<u>20Mpa/19mm concrete</u>			
4/2/3	Concrete Apron cast to fall etc,	m3	6
<u>25MPa/19mm Concrete</u>			
4/2/4	Surface beds cast in panels	m3	23
<u>TEST BLOCKS</u>			
<u>Notes:</u>			
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)			
4/2/5	Making and testing 150 x 150 x 150mm concrete strength test cube (Provisional)	No	23
<u>SUNDRIES TO CONCRETE</u>			
<u>Surface treatment</u>			
4/2/6	Power float top surface of concrete surface bed to a true and even level finish	m2	240
<u>ROUGH FORMWORK (DEGREE OF ACCURACY II)</u>			
<u>Rough formwork to sides</u>			
4/2/7	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	118
<u>MOVEMENTS JOINTS ETC,</u>			
<u>Expansion joints</u>			
4/2/8	10mm soft board or similar approved between concrete and brick wall	m	58
<u>REINFORCEMENT (PROVISIONAL)</u>			
Carried Forward			R
Section No. 4 SMALL ADMINISTRATION BLOCK Bill No. 2 Concrete,Formwork and Reinforcement			

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VUTIVI PRIMARY SCHOOL**

	Brought Forward				
	<u>High and mild tensile steel reinforcement to structural concrete work</u>				R
4/2/9	All diameter bars	t	1		
	<u>Fabric reinforcement:</u>				
4/2/10	Type 245 fabric reinforcement in concrete surface beds, slabs, etc.	m2	179		
	Carried Forward to Summary of Section No.				R
	Section No. 4 SMALL ADMINISTRATION BLOCK Bill No. 2 Concrete, Formwork and Reinforcement				

Item No		Quantity	Rate	Amount
	<p><u>BILL NO. 3</u></p> <p><u>MASONRY</u></p> <p><u>PREAMBLES</u></p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.</p> <p><u>GENERAL NOTES TO TENDERERS</u></p> <p>General notes, described in Bill No.1, shall equally apply to this Bill.</p> <p><u>Sizes in descriptions</u></p> <p>Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick</p> <p><u>Hollow walls etc</u></p> <p>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.</p> <p><u>Face bricks</u></p> <p>Bricks shall be ordered timeously to obtain uniformity in size and colour</p> <p><u>Pointing</u></p> <p>Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc</p> <p><u>BRICKWORK IN FOUNDATION</u></p>			
	Carried Forward		R	
	<p>Section No. 4 SMALL ADMINISTRATION BLOCK Bill No. 3 Masonry</p>			

Brought Forward			R
	<u>Brickwork in 73mm burnt clay masonry units class NFP in Class II mortar, laid in stretcher bond with 10mm flush joints</u>		
4/3/1	One brick wall	m2	89
	<u>SUPERSTRUCTURE BRICKWORK</u>		
	<u>Brickwork of NFP brick in class II mortar laid in stretcher bond with 10mm flush joints</u>		
4/3/2	One brick wall	m2	223
4/3/3	Half brick wall	m2	133
	<u>Mass brickwork in regular piers of NFP brick in class II mortar laid in stretcher bond</u>		
4/3/4	330 x 330mm Brick Piers	m3	1
	<u>Mass brickwork in L-shaped piers of NFP brick in class II mortar laid in stretcher bond</u>		
4/3/5	310 x 330mm L-shaped Brick Piers	m3	0.5
	<u>FACE BRICKWORK</u>		
	Bricks shall be ordered timeously to obtain uniformity in size and colour		
	<u>"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</u>		
4/3/6	Extra over brickwork for face brickwork in foundations (Provisional)	m2	178
4/3/7	Extra over brickwork for face brickwork in superstructure	m2	239
4/3/8	Extra over brickwork for face brickwork in brick-on-edge header course lintel	m	26
4/3/9	Extra over brickwork for face brickwork in brick-on-edge header course sills, bedded in mortar and set slightly sloped	m	22
4/3/10	Extra over brickwork for face brickwork to piers	m2	14
	<u>BRICKWORK SUNDRIES</u>		
	Carried Forward		
	R		
	Section No. 4 SMALL ADMINISTRATION BLOCK Bill No. 3 Masonry		

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Brought Forward			R
<u>Brickwork reinforcement</u>			
4/3/11	75mm Wide reinforcement built in horizontally	m	391
4/3/12	150mm Wide reinforcement built in horizontally.	m	1 190
<u>"Allied concrete" or similar approved prestressed fabricated lintels</u>			
4/3/13	100 x 75mm Lintels in lengths not exceeding 3m	m	29
4/3/14	175 x 70mm Lintels in lengths not exceeding 3m	m	9
<u>Turning pieces</u>			
4/3/15	110mm Wide turning piece to flat brick lintels	m	29
<u>Air bricks etc</u>			
4/3/16	Set of 2, 240 x 155mm Terracota air bricks as per architects specification	No	2
<u>Fair cutting to face brickwork</u>			
4/3/17	Fair raking cutting at gables	m	27
<u>Roof ties</u>			
4/3/18	30 x 1.2mm galvanised steel strapping, built into wall for 5 courses and minimum 800mm to be fixed to trusses	No	50
<u>MOVEMENTS JOINTS ETC,</u>			
<u>Expansion joints</u>			
4/3/19	30mm softboard between vertical brick surfaces not exceeding 300mm wide	m2	10
Carried Forward to Summary of Section No.			R
Section No. 4			
SMALL ADMINISTRATION BLOCK			
Bill No. 3			
Masonry			

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Item No		Quantity	Rate	Amount
	<u>BILL NO. 4</u>			
	<u>WATERPROOFING</u>			
	<u>PREAMBLES</u>			
	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.			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.			
	<u>GENERAL NOTES TO TENDERERS</u>			
	General notes, described in Bill No.1, shall equally apply to this Bill.			
	<u>DAMP PROOFING OF WALLS AND FLOORS</u>			
	<u>One layer of 375 micron "Consol Plastic Brikgrip DPC" embossed damp proof course</u>			
4/4/1	Under cills, etc.	m2	5	
	<u>One layer of 250 micron "USB Green" or similar approved dampproof membrane sealed at laps with PVC self -adhesive tape</u>			
4/4/2	Under surface beds.	m2	240	
	<u>JOINTS SEALANTS, ETC.</u>			
	<u>Mastic grey polysulphide sealing compound including raking out of joints filler as necessary</u>			
4/4/3	10mm Isolation Joints between surface bed concrete and brick wall	m	58	
	Carried Forward to Summary of Section No.			
	Section No. 4			
	SMALL ADMINISTRATION BLOCK			
	Bill No. 4			
	Waterproofing			
				R

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Item No		Quantity	Rate	Amount
	<u>BILL NO. 5</u>			
	<u>ROOF COVERINGS</u>			
	<u>PREAMBLES</u>			
	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.			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.			
	<u>GENERAL NOTES TO TENDERERS</u>			
	General notes, described in Bill No.1, shall equally apply to this Bill.			
	<u>ROOF SHEETING</u>			
	<u>Similar Approved</u>			
	<u>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</u>			
4/5/1	Roof sheeting pitch not exceeding 25 degrees	m2	237	
4/5/2	220mm girth Ridge capping, 3 times bent and notched on site to suit roof profile	m	22	
4/5/3	550mm girth close cut and mitred Valley gutter, 4 times bent and including soakers, etc	m	6	
	<u>ROOF AND WALL INSULATION</u>			
	<u>Similar Approved</u>			
	Carried Forward			R
	Section No. 4 SMALL ADMINISTRATION BLOCK Bill No. 5 Roof Coverings			

	Brought Forward			R	
4/5/4	<p><u>Sisalation "Bubble Foil" aluminium foil banded insulation</u></p> <p>135mm thick Insulation laid over purlins (at approximately 750mm centres), fixed concurrent with sheeting with and including galvanised steel accessories</p>	m2	237		
	Carried Forward to Summary of Section No.			R	
	<p>Section No. 4 SMALL ADMINISTRATION BLOCK Bill No. 5 Roof Coverings</p>				

Item No		Quantity	Rate	Amount
	<p><u>BILL NO. 6</u></p> <p><u>CARPENTRY AND JOINERY</u></p> <p><u>PREAMBLES</u></p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.</p> <p><u>GENERAL NOTES TO TENDERERS</u></p> <p>General notes, described in Bill No.1, shall equally apply to this Bill.</p> <p><u>Joinery</u></p> <p>Descriptions of frames shall be deemed to include frames, transoms, mullions, rails, etc.</p> <p>Descriptions of hardwood joinery shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete.</p> <p><u>Fixing</u></p> <p>Items described as nailed shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete</p> <p><u>Decorative laminate finish</u></p> <p>Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish</p> <p><u>Timber</u></p> <p>All softwood to be South African Pine</p> <p><u>Descriptions</u></p> <p>Items described as "bolted" shall be deemed to exclude the bolts and include the holes unless otherwise described.</p> <p style="text-align: right;">Carried Forward</p> <p>Section No. 4 SMALL ADMINISTRATION BLOCK Bill No. 6 Carpentry and Joinery</p>			R

<p style="text-align: center;">Brought Forward</p> <p>Where the fixing of members is not stated it shall mean the nailing of one timber member to another.</p> <p>The term "planted on" shall mean the nailing of one timber member to another</p> <p>The term "screwed on" shall mean the countersunk screwing of one timber member to another.</p> <p>The term "screwed on and pelleted" shall mean the screwing of one timber member to another with the heads of screw sunk and pelleted.</p> <p>The term "plugged" shall mean the countersunk screwing of a timber member to and including plastic plugs in brickwork or concrete.</p> <p>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.</p> <p>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.</p> <p>Descriptions of floors, ceilings, joinery, etc. shall be deemed to include for all square cutting</p> <p>Descriptions of items given in linear metre shall be deemed to include for mitres, stopped ends, fitted intersections, etc.</p> <p>Descriptions of rounded angles, rebates, grooves, chamfers, moulded edges, etc. shall be deemed to include for angles, ends, etc.</p> <p><u>ROOFS, ETC</u></p>		R	
<p style="text-align: center;">Carried Forward</p> <p>Section No. 4 SMALL ADMINISTRATION BLOCK Bill No. 6 Carpentry and Joinery</p>		R	

	Brought Forward		R	
	<p><u>Plate nailed timber roof truss construction</u></p> <p>The following is applicable in respect of roof trusses:</p> <p>All timber to be sawn softwood in accordance with V4 or M4 as defined in SABS 563 or SABS 1245.</p> <p>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.</p> <p>All joints to be close fitted butt joints.</p> <p>Trusses shall be designed by a registered supplier of prefabricated trusses who shall issue an Engineers Certificate upon completion of the installation.</p> <p>The dimensions in the descriptions of the trusses are nominal and actual measurements are to be obtained on site before design or fabrication commences.</p> <p>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.</p> <p><u>Roof trusses</u></p>			
4/6/1	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	197	
	<p><u>Sawn softwood</u></p>			
4/6/2	38 x 114mm Wall plates	m	60	
	<p><u>Sundries</u></p>			
4/6/3	Two coats creosote on sawn timbers	m2	22	
	<p><u>Similar Approved</u></p>			
	Carried Forward			R
	<p>Section No. 4 SMALL ADMINISTRATION BLOCK Bill No. 6 Carpentry and Joinery</p>			

Brought Forward		R
<u>"Everite FC77" Fascia and badge boards</u>		
4/6/4	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 35
4/6/5	15 x 80 x 300mm fibre cement barge board	m 27
<u>DOORS ETC</u>		
<u>44mm thick solid R&F panel meranti timber doors with masonite backing with 15 horizontal slates on both sides hung to steel frames</u>		
4/6/6	813 x 2032mm single door	No 6
<u>WINDOWS</u>		
<u>Similar Approved</u>		
<u>"Nutec" fibre cement window cills</u>		
4/6/7	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 22
Carried Forward to Summary of Section No.		
Section No. 4		
SMALL ADMINISTRATION BLOCK		
Bill No. 6		
Carpentry and Joinery		
		R

Item No		Quantity	Rate	Amount
	<p><u>BILL NO. 7</u></p> <p><u>CEILING, PARTITIONS AND ACCESS FLOORING</u></p> <p><u>PREAMBLES</u></p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.</p> <p><u>GENERAL NOTES TO TENDERERS</u></p> <p>General notes, described in Bill No.1, shall equally apply to this Bill.</p> <p><u>Fixing</u></p> <p>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.</p> <p>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</p> <p><u>Ceilings & Bulkheads</u></p> <p>Unless otherwise described ceilings shall be deemed to be horizontal</p> <p><u>Steel components</u></p> <p>All steel components for ceilings, partitions, etc are to be galvanised in accordance with SANS 121</p> <p><u>Proprietary suspended ceilings</u></p> <p>Hangers, suspension grids, "lay-in" panels, etc are to be in accordance with the manufacturers' recommendations</p>			
	Carried Forward		R	
	<p>Section No. 4 SMALL ADMINISTRATION BLOCK Bill No. 7 Ceilings,Partitions and Access Flooring</p>			

Brought Forward			R
	<p>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)</p> <p><u>Suspension systems</u></p> <p>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.</p> <p><u>NAILED UP CEILINGS</u></p> <p><u>FIBRE - CEMENT BOARDS</u></p> <p><u>Similar Approved</u></p> <p><u>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</u></p>		
4/7/1	<p>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</p>	m2	151
	<p><u>CORNICES</u></p> <p><u>Similar Approved</u></p> <p><u>"Rhino" plasterboard cornice</u></p>		
4/7/2	<p>75mm "Rhino" gypsum plasterboard coved cornice, plugged to brickwork</p>	m	169
	<p><u>SUNDRIES</u></p> <p><u>Extra over for Trap Doors</u></p>		
4/7/3	<p>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</p>	No	1
	Carried Forward		R
	<p>Section No. 4 SMALL ADMINISTRATION BLOCK Bill No. 7 Ceilings,Partitions and Access Flooring</p>		

	Brought Forward			R
4/7/4	<p><u>CEILING INSULATION</u></p> <p><u>Insulation</u></p> <p>125mm thick Glass wool insulation blanket closely fitted and laid on top of ceiling panels, all in strict accordance with the manufacturer's specifications.</p>	m2	151	
	Carried Forward to Summary of Section No.			R
	<p>Section No. 4 SMALL ADMINISTRATION BLOCK Bill No. 7 Ceilings,Partitions and Access Flooring</p>			

Item No		Quantity	Rate	Amount
	<p><u>BILL NO. 8</u></p> <p><u>IRONMONGERY</u></p> <p><u>PREAMBLES</u></p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.</p> <p><u>GENERAL NOTES TO TENDERERS</u></p> <p>General notes, described in Bill No.1, shall equally apply to this Bill.</p> <p>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.</p> <p><u>Proprietary items</u></p> <p>Where applicable the manufacturers' names or product catalogue titles are given in sub-headings preceding the items</p> <p>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</p> <p>On request returnable samples are to be provided to the principal agent for consideration</p>			
	Carried Forward		R	
	<p>Section No. 4 SMALL ADMINISTRATION BLOCK Bill No. 8 Ironmongery</p>			

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	Brought Forward				R
	<p><u>Finishes to ironmongery</u></p> <p>Where applicable finishes to ironmongery are indicated by suffixes in accordance with the following list:</p> <p>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</p> <p><u>Rates</u></p> <p>The tenderer is to price for supply, taking delivery of, storing and fixing of the ironmongery listed below.</p> <p><u>SUNDRIES</u></p> <p><u>Approved</u></p>				
4/8/1	"CZ8730SC" Door stop or similarly approved to wall or floors	No	6		
	Carried Forward to Summary of Section No.				R
	Section No. 4 SMALL ADMINISTRATION BLOCK Bill No. 8 Ironmongery				

Item No		Quantity	Rate	Amount
	<p><u>BILL NO. 9</u></p> <p><u>METALWORK</u></p> <p><u>PREAMBLES</u></p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.</p> <p><u>GENERAL NOTES TO TENDERERS</u></p> <p>General notes, described in Bill No.1, shall equally apply to this Bill.</p> <p><u>ALUMINIUM</u></p> <p>The contractor is to make due allowance in his prices for complying with the following requirements.</p> <p><u>SPECIFICATIONS</u></p> <p>User Note:</p> <p><u>Glazing</u></p> <p>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.</p> <p><u>Ironmongery</u></p> <p>All rates for windows, shopfronts and doors etc. must include for the supply, taking delivery or/and installation of the ironmongery to be specified.</p> <p><u>Actuators</u></p> <p>All rates for shopfronts with actuators to include for the supply and installation of actuators as specified</p>			
	Carried Forward		R	
	<p>Section No. 4 SMALL ADMINISTRATION BLOCK Bill No. 9 Metalwork</p>			

<p style="text-align: center;">Brought Forward</p> <p><u>Scaffolding</u></p> <p>All scaffolding should be provided by the contractor and no claims/ qualifications will be accepted.</p> <p><u>Protection</u></p> <p>With this tender, the glazing sub-contractor must supply a statement concerning protection that will be provided 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 price.</p> <p><u>Installation</u></p> <p>All measurements to be checked on site prior to ordering and manufacturing.</p> <p>Aluminium sections and shop drawings to be accepted by Architect prior to manufacturing.</p> <p>Allow for water and weather proof polysulphide sealant to approved specifications all around frame junctions to plaster and other materials.</p> <p><u>Profiles</u></p> <p>Tenderers to provide typical details of proposed aluminium section to be used in the design.</p> <p><u>Structural Silicone</u></p> <p>Tenderers to allow a 10 year guarantee on all powdercoating.</p> <p><u>Preliminary and Shop Drawings:</u></p> <p>The contractor shall submit preliminary design drawings showing basic system sections for the Architect's approval.</p> <p>After approval and prior to fabrication detailed shop drawings shall be prepared and submitted to the Architect for approval.</p>		R	
<p style="text-align: center;">Carried Forward</p> <p>Section No. 4 SMALL ADMINISTRATION BLOCK Bill No. 9 Metalwork</p>		R	

	Brought Forward			R	
	<p><u>Fixing:</u></p> <p>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.</p> <p><u>Deflection of structure:</u></p> <p>The contractor is advised to make adequate provision for the design deflection of the structure.</p> <p><u>Tolerances:</u></p> <p>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.</p> <p><u>Protection:</u></p> <p>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.</p> <p>Such protection shall only be removed after a written instruction from the Architect.</p> <p><u>Cleaning:</u></p> <p>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.</p> <p>Note: All windows and doors should be read in conjunction with window and door schedules</p> <p><u>PRESSED STEEL DOOR FRAMES</u></p> <p><u>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</u></p>				
4/9/1	813 x 2032mm single door	No	6		
	Carried Forward			R	
	<p>Section No. 4 SMALL ADMINISTRATION BLOCK Bill No. 9 Metalwork</p>				

	Brought Forward			R
	<p><u>STRONG ROOM DOORS ETC, SUITABLE FOR 220MM WALLS FIXED TO BRICKWORK AND CONCRETE</u></p> <p><u>Similar Approved</u></p> <p><u>DS-70mm SABS Category 2 ADM strong room door, 190mm thick and steel frame, 813 x 2032mm including 8 bolts of 40 diameter-4 front and 4 back, 2x7- lever security keylock, non-deteriorating insulation material, rust proof undercoat for final painting by contractors, weight- 630 kg</u></p>			
4/9/2	Door size 813 x 2032mm	No	1	
	<p><u>WINDOWS FRAMES, etc.</u></p> <p><u>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</u></p>			
4/9/3	Window size 1200 x 1800mm high	No	13	
4/9/4	Window size 1200 x 1200mm high	No	2	
4/9/5	Window size 900 x 1200mm high	No	2	
4/9/6	Window size 900 x 1240mm high	No	2	
	<p><u>ALUMINIUM WINDOWS, DOORS, ETC</u></p> <p><u>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</u></p>			
4/9/7	Size 1015mm x 2100mm	No	2	
	Carried Forward			R
	Section No. 4 SMALL ADMINISTRATION BLOCK Bill No. 9 Metalwork			

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	Brought Forward			R
4/9/8	<p><u>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.</u></p> <p>In Ceiling voids</p>	m2	151	
	Carried Forward to Summary of Section No.			R
	<p>Section No. 4 SMALL ADMINISTRATION BLOCK Bill No. 9 Metalwork</p>			

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Item No		Quantity	Rate	Amount
	<u>BILL NO. 10</u>			
	<u>PLASTERING</u>			
	<u>PREAMBLES</u>			
	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.			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.			
	<u>GENERAL NOTES TO TENDERERS</u>			
	General notes, described in Bill No.1, shall equally apply to this Bill.			
	<u>SCREEDS</u>			
	<u>1:4 Cement sand screed on concrete, worked down to a true and even surface with a steel trowel</u>			
4/10/1	30mm Thick on floors and landings	m2	153	
	<u>Granolithic screed on concrete, worked down to a true and even surface with a wood trowel</u>			
4/10/2	30mm Thick on floors	m2	7	
	<u>INTERNAL PLASTER</u>			
	<u>One coat smooth 1:5 cement sand plaster on brickwork to receive finish</u>			
4/10/3	On brick walls	m2	516	
4/10/4	On narrow widths	m2	52	
	<u>CORNER PROTECTORS, DIVIDING STRIPS, ETC</u>			
4/10/5	Aluminium straight edge M-trim suitable for under-screed fixing in vinyl/ceramic, etc. installed as per manufactures recommendation and specification.	m	2	
4/10/6	38 x 1.2mm Aluminium retro-fit similar approved corner protector installed as per manufactures recommendation and specification.	m	9	
	Carried Forward to Summary of Section No.			R
	Section No. 4 SMALL ADMINISTRATION BLOCK Bill No. 10 Plastering			

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Item No		Quantity	Rate	Amount
	<p><u>BILL NO. 11</u></p> <p><u>TILING</u></p> <p><u>PREAMBLES</u></p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.</p> <p><u>Pricing</u></p> <p>Prices are to included for the following: Cutting, handling, labour, adhesive etc.</p> <p><u>Fixing</u></p> <p>Tiling described as "fixed with adhesive on power floated concrete" shall be deemed to include for approved tiling key-coat.</p> <p>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.</p> <p>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.</p> <p><u>Wastage</u></p> <p>Tile wastage in excess of 10% will be for the tenderer's account.</p> <p><u>GENERAL NOTES TO TENDERERS</u></p> <p>General notes, described in Bill No. 1, shall equally apply to this Bill.</p> <p style="text-align: right;">Carried Forward</p> <p>Section No. 4 SMALL ADMINISTRATION BLOCK Bill No. 11 Tiling</p>			R

Brought Forward			R
	<p><u>Note</u></p> <p>All scaffolding should be provided by the contractor and no claims/qualifications will be accepted.</p> <p><u>WALL TILING</u></p> <p><u>150 x 150 x 6mm white glazed 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</u></p>		
4/11/1	Splash backs	m2	0.4
	<p><u>FLOOR TILING</u></p> <p><u>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 cementitious grout</u></p>		
4/11/2	On floors	m2	153
4/11/3	75mm high skirting	m	172
	<p><u>ATTIC STOCK</u></p>		
4/11/4	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	15
	<p><u>SUNDRIES</u></p> <p><u>10mm aluminium straight edge trim</u></p>		
4/11/5	Dividing strip between tiles and door frames	m	4
Carried Forward to Summary of Section No.			R
Section No. 4			
SMALL ADMINISTRATION BLOCK			
Bill No. 11			
Tiling			

Item No		Quantity	Rate	Amount
	<p><u>BILL NO. 12</u></p> <p><u>PLUMBING AND DRAINAGE (PROVISIONAL)</u></p> <p><u>PREAMBLES</u></p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.</p> <p><u>uPVC pipes and fittings:</u></p> <p>Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings</p> <p><u>uPVC pressure pipes and fittings:</u></p> <p>Pipes for water supply shall be of the class stated</p> <p><u>Excavations:</u></p> <p>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.</p> <p>"Intermediate material" and " hard rock" shall be as defined in "Earthworks".</p> <p>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.</p> <p>Classes of excavation shall be as S.A.B.S 1200D clause 3.1.2.</p> <p><u>Laying, backfilling, bedding, etc., of pipes:</u></p> <p>Pipes shall be laid and bedded, and trenches shall be carefully backfilled, in accordance with the specific instructions</p>			
	Carried Forward		R	
	<p>Section No. 4 SMALL ADMINISTRATION BLOCK Bill No. 12 Plumbing and Drainage</p>			

Brought Forward				R
<u>GENERAL NOTES TO TENDERERS</u>				
General notes, described in Bill No.1, shall equally apply to this Bill.				
<u>RAINWATER GOODS</u>				
<u>Similar Approved</u>				
<u>Gutters</u>				
4/12/1	100 x 100 x 0.6mm thick Ogee profile eaves gutter aluminium box gutter, fixed with and including fixing clips to fascia boards	m	35	
4/12/2	Extra over eaves gutter for stopped end	No	6	
4/12/3	Extra over eaves gutter for corner	No	17	
4/12/4	Extra over eaves gutter for outlet	No	4	
<u>Rainwater downpipes</u>				
4/12/5	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	
4/12/6	Extra over downpipe for offset	No	8	
4/12/7	Extra over downpipe for shoe	No	4	
<u>SANITARY FITTINGS</u>				
Refer to sanitary schedule drawing for full description of abbreviations				
<u>WASH HAND BASINS</u>				
<u>Similar Approved</u>				
<u>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</u>				
4/12/8	WHB, installed complete	No	1	
<u>WATER CLOSET</u>				
Carried Forward				R
Section No. 4 SMALL ADMINISTRATION BLOCK Bill No. 12 Plumbing and Drainage				

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		Brought Forward		R
		<u>Similar Approved</u>		
		<u>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, fittings 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</u>		
4/12/9	WC, installed complete	No	2	
		<u>CHROME PLATED WASTE UNIONS, ETC. (Supply & Fit)</u>		
4/12/10	32mm Basin waste union	No	1	
		<u>TOILET ROLL HOLDER</u>		
		<u>To be approved by Architect</u>		
4/12/11	130 x 560 x 130mm mild steel vandal proof Toilet paper roll holder (Colour: White), plugged and screwed to walls	No	2	
		<u>SOAP DISPENSER</u>		
		<u>To be approved by Architect</u>		
4/12/12	110 x 170 x 35mm high plastic Soap dispenser (Colour: White and transparent), with lever button and pump, plugged and screwed to wall	No	0.3	
		<u>PAPER TOWEL DISPENSER</u>		
		<u>To be approved by Architect</u>		
4/12/13	360 x 380 x 240mm high lockable auto-cut (reflex) plastic Paper towel dispenser (Colour: White), plugged and screwed to wall	No	0.3	
		<u>TAPS, VALVES, ETC</u>		
		<u>Similar Approved</u>		
4/12/14	15mm Cobra brass watertight hose Bib tap (Code: 108-15)	No	1	
		<u>FIRE FIGHTING EQUIPMENT</u>		
		Carried Forward		R
	Section No. 4 SMALL ADMINISTRATION BLOCK Bill No. 12 Plumbing and Drainage			

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	Brought Forward			R
4/12/15	<p><u>Extinguishers including initial charge and setting up in position:</u></p> <p>9kg dry chemical powder fire extinguisher</p>	No	2	
Carried Forward to Summary of Section No.				R
Section No. 4 SMALL ADMINISTRATION BLOCK Bill No. 12 Plumbing and Drainage				

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VUTIVI PRIMARY SCHOOL**

Item No		Quantity	Rate	Amount
	<p><u>BILL NO. 13</u></p> <p><u>GLAZING</u></p> <p><u>PREAMBLES</u></p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.</p> <p><u>GENERAL NOTES TO TENDERERS</u></p> <p>General notes, described in Bill No. 1, shall equally apply to this Bill.</p> <p><u>Note:</u></p> <p>All glazing to comply with SABS 1263 Part 3:1998. Light and ventilation to comply with Part O if NBR 0400</p> <p><u>GLASS TO STEEL WITH PUTTY</u></p> <p><u>6mm obscure floated glass fixed glazing putty</u></p>			
4/13/1	<p>Panes exceeding 0.1m2 and not exceeding 0.5m2</p> <p><u>TOPS, SHELVES, DOORS, MIRROR ETC</u></p> <p><u>6mm Polished plate float glass mirrors with square polished edges plugged with chrome plated detachable screws or similarly approved</u></p>	m2	35	
4/13/2	<p>Mirror 400 x 600 mm high</p>	No	1	
	<p>Carried Forward to Summary of Section No.</p> <p>Section No. 4 SMALL ADMINISTRATION BLOCK Bill No. 13 Glazing</p>			R

**LIMPOPO DEPARTMENT OF EDUCATION
UPGRADES AND ADDITIONS AT
VUTIVI PRIMARY SCHOOL**

Item No		Quantity	Rate	Amount
	<p><u>BILL NO. 14</u></p> <p><u>PAINTWORK</u></p> <p><u>PREAMBLES</u></p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.</p> <p><u>GENERAL NOTES TO TENDERERS</u></p> <p>General notes, described in Bill No. 1, shall equally apply to this Bill.</p> <p><u>PAINTWORK ETC TO NEW WORK</u></p> <p><u>FIBRE CEMENT</u></p> <p><u>Prepare and apply one coat universal undercoat and two coats Super Acrylic PVA paint or similar approved, colour to be confirmed by architect</u></p>			
4/14/1	On internal ceilings and cornices	m2	165	
4/14/2	Fibre cement fascias boards not exceeding 300mm high or wide painted on both side	m	62	
	<p><u>Prepare and apply one coat alkali resistant sealer and two coats mat enamel paint, colour to be confirmed by architect</u></p>			
4/14/3	Fiber cement window sill not exceeding 300mm high or wide	m	22	
	<p><u>FLOATED PLASTER INTERNAL WALLS</u></p> <p><u>Prepare and apply one coat merit universal undercoat and two coats Super Acrylic PVA paint or similar approved, colour to be confirmed by architect</u></p>			
4/14/4	Plastered walls	m2	516	
	<p><u>METAL SURFACES</u></p>			
	Carried Forward			R
	<p>Section No. 4 SMALL ADMINISTRATION BLOCK Bill No. 14 Paintwork</p>			

**LIMPOPO DEPARTMENT OF EDUCATION
UPGRADES AND ADDITIONS AT
VUTIVI PRIMARY SCHOOL**

Brought Forward				R
<u>Prepare and apply one coat Duraphos, one coat universal under coat and two coats gloss enamel paint, colour to be confirmed by architect</u>				
4/14/5	On gates, grilles, burglar screens, balustrades, etc (both sides measured on full flat area)	m2	10	
4/14/6	On window frames	m2	35	
4/14/7	On door frames	m2	10	
4/14/8	On gutters	m	35	
4/14/9	On downpipes	m	14	
<u>WOOD</u>				
<u>Prepare and apply one coat universal undercoat and two coats acrylic PVA, colour to be confirmed by architect</u>				
4/14/10	On door	m2	20	
<u>Prepare and paint three coats clear varnish:</u>				
4/14/11	On door	m2	9	
Carried Forward to Summary of Section No.				R
Section No. 4				
SMALL ADMINISTRATION BLOCK				
Bill No. 14				
Paintwork				

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Bill No	SECTION SUMMARY	Page No		Amount
4/1	Earthworks	4/3		
4/2	Concrete,Formwork and Reinforcement	4/7		
4/3	Masonry	4/10		
4/4	Waterproofing	4/11		
4/5	Roof Coverings	4/13		
4/6	Carpentry and Joinery	4/17		
4/7	Ceilings,Partitions and Access Flooring	4/20		
4/8	Ironmongery	4/22		
4/9	Metalwork	4/27		
4/10	Plastering	4/28		
4/11	Tiling	4/30		
4/12	Plumbing and Drainage	4/34		
4/13	Glazing	4/35		
4/14	Paintwork	4/37		
Carried to Final Summary			R	
Section No. 4 SMALL ADMINISTRATION BLOCK				

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO. 5</u></p> <p><u>BILL NO. 1</u></p> <p><u>EARTHWORKS (PROVISIONAL)</u></p> <p><u>PREAMBLES</u></p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.</p> <p><u>GENERAL NOTES TO TENDERERS</u></p> <p>General notes, described in Bill No.1, shall equally apply to this Bill.</p> <p><u>NOTES</u></p> <p><u>Carting away of excavated material</u></p> <p>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</p> <p><u>Filling</u></p> <p>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</p> <p>Excavations measured in successive depths of 2m.</p> <p><u>SITE CLEARANCE ETC</u></p> <p><u>Site clearance</u></p> <p>5/1/1 Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc</p> <p><u>EXCAVATIONS</u></p>			
	Carried Forward			R
	Section No. 5 4 SEAT WATERBORNE TOILET BLOCK Bill No. 1 Earthworks			

**LIMPOPO DEPARTMENT OF EDUCATION
UPGRADES AND ADDITIONS AT
VUTIVI PRIMARY SCHOOL**

Brought Forward			R
<u>Excavation in earth not exceeding 2m deep</u>			
5/1/2	Trenches	m3	18
<u>Extra over excavations in earth to trenches and holes for</u>			
5/1/3	Excavation in soft rock	m3	2
5/1/4	Excavation in hard rock	m3	1
<u>CARTING AWAY OF EXCAVATED MATERIAL</u>			
<u>Note:</u>			
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.			
5/1/5	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
<u>RISK OF COLLAPSE OF EXCAVATIONS</u>			
<u>Risk of collapse to side of excavation in earth not exceeding 1,5m deep</u>			
5/1/6	Trenches and holes	m2	63
<u>FILLING, ETC.</u>			
<u>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</u>			
5/1/7	Backfilling to trenches, holes, etc	m3	8
5/1/8	Under floors, steps, pavings, etc	m3	20
<u>Imported gravel filling (G7) stabilise with 2-3% cement compacted to 93% Mod AASHTO density in layers not exceeding 150mm thick</u>			
5/1/9	Backfilling to trenches, holes, etc	m3	3
5/1/10	Under floors, steps, pavings, etc	m3	3
Carried Forward			R
Section No. 5 4 SEAT WATERBORNE TOILET BLOCK Bill No. 1 Earthworks			

**LIMPOPO DEPARTMENT OF EDUCATION
UPGRADES AND ADDITIONS AT
VUTIVI PRIMARY SCHOOL**

Brought Forward				R
	<u>Filling supplied by the Contractor under floors, trenches, etc.</u>			
5/1/11	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	
	<u>COMPACTION OF SURFACES</u>			
5/1/12	Prepare ground surface by scarifying sub-grade, rip and re-compact 150mm to 90% modified AASHTO density	m2	44	
	<u>WEED KILLERS, INSECTICIDES, TERMITES, etc.</u>			
	<u>Protection against termites, ants, etc</u>			
5/1/13	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m2	44	
5/1/14	To bottom and sides of excavated trenches, Holes, etc.	m2	81	
Carried Forward to Summary of Section No.				R
Section No. 5				
4 SEAT WATERBORNE TOILET BLOCK				
Bill No. 1				
Earthworks				

Item No		Quantity	Rate	Amount
	<p><u>BILL NO. 2</u></p> <p><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></p> <p><u>PREAMBLES</u></p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.</p> <p><u>Cost of tests</u></p> <p>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)</p> <p><u>Formwork</u></p> <p>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 re-use. 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.</p> <p>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.</p> <p style="text-align: right;">Carried Forward</p> <p>Section No. 5 4 SEAT WATERBORNE TOILET BLOCK Bill No. 2 Concrete,Formwork and Reinforcement</p>			R

	Brought Forward			R	
	<p>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".</p> <p>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:-</p> <ul style="list-style-type: none"> · 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 <p>Structural Concrete</p> <p>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.</p> <p><u>GENERAL NOTES TO TENDERERS</u></p> <p>General notes, described in Bill No.1, shall equally apply to this Bill.</p> <p><u>UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></p> <p><u>15Mpa/19mm concrete</u></p>				
5/2/1	Blinding	m3	1		
	Carried Forward			R	
	<p>Section No. 5 4 SEAT WATERBORNE TOILET BLOCK Bill No. 2 Concrete, Formwork and Reinforcement</p>				

Brought Forward				R
<u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACE</u>				
<u>25MPa/19mm Concrete</u>				
5/2/2	Strip footings	m3	5	
<u>REINFORCED CONCRETE CAST IN FORMWORK</u>				
<u>20Mpa/19mm concrete</u>				
5/2/3	Concrete Apron cast to fall etc,	m3	2	
<u>25MPa/19mm Concrete</u>				
5/2/4	Surface beds cast in panels	m3	3	
<u>TEST BLOCKS</u>				
<u>Notes:</u>				
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)				
5/2/5	Making and testing 150 x 150 x 150mm concrete strength test cube (Provisional)	No	5	
<u>SUNDRIES TO CONCRETE</u>				
<u>Surface treatment</u>				
5/2/6	Power float top surface of concrete surface bed to a true and even level finish	m2	44	
<u>ROUGH FORMWORK (DEGREE OF ACCURACY II)</u>				
<u>Rough formwork to sides</u>				
5/2/7	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	45	
<u>MOVEMENTS JOINTS ETC,</u>				
<u>Expansion joints</u>				
5/2/8	10mm soft board or similar approved between concrete and brick wall	m	22	
<u>REINFORCEMENT (PROVISIONAL)</u>				
Carried Forward				R
Section No. 5 4 SEAT WATERBORNE TOILET BLOCK Bill No. 2 Concrete,Formwork and Reinforcement				

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	Brought Forward				
	<u>High and mild tensile steel reinforcement to structural concrete work</u>				R
5/2/9	All diameter bars	t	0.4		
	<u>Fabric reinforcement:</u>				
5/2/10	Type 245 fabric reinforcement in concrete surface beds, slabs, etc.	m2	22		
	Carried Forward to Summary of Section No.				R
	Section No. 5 4 SEAT WATERBORNE TOILET BLOCK Bill No. 2 Concrete, Formwork and Reinforcement				

Item No		Quantity	Rate	Amount
	<p><u>BILL NO. 3</u></p> <p><u>MASONRY</u></p> <p><u>PREAMBLES</u></p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.</p> <p><u>GENERAL NOTES TO TENDERERS</u></p> <p>General notes, described in Bill No.1, shall equally apply to this Bill.</p> <p><u>Sizes in descriptions</u></p> <p>Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick</p> <p><u>Hollow walls etc</u></p> <p>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.</p> <p><u>Face bricks</u></p> <p>Bricks shall be ordered timeously to obtain uniformity in size and colour</p> <p><u>Pointing</u></p> <p>Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc</p> <p><u>BRICKWORK IN FOUNDATION</u></p>			
	Carried Forward		R	
	<p>Section No. 5 4 SEAT WATERBORNE TOILET BLOCK Bill No. 3 Masonry</p>			

Brought Forward			R
<p><u>Brickwork in 73mm burnt clay masonry units class NFP in Class II mortar, laid in stretcher bond with 10mm flush joints</u></p>			
5/3/1	One brick wall	m2	24
<p><u>SUPERSTRUCTURE BRICKWORK</u></p>			
<p><u>Brickwork of NFP brick in class II mortar laid in stretcher bond with 10mm flush joints</u></p>			
5/3/2	One brick wall	m2	74
5/3/3	Half brick wall	m2	22
5/3/4	Half brick wall, in beamfilling	m2	3
<p><u>FACE BRICKWORK</u></p>			
<p>Bricks shall be ordered timeously to obtain uniformity in size and colour</p>			
<p><u>"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</u></p>			
5/3/5	Extra over brickwork for face brickwork in foundations (Provisional)	m2	47
5/3/6	Extra over brickwork for face brickwork in superstructure	m2	64
5/3/7	Extra over brickwork for face brickwork in brick-on-edge header course lintel	m	4
5/3/8	Extra over brickwork for face brickwork in brick-on-edge header course sills, bedded in mortar and set slightly sloped	m	4
5/3/9	Extra over brickwork for face brickwork in beamfilling	m2	3
<p><u>BRICKWORK SUNDRIES</u></p>			
<p><u>Brickwork reinforcement</u></p>			
5/3/10	75mm Wide reinforcement built in horizontally	m	66
5/3/11	150mm Wide reinforcement built in horizontally.	m	357
Carried Forward			R
<p>Section No. 5 4 SEAT WATERBORNE TOILET BLOCK Bill No. 3 Masonry</p>			

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

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Item No		Quantity	Rate	Amount
	<u>BILL NO. 4</u>			
	<u>WATERPROOFING</u>			
	<u>PREAMBLES</u>			
	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.			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.			
	<u>GENERAL NOTES TO TENDERERS</u>			
	General notes, described in Bill No.1, shall equally apply to this Bill.			
	<u>DAMP PROOFING OF WALLS AND FLOORS</u>			
	<u>One layer of 375 micron "Consol Plastic Brikgrip DPC" embossed damp proof course</u>			
5/4/1	Under walls	m2	1	
5/4/2	Under cills, etc.	m2	1	
	<u>One layer of 250 micron "USB Green" or similar approved dampproof membrane sealed at laps with PVC self -adhesive tape</u>			
5/4/3	Under surface beds.	m2	44	
	<u>JOINTS SEALANTS, ETC.</u>			
	<u>Mastic grey polysulphide sealing compound including raking out of joints filler as necessary</u>			
5/4/4	10mm Isolation Joints between surface bed concrete and brick wall	m	22	
	Carried Forward to Summary of Section No.			
	Section No. 5			
	4 SEAT WATERBORNE TOILET BLOCK			
	Bill No. 4			
	Waterproofing			
				R

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Item No		Quantity	Rate	Amount
	<p><u>BILL NO. 5</u></p> <p><u>ROOF COVERINGS</u></p> <p><u>PREAMBLES</u></p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.</p> <p><u>GENERAL NOTES TO TENDERERS</u></p> <p>General notes, described in Bill No.1, shall equally apply to this Bill.</p> <p><u>ROOF SHEETING</u></p> <p><u>Similar Approved</u></p> <p><u>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</u></p>			
5/5/1	Roof sheeting pitch not exceeding 25 degrees	m2	37	
5/5/2	220mm girth Ridge capping, 3 times bent and notched on site to suit roof profile	m	6	
5/5/3	550mm girth Hip capping, 3 times bent and notched on site to suit roof profile.	m	10	
	<p><u>LOUVRES</u></p> <p><u>Similar Approved</u></p>			
	Carried Forward			R
	<p>Section No. 5 4 SEAT WATERBORNE TOILET BLOCK Bill No. 5 Roof Coverings</p>			

**LIMPOPO DEPARTMENT OF EDUCATION
UPGRADES AND ADDITIONS AT
VUTIVI PRIMARY SCHOOL**

	Brought Forward			R	
	<u>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</u>				
5/5/4	Steel triangular louvre, 1600 x 600mm high overall	No	2		
	<u>ROOF AND WALL INSULATION</u>				
	<u>Similar Approved</u>				
	<u>Sisalation "Bubble Foil" aluminium foil binded insulation</u>				
5/5/5	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.					
Section No. 5					R
4 SEAT WATERBORNE TOILET BLOCK					
Bill No. 5					
Roof Coverings					

Item No		Quantity	Rate	Amount
	<p><u>BILL NO. 6</u></p> <p><u>CARPENTRY AND JOINERY</u></p> <p><u>PREAMBLES</u></p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.</p> <p><u>GENERAL NOTES TO TENDERERS</u></p> <p>General notes, described in Bill No.1, shall equally apply to this Bill.</p> <p><u>Joinery</u></p> <p>Descriptions of frames shall be deemed to include frames, transoms, mullions, rails, etc.</p> <p>Descriptions of hardwood joinery shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete.</p> <p><u>Fixing</u></p> <p>Items described as nailed shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete</p> <p><u>Decorative laminate finish</u></p> <p>Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish</p> <p><u>Timber</u></p> <p>All softwood to be South African Pine</p> <p><u>Descriptions</u></p> <p>Items described as "bolted" shall be deemed to exclude the bolts and include the holes unless otherwise described.</p> <p style="text-align: right;">Carried Forward</p> <p>Section No. 5 4 SEAT WATERBORNE TOILET BLOCK Bill No. 6 Carpentry and Joinery</p>			R

<p style="text-align: center;">Brought Forward</p> <p>Where the fixing of members is not stated it shall mean the nailing of one timber member to another.</p> <p>The term "planted on" shall mean the nailing of one timber member to another</p> <p>The term "screwed on" shall mean the countersunk screwing of one timber member to another.</p> <p>The term "screwed on and pelleted" shall mean the screwing of one timber member to another with the heads of screw sunk and pelleted.</p> <p>The term "plugged" shall mean the countersunk screwing of a timber member to and including plastic plugs in brickwork or concrete.</p> <p>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.</p> <p>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.</p> <p>Descriptions of floors, ceilings, joinery, etc. shall be deemed to include for all square cutting</p> <p>Descriptions of items given in linear metre shall be deemed to include for mitres, stopped ends, fitted intersections, etc.</p> <p>Descriptions of rounded angles, rebates, grooves, chamfers, moulded edges, etc. shall be deemed to include for angles, ends, etc.</p> <p><u>ROOFS, ETC</u></p>		R	
<p style="text-align: center;">Carried Forward</p> <p>Section No. 5 4 SEAT WATERBORNE TOILET BLOCK Bill No. 6 Carpentry and Joinery</p>		R	

	Brought Forward				R
	<p><u>Plate nailed timber roof truss construction</u></p> <p>The following is applicable in respect of roof trusses:</p> <p>All timber to be sawn softwood in accordance with V4 or M4 as defined in SABS 563 or SABS 1245.</p> <p>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.</p> <p>All joints to be close fitted butt joints.</p> <p>Trusses shall be designed by a registered supplier of prefabricated trusses who shall issue an Engineers Certificate upon completion of the installation.</p> <p>The dimensions in the descriptions of the trusses are nominal and actual measurements are to be obtained on site before design or fabrication commences.</p> <p>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.</p> <p><u>Roof trusses</u></p>				
5/6/1	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		
	<p><u>Sawn softwood</u></p>				
5/6/2	38 x 114mm Wall plates	m	22		
	<p><u>Sundries</u></p>				
5/6/3	Two coats creosote on sawn timbers	m2	8		
	<p><u>Similar Approved</u></p>				
	Carried Forward				R
	<p>Section No. 5 4 SEAT WATERBORNE TOILET BLOCK Bill No. 6 Carpentry and Joinery</p>				

**LIMPOPO DEPARTMENT OF EDUCATION
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Brought Forward			R
<u>"Everite FC77" Fascia and badge boards</u>			
5/6/4	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
5/6/5	15 x 80 x 300mm fibre cement barge board	m	23
<u>DOORS ETC</u>			
<u>44mm thick solid R&F panel meranti timber doors with masonite backing with 15 horizontal slates on both sides hung to steel frames</u>			
5/6/6	914 x 2032mm single door	No	4
<u>WINDOWS</u>			
<u>Similar Approved</u>			
<u>"Nutec" fibre cement window cills</u>			
5/6/7	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. 5			
4 SEAT WATERBORNE TOILET BLOCK			
Bill No. 6			
Carpentry and Joinery			
			R

Item No		Quantity	Rate	Amount
	<p><u>BILL NO. 7</u></p> <p><u>CEILING, PARTITIONS AND ACCESS FLOORING</u></p> <p><u>PREAMBLES</u></p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.</p> <p><u>GENERAL NOTES TO TENDERERS</u></p> <p>General notes, described in Bill No.1, shall equally apply to this Bill.</p> <p><u>Fixing</u></p> <p>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.</p> <p>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</p> <p><u>Ceilings & Bulkheads</u></p> <p>Unless otherwise described ceilings shall be deemed to be horizontal</p> <p><u>Steel components</u></p> <p>All steel components for ceilings, partitions, etc are to be galvanised in accordance with SANS 121</p> <p><u>Proprietary suspended ceilings</u></p> <p>Hangers, suspension grids, "lay-in" panels, etc are to be in accordance with the manufacturers' recommendations</p>			
	Carried Forward		R	
	<p>Section No. 5 4 SEAT WATERBORNE TOILET BLOCK Bill No. 7 Ceilings,Partitions and Access Flooring</p>			

Brought Forward				R
	<p>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)</p> <p><u>Suspension systems</u></p> <p>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.</p> <p><u>NAILED UP CEILINGS</u></p> <p><u>FIBRE - CEMENT BOARDS</u></p> <p><u>Similar Approved</u></p> <p><u>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</u></p>			
5/7/1	<p>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</p>	m2	15	
	<p><u>CORNICES</u></p> <p><u>Similar Approved</u></p> <p><u>"Rhino" plasterboard cornice</u></p>			
5/7/2	<p>75mm "Rhino" gypsum plasterboard coved cornice, plugged to brickwork</p>	m	16	
	<p><u>SUNDRIES</u></p> <p><u>Extra over for Trap Doors</u></p>			
5/7/3	<p>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</p>	No	1	
	Carried Forward			R
	<p>Section No. 5 4 SEAT WATERBORNE TOILET BLOCK Bill No. 7 Ceilings,Partitions and Access Flooring</p>			

	Brought Forward			R
5/7/4	<p><u>CEILING INSULATION</u></p> <p><u>Insulation</u></p> <p>125mm thick Glass wool insulation blanket closely fitted and laid on top of ceiling panels, all in strict accordance with the manufacturer's specifications.</p>	m2	15	
	Carried Forward to Summary of Section No.			R
	<p>Section No. 5 4 SEAT WATERBORNE TOILET BLOCK Bill No. 7 Ceilings,Partitions and Access Flooring</p>			

Item No		Quantity	Rate	Amount
	<p><u>BILL NO. 8</u></p> <p><u>IRONMONGERY</u></p> <p><u>PREAMBLES</u></p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.</p> <p><u>GENERAL NOTES TO TENDERERS</u></p> <p>General notes, described in Bill No.1, shall equally apply to this Bill.</p> <p>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.</p> <p><u>Proprietary items</u></p> <p>Where applicable the manufacturers' names or product catalogue titles are given in sub-headings preceding the items</p> <p>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</p> <p>On request returnable samples are to be provided to the principal agent for consideration</p>			
	Carried Forward		R	
	<p>Section No. 5 4 SEAT WATERBORNE TOILET BLOCK Bill No. 8 Ironmongery</p>			

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	Brought Forward		R	
	<p><u>Finishes to ironmongery</u></p> <p>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</p> <p><u>Rates</u></p> <p>The tenderer is to price for supply, taking delivery of, storing and fixing of the ironmongery listed below.</p> <p><u>SUNDRIES</u></p> <p><u>Approved</u></p>			
5/8/1	"CZ8730SC" Door stop or similarly approved to wall or floors	No	4	
	Carried Forward to Summary of Section No.			
	Section No. 5 4 SEAT WATERBORNE TOILET BLOCK Bill No. 8 Ironmongery		R	

Item No		Quantity	Rate	Amount
	<p><u>BILL NO. 9</u></p> <p><u>METALWORK</u></p> <p><u>PREAMBLES</u></p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.</p> <p><u>GENERAL NOTES TO TENDERERS</u></p> <p>General notes, described in Bill No.1, shall equally apply to this Bill.</p> <p><u>ALUMINIUM</u></p> <p>The contractor is to make due allowance in his prices for complying with the following requirements.</p> <p><u>SPECIFICATIONS</u></p> <p>User Note:</p> <p><u>Glazing</u></p> <p>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.</p> <p><u>Ironmongery</u></p> <p>All rates for windows, shopfronts and doors etc. must include for the supply, taking delivery or/and installation of the ironmongery to be specified.</p> <p><u>Actuators</u></p> <p>All rates for shopfronts with actuators to include for the supply and installation of actuators as specified</p>			
	Carried Forward		R	
	<p>Section No. 5 4 SEAT WATERBORNE TOILET BLOCK Bill No. 9 Metalwork</p>			

<p style="text-align: center;">Brought Forward</p> <p><u>Scaffolding</u></p> <p>All scaffolding should be provided by the contractor and no claims/ qualifications will be accepted.</p> <p><u>Protection</u></p> <p>With this tender, the glazing sub-contractor must supply a statement concerning protection that will be provided 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 price.</p> <p><u>Installation</u></p> <p>All measurements to be checked on site prior to ordering and manufacturing.</p> <p>Aluminium sections and shop drawings to be accepted by Architect prior to manufacturing.</p> <p>Allow for water and weather proof polysulphide sealant to approved specifications all around frame junctions to plaster and other materials.</p> <p><u>Profiles</u></p> <p>Tenderers to provide typical details of proposed aluminium section to be used in the design.</p> <p><u>Structural Silicone</u></p> <p>Tenderers to allow a 10 year guarantee on all powdercoating.</p> <p><u>Preliminary and Shop Drawings:</u></p> <p>The contractor shall submit preliminary design drawings showing basic system sections for the Architect's approval.</p> <p>After approval and prior to fabrication detailed shop drawings shall be prepared and submitted to the Architect for approval.</p>		R	
<p style="text-align: center;">Carried Forward</p> <p>Section No. 5 4 SEAT WATERBORNE TOILET BLOCK Bill No. 9 Metalwork</p>		R	

	Brought Forward			R	
	<p><u>Fixing:</u></p> <p>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.</p> <p><u>Deflection of structure:</u></p> <p>The contractor is advised to make adequate provision for the design deflection of the structure.</p> <p><u>Tolerances:</u></p> <p>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.</p> <p><u>Protection:</u></p> <p>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.</p> <p>Such protection shall only be removed after a written instruction from the Architect.</p> <p><u>Cleaning:</u></p> <p>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.</p> <p>Note: All windows and doors should be read in conjunction with window and door schedules</p> <p><u>PRESSED STEEL DOOR FRAMES</u></p> <p><u>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</u></p>				
5/9/1	914 x 2032mm single door	No	4		
	Carried Forward			R	
	<p>Section No. 5 4 SEAT WATERBORNE TOILET BLOCK Bill No. 9 Metalwork</p>				

		Brought Forward		R
	<p><u>WINDOWS FRAMES, etc.</u></p> <p><u>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</u></p>			
5/9/2	Window size 1022 x 949mm high	No	4	
	<p><u>ALUMINIUM WINDOWS, DOORS, ETC</u></p> <p><u>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.</u></p>			
5/9/3	In Ceiling voids	m2	15	
<p>Carried Forward to Summary of Section No.</p> <p>Section No. 5 4 SEAT WATERBORNE TOILET BLOCK Bill No. 9 Metalwork</p>				R

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Item No		Quantity	Rate	Amount
	<u>BILL NO. 10</u>			
	<u>PLASTERING</u>			
	<u>PREAMBLES</u>			
	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.			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.			
	<u>GENERAL NOTES TO TENDERERS</u>			
	General notes, described in Bill No.1, shall equally apply to this Bill.			
	<u>SCREEDS</u>			
	<u>1:4 Cement sand screed on concrete, worked down to a true and even surface with a steel trowel</u>			
5/10/1	30mm Thick on floors and landings	m2	33	
5/10/2	30mm Thick to falls and currents	m2	3	
	<u>INTERNAL PLASTER</u>			
	<u>One coat smooth 1:5 cement sand plaster on brickwork to receive finish</u>			
5/10/3	On brick walls	m2	115	
5/10/4	On narrow widths	m2	12	
	<u>CORNER PROTECTORS, DIVIDING STRIPS, ETC</u>			
5/10/5	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. 5 4 SEAT WATERBORNE TOILET BLOCK Bill No. 10 Plastering			

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Item No		Quantity	Rate	Amount
	<p><u>BILL NO. 11</u></p> <p><u>TILING</u></p> <p><u>PREAMBLES</u></p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.</p> <p><u>Pricing</u></p> <p>Prices are to included for the following: Cutting, handling, labour, adhesive etc.</p> <p><u>Fixing</u></p> <p>Tiling described as "fixed with adhesive on power floated concrete" shall be deemed to include for approved tiling key-coat.</p> <p>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.</p> <p>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.</p> <p><u>Wastage</u></p> <p>Tile wastage in excess of 10% will be for the tenderer's account.</p> <p><u>GENERAL NOTES TO TENDERERS</u></p> <p>General notes, described in Bill No. 1, shall equally apply to this Bill.</p> <p style="text-align: right;">Carried Forward</p> <p>Section No. 5 4 SEAT WATERBORNE TOILET BLOCK Bill No. 11 Tiling</p>			R

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	Brought Forward				R
	<p><u>Note</u></p> <p>All scaffolding should be provided by the contractor and no claims/qualifications will be accepted.</p> <p><u>WALL TILING</u></p> <p><u>150 x 150 x 6mm white glazed 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</u></p>				
5/11/1	Plastered walls	m2	62		
5/11/2	On narrow widths	m2	6		
5/11/3	Splash backs	m2	1		
	<p><u>FLOOR TILING</u></p> <p><u>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 cementitious grout</u></p>				
5/11/4	On floors	m2	37		
5/11/5	75mm high skirting	m	81		
	<p><u>ATTIC STOCK</u></p>				
5/11/6	150 x 150 x 6mm ceramic tiles(PC allowance of R 120.00/m2 excludes V.A.T. but includes delivery to site)	m2	6		
5/11/7	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	4		
	Carried Forward to Summary of Section No.				R
	<p>Section No. 5 4 SEAT WATERBORNE TOILET BLOCK Bill No. 11 Tiling</p>				

Item No		Quantity	Rate	Amount
	<p><u>BILL NO. 12</u></p> <p><u>PLUMBING AND DRAINAGE (PROVISIONAL)</u></p> <p><u>PREAMBLES</u></p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.</p> <p><u>uPVC pipes and fittings:</u></p> <p>Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings</p> <p><u>uPVC pressure pipes and fittings:</u></p> <p>Pipes for water supply shall be of the class stated</p> <p><u>Excavations:</u></p> <p>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.</p> <p>"Intermediate material" and " hard rock" shall be as defined in "Earthworks".</p> <p>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.</p> <p>Classes of excavation shall be as S.A.B.S 1200D clause 3.1.2.</p> <p><u>Laying, backfilling, bedding, etc., of pipes:</u></p> <p>Pipes shall be laid and bedded, and trenches shall be carefully backfilled, in accordance with the specific instructions</p>			
	Carried Forward		R	
	<p>Section No. 5 4 SEAT WATERBORNE TOILET BLOCK Bill No. 12 Plumbing and Drainage</p>			

Brought Forward		R
<u>GENERAL NOTES TO TENDERERS</u>		
General notes, described in Bill No.1, shall equally apply to this Bill.		
<u>RAINWATER GOODS</u>		
<u>Similar Approved</u>		
<u>Gutters</u>		
5/12/1	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
5/12/2	Extra over eaves gutter for stopped end	No 8
5/12/3	Extra over eaves gutter for corner	No 17
5/12/4	Extra over eaves gutter for outlet	No 4
<u>Rainwater downpipes</u>		
5/12/5	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
5/12/6	Extra over downpipe for offset	No 8
5/12/7	Extra over downpipe for shoe	No 4
<u>SANITARY FITTINGS</u>		
Refer to sanitary schedule drawing for full description of abbreviations		
<u>WASH HAND BASINS</u>		
<u>Similar Approved</u>		
<u>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</u>		
5/12/8	WHB, installed complete	No 4
<u>WATER CLOSET</u>		
Carried Forward		R
Section No. 5 4 SEAT WATERBORNE TOILET BLOCK Bill No. 12 Plumbing and Drainage		

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Brought Forward			R
	<u>Similar Approved</u>		
	<u>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, fittings 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</u>		
5/12/9	WC, installed complete	No	4
	<u>CHROME PLATED WASTE UNIONS, ETC. (Supply & Fit)</u>		
5/12/10	32mm Basin waste union	No	4
	<u>TOILET ROLL HOLDER</u>		
	<u>To be approved by Architect</u>		
5/12/11	130 x 560 x 130mm mild steel vandal proof Toilet paper roll holder (Colour: White), plugged and screwed to walls	No	4
	<u>SOAP DISPENSER</u>		
	<u>To be approved by Architect</u>		
5/12/12	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
	<u>PAPER TOWEL DISPENSER</u>		
	<u>To be approved by Architect</u>		
5/12/13	360 x 380 x 240mm high lockable auto-cut (reflex) plastic Paper towel dispenser (Colour: White), plugged and screwed to wall	No	1
	<u>TAPS, VALVES, ETC</u>		
	<u>Similar Approved</u>		
5/12/14	15mm Cobra brass watertight hose Bib tap (Code: 108-15)	No	4
Carried Forward to Summary of Section No.			R
Section No. 5			
4 SEAT WATERBORNE TOILET BLOCK			
Bill No. 12			
Plumbing and Drainage			

**LIMPOPO DEPARTMENT OF EDUCATION
UPGRADES AND ADDITIONS AT
VUTIVI PRIMARY SCHOOL**

Item No		Quantity	Rate	Amount
	<p><u>BILL NO. 13</u></p> <p><u>GLAZING</u></p> <p><u>PREAMBLES</u></p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.</p> <p><u>GENERAL NOTES TO TENDERERS</u></p> <p>General notes, described in Bill No. 1, shall equally apply to this Bill.</p> <p><u>Note:</u></p> <p>All glazing to comply with SABS 1263 Part 3:1998. Light and ventilation to comply with Part O if NBR 0400</p> <p><u>GLASS TO STEEL WITH PUTTY</u></p> <p><u>5mm clear floated glass fixed glazing putty</u></p>			
5/13/1	Panels not exceeding 0.1m2	m2	4	
	<p><u>TOPS, SHELVES, DOORS, MIRROR ETC</u></p> <p><u>6mm Polished plate float glass mirrors with square polished edges plugged with chrome plated detachable screws or similarly approved</u></p>			
5/13/2	Mirror 400 x 600 mm high	No	4	
	<p>Carried Forward to Summary of Section No.</p>			
	<p>Section No. 5 4 SEAT WATERBORNE TOILET BLOCK Bill No. 13 Glazing</p>			R

**LIMPOPO DEPARTMENT OF EDUCATION
UPGRADES AND ADDITIONS AT
VUTIVI PRIMARY SCHOOL**

Item No		Quantity	Rate	Amount
	<p><u>BILL NO. 14</u></p> <p><u>PAINTWORK</u></p> <p><u>PREAMBLES</u></p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.</p> <p><u>GENERAL NOTES TO TENDERERS</u></p> <p>General notes, described in Bill No. 1, shall equally apply to this Bill.</p> <p><u>PAINTWORK ETC TO NEW WORK</u></p> <p><u>FIBRE CEMENT</u></p> <p><u>Prepare and apply one coat universal undercoat and two coats Super Acrylic PVA paint or similar approved, colour to be confirmed by architect</u></p>			
5/14/1	On internal ceilings and cornices	m2	17	
5/14/2	Fibre cement fascias boards not exceeding 300mm high or wide painted on both side	m	46	
	<p><u>Prepare and apply one coat alkali resistant sealer and two coats mat enamel paint, colour to be confirmed by architect</u></p>			
5/14/3	Fiber cement window sill not exceeding 300mm high or wide	m	4	
	<p><u>FLOATED PLASTER INTERNAL WALLS</u></p> <p><u>Prepare and apply one coat merit universal undercoat and two coats Super Acrylic PVA paint or similar approved, colour to be confirmed by architect</u></p>			
5/14/4	Plastered walls	m2	115	
	<p><u>METAL SURFACES</u></p>			
	Carried Forward			R
	<p>Section No. 5 4 SEAT WATERBORNE TOILET BLOCK Bill No. 14 Paintwork</p>			

**LIMPOPO DEPARTMENT OF EDUCATION
UPGRADES AND ADDITIONS AT
VUTIVI PRIMARY SCHOOL**

	Brought Forward			R	
	<u>Prepare and apply one coat Duraphos, one coat universal under coat and two coats gloss enamel paint, colour to be confirmed by architect</u>				
5/14/5	On window frames	m2	4		
5/14/6	On door frames	m2	5		
5/14/7	On gutters	m	23		
5/14/8	On downpipes	m	14		
	<u>WOOD</u>				
	<u>Prepare and apply one coat universal undercoat and two coats acrylic PVA, colour to be confirmed by architect</u>				
5/14/9	On door	m2	15		
	Carried Forward to Summary of Section No.				
	Section No. 5				
	4 SEAT WATERBORNE TOILET BLOCK				
	Bill No. 14				
	Paintwork				

**LIMPOPO DEPARTMENT OF EDUCATION
UPGRADES AND ADDITIONS AT
VUTIVI PRIMARY SCHOOL**

Bill No	<u>SECTION SUMMARY</u>	Page No		Amount
5/1	Earthworks	5/3		
5/2	Concrete,Formwork and Reinforcement	5/7		
5/3	Masonry	5/10		
5/4	Waterproofing	5/11		
5/5	Roof Coverings	5/13		
5/6	Carpentry and Joinery	5/17		
5/7	Ceilings,Partitions and Access Flooring	5/20		
5/8	Ironmongery	5/22		
5/9	Metalwork	5/26		
5/10	Plastering	5/27		
5/11	Tiling	5/29		
5/12	Plumbing and Drainage	5/32		
5/13	Glazing	5/33		
5/14	Paintwork	5/35		
Carried to Final Summary			R	
Section No. 5 4 SEAT WATERBORNE TOILET BLOCK				

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO. 6</u></p> <p><u>BILL NO. 1</u></p> <p><u>EARTHWORKS (PROVISIONAL)</u></p> <p><u>PREAMBLES</u></p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.</p> <p><u>GENERAL NOTES TO TENDERERS</u></p> <p>General notes, described in Bill No.1, shall equally apply to this Bill.</p> <p><u>NOTES</u></p> <p><u>Carting away of excavated material</u></p> <p>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</p> <p><u>Filling</u></p> <p>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</p> <p>Excavations measured in successive depths of 2m.</p> <p><u>SITE CLEARANCE ETC</u></p> <p><u>Site clearance</u></p> <p>Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc</p> <p><u>EXCAVATIONS</u></p>			
6/1/1		m2	366	
	Carried Forward			R
	<p>Section No. 6 2 CLASSROOM BLOCK GRADE R Bill No. 1 Earthworks</p>			

**LIMPOPO DEPARTMENT OF EDUCATION
UPGRADES AND ADDITIONS AT
VUTIVI PRIMARY SCHOOL**

Brought Forward			R
<u>Excavation in earth not exceeding 2m deep</u>			
6/1/2	Trenches	m3	94
<u>Extra over excavations in earth to trenches and holes for</u>			
6/1/3	Excavation in soft rock	m3	9
6/1/4	Excavation in hard rock	m3	5
<u>CARTING AWAY OF EXCAVATED MATERIAL</u>			
<u>Note:</u>			
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.			
6/1/5	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	54
<u>RISK OF COLLAPSE OF EXCAVATIONS</u>			
<u>Risk of collapse to side of excavation in earth not exceeding 1,5m deep</u>			
6/1/6	Trenches and holes	m2	294
<u>FILLING, ETC.</u>			
<u>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</u>			
6/1/7	Backfilling to trenches, holes, etc	m3	45
6/1/8	Under floors, steps, pavings, etc	m3	177
<u>Imported gravel filling (G7) stabilise with 2-3% cement compacted to 93% Mod AASHTO density in layers not exceeding 150mm thick</u>			
6/1/9	Backfilling to trenches, holes, etc	m3	14
6/1/10	Under floors, steps, pavings, etc	m3	39
Carried Forward			R
Section No. 6 2 CLASSROOM BLOCK GRADE R Bill No. 1 Earthworks			

**LIMPOPO DEPARTMENT OF EDUCATION
UPGRADES AND ADDITIONS AT
VUTIVI PRIMARY SCHOOL**

	Brought Forward			R
	<u>Filling supplied by the Contractor under floors, trenches, etc.</u>			
6/1/11	Sub-base filling (G5) from excavations under solid floors, steps, etc. compacted to 95% modified AASHTO density in layers not exceeding 150mm thick	m3	39	
	<u>COMPACTION OF SURFACES</u>			
6/1/12	Prepare ground surface by scarifying sub-grade, rip and re-compact 150mm to 90% modified AASHTO density	m2	330	
	<u>WEED KILLERS, INSECTICIDES, TERMITES, etc.</u>			
	<u>Protection against termites, ants, etc</u>			
6/1/13	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m2	330	
6/1/14	To bottom and sides of excavated trenches, Holes, etc.	m2	388	
	Carried Forward to Summary of Section No.			
	Section No. 6			
	2 CLASSROOM BLOCK GRADE R			
	Bill No. 1			
	Earthworks			

Item No		Quantity	Rate	Amount
	<p><u>BILL NO. 2</u></p> <p><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></p> <p><u>PREAMBLES</u></p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.</p> <p><u>Cost of tests</u></p> <p>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)</p> <p><u>Formwork</u></p> <p>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 re-use. 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.</p> <p>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.</p> <p style="text-align: right;">Carried Forward</p> <p>Section No. 6 2 CLASSROOM BLOCK GRADE R Bill No. 2 Concrete,Formwork and Reinforcement</p>			R

	Brought Forward			R	
	<p>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".</p> <p>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:-</p> <ul style="list-style-type: none"> · 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 <p>Structural Concrete</p> <p>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.</p> <p><u>GENERAL NOTES TO TENDERERS</u></p> <p>General notes, described in Bill No.1, shall equally apply to this Bill.</p> <p><u>UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></p> <p><u>15Mpa/19mm concrete</u></p>				
6/2/1	Blinding	m3	5		
	Carried Forward			R	
	<p>Section No. 6 2 CLASSROOM BLOCK GRADE R Bill No. 2 Concrete, Formwork and Reinforcement</p>				

Brought Forward			R
<u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACE</u>			
<u>25MPa/19mm Concrete</u>			
6/2/2	Strip footings	m3	23
<u>REINFORCED CONCRETE CAST IN FORMWORK</u>			
<u>20Mpa/19mm concrete</u>			
6/2/3	Concrete Apron cast to fall etc,	m3	7
<u>25MPa/19mm Concrete</u>			
6/2/4	Surface beds cast in panels	m3	34
<u>TEST BLOCKS</u>			
<u>Notes:</u>			
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)			
6/2/5	Making and testing 150 x 150 x 150mm concrete strength test cube (Provisional)	No	31
<u>SUNDRIES TO CONCRETE</u>			
<u>Surface treatment</u>			
6/2/6	Power float top surface of concrete surface bed to a true and even level finish	m2	330
<u>ROUGH FORMWORK (DEGREE OF ACCURACY II)</u>			
<u>Rough formwork to sides</u>			
6/2/7	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	143
<u>MOVEMENTS JOINTS ETC,</u>			
<u>Saw cuts Joints</u>			
6/2/8	3 x 30mm In saw cut joints in floors	m	34
Carried Forward			R
Section No. 6 2 CLASSROOM BLOCK GRADE R Bill No. 2 Concrete,Formwork and Reinforcement			

**LIMPOPO DEPARTMENT OF EDUCATION
UPGRADES AND ADDITIONS AT
VUTIVI PRIMARY SCHOOL**

Brought Forward			R
	<u>Expansion joints</u>		
6/2/9	10mm soft board or similar approved between concrete and brick wall	m	72
	<u>REINFORCEMENT (PROVISIONAL)</u>		
	<u>High and mild tensile steel reinforcement to structural concrete work</u>		
6/2/10	All diameter bars	t	2
	<u>Fabric reinforcement:</u>		
6/2/11	Type 245 fabric reinforcement in concrete surface beds, slabs, etc.	m2	259
Carried Forward to Summary of Section No.			R
Section No. 6			
2 CLASSROOM BLOCK GRADE R			
Bill No. 2			
Concrete, Formwork and Reinforcement			

Item No		Quantity	Rate	Amount
	<p><u>BILL NO. 3</u></p> <p><u>MASONRY</u></p> <p><u>PREAMBLES</u></p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.</p> <p><u>GENERAL NOTES TO TENDERERS</u></p> <p>General notes, described in Bill No.1, shall equally apply to this Bill.</p> <p><u>Sizes in descriptions</u></p> <p>Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick</p> <p><u>Hollow walls etc</u></p> <p>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.</p> <p><u>Face bricks</u></p> <p>Bricks shall be ordered timeously to obtain uniformity in size and colour</p> <p><u>Pointing</u></p> <p>Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc</p> <p><u>BRICKWORK IN FOUNDATION</u></p>			
	Carried Forward		R	
	<p>Section No. 6 2 CLASSROOM BLOCK GRADE R Bill No. 3 Masonry</p>			

Brought Forward			R
<p><u>Brickwork in 73mm burnt clay masonry units class NFP in Class II mortar, laid in stretcher bond with 10mm flush joints</u></p>			
6/3/1	One brick wall	m2	110
<p><u>SUPERSTRUCTURE BRICKWORK</u></p>			
<p><u>Brickwork of NFP brick in class II mortar laid in stretcher bond with 10mm flush joints</u></p>			
6/3/2	One brick wall	m2	327
6/3/3	Half brick wall	m2	65
6/3/4	Half brick wall, in beamfilling	m2	11
<p><u>Mass brickwork in regular piers of NFP brick in class II mortar laid in stretcher bond</u></p>			
6/3/5	360 x 230mm Brick Piers	m3	2
6/3/6	330 x 330mm Brick Piers	m3	4
<p><u>FACE BRICKWORK</u></p>			
<p>Bricks shall be ordered timeously to obtain uniformity in size and colour</p>			
<p><u>"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</u></p>			
6/3/7	Extra over brickwork for face brickwork in foundations (Provisional)	m2	220
6/3/8	Extra over brickwork for face brickwork in superstructure	m2	215
6/3/9	Extra over brickwork for face brickwork in brick-on-edge header course lintel	m	24
6/3/10	Extra over brickwork for face brickwork in brick-on-edge header course sills, bedded in mortar and set slightly sloped	m	20
6/3/11	Extra over brickwork for face brickwork to piers	m2	80
6/3/12	Extra over brickwork for face brickwork in beamfilling	m2	11
<p><u>BRICKWORK SUNDRIES</u></p>			
Carried Forward			R
<p>Section No. 6 2 CLASSROOM BLOCK GRADE R Bill No. 3 Masonry</p>			

**LIMPOPO DEPARTMENT OF EDUCATION
UPGRADES AND ADDITIONS AT
VUTIVI PRIMARY SCHOOL**

Brought Forward			R
<u>Brickwork reinforcement</u>			
6/3/13	75mm Wide reinforcement built in horizontally	m	190
6/3/14	150mm Wide reinforcement built in horizontally.	m	1 642
<u>"Allied concrete" or similar approved prestressed fabricated lintels</u>			
6/3/15	100 x 75mm Lintels in lengths not exceeding 3m	m	27
6/3/16	175 x 70mm Lintels in lengths not exceeding 3m	m	19
<u>Turning pieces</u>			
6/3/17	110mm Wide turning piece to flat brick lintels	m	34
<u>Air bricks etc</u>			
6/3/18	Set of 2, 240 x 155mm Terracota air bricks as per architects specification	No	5
<u>Fair cutting to face brickwork</u>			
6/3/19	Fair raking cutting at gables	m	77
<u>Roof ties</u>			
6/3/20	30 x 1.2mm galvanised steel strapping, built into wall for 5 courses and minimum 800mm to be fixed to trusses	No	64
<u>MOVEMENTS JOINTS ETC,</u>			
<u>Expansion joints</u>			
6/3/21	30mm softboard between vertical brick surfaces not exceeding 300mm wide	m2	15
Carried Forward to Summary of Section No.			R
Section No. 6			
2 CLASSROOM BLOCK GRADE R			
Bill No. 3			
Masonry			

**LIMPOPO DEPARTMENT OF EDUCATION
UPGRADES AND ADDITIONS AT
VUTIVI PRIMARY SCHOOL**

Item No		Quantity	Rate	Amount
	<u>BILL NO. 4</u>			
	<u>WATERPROOFING</u>			
	<u>PREAMBLES</u>			
	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.			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.			
	<u>GENERAL NOTES TO TENDERERS</u>			
	General notes, described in Bill No.1, shall equally apply to this Bill.			
	<u>DAMP PROOFING OF WALLS AND FLOORS</u>			
	<u>One layer of 375 micron "Consol Plastic Brikgrip DPC" embossed damp proof course</u>			
6/4/1	Under walls	m2	3	
6/4/2	Under cills, etc.	m2	4	
	<u>One layer of 250 micron "USB Green" or similar approved dampproof membrane sealed at laps with PVC self -adhesive tape</u>			
6/4/3	Under surface beds.	m2	330	
	<u>JOINTS SEALANTS, ETC.</u>			
	<u>Mastic grey polysulphide sealing compound including raking out of joints filler as necessary</u>			
6/4/4	3 x 30mm In saw cut joints in floors	m	34	
6/4/5	10mm Isolation Joints between surface bed concrete and brick wall	m	72	
	Carried Forward to Summary of Section No.			
	Section No. 6 2 CLASSROOM BLOCK GRADE R Bill No. 4 Waterproofing			R

**LIMPOPO DEPARTMENT OF EDUCATION
UPGRADES AND ADDITIONS AT
VUTIVI PRIMARY SCHOOL**

Item No		Quantity	Rate	Amount
	<u>BILL NO. 5</u>			
	<u>ROOF COVERINGS</u>			
	<u>PREAMBLES</u>			
	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.			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.			
	<u>GENERAL NOTES TO TENDERERS</u>			
	General notes, described in Bill No.1, shall equally apply to this Bill.			
	<u>ROOF SHEETING</u>			
	<u>Similar Approved</u>			
	<u>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</u>			
6/5/1	Roof sheeting pitch not exceeding 25 degrees	m2	366	
6/5/2	220mm girth Ridge capping, 3 times bent and notched on site to suit roof profile	m	28	
6/5/3	550mm girth Hip capping, 3 times bent and notched on site to suit roof profile.	m	21	
	<u>ROOF AND WALL INSULATION</u>			
	<u>Similar Approved</u>			
	Carried Forward			R
	Section No. 6 2 CLASSROOM BLOCK GRADE R Bill No. 5 Roof Coverings			

	Brought Forward			R	
6/5/4	<p><u>Sisalation "Bubble Foil" aluminium foil banded insulation</u></p> <p>135mm thick Insulation laid over purlins (at approximately 750mm centres), fixed concurrent with sheeting with and including galvanised steel accessories</p>	m2	366		
	Carried Forward to Summary of Section No.			R	
	<p>Section No. 6 2 CLASSROOM BLOCK GRADE R Bill No. 5 Roof Coverings</p>				

Item No		Quantity	Rate	Amount
	<p><u>BILL NO. 6</u></p> <p><u>CARPENTRY AND JOINERY</u></p> <p><u>PREAMBLES</u></p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.</p> <p><u>GENERAL NOTES TO TENDERERS</u></p> <p>General notes, described in Bill No.1, shall equally apply to this Bill.</p> <p><u>Joinery</u></p> <p>Descriptions of frames shall be deemed to include frames, transoms, mullions, rails, etc.</p> <p>Descriptions of hardwood joinery shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete.</p> <p><u>Fixing</u></p> <p>Items described as nailed shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete</p> <p><u>Decorative laminate finish</u></p> <p>Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish</p> <p><u>Timber</u></p> <p>All softwood to be South African Pine</p> <p><u>Descriptions</u></p> <p>Items described as "bolted" shall be deemed to exclude the bolts and include the holes unless otherwise described.</p>			
	Carried Forward		R	
	<p>Section No. 6 2 CLASSROOM BLOCK GRADE R Bill No. 6 Carpentry and Joinery</p>			

<p style="text-align: center;">Brought Forward</p> <p>Where the fixing of members is not stated it shall mean the nailing of one timber member to another.</p> <p>The term "planted on" shall mean the nailing of one timber member to another</p> <p>The term "screwed on" shall mean the countersunk screwing of one timber member to another.</p> <p>The term "screwed on and pelleted" shall mean the screwing of one timber member to another with the heads of screw sunk and pelleted.</p> <p>The term "plugged" shall mean the countersunk screwing of a timber member to and including plastic plugs in brickwork or concrete.</p> <p>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.</p> <p>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.</p> <p>Descriptions of floors, ceilings, joinery, etc. shall be deemed to include for all square cutting</p> <p>Descriptions of items given in linear metre shall be deemed to include for mitres, stopped ends, fitted intersections, etc.</p> <p>Descriptions of rounded angles, rebates, grooves, chamfers, moulded edges, etc. shall be deemed to include for angles, ends, etc.</p> <p><u>ROOFS, ETC</u></p>		R	
<p style="text-align: center;">Carried Forward</p> <p>Section No. 6 2 CLASSROOM BLOCK GRADE R Bill No. 6 Carpentry and Joinery</p>		R	

	Brought Forward			R
	<p><u>Plate nailed timber roof truss construction</u></p> <p>The following is applicable in respect of roof trusses:</p> <p>All timber to be sawn softwood in accordance with V4 or M4 as defined in SABS 563 or SABS 1245.</p> <p>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.</p> <p>All joints to be close fitted butt joints.</p> <p>Trusses shall be designed by a registered supplier of prefabricated trusses who shall issue an Engineers Certificate upon completion of the installation.</p> <p>The dimensions in the descriptions of the trusses are nominal and actual measurements are to be obtained on site before design or fabrication commences.</p> <p>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.</p> <p><u>Roof trusses</u></p>			
6/6/1	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	305	
	<p><u>Sawn softwood</u></p>			
6/6/2	38 x 114mm Wall plates	m	76	
	<p><u>Sundries</u></p>			
6/6/3	Two coats creosote on sawn timbers	m2	28	
	<p><u>Similar Approved</u></p>			
	Carried Forward			R
	<p>Section No. 6 2 CLASSROOM BLOCK GRADE R Bill No. 6 Carpentry and Joinery</p>			

Brought Forward			R
<u>"Everite FC77" Fascia and badge boards</u>			
6/6/4	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	77
6/6/5	15 x 80 x 300mm fibre cement barge board	m	77
<u>DOORS ETC</u>			
<u>44mm thick solid R&F panel meranti timber doors with masonite backing with 15 horizontal slates on both sides hung to steel frames</u>			
6/6/6	813 x 2032mm single door	No	15
6/6/7	914 x 2032mm single door	No	2
<u>WINDOWS</u>			
<u>Similar Approved</u>			
<u>"Nutec" fibre cement window cills</u>			
6/6/8	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	20
Carried Forward to Summary of Section No.			
Section No. 6			
2 CLASSROOM BLOCK GRADE R			
Bill No. 6			
Carpentry and Joinery			
			R

Item No		Quantity	Rate	Amount
	<p><u>BILL NO. 7</u></p> <p><u>CEILING, PARTITIONS AND ACCESS FLOORING</u></p> <p><u>PREAMBLES</u></p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.</p> <p><u>GENERAL NOTES TO TENDERERS</u></p> <p>General notes, described in Bill No.1, shall equally apply to this Bill.</p> <p><u>Fixing</u></p> <p>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.</p> <p>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</p> <p><u>Ceilings & Bulkheads</u></p> <p>Unless otherwise described ceilings shall be deemed to be horizontal</p> <p><u>Steel components</u></p> <p>All steel components for ceilings, partitions, etc are to be galvanised in accordance with SANS 121</p> <p><u>Proprietary suspended ceilings</u></p> <p>Hangers, suspension grids, "lay-in" panels, etc are to be in accordance with the manufacturers' recommendations</p>			
	Carried Forward		R	
	<p>Section No. 6 2 CLASSROOM BLOCK GRADE R Bill No. 7 Ceilings,Partitions and Access Flooring</p>			

Brought Forward				R
	<p>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)</p> <p><u>Suspension systems</u></p> <p>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.</p> <p><u>NAILED UP CEILINGS</u></p> <p><u>FIBRE - CEMENT BOARDS</u></p> <p><u>Similar Approved</u></p> <p><u>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</u></p>			
6/7/1	<p>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</p>	m2	222	
	<p><u>CORNICES</u></p> <p><u>Similar Approved</u></p> <p><u>"Rhino" plasterboard cornice</u></p>			
6/7/2	<p>75mm "Rhino" gypsum plasterboard coved cornice, plugged to brickwork</p>	m	226	
	<p><u>SUNDRIES</u></p> <p><u>Extra over for Trap Doors</u></p>			
6/7/3	<p>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</p>	No	2	
	<p><u>CEILING INSULATION</u></p>			
	Carried Forward			R
	<p>Section No. 6 2 CLASSROOM BLOCK GRADE R Bill No. 7 Ceilings,Partitions and Access Flooring</p>			

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	Brought Forward			R
6/7/4	<p><u>Insulation</u></p> <p>125mm thick Glass wool insulation blanket closely fitted and laid on top of ceiling panels, all in strict accordance with the manufacturer's specifications.</p>	m2	222	
	Carried Forward to Summary of Section No.			R
	<p>Section No. 6 2 CLASSROOM BLOCK GRADE R Bill No. 7 Ceilings,Partitions and Access Flooring</p>			

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Item No		Quantity	Rate	Amount
	<p><u>BILL NO. 8</u></p> <p><u>IRONMONGERY</u></p> <p><u>PREAMBLES</u></p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.</p> <p><u>GENERAL NOTES TO TENDERERS</u></p> <p>General notes, described in Bill No.1, shall equally apply to this Bill.</p> <p>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.</p> <p><u>Proprietary items</u></p> <p>Where applicable the manufacturers' names or product catalogue titles are given in sub-headings preceding the items</p> <p>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</p> <p>On request returnable samples are to be provided to the principal agent for consideration</p>			
	Carried Forward		R	
	<p>Section No. 6 2 CLASSROOM BLOCK GRADE R Bill No. 8 Ironmongery</p>			

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	Brought Forward				R
	<p><u>Finishes to ironmongery</u></p> <p>Where applicable finishes to ironmongery are indicated by suffixes in accordance with the following list:</p> <p>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</p> <p><u>Rates</u></p> <p>The tenderer is to price for supply, taking delivery of, storing and fixing of the ironmongery listed below.</p> <p><u>SUNDRIES</u></p> <p><u>Approved</u></p>				
6/8/1	"CZ8730SC" Door stop or similarly approved to wall or floors	No	17		
	Carried Forward to Summary of Section No.				R
	Section No. 6 2 CLASSROOM BLOCK GRADE R Bill No. 8 Ironmongery				

Item No		Quantity	Rate	Amount
	<p><u>BILL NO. 9</u></p> <p><u>METALWORK</u></p> <p><u>PREAMBLES</u></p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.</p> <p><u>GENERAL NOTES TO TENDERERS</u></p> <p>General notes, described in Bill No.1, shall equally apply to this Bill.</p> <p><u>ALUMINIUM</u></p> <p>The contractor is to make due allowance in his prices for complying with the following requirements.</p> <p><u>SPECIFICATIONS</u></p> <p>User Note:</p> <p><u>Glazing</u></p> <p>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.</p> <p><u>Ironmongery</u></p> <p>All rates for windows, shopfronts and doors etc. must include for the supply, taking delivery or/and installation of the ironmongery to be specified.</p> <p><u>Actuators</u></p> <p>All rates for shopfronts with actuators to include for the supply and installation of actuators as specified</p>			
	Carried Forward		R	
	<p>Section No. 6 2 CLASSROOM BLOCK GRADE R Bill No. 9 Metalwork</p>			

<p style="text-align: center;">Brought Forward</p> <p><u>Scaffolding</u></p> <p>All scaffolding should be provided by the contractor and no claims/ qualifications will be accepted.</p> <p><u>Protection</u></p> <p>With this tender, the glazing sub-contractor must supply a statement concerning protection that will be provided 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 price.</p> <p><u>Installation</u></p> <p>All measurements to be checked on site prior to ordering and manufacturing.</p> <p>Aluminium sections and shop drawings to be accepted by Architect prior to manufacturing.</p> <p>Allow for water and weather proof polysulphide sealant to approved specifications all around frame junctions to plaster and other materials.</p> <p><u>Profiles</u></p> <p>Tenderers to provide typical details of proposed aluminium section to be used in the design.</p> <p><u>Structural Silicone</u></p> <p>Tenderers to allow a 10 year guarantee on all powdercoating.</p> <p><u>Preliminary and Shop Drawings:</u></p> <p>The contractor shall submit preliminary design drawings showing basic system sections for the Architect's approval.</p> <p>After approval and prior to fabrication detailed shop drawings shall be prepared and submitted to the Architect for approval.</p>		R	
<p style="text-align: center;">Carried Forward</p> <p>Section No. 6 2 CLASSROOM BLOCK GRADE R Bill No. 9 Metalwork</p>		R	

<p style="text-align: center;">Brought Forward</p> <p><u>Fixing:</u></p> <p>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.</p> <p><u>Deflection of structure:</u></p> <p>The contractor is advised to make adequate provision for the design deflection of the structure.</p> <p><u>Tolerances:</u></p> <p>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.</p> <p><u>Protection:</u></p> <p>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.</p> <p>Such protection shall only be removed after a written instruction from the Architect.</p> <p><u>Cleaning:</u></p> <p>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.</p> <p>Note: All windows and doors should be read in conjunction with window and door schedules</p> <p><u>WELDED SCREENS, GATES, ETC.</u></p>			R	
<p style="text-align: center;">Carried Forward</p> <p>Section No. 6 2 CLASSROOM BLOCK GRADE R Bill No. 9 Metalwork</p>			R	

Brought Forward			R
<p><u>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</u></p>			
6/9/1	Steel gate to door, size 925mm x 2032mm high	No	5
<p><u>PRESSED STEEL DOOR FRAMES</u></p>			
<p><u>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</u></p>			
6/9/2	813 x 2032mm single door	No	8
<p><u>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</u></p>			
6/9/3	813 x 2032mm single door	No	7
6/9/4	914 x 2032mm single door	No	2
<p><u>WINDOWS FRAMES, etc.</u></p>			
<p><u>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</u></p>			
6/9/5	Window size 881 x 1240mm high	No	12
6/9/6	Window size 881 x 820mm high	No	8
6/9/7	Window size 534 x 648mm high	No	4
<p><u>ALUMINIUM WINDOWS, DOORS, ETC</u></p>			
Carried Forward			R
<p>Section No. 6 2 CLASSROOM BLOCK GRADE R Bill No. 9 Metalwork</p>			

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	Brought Forward			R
6/9/8	<p><u>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.</u></p> <p>In Ceiling voids</p>	m2	222	
	Carried Forward to Summary of Section No.			R
	<p>Section No. 6 2 CLASSROOM BLOCK GRADE R Bill No. 9 Metalwork</p>			

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Item No		Quantity	Rate	Amount
	<u>BILL NO. 10</u>			
	<u>PLASTERING</u>			
	<u>PREAMBLES</u>			
	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.			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.			
	<u>GENERAL NOTES TO TENDERERS</u>			
	General notes, described in Bill No.1, shall equally apply to this Bill.			
	<u>SCREEDS</u>			
	<u>1:4 Cement sand screed on concrete, worked down to a true and even surface with a steel trowel</u>			
6/10/1	30mm Thick on floors and landings	m2	174	
6/10/2	30mm Thick to falls and currents	m2	7	
	<u>INTERNAL PLASTER</u>			
	<u>One coat smooth 1:5 cement sand plaster on brickwork to receive finish</u>			
6/10/3	On brick walls	m2	496	
6/10/4	On narrow widths	m2	50	
	<u>CORNER PROTECTORS, DIVIDING STRIPS, ETC</u>			
6/10/5	Aluminium straight edge M-trim suitable for under-screed fixing in vinyl/ceramic, etc. installed as per manufactures recommendation and specification.	m	4	
	Carried Forward to Summary of Section No.			
	Section No. 6 2 CLASSROOM BLOCK GRADE R Bill No. 10 Plastering			R

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Item No		Quantity	Rate	Amount
	<p><u>BILL NO. 11</u></p> <p><u>TILING</u></p> <p><u>PREAMBLES</u></p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.</p> <p><u>Pricing</u></p> <p>Prices are to included for the following: Cutting, handling, labour, adhesive etc.</p> <p><u>Fixing</u></p> <p>Tiling described as "fixed with adhesive on power floated concrete" shall be deemed to include for approved tiling key-coat.</p> <p>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.</p> <p>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.</p> <p><u>Wastage</u></p> <p>Tile wastage in excess of 10% will be for the tenderer's account.</p> <p><u>GENERAL NOTES TO TENDERERS</u></p> <p>General notes, described in Bill No. 1, shall equally apply to this Bill.</p>			
	Carried Forward		R	
	<p>Section No. 6 2 CLASSROOM BLOCK GRADE R Bill No. 11 Tiling</p>			

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	Brought Forward			R
	<p><u>Note</u></p> <p>All scaffolding should be provided by the contractor and no claims/qualifications will be accepted.</p> <p><u>WALL TILING</u></p> <p><u>150 x 150 x 6mm white glazed 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</u></p>			
6/11/1	Splash backs	m2	1	
	<p><u>FLOOR TILING</u></p> <p><u>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 cementitious grout</u></p>			
6/11/2	On floors	m2	180	
6/11/3	75mm high skirting	m	156	
	<p><u>ATTIC STOCK</u></p>			
6/11/4	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	18	
	<p><u>SUNDRIES</u></p> <p><u>10mm aluminium straight edge trim</u></p>			
6/11/5	Dividing strip between tiles and door frames	m	4	
	Carried Forward to Summary of Section No.			R
	Section No. 6 2 CLASSROOM BLOCK GRADE R Bill No. 11 Tiling			

Item No		Quantity	Rate	Amount
	<p><u>BILL NO. 12</u></p> <p><u>PLUMBING AND DRAINAGE (PROVISIONAL)</u></p> <p><u>PREAMBLES</u></p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.</p> <p><u>uPVC pipes and fittings:</u></p> <p>Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings</p> <p><u>uPVC pressure pipes and fittings:</u></p> <p>Pipes for water supply shall be of the class stated</p> <p><u>Excavations:</u></p> <p>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.</p> <p>"Intermediate material" and " hard rock" shall be as defined in "Earthworks".</p> <p>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.</p> <p>Classes of excavation shall be as S.A.B.S 1200D clause 3.1.2.</p> <p><u>Laying, backfilling, bedding, etc., of pipes:</u></p> <p>Pipes shall be laid and bedded, and trenches shall be carefully backfilled, in accordance with the specific instructions</p>			
	Carried Forward		R	
	<p>Section No. 6 2 CLASSROOM BLOCK GRADE R Bill No. 12 Plumbing and Drainage</p>			

Brought Forward		R
<u>GENERAL NOTES TO TENDERERS</u>		
General notes, described in Bill No.1, shall equally apply to this Bill.		
<u>RAINWATER GOODS</u>		
<u>Similar Approved</u>		
<u>Gutters</u>		
6/12/1	100 x 100 x 0.6mm thick Ogee profile eaves gutter aluminium box gutter, fixed with and including fixing clips to fascia boards	m 77
6/12/2	Extra over eaves gutter for stopped end	No 8
6/12/3	Extra over eaves gutter for corner	No 33
6/12/4	Extra over eaves gutter for outlet	No 8
<u>Rainwater downpipes</u>		
6/12/5	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 28
6/12/6	Extra over downpipe for offset	No 16
6/12/7	Extra over downpipe for shoe	No 8
<u>SANITARY FITTINGS</u>		
Refer to sanitary schedule drawing for full description of abbreviations		
<u>WASH HAND BASINS</u>		
<u>Similar Approved</u>		
<u>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</u>		
6/12/8	WHB, installed complete	No 4
<u>WATER CLOSET</u>		
Carried Forward		R
Section No. 6 2 CLASSROOM BLOCK GRADE R Bill No. 12 Plumbing and Drainage		

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Brought Forward			R
	<u>Similar Approved</u>		
	<u>Vaal Sanitaryware "Pearl Paraplegic" semi-close coupled water closet, comprising double flap heavy duty thermoplastic seat rim pan and matching 9 litre cisten, including dog leg twice bent 45 degrees and straight cistern back grab rail, including purpose made chromium plated side-flush lever. (PC allowance of R9 300.00/no excludes V.A.T. but includes delivery to site), includes waste, supply and fixing</u>		
6/12/9	Paraplegic WC, installed complete	No	2
	<u>SINKS, etc.</u>		
	<u>Stainless steel single bowl sink, size 1350 x 457mm complete on and including integrated supports and legs (PC allowance of R1500.00/no excludes V.A.T. but includes delivery to site), includes waste, supply and fixing</u>		
6/12/10	Stainless steel Sink, complete.	No	2
	<u>CHROME PLATED WASTE UNIONS, ETC. (Supply & Fit)</u>		
6/12/11	32mm Basin waste union	No	2
6/12/12	38mm Sink waste union	No	2
	<u>SOAP DISPENSER</u>		
	<u>To be approved by Architect</u>		
6/12/13	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
	<u>PAPER TOWEL DISPENSER</u>		
	<u>To be approved by Architect</u>		
6/12/14	360 x 380 x 240mm high lockable auto-cut (reflex) plastic Paper towel dispenser (Colour: White), plugged and screwed to wall	No	1
	<u>TAPS, VALVES, ETC</u>		
Carried Forward			R
Section No. 6 2 CLASSROOM BLOCK GRADE R Bill No. 12 Plumbing and Drainage			

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Brought Forward			R
<u>Similar Approved</u>			
6/12/15	15mm Cobra brass watertight hose Bib tap (Code: 108-15)	No	2
6/12/16	15mm Cobra Watertech chrome plated single tap hole Sink mixer with overarm swivel sprout (Code: 3396ST)	No	2
<u>FIRE FIGHTING EQUIPMENT</u>			
<u>Extinguishers including initial charge and setting up in position:</u>			
6/12/17	9kg dry chemical powder fire extinguisher	No	4
6/12/18	Fire hose reel with 30m plastic hose, chromium plated stopcock, shut-off nozzle and wall bracket	No	2
Carried Forward to Summary of Section No.			R
Section No. 6			
2 CLASSROOM BLOCK GRADE R			
Bill No. 12			
Plumbing and Drainage			

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Item No		Quantity	Rate	Amount
	<p><u>BILL NO. 13</u></p> <p><u>GLAZING</u></p> <p><u>PREAMBLES</u></p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.</p> <p><u>GENERAL NOTES TO TENDERERS</u></p> <p>General notes, described in Bill No. 1, shall equally apply to this Bill.</p> <p><u>Note:</u></p> <p>All glazing to comply with SABS 1263 Part 3:1998. Light and ventilation to comply with Part O if NBR 0400</p> <p><u>GLASS TO STEEL WITH PUTTY</u></p> <p><u>5mm clear floated glass fixed glazing putty</u></p>			
6/13/1	Panes not exceeding 0.1m2	m2	19	
	<p><u>6mm obscure floated glass fixed glazing putty</u></p>			
6/13/2	Panes not exceeding 0.1m2	m2	1	
	<p><u>TOPS, SHELVES, DOORS, MIRROR ETC</u></p> <p><u>6mm Polished plate float glass mirrors with square polished edges plugged with chrome plated detachable screws or similarly approved</u></p>			
6/13/3	Mirror 400 x 600 mm high	No	2	
	Carried Forward to Summary of Section No.			R
	<p>Section No. 6 2 CLASSROOM BLOCK GRADE R Bill No. 13 Glazing</p>			

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Item No		Quantity	Rate	Amount
	<p><u>BILL NO. 14</u></p> <p><u>PAINTWORK</u></p> <p><u>PREAMBLES</u></p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.</p> <p><u>GENERAL NOTES TO TENDERERS</u></p> <p>General notes, described in Bill No. 1, shall equally apply to this Bill.</p> <p><u>PAINTWORK ETC TO NEW WORK</u></p> <p><u>FIBRE CEMENT</u></p> <p><u>Prepare and apply one coat universal undercoat and two coats Super Acrylic PVA paint or similar approved, colour to be confirmed by architect</u></p>			
6/14/1	On internal ceilings and cornices	m2	241	
6/14/2	Fibre cement fascias boards not exceeding 300mm high or wide painted on both side	m	155	
	<p><u>Prepare and apply one coat alkali resistant sealer and two coats mat enamel paint, colour to be confirmed by architect</u></p>			
6/14/3	Fiber cement window sill not exceeding 300mm high or wide	m	20	
	<p><u>FLOATED PLASTER INTERNAL WALLS</u></p> <p><u>Prepare and apply one coat merit universal undercoat and two coats Super Acrylic PVA paint or similar approved, colour to be confirmed by architect</u></p>			
6/14/4	Plastered walls	m2	496	
	<p><u>METAL SURFACES</u></p>			
	Carried Forward			R
	<p>Section No. 6 2 CLASSROOM BLOCK GRADE R Bill No. 14 Paintwork</p>			

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Brought Forward			R
<u>Prepare and apply one coat Duraphos, one coat universal under coat and two coats gloss enamel paint, colour to be confirmed by architect</u>			
6/14/5	On gates, grilles, burglar screens, balustrades, etc (both sides measured on full flat area)	m2	19
6/14/6	On window frames	m2	20
6/14/7	On door frames	m2	22
6/14/8	On gutters	m	77
6/14/9	On downpipes	m	28
<u>WOOD</u>			
<u>Prepare and apply one coat universal undercoat and two coats acrylic PVA, colour to be confirmed by architect</u>			
6/14/10	On door	m2	40
<u>Prepare and paint three coats clear varnish:</u>			
6/14/11	On door	m2	16
Carried Forward to Summary of Section No.			R
Section No. 6			
2 CLASSROOM BLOCK GRADE R			
Bill No. 14			
Paintwork			

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Bill No	SECTION SUMMARY	Page No		Amount
6/1	Earthworks	6/3		
6/2	Concrete,Formwork and Reinforcement	6/7		
6/3	Masonry	6/10		
6/4	Waterproofing	6/11		
6/5	Roof Coverings	6/13		
6/6	Carpentry and Joinery	6/17		
6/7	Ceilings,Partitions and Access Flooring	6/20		
6/8	Ironmongery	6/22		
6/9	Metalwork	6/27		
6/10	Plastering	6/28		
6/11	Tiling	6/30		
6/12	Plumbing and Drainage	6/34		
6/13	Glazing	6/35		
6/14	Paintwork	6/37		
Carried to Final Summary			R	
Section No. 6 2 CLASSROOM BLOCK GRADE R				

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO. 7</u></p> <p><u>BILL NO. 1</u></p> <p><u>EARTHWORKS (PROVISIONAL)</u></p> <p><u>PREAMBLES</u></p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.</p> <p><u>GENERAL NOTES TO TENDERERS</u></p> <p>General notes, described in Bill No.1, shall equally apply to this Bill.</p> <p><u>KEEPING EXCAVATIONS FREE FROM WATER</u></p>			
7/1/1	Keeping excavations free of all water other than subterranean water	Item		
	Carried Forward to Summary of Section No.			R
	Section No. 7 EXTERNAL WORKS Bill No. 1 Earthworks			

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Item No		Quantity	Rate	Amount
	<p><u>BILL NO. 2</u></p> <p><u>METALWORK</u></p> <p><u>PREAMBLES</u></p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.</p> <p><u>GENERAL NOTES TO TENDERERS</u></p> <p>General notes, described in Bill No.1, shall equally apply to this Bill.</p> <p><u>FLAG POST</u></p>			
7/2/1	2 x 15m high flag poles bolted to steel channel (211mm x 100mm) & channel to be anchored in concrete bases	Item		
	<p><u>SUNDRY METAL WORK</u></p>			
7/2/2	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.			
	Section No. 7 EXTERNAL WORKS Bill No. 2 Metalwork		R	

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Item No		Quantity	Rate	Amount
	<p><u>BILL NO. 3</u></p> <p><u>PLUMBING AND DRAINAGE (PROVISIONAL)</u></p> <p><u>PREAMBLES</u></p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.</p> <p><u>TESTING</u></p>			
7/3/1	Testing water pipe system	Item		
	Carried Forward to Summary of Section No.			R
	Section No. 7 EXTERNAL WORKS Bill No. 3 Plumbing and Drainage			

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Bill No	<u>SECTION SUMMARY</u>	Page No		Amount
7/1	Earthworks	7/1		
7/2	Metalwork	7/2		
7/3	Plumbing and Drainage	7/3		
Carried to Final Summary				R
Section No. 7 EXTERNAL WORKS				

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Item No		Quantity	Rate	Amount
	<p><u>SECTION NO. 8</u></p> <p><u>BILL NO. 1</u></p> <p><u>IRONMONGERY</u></p> <p><u>PREAMBLES</u></p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.</p> <p><u>GENERAL NOTES TO TENDERERS</u></p> <p>General notes, described in Bill No.1, shall equally apply to this Bill.</p> <p>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.</p> <p><u>Proprietary items</u></p> <p>Where applicable the manufacturers' names or product catalogue titles are given in sub-headings preceding the items</p> <p>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</p> <p>On request returnable samples are to be provided to the principal agent for consideration</p>			
	Carried Forward		R	
	<p>Section No. 8 PROVISIONAL SUMS Bill No. 1 Ironmongery</p>			

**LIMPOPO DEPARTMENT OF EDUCATION
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	Brought Forward		R	
	<p><u>Finishes to ironmongery</u></p> <p>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</p> <p><u>Rates</u></p> <p>The tenderer is to price for supply, taking delivery of, storing and fixing of the ironmongery listed below.</p> <p><u>BUDGETARY ALLOWANCE</u></p>			
8/1/1	<p>Allow an amount of R104 555.00 (One Hundred and Four Thousand Five Hundred and Fifty Five) for the supply and installation of Ironmongery</p>	Item		104 555.00
	Carried Forward to Summary of Section No.		R	
	<p>Section No. 8 PROVISIONAL SUMS Bill No. 1 Ironmongery</p>			

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Item No		Quantity	Rate	Amount
	<p><u>BILL NO. 2</u></p> <p><u>PLUMBING AND DRAINAGE (PROVISIONAL)</u></p> <p><u>PREAMBLES</u></p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.</p> <p><u>GENERAL NOTES TO TENDERERS</u></p> <p>General notes, described in Bill No.1, shall equally apply to this Bill.</p> <p><u>BUDGETARY ALLOWANCE</u></p>			
8/2/1	Allow an amount of R162 800.00 (One Hundred and Sixty Two Thousand Eight Hundred) for the supply and installation of Sanitary Plumbing	Item		162 800.00
8/2/2	Allow an amount of R330 000.00 (Three Hundred and Thirty Thousand) for the supply and installation of Enviro-loo complete	Item		330 000.00
	Carried Forward to Summary of Section No.			
	Section No. 8 PROVISIONAL SUMS Bill No. 2 Plumbing and Drainage		R	

Item No		Quantity	Rate	Amount
	<p><u>BILL NO. 3</u></p> <p><u>BUDGETARY ALLOWANCES</u></p> <p><u>PREAMBLES</u></p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.</p> <p><u>GENERAL NOTES TO TENDERERS</u></p> <p>General notes, described in Bill No.1, shall equally apply to this Bill.</p> <p>Provisional Sums are to be expended/utilized only upon:</p> <p>·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.</p> <p><u>Cash discount</u></p> <p>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</p> <p><u>Profit</u></p> <p>Where stated, the contractor may allow for profit if required</p>			
	Carried Forward		R	
	<p>Section No. 8 PROVISIONAL SUMS Bill No. 3 Budgetary Allowance</p>			

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	Brought Forward		R	
	<p><u>General attendance on nominated/selected subcontractors</u></p> <p>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:</p> <p><u>Builder's work</u></p> <p>Builder's work in connection with specialist services is given elsewhere in these bills of quantities</p> <p><u>LOCAL AUTHORITY FEES</u></p> <p><u>Local authority fees for connections</u></p>			
8/3/1	<p>Provide the sum of R35 000.00 (Thirty Five Thousand) for sewer, water and electrical connections, etc to the local authority</p>	Item		35 000.00
	Carried Forward to Summary of Section No.		R	
	<p>Section No. 8 PROVISIONAL SUMS Bill No. 3 Budgetary Allowance</p>			

Item No		Quantity	Rate	Amount
	<p><u>BILL NO. 4</u></p> <p><u>PROVISIONAL SUMS</u></p> <p><u>PREAMBLES</u></p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Supplementary preamble items described in Bill No. 1, shall equally apply to this bill.</p> <p><u>GENERAL NOTES TO TENDERERS</u></p> <p>General notes, described in Bill No.1, shall equally apply to this Bill</p> <p>Provisional Sums are to be expended/utilized only upon:</p> <p>·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.</p> <p><u>Cash discount</u></p> <p>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</p> <p><u>Profit</u></p> <p>Where stated, the contractor may allow for profit if required</p>			
	Carried Forward		R	
	<p>Section No. 8 PROVISIONAL SUMS Bill No. 4 Provisional Sums</p>			

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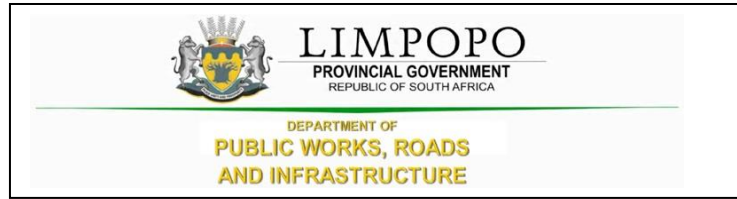
	Brought Forward		R	
	<u>General attendance on nominated/selected subcontractors</u>			
	The item "Attendance" which follows each provisional sum for nominated/selected subcontractors' work, shall be deemed to cover all the contractor's costs incurred in providing free of charge to the nominated/selected subcontractors, the following:			
	<u>Builder's work</u>			
	Builder's work in connection with specialist services is given elsewhere in these bills of quantities			
	<u>Signage Installation</u>			
8/4/1	Allow an amount of R17 100.00 (Seventeen Thousand One Hundred) for the supply and installation of Signage	Item		17 100.00
8/4/2	Attendance		%	
8/4/3	Profit		%	
	<u>Joinery Fittings</u>			
8/4/4	Allow an amount of R320 000.00 (Three Hundred and Twenty Thousand) for the supply and installation of Joinery Fittings	Item		320 000.00
8/4/5	Attendance		%	
8/4/6	Profit		%	
	<u>School Furniture and Fittings</u>			
8/4/7	Allow an amount of R875 000.00 (Eight Hundred and Seventy Five Thousand) for the supply and installation of School Furniture and Fittings	Item		875 000.00
8/4/8	Attendance		%	
8/4/9	Profit		%	
	<u>Community Liaison Officer</u>			
8/4/10	Allow an amount of R216 000.00 (Two Hundred and Sixteen Thousand) for provision of CLO	Item		216 000.00
	Carried Forward		R	
	Section No. 8 PROVISIONAL SUMS Bill No. 4 Provisional Sums			

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	Brought Forward		R	
8/4/11	Attendance		%	
8/4/12	Profit		%	
	<u>Health and Safety Agent</u>			
8/4/13	Allow an amount of R500 000.00 (Five Hundred Thousand) for provision of Health & Safety Agent	Item		500 000.00
8/4/14	Attendance		%	
8/4/15	Profit		%	
Carried Forward to Summary of Section No.				
Section No. 8				
PROVISIONAL SUMS				
Bill No. 4				
Provisional Sums				

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Bill No	<u>SECTION SUMMARY</u>	Page No		Amount
8/1	Ironmongery	8/2		
8/2	Plumbing and Drainage	8/3		
8/3	Budgetary Allowance	8/5		
8/4	Provisional Sums	8/8		
Carried to Final Summary				R
Section No. 8 PROVISIONAL SUMS				



C4.3 CIVIL WORKS

SEC	BILL	PG	ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
3	1	70		SECTION NO. 3				
3	1	70		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		<u>SUPPLEMENTARY PREAMBLES</u>	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		<u>WORK GROUP 102</u>	H4			
3	1	70		<u>SITE CLEARANCE</u>	H2			
3	1	70	2	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc	m2	25 430		-
3	1	70		<u>Extra over all excavations for carting away</u>	H3			
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	5 086		-
3	1	70		<u>EARTHWORKS</u>	H2			
3	1	70		<u>Bulk excavation</u>	H3			
3	1	70	4	Excavate in all materials and use for embankment or fill or dispose, as ordered	m3	2 543		-
3	1	70		<u>Extra-over for</u>	H3			
3	1	70	5	Intermediate for excavation	m3	381		-
3	1	70	6	Hard rock excavation	m3	127		-
3	1	70		<u>Restricted Excavation</u>	H3			
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		<u>Import G5 or better material from the Commercial source or borrowpit for Selected layers compacted to 95% of modified AASHTO maximum density</u>	H3			
3	1	71	8	150mm thick	m3	2 543		-
3	1	71	9	Overhaul	m.km	12 715		-
3	1	71		<u>LOFFELSTEIN RETAINING WALLS</u>	H2			
3	1	71	10	InfraBlok 425 (425x340x225) Waterloffel or other approved retaining wall stepped and curved to suit required slopes	m2	620		-
								-
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		<u>SUPPLEMENTARY PREAMBLES</u>	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		<u>uPVC Pressure pipes and fittings</u>	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		<u>Copper pipes</u>	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		<u>Lead pipes and traps</u>	H4			
3	2	73		All soldered joints shall be wiped and brass unions shall be used for jointing lead to steel				

3	2	74		<u>Reducing fittings</u>	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		<u>Steel sectional water tanks</u>	H4			
3	2	74		Tanks shall comply with SABS CKS 114				
3	2	74		<u>WORK GROUP 104</u>	H4			
3	2	74		<u>EARTHWORKS (PIPE TRENCHES)</u>	H2			
3	2	74		<u>Site clearance and removal of topsoil</u>	H3			
3	2	74	1	Clear vegetation and small trees/shrubs up 2m wide	m	835		-
3	2	74		<u>Excavate in all materials for trenches, backfill, compact and dispose of surplus material for water pipes up to 90mm in diameter for depths:</u>	H2			
3	2	74	2	From 0m Up to 1.5m	m	835		-
3	2	74		<u>Extra-over item (a) above for:</u>	H3			
3	2	74	3	Intermediate excavation	m3	150		-
3	2	74	4	Hard rock excavation	m3	23		-
3	2	74		<u>Extra over all excavations for carting away</u>	H3			
3	2	74	5	Surplus material from trench excavations to a dumping site to be located by the Contractor	m3	53		-
3	2	74		<u>Excavation ancillaries</u>	H3			
3	2	74		<u>Make up deficiency in backfill material</u>	H3			
3	2	74	6	From other necessary excavations on site	m3	53		-
3	2	74	7	By importation from designated borrow pits	m3			-
3	2	74	8	Compaction in road reserves	m			-
3	2	74		<u>WORK GROUP 148</u>	H4			
3	2	74		<u>MEDIUM PRESSURE PIPELINES</u>	H2			
3	2	74		<u>Supply, lay and bed pipes complete with couplings</u>	H3			
3	2	74	9	50mm diameter uPVC Class 9 pipes	m	0		-
3	2	74	10	50mm diameter uPVC Class 12 pipes	m	0		-
3	2	74	11	63mm diameter uPVC Class 9 pipes	m	0		-
3	2	74	12	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	235		-
3	2	74	15	90mm diameter uPVC Class 12 pipes	m	655		-

3	2	74	16	65mm Pressure Reducing Valve	No			-
3	2	74	17	75mm Pressure Reducing Valve	No			-
3	2	74		<u>BEDDING (PIPES)</u>	H2			
3	2	74		<u>Provision of Bedding from Trench Excavation</u>	H3			
3	2	74	18	Selected granular material	m3	301		-
3	2	74	19	Selected fill material	m3	501		-
3	2	74		<u>ELEVATED STEEL TANK PLUS STAND</u>	H2			
3	2	75		<u>The following in sectional steel water tanks and bases</u>	H3			
3	2	75	20	Blinding layer, class 15 Mpa/19mm concrete, 75mm thick for all level where reinforced	m2	27		-
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 75KL Prestressed steel tank complete with 6m stand,	No	1		-
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		-
3	2	75	29	32 mm diam. Gate valve	No	0		-
3	2	75	30	Ref. 617 welded mesh in floor/walls/footing/ slab	m2	60		-
3	2	75	31	Supply and install a 5mm (1000 x 1000) Vastrap plate cover and frame for the opening 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		<u>FIRE BOOSTER PUMP</u>	H3			
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		-
								-
3	3	77		SECTION NO. 3				
3	3	77		BILL NO.3				
3	3	77		SEWER RETICULATION				
3	3	77		<u>Preambles</u>	H4			
3	3	77		Model Preambles for Trades 2008 as published by the Association of South African Quantity Surveyors shall apply.				
3	3	77		<u>SUPPLEMENTARY PREAMBLES</u>	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		<u>Vitrified clay pipes, etc</u>	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		<u>uPVC Pipes and fittings</u>	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		<u>Reducing fittings</u>	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		<u>Septic Tanks</u>	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		<u>Laying, backfilling, bedding, etc. of pipes</u>	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				
3	3	78		<u>WORK GROUP 104</u>	H4			
3	3	78		<u>EARTHWORKS (PIPE TRENCHES)</u>	H2			
3	3	78		<u>Site clearance and removal of topsoil</u>	H3			
3	3	78	1	Clear vegetation and small trees/shrubs within 2m wide strip	m	256		-
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	269		-
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		<u>Extra-over item (a) above for:</u>	H3			
3	3	78	5	Intermediate excavation	m3	179		-
3	3	78	6	Hard rock excavation	m3	13		-
3	3	78	7	Excavate and dispose of unsuitable material from trench bottom (provisional)	m3			-
3	3	78		<u>Excavation ancillaries</u>	H3			
3	3	78		<u>Make up deficiency in backfill material</u>	H3			
3	3	78	8	From other necessary excavations on site	m3	193		-
3	3	78	9	By importation from designated borrow pits	m3			-
3	3	78		<u>WORK GROUP 146</u>	H4			
3	3	78		<u>SEWERS</u>	H2			
3	3	78		<u>Supply, lay, joint, bed and test 400KPa Maincore uPVC sewer pipes manufactured to SABS 1601</u>	H3			
3	3	78	10	110mm dia.	m	256		-
3	3	78	11	160mm dia.	m	0		-
3	3	79		<u>Extra -over uPVC pipe for specials</u>	H3			
3	3	79	12	110mm 90 degree plain bend	m	8		-
3	3	79	13	110mm 45 degree plain bend	m	4		-

3	3	79	14	110mm 45 degree plain junction	m	6		-
3	3	79	15	160mm 90 degree plain bend	m	3		-
3	3	79	16	160mm 45 degree plain bend	m	3		-
3	3	79	17	160mm 45 degree plain junction	m	2		-
3	3	79		<u>MANHOLES</u>	H2			
3	3	79		<u>Supply and construct pre-cast concrete manholes, 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)</u>	H3			
3	3	79		<u>1000mm dia. Manholes</u>	H3			
3	3	79	18	up to 1.5m	No	5		-
3	3	79	19	over 1.5m up to 2.0m	No	1		-
3	3	79	20	over 2.0m up to 2.5m	No	0		-
3	3	79	21	over 2.5m up to 3.0m	No	0		-
3	3	79		<u>BEDDING AND BACKFILLING (PIPES)</u>	H2			
3	3	79		<u>Provision of Bedding from Trench Excavation</u>	H3			
3	3	79	22	Selected granular material	m3	92		-
3	3	79	23	Selected fill material	m3	154		-
3	3	79		<u>SEWER TREATMENT PLANT</u>	H2			
3	3	79		<u>Concrete</u>	H3			
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		<u>Mild steel reinforcement:</u>	H3			
3	3	79	26	Mild steel bars	kg			-
3	3	79		<u>High-Tensile Welded mesh</u>	H3			
3	3	79	27	Ref. 617 welded mesh in floor/walls/footing/slab	m2			-
3	3	79		<u>Brickwork of NFX bricks in 3:1 cement mortar:</u>	H3			
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		<u>Septic Tank</u>	H3			
3	3	79	30	Construct septic tank with french drain as per specification	Item	2		-
3	3	79		<u>Grease Trap</u>	H3			
3	3	79	30	Construct grease trap as per specification	Item	1		-

3	3	79		<u>1-4 Cement plaster finished with a wooden trowel on brickwork:</u>	H3			
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		-
								-
3	4	81		SECTION NO. 3				
3	4	81		BILL NO.4				
3	4	81		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		<u>SUPPLEMENTARY PREAMBLES</u>	H4			
3	4	81		<u>Items, materials or methods</u>	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		<u>WORK GROUP 154</u>	H4			
3	4	81		<u>EARTHWORKS (ROADS, SUBGRADE)</u>	H2			
3	4	81		<u>Road-bed preparation and compaction of material to</u>	H3			
3	4	81	1	Minimum of 90% of modified AASHTO maximum density	m3	556		-
3	4	81	2	Minimum of 93% of modified AASHTO maximum density	m3	0		-
3	4	81		<u>Selected layer compacted to 93% of modified AASHTO maximum density</u>	H3			
3	4	81	3	150mm thick	m3	328		-
3	4	81		<u>Extra -over items 8.3.4 and 8.3.5 for excavation and breaking down material in</u>	H3			
3	4	81	4	Intermediate excavation	m3	417		-
3	4	81	5	Hard excavation	m3	104		-
3	4	81		<u>Cut to spoil or stockpile from</u>	H3			
3	4	81	6	Soft excavation	m3	695		-

3	4	81	7	Intermediate excavation	m3	25	-
3	4	81	8	Hard excavation	m3	3	-
3	4	81	9	Overhaul	m .km	723	-
3	4	81		<u>SUBBASE</u>	H2		
3	4	81		<u>Construct the subbase course with material excavated in all materials or from borrow pit</u>	H3		
3	4	81	10	Subbase 150mm thick and compacted to 95% Mod AASHTO density	m3	834	-
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		<u>Process subbase material by the following processes, as relevant, and use in the subbase</u>	H3		
3	4	82	12	Stabilization	m3	834	-
3	4	82		<u>Stabilizing agent</u>	H3		
3	4	82	13	Ordinary Portland cement	t	24	-
3	4	82	14	Lime	t	1	-
3	4	82	15	Overbudden	m3	0	-
3	4	82		<u>BASE</u>	H2		
3	4	82		<u>Construct the base with gravel material from borrow pits</u>	H3		
3	4	82	16	Base 150mm thick and compacted to 97% Mod AASHTO density	m3	834	-
3	4	82		<u>Process base material by the following processes, as relevant and use in base</u>	H3		
3	4	82	18	Stabilization	m3	834	-
3	4	82		<u>Stabilizing agent</u>	H3		
3	4	82	19	Ordinary Portland cement	t	60	-
3	4	82	20	Lime	m		-
3	4	82		<u>SEGMENTED PAVING</u>	H2		
3	4	82		<u>Provision of edge Restraints</u>	H3		
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		<u>Construction of paving complete</u>	H3		
3	4	82	22	Supply and lay 60mm thick segmented paving blocks with 20mm sand (Assembly and walkways)	m2	1 560	-
3	4	82	23	Supply and lay 80mm thick segmented paving blocks with 20mm sand	m2	1 220	-
3	4	82	24	Cutting units to fit edge restraints (straight, raking, or circular cutting)	m	0	-
3	4	82	25	Allow for soil poisoning	m2	2 780	-

3	4	82		<u>KERBING AND CHANNELING</u>	H2			
3	4	82	26	Precast concrete kerbs 280 x 180 x 140 semi-mountable Figure 7	m	650		-
3	4	82	27	Precast concrete kerbs Figure 5	m	473		-
3	4	82		<u>TESTING OF FILLING MATERIAL AND COMPACTION</u>	H2			
3	4	82		<u>GENERAL</u>	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 laboratory according to S M T M method No A7, to establish the 100% modified AASHTO density thereof	Item	1		-
3	4	82	29	Allow for testing of density of compacted filling under roads, etc. by means of the Sand Replacement Method according to S M T M method No A10(a)	Item	1		-
				<u>BREAKING UP EXISTING PAVEMENT LAYERS</u>				
3	4	83		Excavating and removing existing bituminous material				
3	4	83		(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:				
3	4	83		(b) Cemented material	m ³	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				
3	4	83		(ii) Cemented material	m ³	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	Backfilling 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	m ³	0		-
				(ii) Exceeding 5m2 but not 100m2	m ³	0		-
3	5	85		Compacting the floor of excavations for patching	m2	0		-
3	5	85		<u>STABILIZATION</u>				
3	5	85		Chemical stabilization extra over unstabilized compacted layers:				
3	5	85		(a) Base layer, 150mm thick	m ³	0		-

3	5	85		Chemical stabilizing agent: (a) Ordinary portland cement	t	0		-
				(b) Slaked road lime	t	Rate Only		
3	5	85		Provision and application of water for curing	kl	0		-
3	5	85		PRIME COAT				
				Prime coat:				
				(a) MC-30 cut back bitumen	litre	0		-
3	5	85		(b) MSP1	litre	Rate Only		
3	5	85		Aggregate for blinding	m ²	Rate Only		
3	5	85		Extra over item 41.01 for applying the prime 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 continuously graded asphalt				
				(i) Thickness -30mm	m ²	0		-
3	5	85		Rolled in chippings (9.5mm)				
				(a) in surfacing	t	Rate Only		
3	5	85		Tack coat of 30% stable grade emulsion	litre	0		-
								-
3	5	85	1	<u>Preambles</u>	H4			
3	5	85		Model Preambles for Trades 2008 as published by the Association of South African Quantity Surveyors shall apply.				
3	5	85	2					
3	5	85	3	<u>SUPPLEMENTARY PREAMBLES</u>	H4			
				<u>Items, materials or methods</u>	H4			
3	5	85		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	5	85	4					
3	5	85	5	<u>Concrete pipes</u>	H4			
3	5	85		Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rings				
3	5	85		<u>Wire gratings</u>	H4			
3	5	85	6					
3	5	85	7	Descriptions of gutter outlets, etc shall be deemed to include wire balloon gratings				
3	5	85		<u>Exposed concrete surfaces</u>	H4			
3	5	85		Exposed surfaces of concrete stormwater channels, cover slabs, inspection eve marker slabs, gully tops, cleaning eye tops, catchpits, inspection chambers, etc shall be finished smooth with plaster				

3	5	85	9	<u>WORK GROUP 104</u>	H4			
3	5	86	10	<u>EARTHWORKS (OPEN CHANNEL)</u>	H2			
				<u>EXCAVATION</u>	H3			
3	5	86		Excavate in all materials for trenches, backfill, compact and dispose of surplus material for stormwater channel	m3	462		-
3	5	86	11	<u>Extra-over item (a) above for:</u>	H3			
3	5	86	12	Intermediate excavation	m3	208		-
3	5	86		Hard rock excavation	m3	40		-
				<u>BEDDING AND BACKFILLING</u>	H2			
3	5	86	13	<u>Provision of Bedding from Trench Excavation</u>	H3			
3	5	86	14	Selected granular material for bedding	m3			-
3	5	86	15	Selected fill material and backfilling	m3			-
3	5	86		<u>WORK GROUP 146</u>	H4			
3	5	86		<u>CONCRETE AND REINFORCEMENT</u>	H4			
				Blinding layer, class 15 Mpa/19mm concrete, 75mm thick for all level where reinforced	m2	8		-
				Concrete for footings/floors/slabs/walls class 25 Mpa / 19mm concrete plus anchor blocks, filling where ordered by the engineer	m3	15		-
3	5	86	16	<u>High-Tensile Welded mesh</u>	H3			
3	5	86	17	Ref. 245 welded mesh in floor slab	m2	152		-
				Ref. 617 welded mesh in floor slab	m2			-
3	5	86		Mild steel bars	kg			-
3	5	86	18	<u>CONCRETE PIPES</u>	H4			
				<u>Supply, lay and bed pipes complete with couplings</u>	H3			
				450mm Diameter C50	m	60		-
				600mm Diameter C50	m	20		-
3	5	86		<u>Supply and lay RS40 Grating Unbanded and Banded Rectagrid or similar approved Grid for Storm water drainage</u>	H3			
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	6	88		<u>SURFACE V-CHANNELS</u>	H2			
3	6	88		<u>In-situ 20 MPa/19mm Concrete open stormwater channels finished on all exposed surfaces with woodfloat finish and with angles rounded, cast in approximately 2m lengths 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 excavations and filling and laying to falls</u>	H3			
3	6	88		V-shaped channel 1200mm wide, 105mm (average) thick and 50 mm deep (concrete = 0,10 m ³ /m) next to existing wall and including the forming of an expansion joint with the existing wall formed with Flexcell joint filler and sealed with bitumastic joint sealant	m	452		-
3	6	88		Extra over 900 x 50mm deep stormwater channel for bends, junctions, ends, etc	No			-
3	6	88		<u>Stormwater outlet spreader, culvert headwall, etc.</u>	H3			
3	6	88		Concrete 20MPa/19mm in spreader outlet 2,0m long and x 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 75mm concrete surface bed, including all necessary shallow excavations, formwork and finishing with a wood float	No	1		-
3	6	88	1					
3	6	88		<u>STONE PITCHING</u>	H2			
3	6	88		<u>Stone pitched of approximately 150mm diameter river stones tightly packed including preparation of ground surface under, top soil filling and planted with grass</u>	H3			
3	6	88		150mm Thick lining to open ends of outfall spreaders, ditches, etc.	m2	330		-
								-
3	6	88						
3	6	88	2	SECTION NO. 3 BILL NO.6 FENCING AND LANDSCAPING				
3	6	89		<u>Preambles</u>	H4			
3	6	89		Model Preambles for Trades 2008 as published by the Association of South African Quantity Surveyors shall apply.				
3	6	89	3					
3	6	89	4	<u>SUPPLEMENTARY PREAMBLES</u>	H4			
3	6	89	5	<u>Items, materials or methods</u>	H4			
3	6	89	5	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	6	89	6	<u>WORK GROUP 124</u>	H4			

3	7	92	1	<u>GALVANIZED STEEL PALISADE FENCING</u>	H2			
3	7	92	2	<u>Palisade fencing, consisting of 75 x 75 x 4mm posts with</u>	H3			
3	7	92	3	<u>230 x 230mm foot plate welded on, 50 x 50 x 5mm angle</u>				
3	7	92	4	<u>section top and bottom rail, filled in with 40 x 40 x 4mm</u>				
3	7	92	5	<u>spear pales at 125mm centres. Posts to be spaced at 3.0m</u>				
3	7	92	6	<u>and cast in 600 x 600 x 800mm class C concrete bases on</u>				
3	7	92		<u>600 x 600 x 150mm selected fill and with 200 x 200mm</u>				
3	7	92		<u>Class C concrete ground beam along full length of fence</u>				
				Supply and install 2400mm high fencing	m			-
				Supply and install 2100mm high fencing	m			-
				Supply and install 1800mm high fencing	m	730		-
				<u>Gates formed of 50 x 75mm rectangular hollow section</u>	H3			
				<u>frame with two horizontal braces and filled in with 10mm</u>				
				<u>diameter solid vertical bars at 92mm centres complete with</u>				
				<u>two 254 x 40 x 5mm hook and band hinges with flange built</u>				
				<u>into wall, barrel bolt to receive padlock, and vertical</u>				
				<u>extension 600mm long with 6 tying holes for and including</u>				
				<u>barbed wire, all as detailed on drawing 107 attached as</u>				
				<u>annexure.</u>				
				Double pedestrian gate 1780mm wide x 2400mm high with 254	No	1		-
				x 40 x 5mm hook and band hinges with flange built into walls,				
				barrel bolt, and 600mm vertical extensions for razor wire coil				
				(Gate type G6)				
				Double gate 2890mm wide x 1915mm high with 254 x 40 x	No			-
				5mm hook and band hinges with flange built into walls and				
				barrel bolt (Gate type G7)				
				Sliding gate 6000m wide x 2454mm high complete with rollers	No	1		-
				and v-track including 600mm extension on top for razor wire				
				coil (Gate type G8)				
								-
				<u>SUMMARY</u>				
				Bulk Earthworks	Page	-72-		-
				Water Supply	Page	-76-		-
				Sewer Reticulation	Page	-80-		-
				Roads and Parking	Page	-84-		-
				Stormwater Drainage	Page	-87-		-
				Fencing and Landscaping	Page	-91-		-
				TOTAL	ST			-



C4.4 ELECTRICAL WORKS

VUTIVI PRIMARY SCHOOL				
SUMMARY: ELECTRICAL WORKS				
SECTION	DESCRIPTION	QTY	AMOUNT	TOTAL
1	MV Reticulation	Sum		
2	LV Reticulation	Lot		
3	Administration	1		
4	Four classroom blocks	1		
5	Two Classroom block	2		
6	2 Classroom Grade R	1		
7	Ablutions Ten Seater	1		
8	Ablutions Four Seater	4		
9	Area lighting	1		
10	Provisional Sum: ICT	Sum		
	SUB TOTAL 1			
TOTAL BID PRICE (Excluding VAT)				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1	<u>MV RETICULATION</u>				
	Provide the sum of R 110 000.00 for the 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		
1.1					
1.2	Profit	%			
1.3	Attendense	%			
TOTAL FOR BILL - CARRIED FORWARD TO SUMMARY					

ITEM	DESCRIPTION	UNIT	QTY	RATE	TOTAL
2	<u>LV RETICULATION</u>				
2.1	Distribution Kiosks, equipment as specified				
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	m ³	140		
2.2.2	Hard rock	m ³	60		
2.2.3	Very hard rock	m ³	-		rate only
2.2.4	Backfilling and compaction	m ³	200		
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	120		
2.4	Concrete slabs for crossing of other services - rate must include installation 200mm below existing services	m	50		
2.5	Cable warning tape, 300mm above cables	m	50		
2.6	Cable markers, above cables	No	20		
2.7	600/1000V PVC SWA cables, in trenches and sleeves, including labels				
TOTAL FOR BILL - CARRIED FORWARD					

TOTAL FOR BILL - BROUGHT FORWARD				
2.7.1	16mm ² 4core	m	100	
2.7.2	16mm ² 2core	m	120	
2.7.3	10mm ² 2core	m	80	
2.7.4	6mm ² 2core	m	120	
2.7.5	4mm ² 2core	m	120	
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	6	
2.8.2	Gland no 2 complete with shroud	No	10	
2.9	Earth conductors (HDHC), including ends			
2.9.1	16mm ²	m	220	
2.9.2	10mm ²	m	80	
2.9.3	6mm ²	m	120	
2.9.4	4mm ²	m	120	
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	<u>MEDIUM ADMINISTRATION BLOCK</u>				
3.1	General trenching work for 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	m ³			rate only
3.1.2	Excavation and backfilling in soft soil	m ³			rate only
3.1.3	Excavation and backfilling in hard rock	m ³			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
	Radius bends:				
3.2.3	75mm Diameter	No			rate only
3.2.4	110mm Diameter	No			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	610		
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					

TOTAL FOR 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			
3.5.1	16mm 4 core PVC SWA Cable	m		rate only
3.5.2	10mm BCEW	m		rate only
	Terminations:			
3.5.3	16mm 4 core cable	No	2	
3.5.4	10mm 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	110	
3.6.2	25mm PVC Conduit	m	200	
	In Ceiling space and Timber work or along Purlins			
3.6.3	20mm PVC Conduit	m	210	
3.6.4	25mm PVC Conduit	m	70	
3.6.5	Girder clamp for chain and wire, STRUTFAST Type AH-1420	No.		
3.6.6	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.			
3.6.7	20mm diameter 4 way type(round box)	No	47	
3.6.8	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	9	
3.7.2	100 x 100 x 50mm	No	17	
3.7.3	88 x 275 x 62mm One tier cluster`	No	4	
TOTAL FOR BILL - CARRIED FORWARD				

TOTAL FOR BILL - BROUGHT FORWARD				
3.8	PVC Wiring in conduits:			
3.8.1	2.5 mm ² for lights circuits	m	630	
3.8.2	4 mm ² for plug sockets circuits	m	400	
	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 mm ²	m	630	
3.8.4	4 mm ²	m	400	
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	8	
3.9.2	2Way 16A Single Lever Light switch	No	2	
3.9.3	2 Lever 2 way	No		rate only
3.9.4	Outdoor Photocell Switch	No	1	
3.9.5	90 degree motion sensor light switch	No	2	
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	13	
	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	No	4	
TOTAL FOR BILL - CARRIED FORWARD				

TOTAL FOR BILL - BROUGHT FORWARD					
3.11	Light Fittings				
	Supply, 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	13		
3.11.2	8 Inch 15W LED Downlight	No	9		
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	8		
3.13.2	Telephone points on Powerskirting; must include draw box, blank cover plate, etc,	No	2		
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			
3.13.7	Provide the sum of R5500-00 for the supply and installation of school motorised siren c/w timer	Sum	1		
3.13.8	40A Isolator points with complete and suitable fitting, for geyser or cooker	No			rate only
TOTAL FOR BILL - CARRIED FORWARD TO SUMMARY					

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
4	<u>4 CLASSROOM BLOCK</u>				
4.1	General trenching work for 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	1000		
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					

TOTAL FOR 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 Terminations:			
4.5.1	16mm 2 core cable	No	2	
4.5.2	16mm 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	120	
4.6.2	25mm PVC Conduit	m	440	
	In Ceiling space and Timber work or along Purlins			
4.6.3	20mm PVC Conduit	m	400	
4.6.4	25mm PVC Conduit	m	40	
	Girder clamp for chain and wire, STRUTFAST Type AH-1420	No.		rate only
4.6.5	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.			
4.6.6	20mm diameter 4 way type(round box)	No	50	
4.6.7	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	8	
4.7.2	100 x 100 x 50mm	No	12	
4.7.3	88 x 275 x 62mm one tier cluster	No	4	
TOTAL FOR BILL - CARRIED FORWARD				

TOTAL FOR BILL - BROUGHT FORWARD				
4.8	PVC Wiring in conduits:			
4.8.1	2.5 mm ² for lights circuits	m	800	
4.8.2	4 mm ² for plug sockets circuits	m	470	
	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	800	
4.8.4	4 mm ²	m	470	
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	4	
4.9.2	2Way 16A Single Lever Light switch	No		rate only
4.9.3	2 Lever 2 way	No		rate only
4.9.4	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	12	
	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	4	
TOTAL FOR BILL - CARRIED FORWARD				

TOTAL FOR BILL - BROUGHT FORWARD					
4.11	Light Fittings				
	Supply, 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	20		
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 of R10000-00 for earthing and lightning protection installations by specialist	Sum	1		
TOTAL FOR BILL - CARRIED FORWARD TO SUMMARY					

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
5	<u>2 CLASSROOM BLOCK</u>				
5.1	General trenching work for 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	m ³			rate only
5.1.2	Excavation and backfilling in soft soil	m ³			rate only
5.1.3	Excavation and backfilling in hard rock	m ³			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	110mm Diameter for power cable	m			rate only
	Radius bends:				
5.2.3	75mm Diameter	No			rate only
5.2.4	110mm 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	440		
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 FOR 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 Terminations:			
5.5.1	10mm 2 core cable	No	2	
5.5.2	16mm 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	60	
5.6.2	25mm PVC Conduit	m	120	
	In Ceiling space and Timber work or along Purlins			
5.6.3	20mm PVC Conduit	m	200	
5.6.4	25mm PVC Conduit	m	60	
5.6.5	Girder clamp for chain and wire, STRUTFAST Type AH-1420	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 4 way type(round box)	No	25	
5.6.8	450 x 450mm 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	4	
5.7.2	100 x 100 x 50mm	No	6	
5.7.3	88 x 275 x 62mm one tier cluster	No	2	
TOTAL FOR BILL - CARRIED FORWARD				

TOTAL FOR BILL - BROUGHT FORWARD				
5.8	PVC Wiring in conduits:			
5.8.1	2.5 mm ² for lights circuits	m	400	
5.8.2	4 mm ² for plug sockets circuits	m	235	
	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	400	
5.8.4	4 mm ²	m	235	
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	16A Single Lever Light Switch	No	4	
5.9.2	2Way 16A Single Lever Light switch	No		rate only
5.9.3	Outdoor Photocell Switch	No	1	
5.9.4	90 degree motion sensor light switch	No		rate only
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	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			
5.10.2	- 2x RJ45 Data & Telephone Points	No	2	
TOTAL FOR BILL - CARRIED FORWARD				

TOTAL FOR BILL - BROUGHT FORWARD					
5.11	Light Fittings				
	Supply, 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 34W LED IP66 Corrosion Proof Light Fitting	No	10		
5.11.2	15W LED Round Bulkhead with Dali Modification	No	6		
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				
5.13.1	Provide the sum of R7000-00 for earthing and lightning protection installations by specialist	Sum	1		
TOTAL FOR BILL - CARRIED FORWARD TO SUMMARY					

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
6	<u>GRADE R BLOCK (2 CLASSROOM)</u>				
6.1	General trenching work for 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	110mm Diameter for power cable	m			rate only
	Radius bends:				
6.2.3	75mm Diameter	No			rate only
6.2.4	110mm 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	790		
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	No.	1		
TOTAL FOR BILL - CARRIED FORWARD					

TOTAL FOR 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 Terminations:			
6.5.1	10mm 2 core cable	No	2	
6.5.2	10mm 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	80	
6.6.2	25mm PVC Conduit	m	180	
	In Ceiling space and Timber work or along Purlins			
6.6.3	20mm PVC Conduit	m	450	
6.6.4	25mm PVC Conduit	m	80	
6.6.5	Girder clamp for chain and wire, STRUTFAST Type AH-1420	No.		rate only
6.6.6	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.			
6.6.7	20mm diameter 4 way type(round box)	No	30	
6.6.8	450 x 450mm 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	8	
6.7.2	100 x 100 x 50mm	No	10	
6.7.3	88 x 275 x 62mm one tier cluster	No	2	
TOTAL FOR BILL - CARRIED FORWARD				

TOTAL FOR BILL - BROUGHT FORWARD				
6.8	PVC Wiring in conduits:			
6.8.1	2.5 mm ² for lights circuits	m	350	
6.8.2	4 mm ² for plug sockets circuits	m	250	
	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	350	
6.8.4	4 mm ²	m	250	
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	16A Single Lever Light Switch	No	7	
6.9.2	2Way 16A Single Lever Light switch	No	2	
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	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			
6.10.2	- 2x RJ45 Data & Telephone Points	No	2	
TOTAL FOR BILL - CARRIED FORWARD				

TOTAL FOR BILL - BROUGHT FORWARD					
6.11	Light Fittings				
	Supply, 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 34W LED IP66 Corrosion Proof Light Fitting	No	12		
6.11.2	15W LED Round Bulkhead with Dali Modification	No	8		
6.11.3	10W LED Roundo Downlight with Dali Modification	No	12		
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				
	Provide the sum of R7000-00 for earthing and lightning protection installations by specialist				
6.13.1		Sum	1		
6.13.2	20A 2pole Isolator, in suitable York Box, for HVAC	No	2		
TOTAL FOR BILL - CARRIED FORWARD TO SUMMARY					

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
7	<u>ABLUTION BLOCK (10 SEATER)</u>				
7.1	General trenching work for 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				
7.1.1	Trenching through floor for sleeves	m³			rate only
7.1.2	Excavation and backfilling in soft soil	m³			rate only
7.1.3	Excavation and backfilling in hard rock	m³			rate only
7.2	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				
7.2.1	75mm Diameter for Data	m			rate only
7.2.2	113mm Diameter for power cable	m			rate only
	Radius bends:				
7.2.3	75mm Diameter	No			rate only
7.2.4	113mm Diameter	No			rate only
7.3	Draw Wires				
7.3.1	Supply and install a 0,6mm diameter galvanised draw wire in sleeves and conduit for data installation	m	55		
7.4	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				
7.4.1	Distribution Board	No.	1		
TOTAL FOR BILL - CARRIED FORWARD					

TOTAL FOR BILL - BROUGHT FORWARD				
7.5	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			
7.5.1	4mm 2 core PVC SWA Cable	m		rate only
7.5.2	4 mm BCEW	m		rate only
	Terminations:			
7.5.3	4mm 2 core cable	No	2	
7.5.4	4mm BCEW	No	2	
7.6	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:			
7.6.1	20mm PVC Conduit	m	5	
7.6.2	25mm PVC Conduit	m	5	
	In Ceiling space and Timber work or along Purlins			
7.6.3	20mm PVC Conduit	m	50	
7.6.4	25mm PVC Conduit	m	10	
7.6.5	Girder clamp for chain and wire, STRUTFAST Type AH-11320	No.		rate only
7.6.6	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.			
7.6.7	20mm diameter 13 way type(round box)	No	20	
7.6.8	1350 x 1350mm Bonding tray in roof space	No		rate only
7.7	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:			
7.7.1	100 x 50 x 50mm	No	1	
7.7.2	100 x 100 x 50mm	No	2	
TOTAL FOR BILL - CARRIED FORWARD				

TOTAL FOR BILL - BROUGHT FORWARD				
7.8	PVC Wiring in conduits:			
7.8.1	2.5 mm ² for lights circuits 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.	m	55	
7.8.2	2.5 mm ²	m	55	
7.9	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			
7.9.1	1 Lever 1 way	No	2	
7.9.2	Outdoor Photocell Switch	No	1	
7.10	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:			
7.10.1	SA/Euro 16A Socket Outlet @300 A.F.F.L	No		rate only
TOTAL FOR BILL - CARRIED FORWARD				

TOTAL FOR BILL - BROUGHT FORWARD					
7.11	Light Fittings				
	Supply, 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.				
7.11.1	1200mm 313W LED IP66 Corrosion Proof Light Fitting	No			rate only
7.11.2	15W LED Round Bulkhead with Dali Modification	No	5		
7.11.3	10W LED Rondo Downlight with Dali Modification	No	14		
7.12	Electrical Tests				
	Making provision for the required inspection, tests and the commissioning of the complete installation and the issuing of the required certificate.				
7.12.1	Building installation	Sum	1		
7.13	Others				
7.13.1	Provide the sum of R5000-00 for earthing and lightning protection installations by specialist	Sum	1		
TOTAL FOR BILL - CARRIED FORWARD TO SUMMARY					

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
8	<u>ABLUTION BLOCK (4 SEATER)</u>				
8.1	General trenching work for 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				
8.1.1	Trenching through floor for sleeves	m ³			rate only
8.1.2	Excavation and backfilling in soft soil	m ³			rate only
8.1.3	Excavation and backfilling in hard rock	m ³			rate only
8.2	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				
8.2.1	75mm Diameter for Data	m			rate only
8.2.2	113mm Diameter for power cable	m			rate only
	Radius bends:				
8.2.3	75mm Diameter	No			rate only
8.2.4	113mm Diameter	No			rate only
8.3	Draw Wires				
8.3.1	Supply and install a 0,6mm diameter galvanised draw wire in sleeves and conduit for data installation	m	50		
8.4	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				
8.4.1	Distribution Board	No.	1		
TOTAL FOR BILL - CARRIED FORWARD					

TOTAL FOR BILL - BROUGHT FORWARD				
8.5	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			
8.5.1	4mm 2 core PVC SWA Cable	m		rate only
8.5.2	4mm BCEW	m		rate only
	Terminations:			
8.5.3	4mm 2core cable	No	2	
8.5.4	4mm BCEW	No	2	
8.6	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:			
8.6.1	20mm PVC Conduit	m		rate only
8.6.2	25mm PVC Conduit	m	15	
	In Ceiling space and Timber work or along Purlins			
8.6.3	20mm PVC Conduit	m	10	
8.6.4	25mm PVC Conduit	m		rate only
8.6.5	Girder clamp for chain and wire, STRUTFAST Type AH-11320	No.		
	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.			
8.6.6	20mm diameter 13 way type(round box)	No	7	
8.6.7	1350 x 1350mm Bonding tray in roof space	No		rate only
8.7	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:			
8.7.1	100 x 50 x 50mm	No	2	
8.7.2	100 x 100 x 50mm	No	2	
TOTAL FOR BILL - CARRIED FORWARD				

TOTAL FOR BILL - BROUGHT FORWARD				
8.8	PVC Wiring in conduits:			
8.8.1	2.5 mm ² for lights circuits	m	20	
8.8.2	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.			
8.8.3	2.5 mm ²	m	20	
8.8.4	4 mm ²	m		rate only
8.9	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			
8.9.1	1 Lever 1 way	No	2	
8.9.2	1 Lever 2 way	No		rate only
8.9.3	2 Lever 2 way	No		rate only
8.9.4	Outdoor Photocell Switch	No	1	
8.10	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:			
8.10.1	SA/Euro 16A Socket Outlet @300 A.F.F.L	No		rate only
TOTAL FOR BILL - CARRIED FORWARD				

TOTAL FOR BILL - BROUGHT FORWARD					
8.11	Light Fittings				
	Supply, 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.				
8.11.1	1200mm 313W LED IP66 Corrosion Proof Light Fitting	No			rate only
8.11.2	13W LED Rondo Downlight with Dali Modification	No	4		
8.11.3	10W LED Rondo Downlight with Dali Modification	No	4		
8.11.4	Type D1: 17 W Ceiling mounted downlighter	No			rate only
8.11.5	Type B1: Wall mounted bulkhead 2x 17W CFL	No			rate only
8.12	Electrical Tests				
	Making provision for the required inspection, tests and the commissioning of the complete installation and the issuing of the required certificate.				
8.12.1	Building installation	Sum	1		
8.13	Others				
8.13.1	2 compartment power skirting installed in offices	m			rate only
8.13.2	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
9	Area Lighting				
9.1	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				
9.1.1	25W 3m LED POST TOP FITTING	No	6		
9.1.2	OPEN CHANNEL FLUORESCENT LED TUBES 2x18W 1200mm T8 4000K CRI>80	no.			rate only
9.1.3	50000Hrs L80 1°-25°C TO +50°C IP44 WITH FROSTED LENS AND ECG (VAPOUR PROOF)				
9.1.3	ROUND BULKHEAD LIGHT FITTING 14W 4000K CRI>80 1°-25°C TO +45°C IP65 WITH ELECTRONIC CONTROL GEAR	No	48		
9.2	Cabling				
	PVC Wiring :				
9.2.1	4mm ² x 2core copper cable	m	400		
9.2.2	2.5mm ² bare copper earth wire (BCEW)	m	400		
9.3	TESTING AND COMISSIONING				
9.3.1	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					

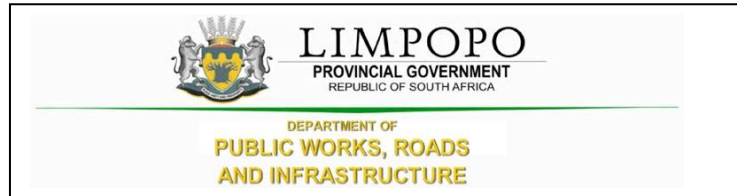
ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
10	<u>PROVISIONAL AMOUNTS : ICT</u>				
10.1	Provide the sum of R 173 920.00 for the instalation of Information and Communication Technologies by specialist service provider in consultation with the Engineer/Consultant	Sum	1		
10.2	Profit	%			
10.3	Attendense	%			
TOTAL FOR BILL - CARRIED FORWARD TO SUMMARY					

**LIMPOPO DEPARTMENT OF EDUCATION
UPGRADES AND ADDITIONS AT
VUTIVI PRIMARY SCHOOL**

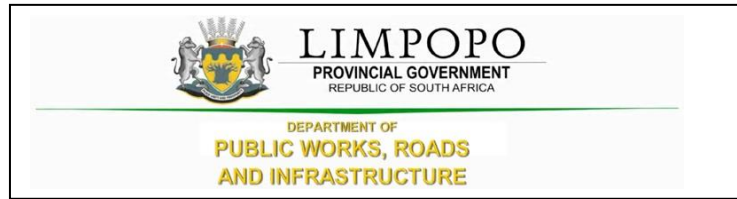
Section No	<u>FINAL SUMMARY</u>	Page No		Amount
1	PRELIMINARIES	1/30		
2	4 CLASSROOM BLOCK WITH STORES X 2	2/36		
3	4 SEAT TOILET ENVIROLOOS BLOCK X 5	3/36		
4	SMALL ADMINISTRATION BLOCK	4/38		
5	4 SEAT WATERBORNE TOILET BLOCK	5/36		
6	2 CLASSROOM BLOCK GRADE R	6/38		
7	EXTERNAL WORKS	7/4		
8	PROVISIONAL SUMS	8/9		
	Sub- Total (PART A - MAIN BUILDING WORKS)		R	
	<u>PART B - ELECTRICAL AND MECHANICAL WORK</u>			
	TENDER AMOUNT CARRIED OVER FROM PART B (ELECTRICAL AND MECHANICAL WORK)	Item		
	<u>PART C - CIVIL WORK</u>			
	TENDER AMOUNT CARRIED OVER FROM PART C (CIVIL WORK)	Item		
	Sub- Total - BUILDING COSTS		R	
	<u>CONTINGENCY ALLOWANCE TO THE CONTRACT</u>			
	<u>Contingencies:</u>			
	Allow an amount of R1 200 000.00 (One Million Two 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	

**LIMPOPO DEPARTMENT OF EDUCATION
UPGRADES AND ADDITIONS AT
VUTIVI PRIMARY SCHOOL**

Section No	<u>FINAL SUMMARY</u>	Page No		Amount
	Brought Forward			R
	<u>PRICE ADJUSTMENT FOR INFLATION TO THE CONTRACT</u>			
	Allow an amount of R1 300 000.00 (One Million Three 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



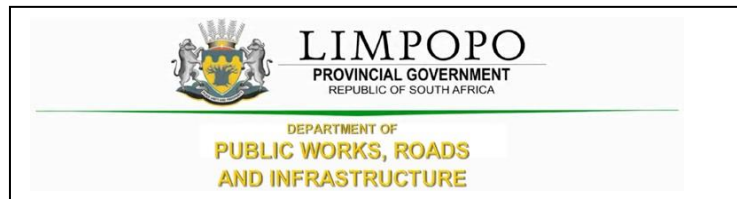
C5.1 SCOPE OF WORKS

Overview of the works

The project comprises the construction of the following:

The construction of administration block, 8 classrooms, 2 grade R classrooms, 4 seats waterborne toilets and 20 seats enviro-loo toilets as well as all related external works and services at Vutivi Primary School in Arcibuilt Village, Mokhurumela in Buchum 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 mandatory.****

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***
EPWP Program ***
EPWP Sub programme ***

Infrastructure

Budget Amount

Financial year ***
Total Budget Amount ***
Wages ***
UIF ***
COIDA ***
Training
Administration
Equipment and materials
Other
Describe if other

1

Outputs and Training

Output ***
Description ***
Target Quantity ***
Number of persons to be trained

Contact person

Title***
Initials***
First Name***
Surname***
Email
Tel (Office)***
Fax Number
Cell Number***
Physical Address ***
Postal Address
Postal code

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

Training

ID	Course Name	Code	Type	Start	End	Number of Trainees	Number of Days	Cost	Status	Training Provider

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

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

Payment Details ***															
Employer			LDPWR&I												
Project Name			Schoemansdal Museum												
Contract Number															
Reporting Month															
Attach proof of payment or register where employees acknowledged receipt of															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
***	***	***	Idnumber ***	DateOfBirth ***	WageRate ***	No. of Days Worked	AmountPaid ***	WorkDays ***	Training Days Paid	Training Days NonPaid	Total Training Days	Training Course Id	Month ***	Year ***	Signature of Payment Received
1															
2															
3															
4															
5															
6															
7															
8															
9															
10															
11															
12															
13															



PART C7: SITE INFORMATION AND DRAWINGS



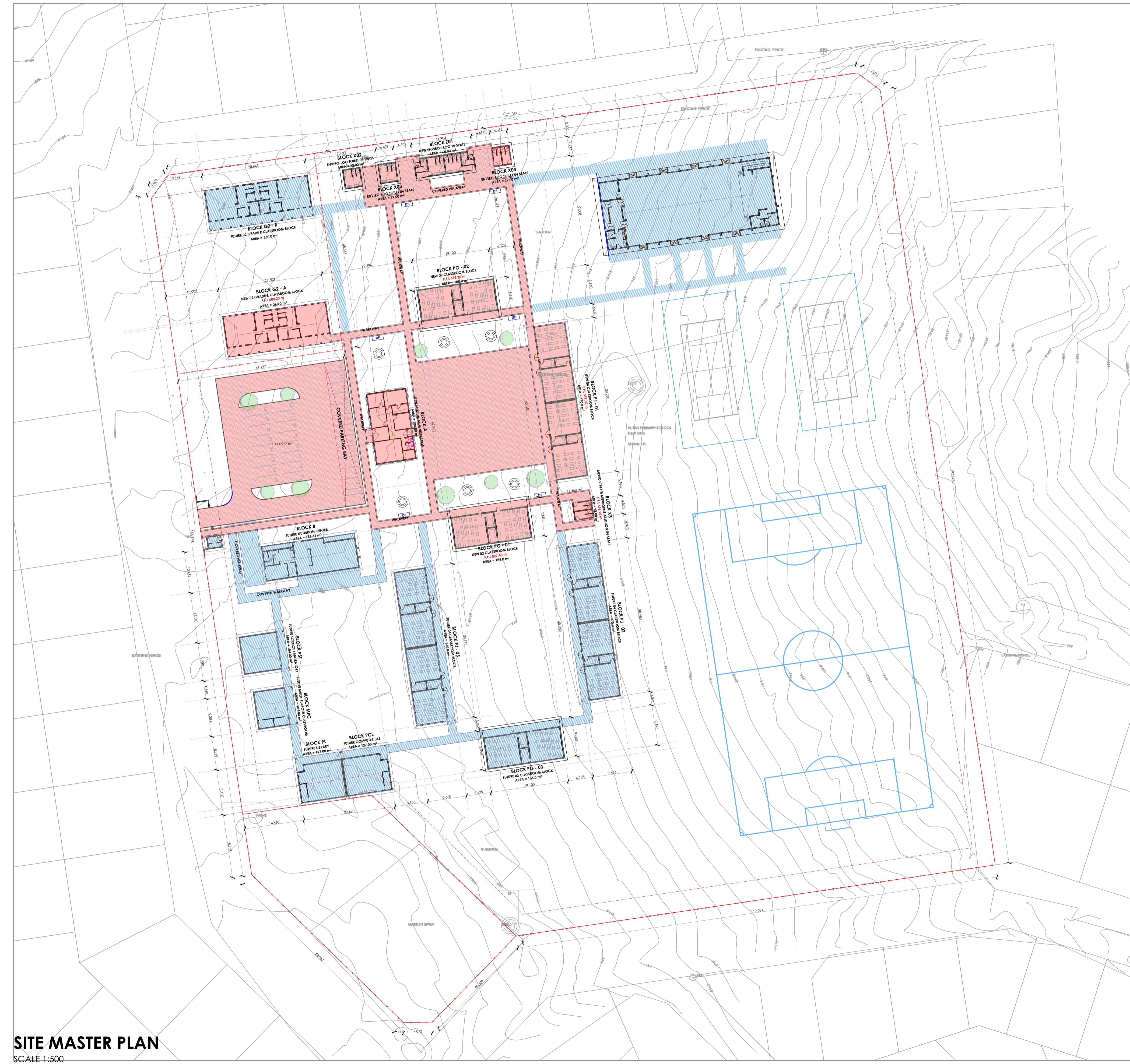
PART C7.1: SITE INFORMATION



PART C7.2: DRAWINGS

ARCHITECTURAL DRAWINGS

ISSUED FOR TENDER



SITE MASTER PLAN
SCALE 1:500

TABLE 1: SUMMARY FOR HUMAN CAPITAL			
	BOYS	GIRLS	TOTAL
GRADE R	27	29	56
GRADE 1	48	42	90
GRADE 2	31	33	64
GRADE 3	35	37	72
GRADE 4	44	28	72
GRADE 5	31	27	58
GRADE 6	21	31	52
GRADE 7	15	26	41
TOTAL NO. LEARNERS			505
TOTAL OF EDUCATORS			08

TABLE 2A: DEMOLITION WORKS	AREA
NA	

TABLE 2B: RENOVATION REFURBISHMENT	AREA
NA	

TABLE 2C: NEW WORKS	AREA
BLOCK A - ADMINISTRATION BLOCK	180.00 m ²
BLOCK PJ 01 - 4 CLASSROOM BLOCK	370.00 m ²
BLOCK PG 01 - 2 CLASSROOM BLOCK	185.00 m ²
BLOCK PG 02 - 2 CLASSROOM BLOCK	185.00 m ²
BLOCK G2 A - 2 CLASSROOM BLOCK	260.00 m ²
BLOCK X1 - 04 ENVIRO-LOO	22.00 m ²
BLOCK X2 - 04 ENVIRO-LOO	22.00 m ²
BLOCK X3 - 04 SEAT WATERBORNE TOILET - STAFF	22.00 m ²
BLOCK X4 - 04 ENVIRO-LOO	22.00 m ²
BLOCK Z - 10 ENVIRO-LOO - MIXED	68.00 m ²
TOTAL AREA OF NEW BUILDINGS	1336.00 m²

TABLE 2D: FUTURE WORKS	AREA
BLOCK B - NUTRITION CENTER	183.36 m ²
BLOCK F - GATE HOUSE	13.70 m ²
BLOCK C: MULTI-PURPOSE LARGE HALL	717.17 m ²
BLOCK L & CL: LIBRARY & COMPUTER LAB	253.00 m ²
MULTI-PURPOSE CLASSROOM	253.00 m ²
BLOCK : MULTI-PURPOSE CLASSROOM	104.00 m ²
BLOCK PJ 02 - 4 CLASSROOM BLOCK	370.00 m ²
BLOCK PJ 03 - 4 CLASSROOM BLOCK	370.00 m ²
BLOCK PG 02 - 2 CLASSROOM BLOCK	185.00 m ²
BLOCK G3 A - 2 CLASSROOM BLOCK	260.00 m ²
TOTAL AREA : FUTURE BUILDINGS	994.38 m²

TABLE 2E: CLASSROOMS SUMMARY	
TOTAL NUMBER FOR ALL CURRENTLY PROVIDED CLASSROOMS	00
TOTAL NUMBER FOR ALL REFURBISHED CLASSROOMS	00
TOTAL NUMBER FOR ALL NEW CLASSROOMS	08

SCHEDULE OF AREA	
SANS 10400 CLIMATIC ZONE	ZONE 2
SANS 10400 BUILDING CLASSIFICATION	A3
TOTAL AREA OF EXISTING BUILDINGS	NA
TOTAL AREA OF BUILDINGS TO BE DEMOLISHED	NA
TOTAL AREA OF PROPOSED WALKWAYS	1897.30 m ²
TOTAL AREA OF DRIVEWAY & PARKING	1481.46 m ²
TOTAL PARKING PROVISION	30 BAYS
TOTAL PLOT AREA	35,944.6 m ²
TOTAL PLOT PERIMETER	846.32 m
PLOT AREA COVERAGE	3.72 %

FUNCTION LEGEND	
PLOT BOUNDARY	----
TREE	⊕
TAP	⊙
5000 mm BUILDING LINE	----
BENCHMARK	⊕
ELECTRICAL POLE	⊕
BOREHOLE	⊙
BUILDINGS TO BE RENOVATED	Red hatched
BUILDING TO BE DEMOLISHED	Yellow hatched
PROPOSED BUILDING	Blue hatched
PAVED PEDESTRIAN WALKWAY	Red hatched
PAVED DRIVEWAY	Blue hatched
FUTURE CONCRETE WALKWAY	Blue hatched
TRANSFORMER	⊕
JOJO TANK	⊕

LEGEND	
Red line	NEW WALLS
Grey line	EXISTING WALL TO BE RETAINED
Yellow line	EXISTING WALL TO BE DEMOLISHED
Red dashed line	NEW FIXTURES & FITTING TO BE INSTALLED
Red and (OR) dashed lines	ITEMS IN RED AND (OR) DASHED LINES ARE TO BE REPAIRED AND (OR) REPLACED

NOTES
ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE STATED
DIMENSIONS TO BE READ, NOT TO SCALED FROM THIS DRAWING
CONTRACTORS TO CONFIRM ALL DIMENSIONS ON SITE BEFORE CONSTRUCTION COMMENCES & ANY DISCREPANCY TO BE REPORTED TO THE PROJECT ARCHITECT

FINISHES LEGEND	
CEILING FINISH	FLOOR FINISH
WALL FINISH	WALL SKIRTING FINISH

SIGNATURE TABLE		
DISCIPLINE	SIGN	DATE
CLIENT		
PLAN EXAMINER		
FIRE CONTROL		
ENVIRONMENTAL		
ROADS STORMWATER		
WATER & SANITATION		

REV. NO.	DATE	DESCRIPTION
0	JUL 21	FIRST ISSUE FOR TENDER

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PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF
PUBLIC WORKS, ROADS & INFRASTRUCTURE

INSTITUTION
VUTVI PRIMARY - 933 303 101

CONTRACT - SECTION
RESTORATIVES, REPAIRS & ADDITIONS

DISCIPLINE
DOCUMENTATION & PROCUREMENT

ARCHITECTURAL 4

WORK DESCRIPTION - SUB DIVISION
STAGE 04 ARCHITECTURAL

DRAWING DESCRIPTION
SITE PLAN

DRG No:	F18-100-01	01/02	ITEM No.
DESIGN	SMIN	SMIN	DRAWN
SCALE	AS SHOWN	T.M	CHECK

DATE	RESPONSIBLE PROFESSIONAL	PR. NUMBER
NOV 2019	T. MANYADZA	P/Arch 43981757

DRAWING COORDINATED

CONSULTANT
TECTURA PROJECTS

ALSO IN HARBOUR KENYA AND GABORONE, BOTSWANA

CONTRACTOR

CAD SYSTEM	AUTOCAD	FILE NAME
SIZE	PROJECT NUMBER	REV
A1	LDPW - PROF/16002/F18	0

FINISHES LEGEND

- FLOORS:**
- F1: PORCELAIN TILES - MATI (CORROSION RESISTANT & ANTI-SLIPPERY)**
450x450 11.5mm kiln-fired floor tiles or similar approved by architects, fixed with adhesive, painted with finished waterproof jointing compound. Grouting to be grey. Tiles should have expansion joint and aluminium edging strip.
- F2: PORCELAIN TILE - MATI**
450 x 450 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 manufacturer's instructions and SABS specification. Fittings to include, ribbed angle tiles where there is change of level & Movement Joints of 4mm 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: CARPETILES**
500mm x 500mm x 1005 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 54824 on weta test and 50 body test at less than 20v at 25% RH on static electricity. Colour and pattern to architects approval.
- F4: CEMENT SAND SCREED**
30mm thick polished cement sand screed with 13mm Stone Nominal aggregate for Topping to comply with SABS 1083 or latest revision for concrete.
- F5: EXTERIOR MULTI-COLOURED CONCRETE INTERLOCKING PAVERS**
45mm 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**
22mm thick unfilled 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 50 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 VINYL SHEETING (CORROSION RESISTANT/ANTI-SLIPPERY)**
2.5mm Thick Heavy Traffic Use, Corrosive Resistant & Anti-Slippery Vinyl Sheeting Semi-Flexible To Comply With SABS 584. With Static Dissipative Properties Throughout Thickness. Engineered for ESD or ID (anti-static) Protection Vinyl Sheet. Laid on Self-Levelled Smooth Screed glued with conductive 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 & Polished 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 PFE Details installed in All Duct Chambers Accommodating Sanitary Services.

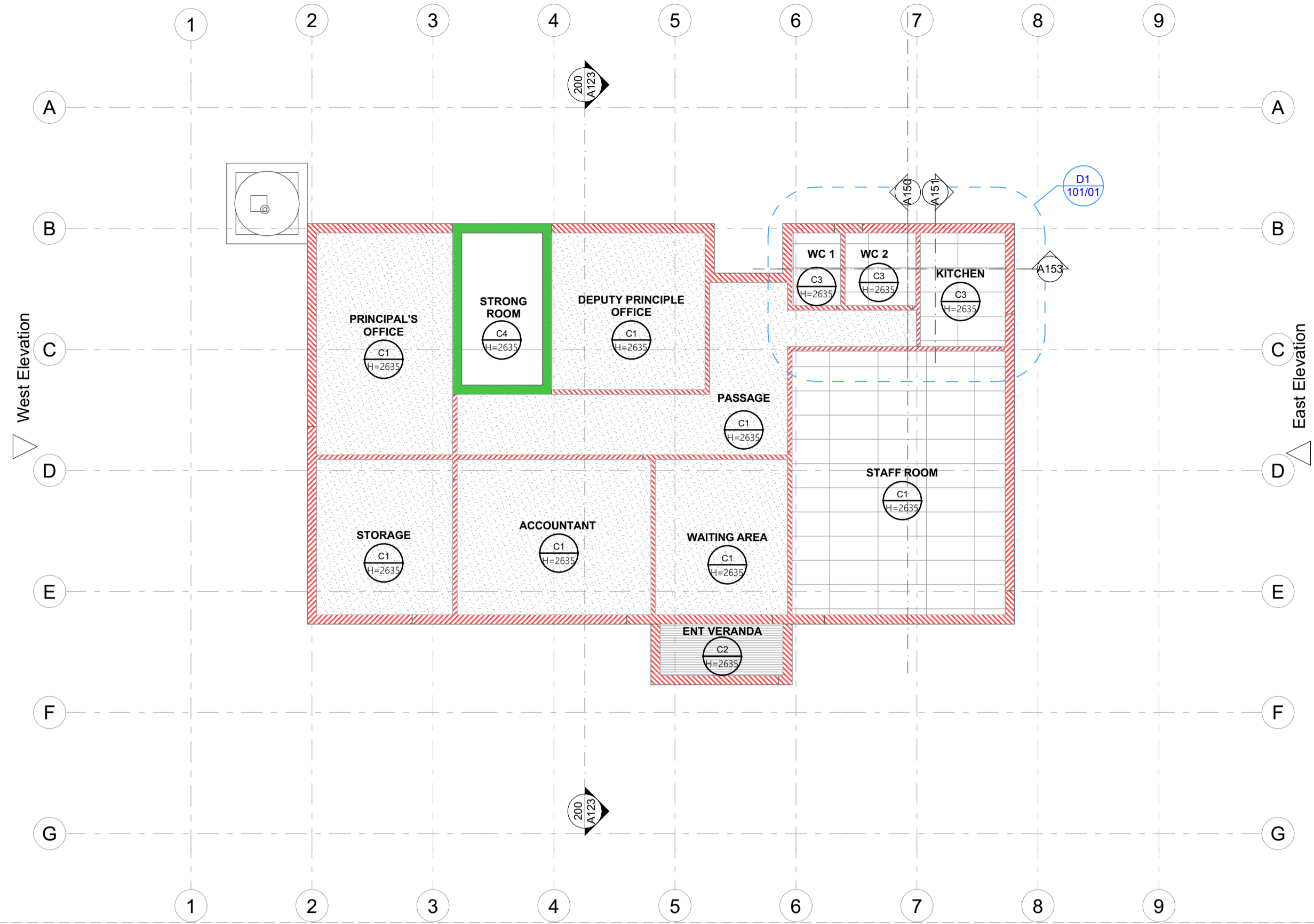
- SKIRTING:**
- S1: HARDWOOD OR EQUAL AND APPROVED**
18 x 25mm x 20mm Moulded Hardwood Skirting to comply with SANS 1099, fixed to walls in long lengths with splayed heading joints and mitred corners with screws and plugs at centres not exceeding 400mm, and fixed with a 19mm x 19mm quadrant bedding. The skirting to be varnished with 3No. coats of egg shell clear varnish to comply with SABS/SANS 381 type 1.
- S2: CERAMIC TILE SKIRTING**
400mm 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 manufacturer's instructions and SABS specification, with cone 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**
75 mm high x 20 mm thick hardened cement sand screed skirting covered at 50 mm dia. to form a continuous joint with the adjoining screed floor finish to FA's approval. All to be manufactured and installed in strict compliance With SABS 1083 or latest revision.

- WALL FINISHES:**
- R1: FACE BRICK**
F8X 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 1584 applied on plastered surface primed and with 1 no. coat undercoat to SABS 681 grade), in accordance to manufacturer's instructions.
- R3: ENAMEL (ENAMEL) PAINT**
2 no. coats matt (egg shell) finish alkyl (jeromel) paint to SABS 430, type 2 applied on plastered surfaces with 1 no coat alkali resistant primer to SABS 1416 and 1 no. coat undercoat to SABS 681 grade), in accordance to manufacturer's instructions.
- R4: GLAZED CERAMIC WALL TILES / ENAMEL PAINT COMBO**
Combination of: 400mm 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 "R2" To Comply with SABS 430 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**
400mm 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 to the latest SABS Standards.

- CEILING AND CORNICE:**
- C1: 9mm GYPSUM BOARDS FLUSH PLASTERED CEILINGS OR EQUAL AND APPROVED**
"GypCem Classic" gypsum plasterboard ceiling EQUAL & APPROVED consisting of 1 layer Gyproc RhinoBoard 9mm (locally manufactured, ISO 9001 & 14001 certification, recycled paper content, EcoSpecifier listing) fixed to timber branding 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 RhinoTape.
- C2: FIBRE CEMENT BOARDS (H-JOINTED)**
4mm thick GypCem Prestige 5 fibre cement ceiling boards or EQUAL & APPROVED consisting of 1 layer Gyproc RhinoBoard 9mm (locally manufactured, ISO 9001 & 14001 certification, recycled paper content, EcoSpecifier listing, non-combustible to SANS 10177:5) fixed to Ek 38mm x 50mm timber branding installed at maximum 400mm centers 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 RhinoTape.
- C3: PATENT SUSPENDED ACOUSTIC TILES OR EQUAL AND APPROVED**
1200mm x 600mm x 15mm Gyproc Calotex (Pre-Plastered or Fire Rated OR EQUAL & APPROVED) laid into Donn ceiling grid and secured into place using Donn Hold Down Clips @ 200mm c/c. Donn Wall Angle M4 fixed to the perimeter wall using fixings at 300mm centres. Donn T38 FR Main Tees @ 4mm thickness, 1150 g/m² 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 Stud 3No. coats of PVA emulsion ceiling paint to latest SANS 1584 approved on 6mm thick light weight hemi-hydrate gypsum plaster on concrete slab soffit.

- ROOF COVERING AND INSULATION:**
- R1: EMBOSSED ROOFING SHEET (TWO SIDES)**
Roofing Sheets: 1.5mm thick concealed fixing roofing sheets manufactured from roll-formed from certified steel complying with ISO 550:07. The profile shall have three trapezoidal ribs at 200mm centres giving a net cover of 450mm. The rib height shall be 41mm and provide cavity breaks. The main ribs shall have gaps of 28mm centres to ensure a positive double interlocking action at side-laps. Each pan shall incorporate two stiffener ribs. Profiled roof sheets 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 fixings and eave closes in strict compliance to manufacturer's instructions.
- Insulation:** SHALL EITHER BE: 1. where there are acoustic ceilings suspended board, a heavy duty Aluminium insulation 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/m³ and finished with white metalized foil.
- Galvanized Steel (GI) Gutter:** 150mm Wide x 100mm Deep x 0.6mm Eaves Gutter of Commercial Grade Steel With Class Z275 Galvanizing To Comply With SABS 934 or latest Revision Fixed To Painted Fibre Cement Facia Board Together with standard accessories discharging into Rainwater Downpipes.
- Downpipe:** 110 x 110 x 0.6mm Thick Commercial Grade Galvanized Steel Sheet With Class Z275 Galvanizing 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-tapping screws To Manufacturer Installation Instructions.
- Facia board:** 250 x 10 mm Fibre Cement Facia/Barge Board. Screw Fixed To Tuss Ends & Counter Batten With Countersunk Brass Screws. Prepare & Apply One Universal Undercoat & Two Coats Super Acrylic F.V.A.

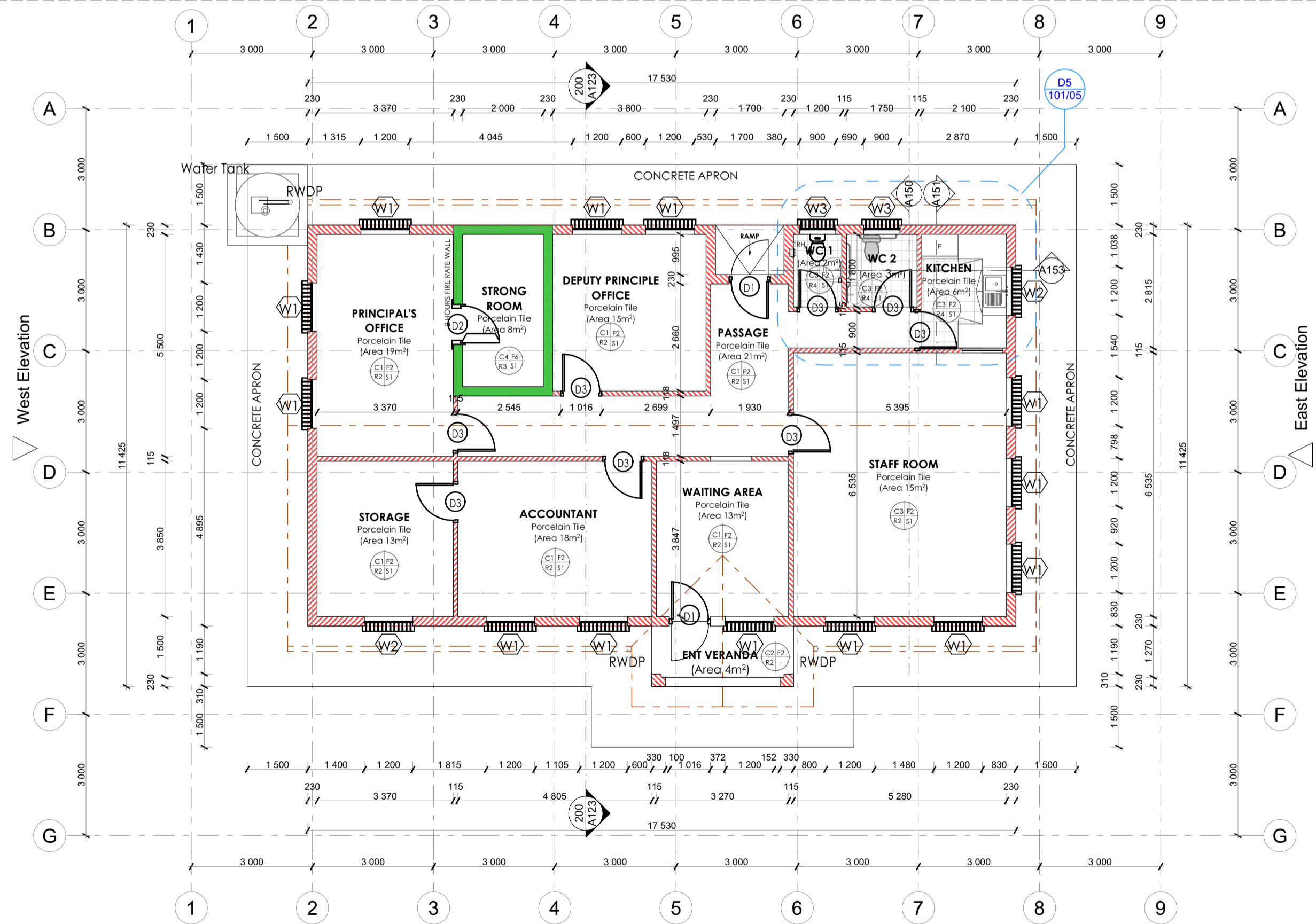
CEILING PLAN
Scale 1: 100



CEILING LEGEND

- CEILING TYPE C1:** GYPSUM BOARDS AS PER FINISHES SCHEDULE.
- CEILING TYPE C2:** FIBRE-CEMENT BOARDS AS PER FINISHES SCHEDULE.
- CEILING TYPE C3:** PATENT ACOUSTIC TILES PER FINISHES SCHEDULE.
- CEILING TYPE C4:** EMULSION PAINT ON SKIMMED SOFFIT AS PER FINISHES SCHEDULE.

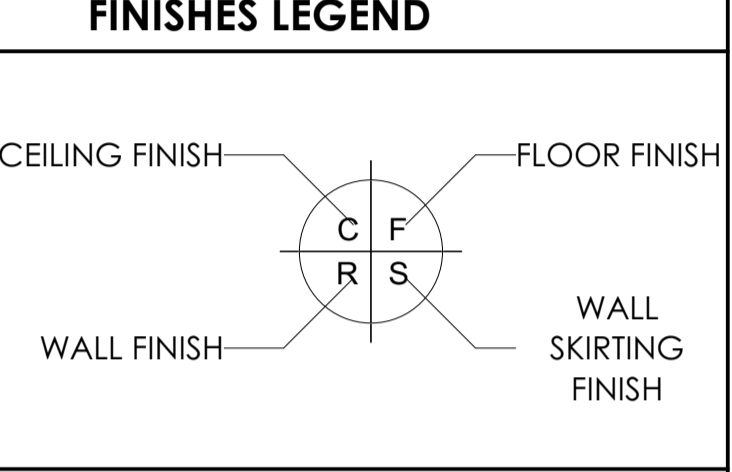
FLOOR PLAN
Scale 1: 100



ISSUED FOR TENDER

- LEGEND**
- 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

NOTES
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SIGNATURE TABLE

DISCIPLINE	SIGN	DATE
CLIENT		
PLAN EXAMINER		
FIRE CONTROL		
ENVIRONMENTAL		
ROADS / STORMWATER		
WATER & SANITATION		

REVISIONS

REV. NO.	DATE	DESCRIPTION
A	JUL 21	FIRST ISSUE FOR TENDER

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DEPARTMENT OF
PUBLIC WORKS, ROADS & INFRASTRUCTURE

VUTIVI PRIMARY - 933 303 101

RESTORATIVES, REPAIRS & ADDITIONS

CONTRACT - SECTION

DOCUMENTATION & PROCUREMENT

DISCIPLINE: **ARCHITECTURAL** 4

WORK DESCRIPTION - SUB DIVISION: **SMALL ADMINISTRATION BLOCK**

DRAWING DESCRIPTION: **FLOOR & CEILING PLANS**

DRG No.	101-01	01/09	ITEM No.
DESIGN	NA	CM	DRAWN
DATE	AS SHOWN	SMTN	CHECK
NOV 2019	T. MANYADZA		P/Arch 43981757

DRAWING COORDINATED

CONSULTANT

TECTURA PROJECTS

1001 WINDMILL DRIVE, SUITE 101, SANDHURST, JOHANNESBURG 2145
TEL: +27 11 801 2000
FAX: +27 11 801 2001
WWW.TECTURA.COM

CONTRACTOR

CAD SYSTEM	AUTOCAD	FILE NAME
SIZE	PROJECT NUMBER	REV
A1	LDPW - PROF/16002/F18	A

FINISHES LEGEND

FLOORS:
F1: PORCELAIN TILES - MATI (Corrosive Resistant & Anti-Slippery)
 420 x 420 11.5mm kiln-fired floor tiles or similar approved by architects, fixed with adhesive, painted with finished waterproof jointing compound. Grouting to be grey. Tiles should have expansion joint and aluminium edging strip.
F2: PORCELAIN TILE - MATI
 420 x 420 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 manufacturer's instructions and SABS specification. Fittings to include, ribbed angle tiles where there is change of level and Movement Joints of 6mm Wide With Patent Aluminium Movement Joints Strips Consisting Of Synthetic Fire Inserts Installed At Intervals As Per Manufacturer's Instruction. Colour and pattern to architects approval.

F3: CARPETILES
 500mm x 500mm x 1005 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 54824 on wira test and 50 body test at less than 20v at 25% RH on static electricity. Colour and pattern to architects approval.

F4: CEMENT SAND SCREED
 30mm thick polished cement sand screed with 13mm Stone Nominal aggregate for Topping to comply with SABS 1083 or latest revision for concrete.
F5: EXTERIOR MULTI COLOURED CONCRETE INTERLOCKING PAVES
 45mm thick multi-coloured concrete paves 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: GANGLIQUIC FINISH
 22mm thick unglazed Ganolith 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 PAVES (RIGID PAVING/VEHICULAR WAYS)
 220mm x 197mm x 50 mm thick concrete interlocking paves, 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 VINYL SHEETING (CORROSION RESISTANT/ANTI-SLIPPERY)
 2.5mm Thick Heavy Traffic Use, Corrosive Resistant & Anti-Slippery Vinyl Sheeting Semi-Flexible To Comply With SABS 584. With Static Dissipative Properties Throughout Thickness, Engineered for ISO or ISO (Anti-static) Protection Vinyl Sheet. Laid on Self-Levelled Smooth Screed glued with conductive 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 & Polished 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 PFE Details installed in All Duct Chambers Accommodating Sanitary Services.

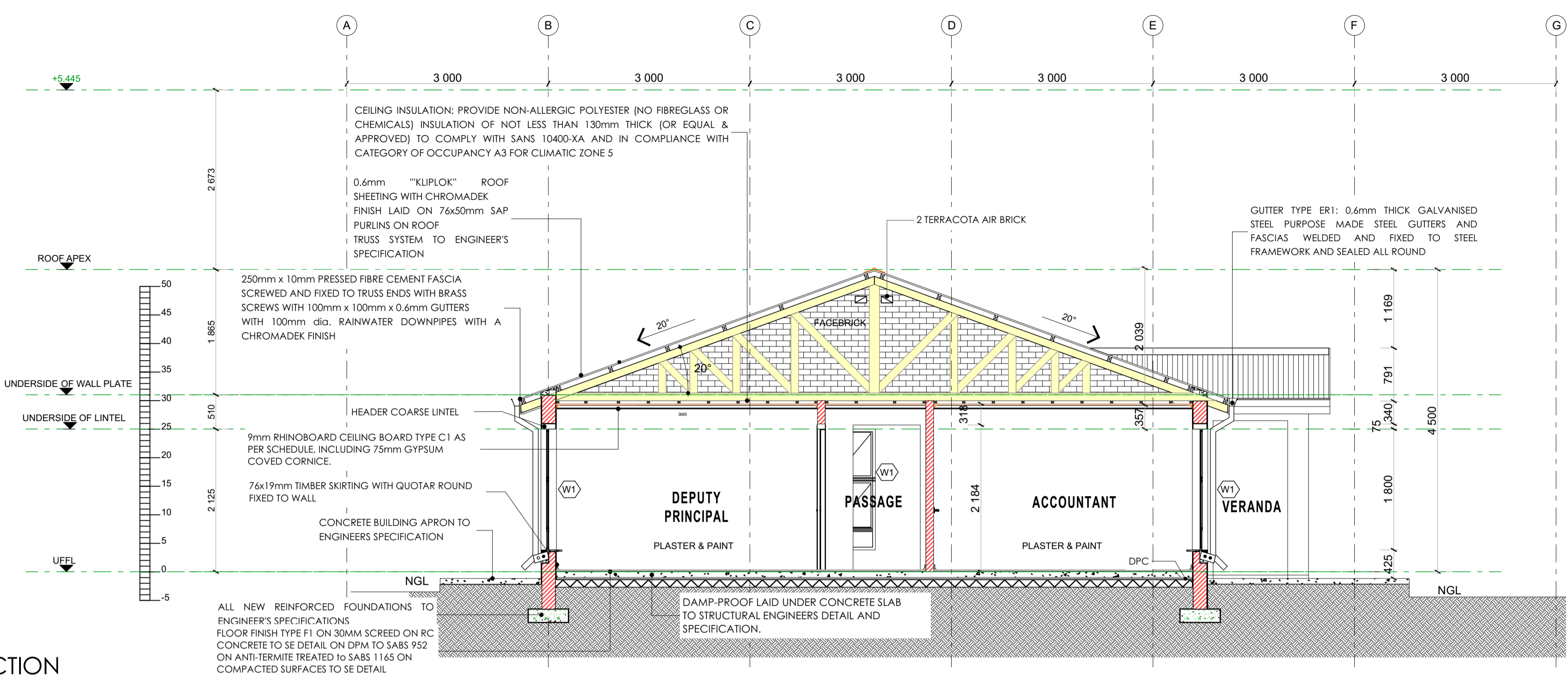
SKIRTING:
S1: HARDWOOD OR EQUAL AND APPROVED
 18 x 25mm x 20mm Moulded Hardwood Skirting to comply with SANS 1099 fixed to walls in long lengths with splayed heading joints and mitred corners with screws and plugs at centres not exceeding 400mm, and fixed with a 19mm x 19mm quadrant bedding. The skirting to be varnished with 3No. coats of egg shell clear varnish to comply with SABS(SANS 381 type 1).
S2: CERAMIC TILE SKIRTING
 60mm wide x 102mm 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 manufacturer's instructions and SABS specification, with cone base and straight top. 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
 75 mm high x 20 mm thick hardened cement sand screed skirting covered at 50 mm dia. to form a continuous joint with the adjoining screed floor finish to FA's approval. All to be manufactured and installed in strict compliance With SABS 1083 or latest revision.

WALL FINISHES:
W1: FACE BRICK
 F8X face brick in common running bond to comply with SABS 227 and forming part of the structural work.
W2: EMULSION (PVA) PAINT - FULL HEIGHT
 2 no. coats of PVA matt finish emulsion paint to SABS 1584 applied on plastered surface primed and with 1 no. coat undercoat to SABS 681 grade), in accordance to manufacturer's instructions.
W3: ENAMEL (ENAMEL) PAINT
 2 no. coats matt (egg shell) finish alkyl (jeromel) paint to SABS 430, type 2 applied on plastered surfaces with 1 no coat alkali resistant primer to SABS 1416 and 1 no. coat undercoat to SABS 681 grade), in accordance to manufacturer's instructions.
W4: 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 "R2" To Comply with SABS 430 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.
W5: 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 to the latest SABS Standards.

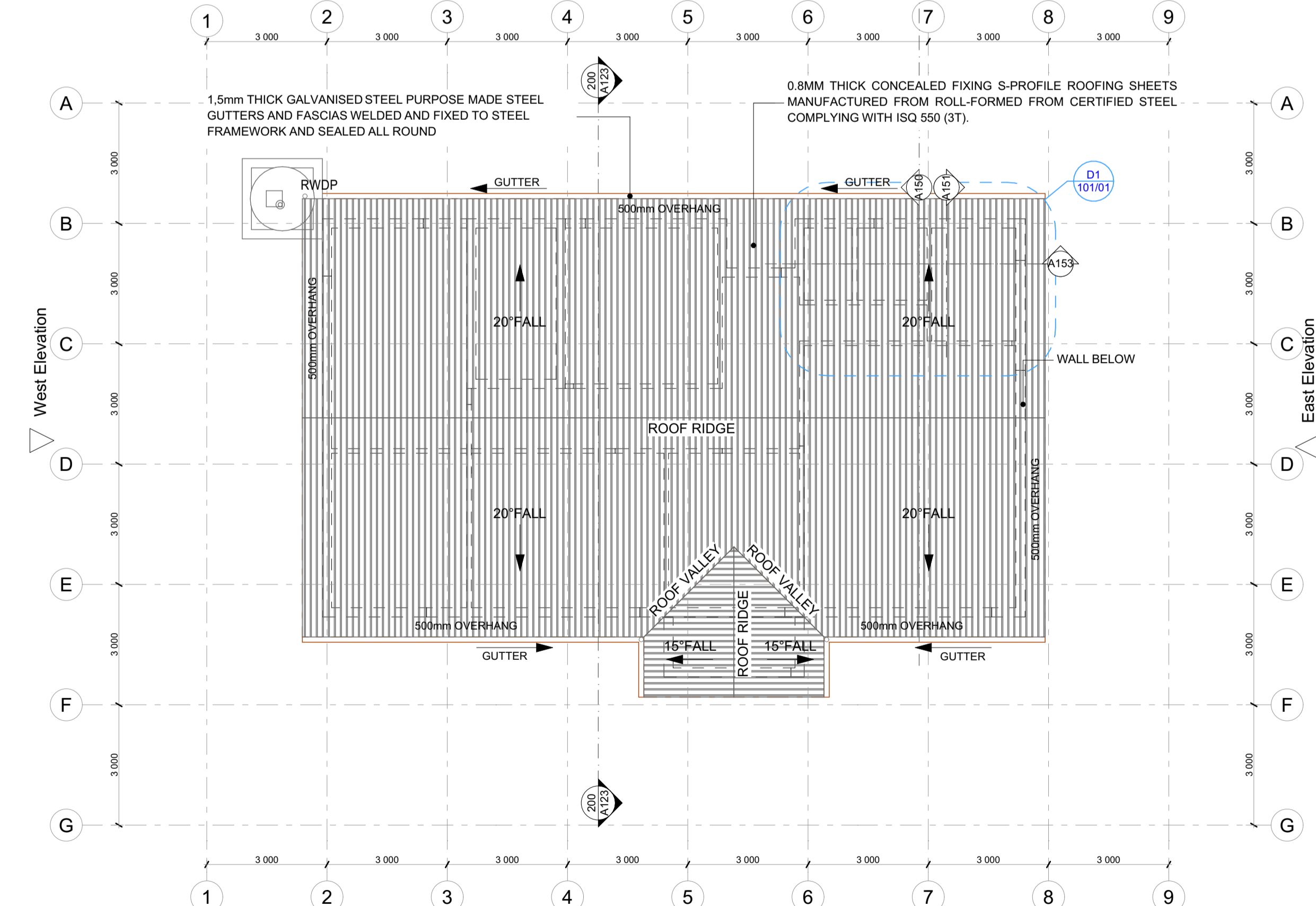
CEILING AND CORNICE:
C1: 7mm GYPSUM BOARDS FLUSH PLASTERED CEILINGS OR EQUAL AND APPROVED
 Gyproc Classic gypsum plasterboard ceiling EQUAL & APPROVED consisting of 1 layer Gyproc Rhinoboard 9mm (locally manufactured, ISO 9001 & 14001 certification, recycled paper content, EcoSpecifier listing) fixed to timber branding installed at maximum 300mm centres using Gyproc Rhinoboard Sharp Point Grabber Screws 32mm at maximum 150mm centres. Apply Gyproc Rhinotape to all joints and skim the ceiling using Gyproc Rhinotape.
C2: FIBRE CEMENT BOARDS (H-JOINTED)
 6.4mm thick Gyproc Prestige 5' 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 Ek 38mm x 50mm timber branding 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 Rhinotape.
C3: PATENT SUSPENDED ACOUSTIC TILES OR EQUAL AND APPROVED
 1200mm x 600mm x 15mm Gyproc Calotex (P) Perforated or Fire Insulated OR EQUAL & APPROVED laid into Donn ceiling grid and secured into place using Donn Hold Down Clips @ 200mm c/c. Donn Wall Angle 146 fixed to the perimeter wall using fixings at 300mm centres. Donn 138 FR Main Tees @ 4mm thickness, 2150 g/m² coating, locally manufactured, recycled content, ISO 9001 & 14001 certification) at 1200 centres & Donn TSBV (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 Stud 3No. coats of PVA emulsion ceiling paint to latest SANS 1584 approved on 6mm thick light weight hemi-hydrate gypsum plaster on concrete slab soffit.

ROOF COVERING AND INSULATION:
R1: EMBOSSED ROOFING SHEET (TWO SIDES)
Roofing Sheets: 0.8mm thick concealed fixing roofing sheets manufactured from roll-formed from certified steel complying with ISO 550 (ST). The profile shall have three trapezoidal ribs at 200mm centres giving a net cover of 456mm. The rib height shall be 41mm and provide cavity breaks. The main ribs shall have gaps of 283mm centres to ensure a positive double interlocking action at side-laps. Each span shall incorporate two stiffener ribs. Profiled roofheets 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 fixings and eave closes in strict compliance to manufacturer's instructions.
Insulation: SHALL EITHER BE: 1; where there are acoustic ceilings suspended board, a heavy duty Aluminium insulation 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/m³ and finished with white metalized foil.
Galvanized Steel (GI) Gutters: 150mm Wide x 100mm Deep x 0.6mm Eaves Gutter of Commercial Grade Steel With Class Z275 Galvanizing To Comply With SABS 934 or latest Revision Fixed To Painted Fibre Cement Fascia Board Together with standard accessories discharging into Rainwater Downpipes.
Downpipes: 110 x 110 x 0.6mm Thick Commercial Grade Galvanized Steel Sheet With Class Z275 Galvanizing 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-lapping screws to Manufacturer Installation instructions.
Fascia board: 250 x 10 mm Fibre Cement Fascia/Board. Screw Fixed to Truss Ends & Counter Batten With Countersunk Brass Screws. Prepare & Apply One Universal Undercoat & Two Coats Super Acrylic F.V.A.

CROSS SECTION
 Scale 1: 50



ROOF PLAN
 Scale 1: 100



ISSUED FOR TENDER

LEGEND

- 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

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FINISHES LEGEND

CEILING FINISH	FLOOR FINISH
WALL FINISH	WALL SKIRTING FINISH

SIGNATURE TABLE

DISCIPLINE	SIGN	DATE
CLIENT		
PLAN EXAMINER		
FIRE CONTROL		
ENVIRONMENTAL		
ROADS STORMWATER		
WATER & SANITATION		

REVISIONS

REV. NO.	DATE	DESCRIPTION
A	JUL 21	FIRST ISSUE FOR TENDER

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 REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE

VUTIVI PRIMARY - 933 303 101

RESTORATIVES, REPAIRS & ADDITIONS

DOCUMENTATION & PROCUREMENT

ARCHITECTURAL 4

SMALL ADMINISTRATION BLOCK

ROOF PLAN & SECTION

DRG No.	101-02	02/09	ITEM No.
DESIGN	NA	CM	DRAWN
DATE	AS SHOWN	SMTN	CHECK

DATE	NAME	SIGN	PR. NUMBER
NOV 2019	T. MANYADZA		PrArch 43981757

CONSULTANT

TECTURA PROJECTS

ALSO IN NAIROBI, KENYA AND GABORONE, BOTSWANA

CONTRACTOR

CAD SYSTEM	AUTOCAD	FILE NAME
SIZE	PROJECT NUMBER	REV
A1	LDPW - PROF/16002/F18	0

FINISHES LEGEND

FLOORS:
F1: PORCELAIN TILES - MATI (CONTOUR RESISTANT & ANTI-SLIPPERY)
 420 x 420 11.5mm kiln-fired floor tiles or similar approved by architects, fixed with adhesive, painted with finished waterproof jointing compound. Grouting to be grey. Tiles should have expansion joint and aluminium edging strip.

F2: PORCELAIN TILES - MATI
 420 x 420 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 manufacturer's instructions and SABS specification. Filings 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: CARPETILES
 500mm x 500mm, 1005 PFK 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 54824 on wear test and 50 body test at less than 20v at 25% RH on static electricity. Colour and pattern to architects approval.

F4: CEMENT SAND SCREED
 30mm thick polished cement sand screed with 13mm Stone Nominal aggregate for Topping to comply with SABS 1083 or latest revision for concrete.

F5: EXTERIOR MULTI COLOURED CONCRETE INTERLOCKING PAVING
 45mm 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 / Latest Revision.

F6: GRANITIC FINISH
 22mm thick unsealed 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 PAVING (EIGD PAVING/VEHICULAR WAYS)
 220mm x 197mm x 50 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 VINYL SHEETING (CORROSION RESISTANT/ANTI-SLIPPERY)
 2.2mm Thick Heavy Traffic Use, Contour Resistant & Anti-Slippery Vinyl Sheeting Semi-Flexible To Comply With SABS 584. With Static Dissipative Properties Throughout Thickness, Engineered for ESD or ID (Anti-static) Protection Vinyl Sheet, Laid on Self-Levelled Smooth Screed glued with conductive 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, Contour Resistant & Anti-Slippery.

F9: GRAVEL FINISH ON SAND LAYER
 32mm Gravel On Compacted Sand Layer Base as Per PFE Details installed in All Duct Chambers Accommodating Sanitary Services.

SKIRTING:
S1: HARDWOOD OR EQUAL AND APPROVED
 18 x 75mm x 20mm Moulded Hardwood Skirting to comply with SANS 1099, fixed to walls in long lengths with splayed heading joints and mitred corners with screws and plugs of centres not exceeding 400mm, and fixed with a 19mm x 19mm quadrant bedding. The skirting to be varnished with 3No. coats of egg shell clear varnish to comply with SABS/SANS 381 type 1.

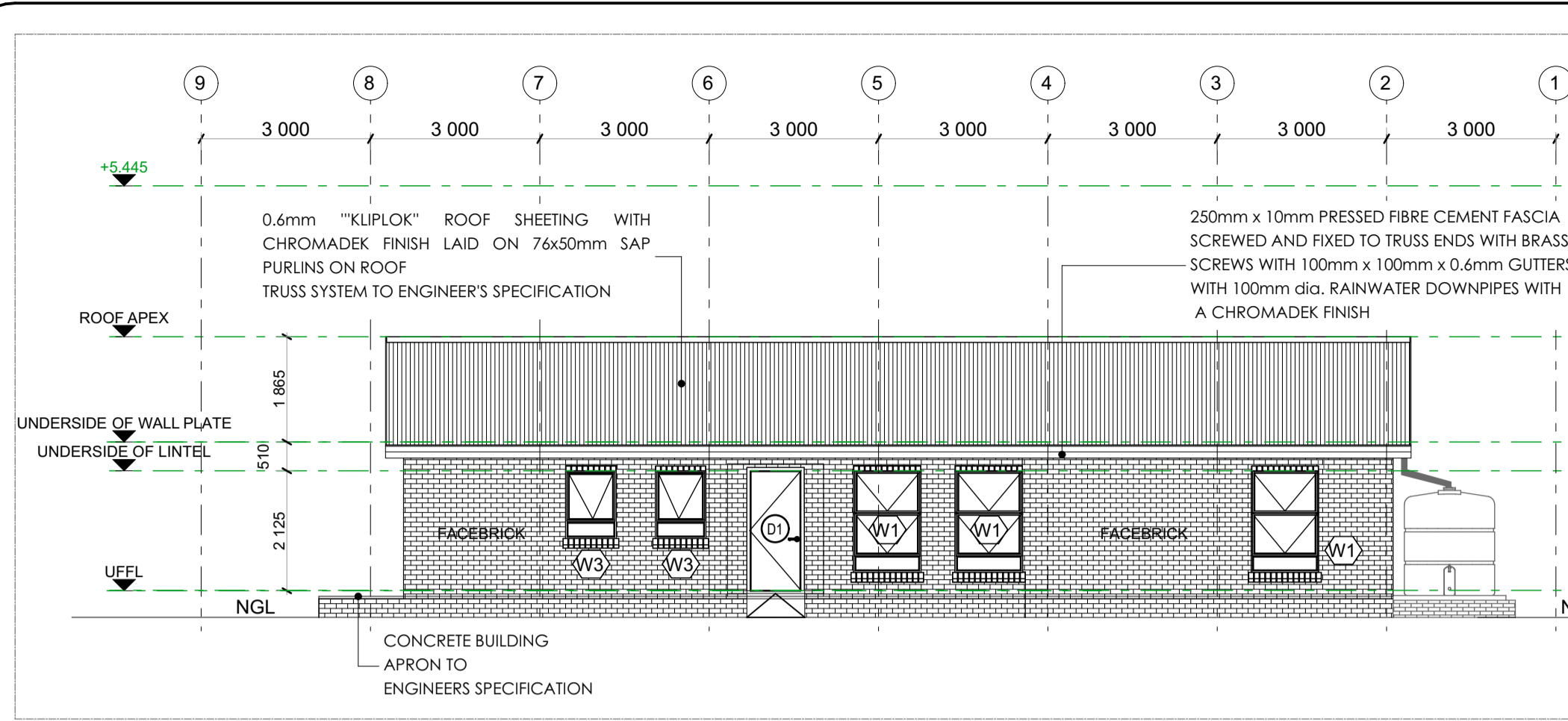
S2: CERAMIC TILE SKIRTING
 600mm wide x 100mm high x 7mm thick matt porcelain tile to comply with SABS 1449 laid with approved adhesives and grout on 22mm thick screed in strict compliance to manufacturer's instructions and SABS specification, with concave base and straight top. Complete with corner and top trim. Filings to include, ribbed angle tiles where there is change of level. Colour and pattern to architects approval.

S3: CEMENT SAND SCREED
 75 mm high x 20 mm thick hardened cement sand screed skirting covered at 20 mm dia. to form a continuous joint with the adjoining screed floor finish to FA's approval. All to be manufactured and installed in strict compliance With SABS 1083 or latest revision.

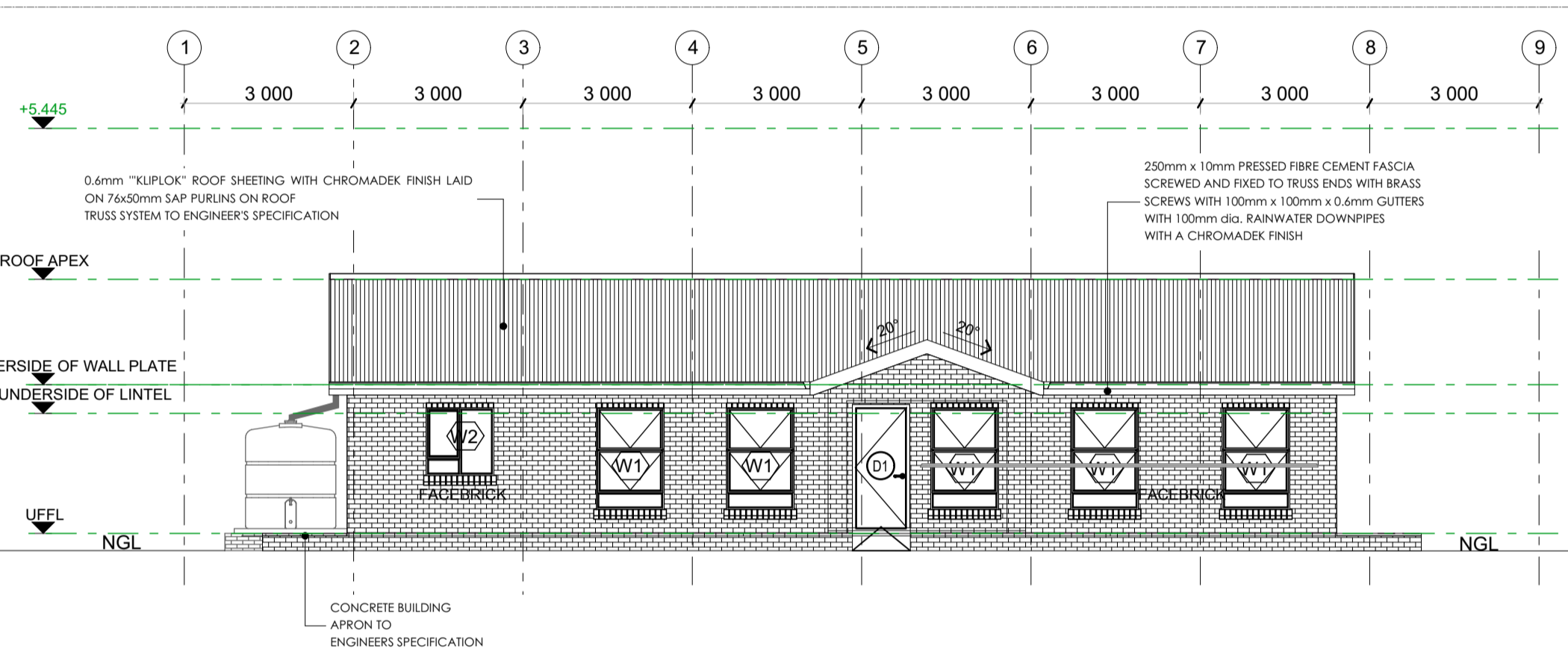
WALL FINISHES:
W1: FACEBRICK
 FBK face brick in common running bond to comply with SABS 227 and forming part of the structural work.
W2: EMULSION (PVA) PAINT - FULL HEIGHT
 2 no. coats of PVA matt finish emulsion paint to SABS 1584 applied on plastered surface primed and with 1 no. coat undercoat to SABS 681 grade1, in accordance to manufacturer's instructions.
W3: ENAMEL (ENAMEL) PAINT
 2 no. coats matt (egg shell) finish alkyl (jeromel) paint to SABS 630, type 2 applied on plastered surfaces with 1 no coat alkali resistant primer to SABS 1416 and 1 no. coat undercoat to SABS 681 grade1, in accordance to manufacturer's instructions.
W4: 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 15mm 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 "R2" 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.
W5: 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 15mm 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: 7mm GYPSUM BOARDS FLUSH PLASTERED CEILINGS OR EQUAL AND APPROVED
 Gyproc Classic gypsum plasterboard ceiling EQUAL & APPROVED consisting of 1 layer Gyproc RhinoBoard 9mm (locally manufactured, ISO 9001 & 14001 certification, recycled paper content, Ecospacer listing) fixed to timber branding installed at maximum 300mm centres using Gyproc RhinoBoard Sharp Point Grabber Screws 32mm at maximum 150mm centres. Apply, Gyproc RhinoTape to all joints and skim the ceiling using Gyproc RhinoTape.
C2: FIBRE CEMENT BOARDS (H-JOINTED)
 6mm thick Gyproc Prestige 5 fibre cement ceiling boards or EQUAL & APPROVED consisting of 1 layer Gyproc RhinoBoard 9mm (locally manufactured, ISO 9001 & 14001 certification, recycled paper content, Ecospacer listing, non-combustible to SANS 10177-5) fixed to Ek 38mm x 50mm timber branding 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 RhinoTape.
C3: PATENT SUSPENDED ACOUSTIC TILES OR EQUAL AND APPROVED
 1200mm x 600mm x 15mm Gyproc Calceus Plus Prefinished or Fire Rated 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 @ 4mm thickness, 1150 g/m² 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 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 1584 approved on 6mm thick light weight hemi-hydrate gypsum plaster on concrete slab soffit.

ROOF COVERING AND INSULATION:
R1: FIBROSEED ROOFING SHEET (TWO SIDES)
Roofing Sheets: 0.30mm thick concealed fixing roofing sheets manufactured from roll-formed from certified steel complying with ISO 550 (B). The profile shall have three trapezoidal ribs at 200mm centres giving a total cover of 450mm. The rib height shall be 41mm and provide cavity breaks. The male rib shall have gaps of 28mm centres to ensure a positive double interlocking action at side-laps. Each span shall incorporate two stiffener ribs. Profiled roof sheets 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 fixings and eave closers in strict compliance to manufacturer's instructions.
Insulation: SHALL EITHER BE: 1. where there are acoustic ceiling suspended board, a heavy duty Aluminium stonaflex 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/m³ and finished with metalized foil.
Galvanized Steel Gull Gutters: 150mm Wide x 100mm Deep x 0.6mm Eave Gutter of Commercial Grade Steel With Class Z275 Galvanizing To Comply With SABS 934 or latest Revision Fixed To Painted Fibre Cement Fascia Board Together with standard accessories discharging into Rainwater Downpipes.
Downpipes: 110 x 110 x 0.6mm Thick Commercial Grade Galvanized Steel Sheet With Class Z275 Galvanizing 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-lapping 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.



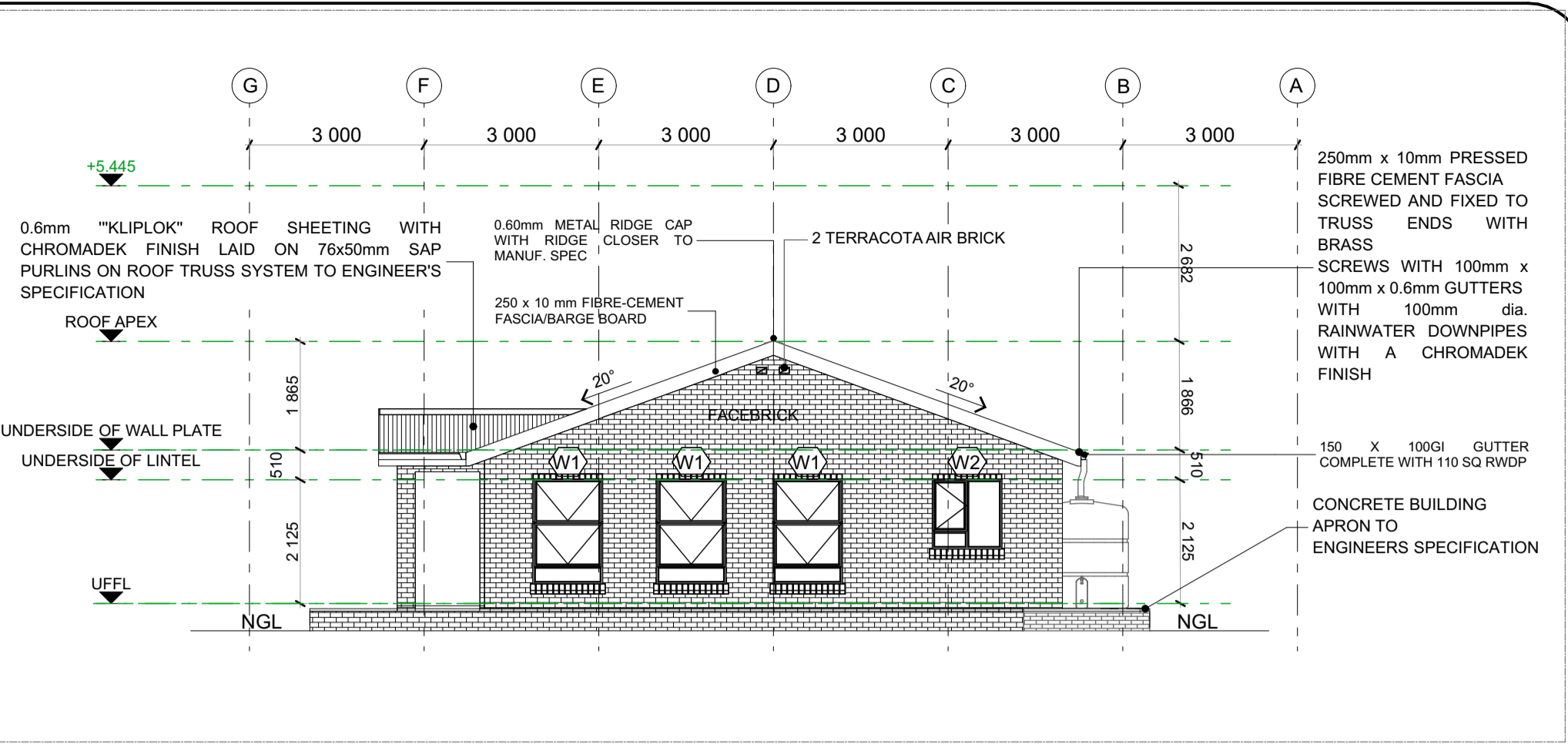
REAR ELEVATION
Scale 1: 100



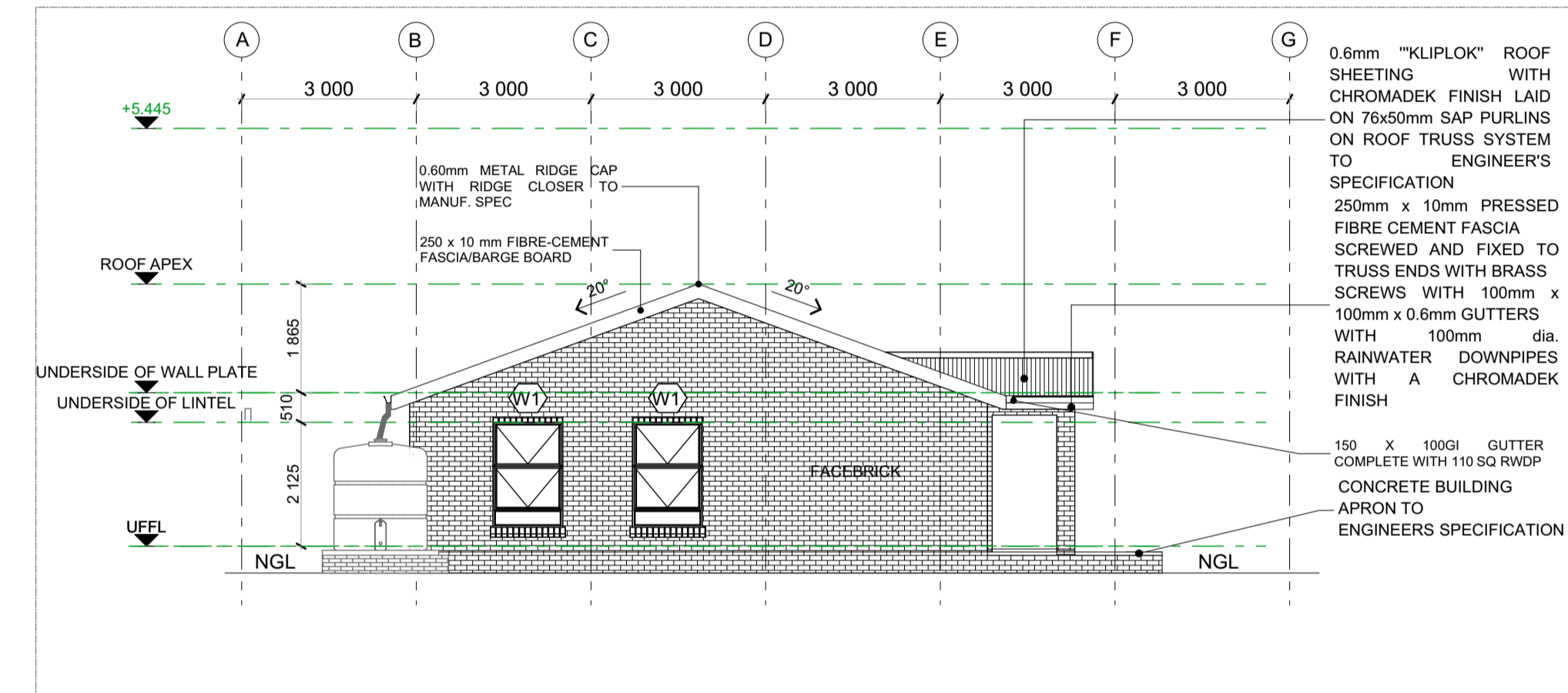
FRONT ELEVATION
Scale 1: 100

WINDOW SCHEDULE:

Window	Dimensions	No of Windows	Details
W1	1200 x 1800	13 (THIRTEEN)	STANDARD MILD STEEL RESIDENTIAL TOP-HUNG OPEN OUT WINDOW-FRAMES - CAT SWE418 ANODISED WITH BURGLAR-PROOFING OUT OF 10MM DIA SOLID ROUND-BARS. GLAZING: 5mm CLEAR FLOAT GLASS FIXED WITH GLAZING PUTTY TO RECEIVE PAINT FINISH TO MATCH WINDOW FRAME. FINISH COAT: CLEAN WITH STEEL BRUSH & APPLY 1 DURAPHOS, 1 UNIVERSAL UNDERCOAT & TWO COATS GLOSS ENAMEL PAINT. COLOUR AS PER ARCHITECT.
W2	1200 x 1800	2 (TWO)	STANDARD MILD STEEL RESIDENTIAL TOP-HUNG OPEN OUT WINDOW-FRAMES - CAT SWE47 COMPLETE WITH BURGLAR-PROOFING OUT OF 10mm DIA SOLID ROUND-BARS. GLAZING: 5mm CLEAR FLOAT GLASS FIXED WITH GLAZING PUTTY TO RECEIVE PAINT FINISH TO MATCH WINDOW FRAME. FINISH COAT: CLEAN WITH STEEL BRUSH & APPLY 1 DURAPHOS, 1 UNIVERSAL UNDERCOAT & TWO COATS GLOSS ENAMEL PAINT. COLOUR AS PER ARCHITECT.
W3	1200 x 900	2 (TWO)	STANDARD MILD STEEL RESIDENTIAL TOP-HUNG OPEN OUT WINDOW-FRAMES - CAT SWE47 COMPLETE WITH BURGLAR-PROOFING OUT OF 10mm DIA SOLID ROUND-BARS. GLAZING: 5mm CLEAR FLOAT GLASS FIXED WITH GLAZING PUTTY TO RECEIVE PAINT FINISH TO MATCH WINDOW FRAME. FINISH COAT: CLEAN WITH STEEL BRUSH & APPLY 1 DURAPHOS, 1 UNIVERSAL UNDERCOAT & TWO COATS GLOSS ENAMEL PAINT. COLOUR AS PER ARCHITECT.



SIDE ELEVATION
Scale 1: 100



SIDE ELEVATION
Scale 1: 100

DOOR SCHEDULE:

Door	Dimensions	Details
D1	899 x 2118	FRAME: EXTRUDED ALUMINIUM FRAME AS PER AAMSA SPECIFICATIONS ACCORDING TO DIMENSIONS 1015W X 2100H FINISH = NATURAL ANODISED ALUMINIUM. DOOR: 1515x2015mm EXTRUDED ALUMINIUM DOOR AS PER AAMSA SPECIFICATIONS ACCORDING TO DIMENSIONS 1015w x 2015h FINISH = NATURAL ANODISED ALUMINIUM. GLASS 6mm PVB FADEBAND LAMINATED SAFETY GLASS ACCORDING TO SABS SPECIFICATIONS. IRON-MONGERY: LOCKSET - NARROW STYLE SABS APPROVED DOUBLE CYLINDER LOCKSET. DOORCLOSERS & FLOORSPRINGS - SABS APPROVED DOORCLOSERS & FLOOR-SPRING AS SUPPLY BY DORMA OR EQUAL APPROVED BARREL BOLT RECESSED AS SUPPLY BY UNION 100mm LENGTH. HANDLES DOUBLE SIDED - SATIN CHROME FINISH HANDLES ACCORDING TO ARCHITECT. No OF DOORS: 1 (ONE)
D2	813 x 1916	D2 FRAME: SUPPLY COMPLETE WITH DOOR FOR 230mm BRICK WALL. FINISH DOOR: GLOSS ENAMEL PAINT ON STEEL. FIREGUARD B.S.6 AS SUPPLIED BY "BISCHOFF" OR EQUAL APPROVED. FINISH IRON-MONGERY: GLOSS ENAMEL PAINT ON STEEL. No OF DOORS: 1 (ONE)
D3	813 x 1916	D3 FRAME: STANDARD MILD STEEL 813x2032x1.2mm SINGLE REBATE PRESSED METAL DOOR FRAME FOR 1150mm WALLS FINISH WITH 1 COAT DURAPHOS, 1 UNIVERSAL UNDERCOAT & TWO COATS GLOSS ENAMEL COLOUR AS PER ARCHITECT. DOOR: 813x2032mm SEMI-SOLID CORE DOOR FINISH WITH 1 COAT UNIVERSAL UNDERCOAT AND 2 COATS ACRYLIC P.V.A. COLOUR AS PER ARCHITECT.

ISSUED FOR TENDER

LEGEND

- 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

NOTES
 ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE STATED
 DIMENSIONS TO BE READ, NOT TO SCALED FROM THIS DRAWING
 CONTRACTORS TO CONFIRM ALL DIMENSIONS ON SITE BEFORE CONSTRUCTION COMMENCES & ANY DISCREPANCY TO BE REPORTED TO THE PROJECT ARCHITECT

FINISHES LEGEND

CEILING FINISH: C, F, R, S
 FLOOR FINISH: F
 WALL FINISH: W
 WALL SKIRTING FINISH: S

SIGNATURE TABLE

DISCIPLINE	SIGN	DATE
CLIENT		
PLAN EXAMINER		
FIRE CONTROL		
ENVIRONMENTAL		
ROADS / STORMWATER		
WATER & SANITATION		

REVISIONS

REV. NO.	DATE	DESCRIPTION
A	JUL 21	FIRST ISSUE FOR TENDER

LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

**DEPARTMENT OF
PUBLIC WORKS, ROADS & INFRASTRUCTURE**

VUTVI PRIMARY - 933 303 101

RESTORATIVES, REPAIRS & ADDITIONS

DOCUMENTATION & PROCUREMENT

ARCHITECTURAL 4

SMALL ADMINISTRATION BLOCK

ELEVATIONS DOOR & WINDOW SCHEDULES

DRG. NO.	101-03	03/09	ITEM No.
DESIGN	NA	CM	DRAWN
DATE	AS SHOWN	SMTN	CHECK

DATE	NAME	SIGN	PR. NUMBER
NOV 2019	T. MANYADZA		PrArch 43981757

CONSULTANT

TECTURA PROJECTS

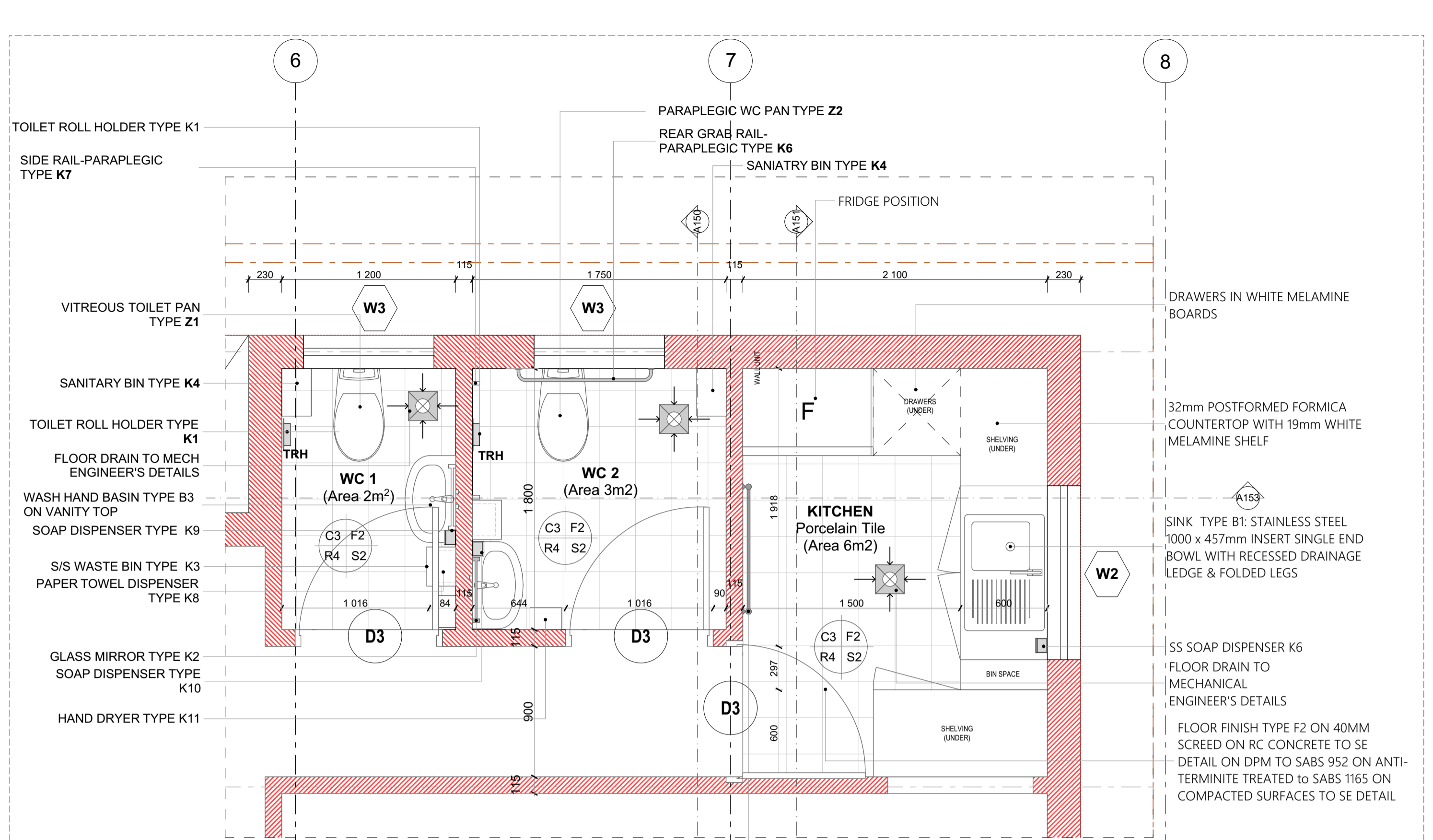
GAITHERS HOUSE 1001 WINDY HILL COAST ROAD SANDHURST 6013 CONTACT: 031 261 1111 FAX: 031 261 1111 EMAIL: info@tectura.co.za	NORTHVIEW 1001 WINDY HILL COAST ROAD SANDHURST 6013 CONTACT: 031 261 1111 FAX: 031 261 1111 EMAIL: info@tectura.co.za	NORTHERN CAPE 200 SANDHURST ROAD SANDHURST 6013 CONTACT: 031 261 1111 FAX: 031 261 1111 EMAIL: info@tectura.co.za
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CONTRACTOR

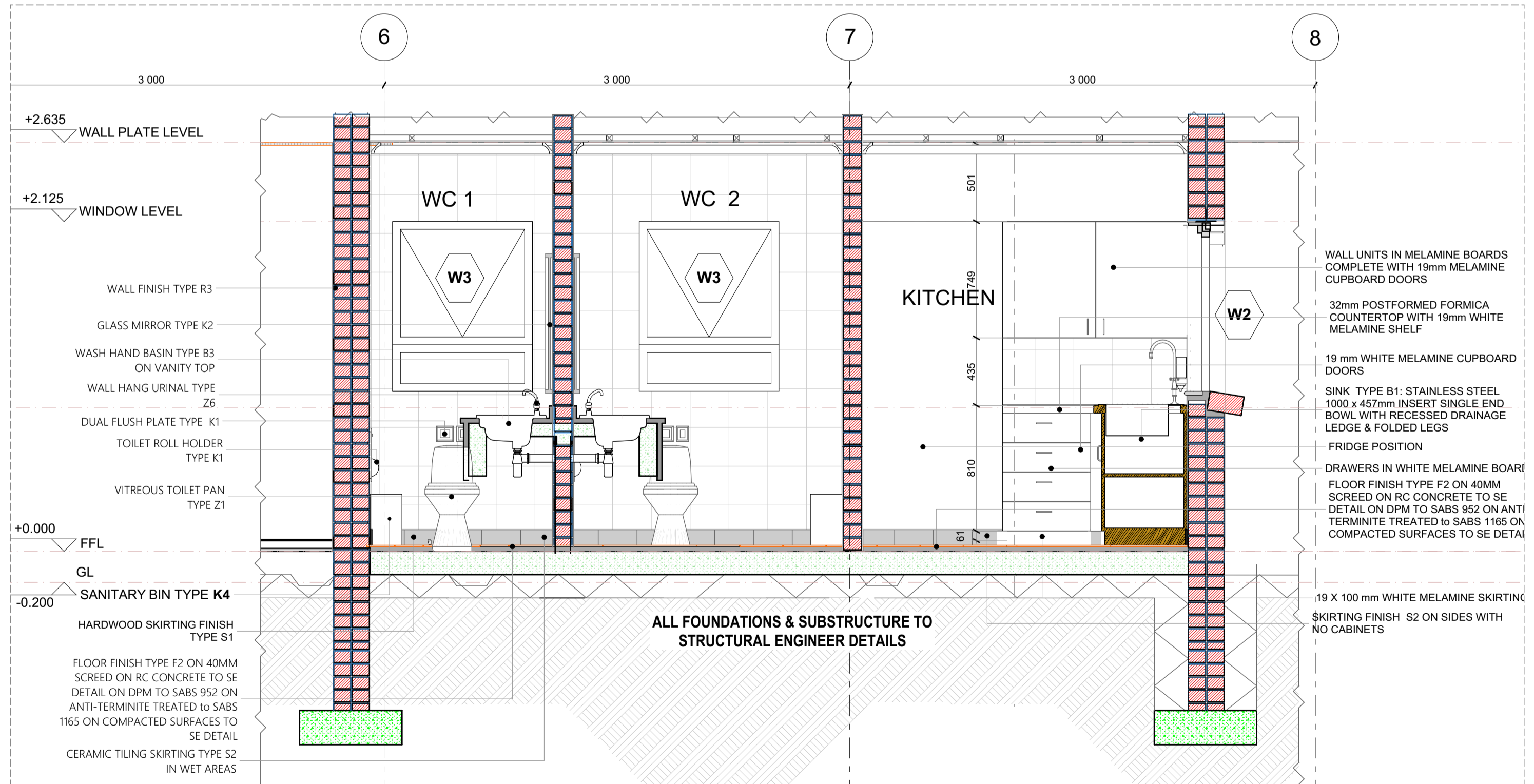
CAD SYSTEM	AUTOCAD	FILE NAME
SHEET	PROJECT NUMBER	REV
A1	LDPW - PROF/16002/F18	0

FINISHES LEGEND

- FLOORS:**
F1. PORCELAIN TILES - MATI (Corrosive Resistant & Anti-Slippery)
400x400 15mm kiln-dried floor tiles or similar approved by architects, fixed with adhesive, painted with finished waterproof jointing compound. Grouting to be grey. Tiles should have expansion joint and aluminium edging strip.
F2. PORCELAIN TILES - MATI
400 x 400 x 10mm thick matt porcelain tile to comply with SABS 1449 laid on approved pattern by an approved specialist to comply with SABS 1107 and approved adhesives and grout on screeds. With Thickness/Specification in strict compliance to manufacturer's instructions and SABS specification. Filings to include, ribbed angle files where there is change of level & Movement Joints of 6mm Wide With Patent Aluminium Movement Joints Strips Consisting Of Synthetic Fire Inserts Installed At Intervals As Per Manufacturer's Instruction. Colour and pattern to architects approval.
F3. CARPETILES
500mm x 500mm x 1005 PFK 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 in fire rating, and DIN 54824 on wear test and ISO body test at less than 2kV at 25% RH on static electricity. Colour and pattern to architects approval.
F4. CEMENT SAND SCREED
30mm thick polished cement sand screed with 13mm Stone Nominal aggregate for topping to comply with SABS 1083 or latest revision for concrete.
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. GRANITIC FINISH
22mm thick enameled 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 150mm x 50 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 VINYL SHEETING (CORROSIVE RESISTANT/ANTI-SLIPPERY)
2.5mm Thick Heavy Traffic Use, Corrosive Resistant & Anti-Slippery Vinyl Sheeting Semi-Flexible To Comply With SABS 584. With Static Dissipative Properties Throughout Thickness, Engineered for ESD or ID (Anti-Static) Protection Vinyl Sheet, Laid on Self-Levelled Smooth Screed grout with conductive 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 PFE Details installed in All Duct Chambers Accommodating Sanitary Services.
SKIRTING:
S1. HARDWOOD OR EQUAL AND APPROVED
1x 15mm x 20mm Moulded Hardwood Skirting to comply with SANS 1099, fixed to walls in long lengths with splayed heading joints and mitred corners with creases and plugs at centres not exceeding 400mm, and fixed with a 19mm x 19mm quadrant bedding. The skirting to be varnished with 3no. coats of egg shell clear varnish to comply with SABS SANS 381 type 1.
S2. CERAMIC TILE SKIRTING
600mm x 100mm high x 7mm thick matt porcelain tile to comply with SABS 1449 laid with approved adhesives and grout on 20mm thick screeds in strict compliance to manufacturer's instructions and SABS specification, with one base and straight top. Complete with corner and top trims. Filings to include, ribbed angle files where there is change of level. Colour and pattern to architects approval.
S3. CEMENT SAND SCREED
75 mm high x 20 mm thick hardened cement sand screed skirting covered at 50 mm dia. to form a continuous joint with the adjoining screed floor finish to FA's approval. All to be manufactured and installed in strict compliance With SABS 1083 or latest revision.
WALL FINISHES:
R1. FACE BRICK
FBX face brick in common running bond to comply with SABS 227 and forming part of the structural work.
R2. EMULSION (PVA) PAINT - FULL HEIGHT
2 no. coats of PVA matt finish emulsion paint to SABS 1586 applied on plastered surface primed and with 1 no. coat undercoat to SABS 681 grade 1, in accordance to manufacturer's instructions.
R3. ENAMEL (ENAMEL) PAINT
2 no. coats matt (egg shell) finish alkyl (jeromel) paint to SABS 450, type 2 applied on plastered surfaces with 1 no coat alkali resistant primer primer to SABS 1416 and 1 no. coat undercoat to SABS 681 grade 1, 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 tile 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 "R2" To Comply with SABS 430 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. 7mm GYPSUM BOARDS FINISH PLASTERED CEILINGS OR EQUAL AND APPROVED
TopCel Classic gypsum plasterboard ceiling EQUAL & APPROVED consisting of 1 layer Gyproc RhinoBoard 9mm (locally manufactured, ISO 9001 & 14001 certification, recycled paper content, EcoSpecifier listing) fixed to timber branding installed at maximum 300mm centres using Gyproc RhinoBoard Snap Point Grabber Screws 32mm at maximum 150mm centres. Apply, Gyproc RhinoTape to all joints and skim the ceiling using Gyproc RhinoTape.
C2. FIBRE CEMENT BOARDS (JOINTED)
6.4mm thick GyproCel Prestige 5 fibre cement ceiling boards of 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 Ek 38mm x 50mm timber branding installed at maximum 400mm centres using Gyproc RhinoBoard Snap 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 RhinoTape.
C3. PATENT SUSPENDED ACOUSTIC TILES OR EQUAL AND APPROVED
1200mm x 600mm x 15mm Gyproc Calceus PH Prefinished or Fire Finished OR EQUAL & APPROVED laid into Dorr ceiling grid and secured into place using Dorr Hold Down Clips @ 200mm c/c. Dorr Wall Angle M4 fixed to the perimeter wall using fixings of 300mm centres. Dorr TRF Main Tees @ 4mm thickness, 1150 gwg, coating, locally manufactured, recycled content, ISO 9001 & 14001 certification) at 1200 centres & Dorr TSBV (1200 long) Cross Tees at 600 centres. Suspend main tees @ 1200mm c/c using Dorr Hanger Strap 19mm suitably fixed to the building structural members. Dorr 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 Dorr 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 Stud 3no. coats of PVA emulsion ceiling paint to latest SANS 1586 approved on 6mm thick light weight hemi-hydrate gypsum plaster on concrete slab/stiff.
ROOF COVERING AND INSULATION:
R61. EMBOSSED ROOFING SHEET (TWO SIDES)
Roofing Sheets: 120mm Thick concealed fixing roofing sheets manufactured from roll-formed from certified steel complying with ISO 9001. The profile shall have three trapezoidal ribs at 200mm centres giving a net cover of 456mm. The rib height shall be 41mm and provide cavity breaks. The middle rib shall have gaps of 285mm centres to ensure a positive double interlocking action at side-laps. Each span shall incorporate two stiffener ribs. Profiled non-ferrous ribs to be coated on both sides with 'Global Coat' or 'Chromosole Colour' and laid on structural timber/steel structure incorporating all necessary accessories such as fixings and dove clips in strict compliance to manufacturer's instructions.
Insulation: SHALL EITHER BE: 1, where there are acoustic ceilings suspended above, a heavy duty Aluminium stonafloor mat shall be installed AND 2, where the steel work is exposed, a 50mm 'Rockwool' manufactured from noncombustible glass fibres and thermo-setting resin binder supplied size 2400mm x 1200mm and 80kg/m3 and finished with metalized foil.
Galvanized Steel (GI) Gutter: 150mm Wide x 100mm Deep x 0.5mm Even Gutter of Commercial Grade Steel With Class Z275 Galvanizing To Comply With SABS 934 or latest Revision Fixed To Painted Fibre Cement Facia Board Together with standard accessories discharging into Rainwater Downpipes.
Downpipe: 110 x 110 x 0.8mm Thick Commercial Grade Galvanized Steel Sheet With Class Z275 Galvanizing 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-tapping screws to Manufacturer Installation Instructions.
Facia board: 250 x 110 mm Fibre Cement Facia/Barge Board. Screw Fixed To Tuss Ends & Corner Butters With Countersunk Brass Screws. Prepare & Apply One Universal Undercoat & Two Coats Super Acrylic P.V.A.



WET AREAS PLAN DETAIL D05
Scale 1: 25



WET AREAS SECTION DETAIL A153
Scale 1: 25

SANITARY SCHEDULE

- WC'S URINALS & SHOWER**
W1. 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 Thermal Seal'. 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 blank flush plate.
W2. CERAMIC PARAPLEGIC WC (CC) CONCEALED CISTERN
Vitreous china 90° outlet or equal and approved. Top inlet closed rim back-to-wall pan to comply with SABS 497. Fitted with Calten installed complete with all necessary fittings to manufacturer's specification and applicable SABS standards. Flush valve to be fitted with suitable extension lever.
W3. 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 Thermal Seal'. 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.
W4. 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.
W5. 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.
W6. CERAMIC WALL HUNG URINAL
Vitreous china size 415x152x75 mm wall hung bowl urinal to comply with SABS 497. Supplied with suitable 38mm CP 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 standards.
W7. SHOWER
2000mm Thick Enameled 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 228 comprising of approved:
• Glass 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 connectors adjustable from 178 mm to 203 mm centres. Shower tray to be recessed 50 mm to 100mm high concrete pit with well-cessed pitth face.
W8. WASH-HAND BASIN
W8.1. WMR & MISCER TAP
Top Sanitaryware Vitreous china size 560 x 415mm rounded 'Tuscany' OR EQUAL AND APPROVED basin to comply with SABS 497 with single tap-hole configuration supplied with integrated overflow and chairstay hole through the centre semi-punched supplied with a 'Tuscany' pedestal and fitted with 'Mico Cobra Waterless' 15mm chrome pushbutton demand pillar tap with flanged backstop (code KM2102) metering tap, 309-32 CP anti-hell plug with spindle, 308 brass-wash-UP CP bottle trap, mounting kit and angle valves.
W8.2. DESAILED BASIN
Vitreous china 510 x 410mm semi rounded lavatory basin to comply with SABS 497, in two top hole configuration fitted with 2 No chrome plated Blow action pillar tap, with 1/4 turn ceramic disc head and blue & Red indicators water applications and flanged backstop, chrome plated waste, chrome plated 32 mm standing overflow tube, chrome plated bottle trap supplied with all necessary pipe connectors. Faced with concealed wall bracket in accordance to the manufacturer's specifications.
W8.3. WHITE GLAZED PORCELAIN WALL (VANITY)
Ceramic freesty size 450x350mm oval self-rimming vanity basin to comply with SABS 497 in one top hole configuration supplied without overflow and fitted with: 1No. chrome plated tap with flanged backstop (code KM2102) metering tap, mounting kit, angle valves, 400mm long flexible inlets and chrome plated bottle trap supplied with all necessary pipe connectors. Basin mounted on cabinet or vanity slab with silicon sealant between contact areas in strict accordance to manufacturer's specifications.
W8.4. SMALL BASIN & 2 TAPSTRAY & SHOWER SET (FOR WORKSHOPS)
Vitreous china size 450x290mm wash basin to comply with SABS 497 in 2-top hole configuration supplied with integrated overflow and chairstay hole with 2No. pillar taps, chrome plated anti-hell plug with spindle plug, 308mm bottle trap, mounting kit and angle valves with 400mm long flexible inlets supplied with all necessary pipe connectors. All brackets and fixing accessories in strict accordance to the manufacturer's specifications.
W8.5. INDUITY BASIN & No. TAP (FOR LABS)
Ceramic fire clay 560x450mm rectangular heavy duty basin in one tap-hole configuration to comply with SABS 497 and RRS hole plugged and fitted with 1No. pillar tap, Chrome Plated anti-hell plug with spindle plug, 308mm bottle trap, mounting kit and angle valves with 400mm long flexible inlets supplied with all necessary pipe connectors. Fitted to wall using 2No. Semi-concealed cast iron brackets in accordance to the manufacturer's specifications.
W8.6. MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china 510 x 400mm semi rounded lavatory basin to comply with SABS 497, in two top hole configuration fitted with: 2 No chrome plated Blow action pillar tap, with 1/4 turn ceramic disc head and blue & Red indicators water applications and flanged backstop, chrome plated waste, chrome plated 32mm standing overflow tube, chrome plated bottle trap supplied with all necessary pipe connectors. Faced with concealed wall bracket in accordance to the manufacturer's specifications.
W8.7. DOUBLE WASH TROUGH (Inset) & 2 no. TAPS
1200 x 550 x 200mm Double wall hung washbasin manufactured from grade 304 (18/10) SS, rounded internal corners and provision for a 40mm dia. outlet, fitted with Approved 2no. CP tap/tray - plain enameled chrome plated, complete with sliding wall flanges. In-dished sink waste with back nut and plug with slim CP. P. Tap, with deep seal and cleaning eye. Rough brass. Sink installation height = 900mm AFRL. Cut out size 555 x 425mm.
W8.8. DOUBLE WASH TROUGH (Inset) & 2 no. TAPS
1200 x 550 x 200mm Double wall hung washbasin manufactured from grade 304 (18/10) SS, rounded internal corners and provision for a 40mm dia. outlet, fitted with Approved 2no. CP tap/tray - plain enameled chrome plated, complete with sliding wall flanges. In-dished sink waste with back nut and plug with slim CP. P. Tap, with deep seal and cleaning eye. Rough brass. Sink installation height = 900mm AFRL. Cut out size 555 x 425mm.
SANITARY ACCESSORIES
K1. SS TOILET ROLL HOLDER - 2 ROLL
Standard 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 450x600mm height with polished bevelled edges 4 times bevel and fixed, with chromium plated domed-headed mirror screws.
K3. SS WASTE BIN
200mm x 65mm x 210mm 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)
190mm x 320mm x 600mm Plastic Sanitary Bin with capacity of 100 Litres 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 screws and plastic wall plugs. Installed as per manufacturer's instructions.
K8. PAPER TOWEL DISPENSER
350mmx160mmx200mm Paper and dry paper 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 (SH)-WALL MOUNTED
115W x 270H x 110D Stainless 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 (Multi-track)
As per Section Engineers specification.
K11. HAND DRYER (Hands free)
As per Section Engineers specification.
K12. TOWEL RAIL
50mm dia. Polished 900mm long towel rail complete with all necessary accessories in accordance to manufacturer's specifications. Installation height as per architect's drawing.
K13. SHOWER CURTAIN RAIL (straight)
20mm dia. standard chromium plated shower curtain rail 1200mm long with flanged ends and screws CP fixing height as per FA's drawing.
GENERAL FIXTURES
G1. DOOR PROTECTOR
200mm wide PVC Door Protector manufactured in high impact resistant rigid PVC (Colour Grey) and cut to door width from 3m length, installed strictly in accordance to manufacturer's specifications. Installation height 900mm above FL, or as specified.
G2. PROTECTOR SCREEN
Full cover PVC Screen 2440 x 1850mm (Viewing area 2340 x 1750mm) with wall-mounted code SC4000 Keystone Bracket/ Adjustable Set of 2, size 300mm. To be supplied complete with all accessories, and fitted in strict accordance with manufactures instructions.
G3. PINBOARD 1500X 1000H
Pinboard size 1000mm H x 1500mm W comprising of laminated self board core priming 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.
G4. PINBOARD 300X 1200H
Pinboard size 1200mm H x 300mm W comprising of laminated self board core priming 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 BUNDLES (vertical fabric)
127 mm vertical deco blinds with anodised aluminium headrail fitted with colour coordinated insert. All runners to be wheeled and fitted with individual clutch mechanism. All runners to be connected by stainless steel links. The mechanism to be operated by a nylon ball chain with a reduction gear made a fully enclosed cap. Blinds to be face fixed (faced over the window opening) by means of concealed tie fixing brackets.
G6. FLOOR DRAIN
Cast iron flat type full-flow outlets size 110 mm diameter with centre ball, including connectors to downpipes.
G7. SS FLOOR EXPANSION JOINT COVER
Concealed 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
Vitreous system 1000 standard WHITEBOARD or EQUAL & APPROVED vitreous enameled steel utility school chalkboards wall-mounted size 480mm x 1140mm high manufactured in accordance with SABS Standard CES 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 freely sketched, olive green in colour (Vitreous Colour Reference - Chalk Board Green LM197/2), 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 with the manufacturer's instructions.

ISSUED FOR TENDER

LEGEND

- 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

NOTES
ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE STATED
DIMENSIONS TO BE READ, NOT TO SCALE FROM THIS DRAWING
CONTRACTORS TO CONFIRM ALL DIMENSIONS ON SITE BEFORE CONSTRUCTION COMMENCES & ANY DISCREPANCY TO BE REPORTED TO THE PROJECT ARCHITECT

FINISHES LEGEND

CEILING FINISH: C, F, S
WALL FINISH: W, R, S
FLOOR FINISH: F
WALL SKIRTING FINISH: S

SIGNATURE TABLE

DISCIPLINE	SIGN	DATE
CLIENT		
PLAN EXAMINER		
FIRE CONTROL		
ENVIRONMENTAL		
ROADS / STORMWATER		
WATER & SANITATION		

REVISIONS

REV. NO.	DATE	FIRST ISSUE FOR TENDER	DESCRIPTION
A	JUL 21		

LIMPOPO PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE
INSTITUTION

VUTIVI PRIMARY - 933 303 101

RESTORATIVES, REPAIRS & ADDITIONS
CONTRACT - SECTION

DOCUMENTATION & PROCUREMENT
DISCIPLINE: ARCHITECTURAL 4
WORK DESCRIPTION - SUB DIVISION: SMALL ADMINISTRATION BLOCK
DRAWING DESCRIPTION: WET AREAS DETAIL

DRG No.	101-04	CM/09	ITEM No.
DESIGN	NA	04/09	DRAWN
DATE	AS SHOWN	SMTN	CHECK
NOV 2019	T. MANUYAZA	PfArch	43981757

CONSULTANT
TECTURA PROJECTS

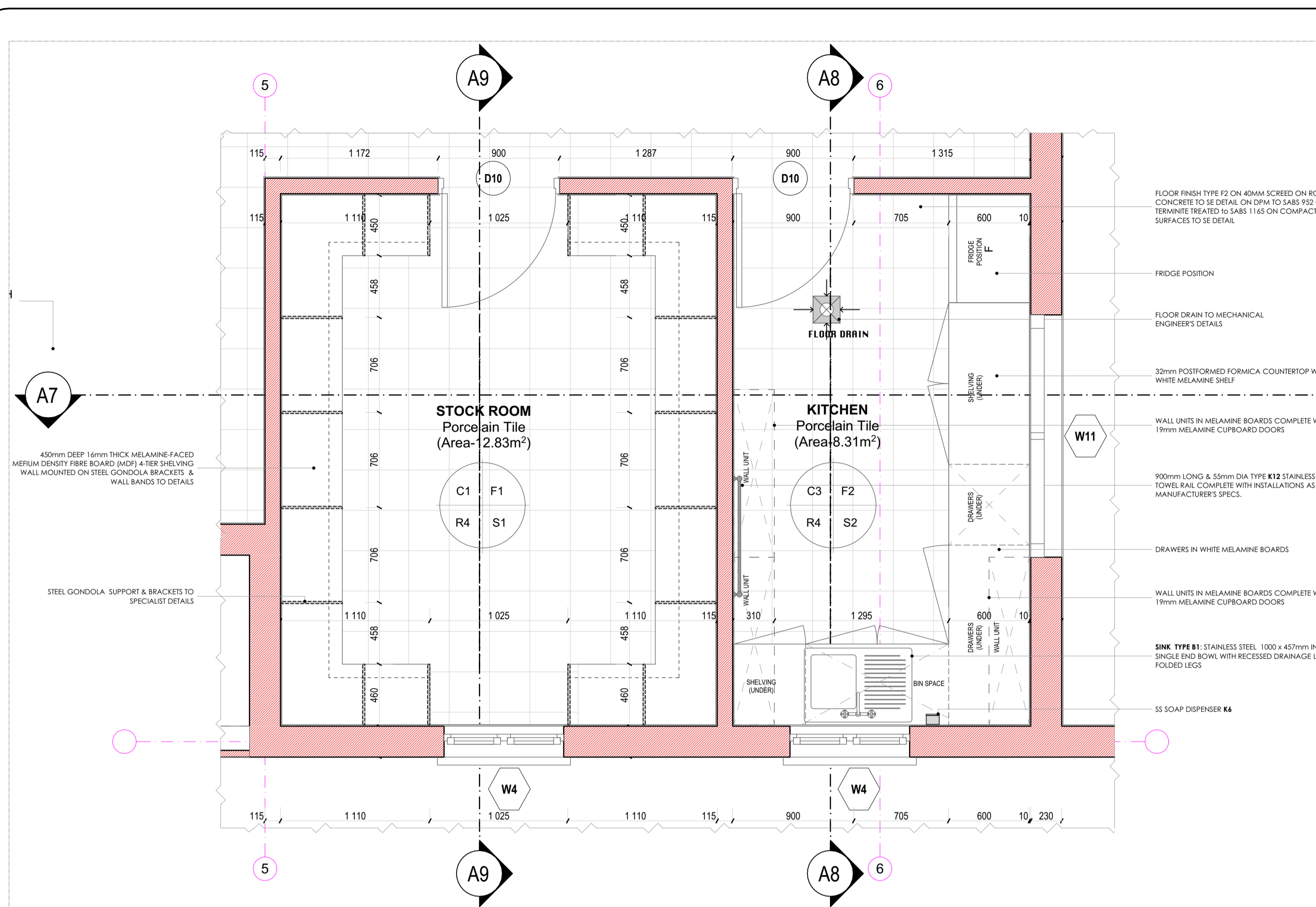
CAD SYSTEM	AUTOCAD	FILE NAME	REV
SIZE	PROJECT NUMBER	DATE	SCALE
A1	LDPW - PROF/16002/F18		0

FINISHES LEGEND

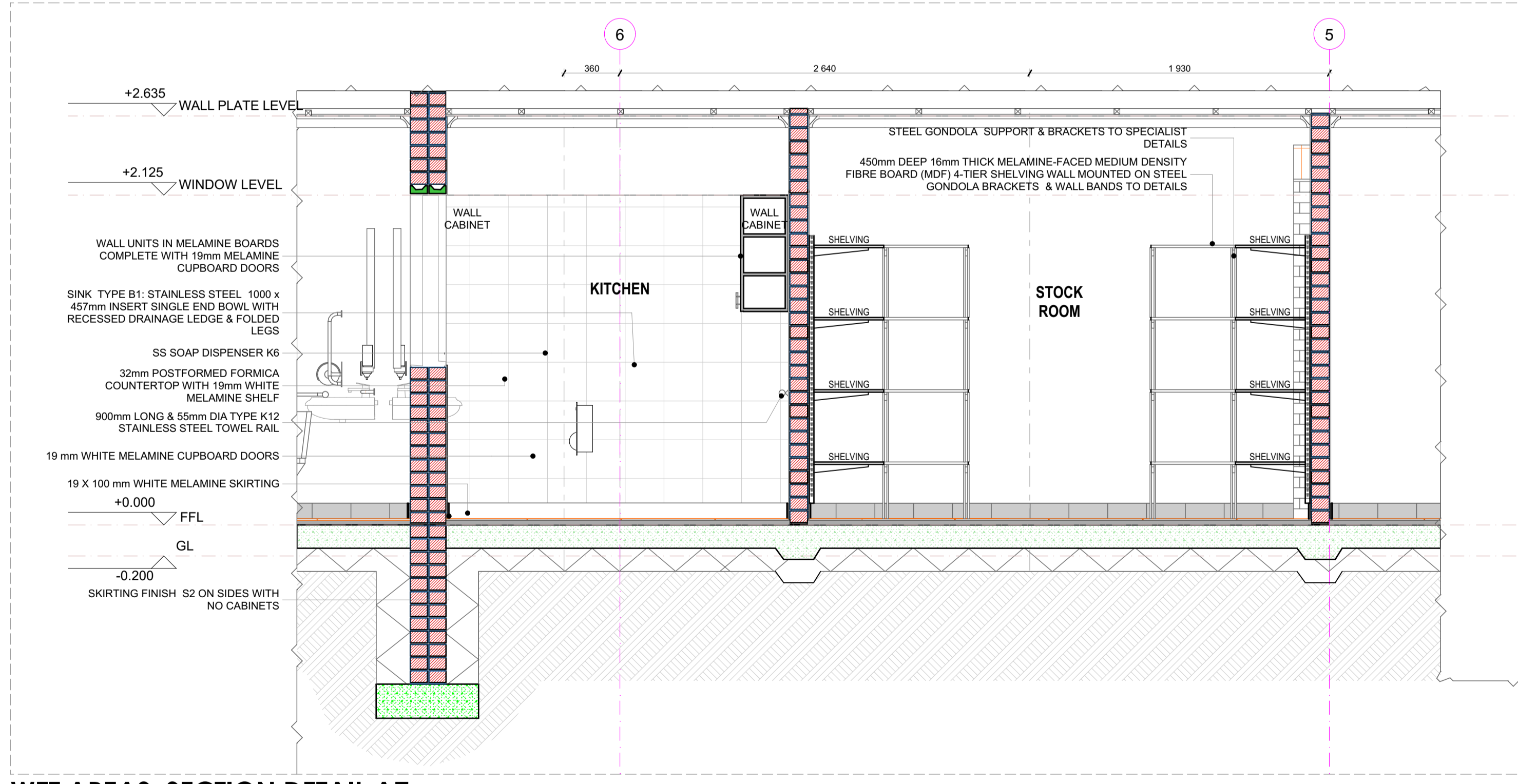
- FLOORS:**
- F1: PORCELAIN TILES - MATI (Corrosive Resistant & Anti-Slippery)**
400 x 400 11.5mm laminar floor tiles or similar approved by architects, fixed with adhesive, painted with finished waterproof jointing compound. Grouting to be grey. Tiles should have expansion joint and aluminium edging strip.
- F2: PORCELAIN TILES - MATI**
400 x 400 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 manufacturer's instructions and SABS specification. Filings to include, ribbed angle files 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: CARPETILES**
500mm x 500mm x 1005 PFK 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 concrete screeds in strict compliance with manufacturer's instructions. Carpet tiles to conform to BS 4790 on fire rating, and DIN 54824 on wear test and ISO body test at less than 20% at 25% RH on static electricity. Colour and pattern to architects approval.
- F4: CEMENT SAND SCREED**
30mm thick polliated cement sand screed with 13mm Stone Nominal aggregate for topping to comply with SABS 1083 or latest revision for concrete.
- F5: EXTERIOR MULTI COLOURED CONCRETE INTERLOCKING PAVES**
65mm thick multi-coloured concrete paves 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: GRANITIC FINISH**
22mm thick finished 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 PAVES (RIGID PAVING/VEHICULAR WAYS)**
200mm x 150mm x 50mm thick concrete interlocking paves, 25 mpa, manufactured to SABS spec 1058, laid on sand bedding to civil/structural engineer's specification to a 'hempbone' pattern to the Architect's approval.
- F8: SEMI FLEXIBLE VINYL SHEETING (CORROSION RESISTANT/ANTI-SLIPPERY)**
2.5mm Thick Heavy Traffic Use, Corrosive Resistant & Anti-Slippery Vinyl Sheeting Semi-Flexible To Comply With SABS 584. With Static Dissipative Properties Throughout Thickness, Engineered for ESD or ISO (anti-static) Protection Vinyl Sheet. Laid on Self-Levelled, Smooth Screed grouted with conductive 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 Specification 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 Duat Chambers Accommodating Sanitary Services.
- SKIRTING:**
- S1: HARDWOOD OR EQUAL AND APPROVED**
18 x 25mm x 20mm Moulded Hardwood Skirting to comply with SANS 1099, fixed to walls in long lengths with splayed heading joints and mitred corners with screws and plugs at centres not exceeding 400mm, and fixed with a 19mm x 19mm quadrant bedding, the skirting to be varnished with 3No. coats of egg shell clear varnish to comply with SABS/SANS 381 type 1.
- S2: CERAMIC TILE SKIRTING**
600mm wide x 1020mm 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 manufacturer's instructions and SABS specification, with one base and straight top. Complete with corner and top trims. Filings to include, ribbed angle files where there is change of level. Colour and pattern to architects approval.
- S3: CEMENT SAND SCREED**
75 mm high x 20 mm thick hardened cement sand screed skirting covered at 50 mm dia. to form a continuous joint with the adjoining screed floor finish to FA's approval. All to be manufactured and installed in strict compliance With SABS 1083 or latest revision.

- WALL FINISHES:**
- R1: FACE BRICK**
FKX 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 1584 applied on plastered surface primed and with 1 no. coat undercoat to SABS 681 grade, in accordance to manufacturer's instructions.
- R3: ENAMEL PAINT**
2 no. coats matt (egg shell) finish alkyl (jeromel) paint to SABS 630, type 2 applied on plastered surfaces with 1 no coat alkali resistant primer to SABS 1416 and 1 no. coat undercoat to SABS 681 grade, 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 tile to Specification "RS", laid on 15mm 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 "R2" 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: 7mm GYPSUM BOARDS FINISH FLATHEAD CEILING OR EQUAL AND APPROVED**
"TopCel Classic" gypsum plasterboard ceiling EQUAL & APPROVED consisting of 1 layer Gyproc RhinoBoard 9mm (locally manufactured, ISO 9001 & 14001 certification, recycled paper content, EcoSpecifier listing fixed to timber branding installed at minimum 300mm centres using Gyproc RhinoBoard Sharp Point Grabber Screws 32mm at maximum 150mm centres. Apply, Gyproc RhinoTape to all joints and skim the ceiling using Gyproc RhinoTape.
- C2: FIBRE CEMENT BOARDS (H-JOINTED)**
6.4mm thick GyprocCell Prestige S7 fibre cement ceiling boards or EQUAL & APPROVED consisting of 1 layer Gyproc RhinoBoard 9mm (locally manufactured, ISO 9001 & 14001 certification, recycled paper content, EcoSpecifier listing non-combustible to SANS 10173:5) fixed to Ek 38mm x 50mm timber branding installed at maximum 400mm centres using Gyproc RhinoBoard Sharp Point Grabber Screws 32mm at a minimum 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 RhinoTape.
- C3: PATENT SUSPENDED ACOUSTIC TILES OR EQUAL AND APPROVED**
1200mm x 600mm x 15mm Gyproc Celotex (Pre-Finished or Fire Rated OR EQUAL & APPROVED) laid into Dorn ceiling grid and secured into place using Dorn Hold Down Clips @ 200mm c/c. Dorn Wall Angle M6 fixed to the perimeter wall using fixings @ 300mm centres. Dorn Tr9 Mesh Ties @ 40mm thickness, 2150 g/m² coating, locally manufactured, recycled content, ISO 9001 & 14001 certification) at 1200 centres & Dorn TSBV (1200mm) Dorn Cross Ties at 600 centres. Supports main ties @ 1200mm c/c using Dorn Hanger Strap 19mm suitably fixed to the building structural members. Dorn 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 Ties at their mid-point using Dorn 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 Stud 3No. coats of PVA emulsion ceiling paint to latest SANS 1584 approved on 6mm thick light weight hemi-hydrate gypsum plaster on concrete slab stiff.

- ROOF COVERING AND INSULATION:**
- R1: EMBOSSED ROOFING SHEET (TWO SIDES)**
Roofing Sheets: 0.50mm thick concealed fixing roofing sheets manufactured from roll-formed from certified steel complying with ISO 550 (E). The profile shall have three trapezoidal ribs at 200mm center spacing a net cover of 450mm. The rib height shall be 41mm and provide cavity breaks. The male rib shall have gaps of 285mm centers to ensure a positive double interlocking action at side-laps. Each span shall incorporate two stiffener ribs. Profiled roof sheets to be coated on both sides with 'Gobal Coat' or 'Chromalox Colour' and laid on structural timber/steel structure incorporating all necessary accessories such as fixings and dove clips in strict compliance to manufacturer's instructions.
- Insulation:** SHALL EITHER BE: 1. where there are acoustic ceiling suspended board, a heavy duty 'Aluminium stonafon foil' shall be installed AND 2. where the steel work is exposed, a 50mm 'Tactoboard' manufactured from noncombustible glass fibres and thermo-setting resin binder supplied size 2400mm x 1200mm and 80kg/m³ and finished with white metalized foil.
- Galvanized Steel (GI) Gutter:** 150mm Wide x 100mm Deep x 0.6mm Eaves Gutter of Commercial Grade Steel With Class Z275 Galvanizing to Comply With SABS 934 or latest Revision Fixed to Painted Fibre Cement Facia Board Together with standard accessories discharging into Rainwater Downpipes.
- Downpipe:** 110 x 110 x 10 x 0.8mm Thick Commercial Grade Galvanized Steel Sheet With Class Z275 Galvanizing to Comply With SABS 934 or latest Revision to be built into walls or cast in concrete columns laid to brickwork or steel including brackets and self-tapping screws to Manufacturer Installation Instructions.
- Facia board:** 250 x 110 mm Fibre Cement Facia/Barge Board. Screw Fixed to Tuss Ends & Counter Batten With Countersunk Brass Screws. Repairs & Apply One Universal Undercoat & Two Coats Super Acrylic P.V.A.



WET AREAS PLAN DETAIL D03
Scale 1: 25



WET AREAS SECTION DETAIL A7
Scale 1: 25

TYPE	LOCATION	DESCRIPTION/SPECIFICATION
MELAMINE FACED MDF SHELVING D450mm	STOCK ROOM	450mm deep 16mm thick Melamine-faced Medium Density Fibre board (MDF) 4-tier shelving wall mounted on steel gondola brackets and wall bands, comprising of: * Shelf boards comprising of plain "Supawood" MDF faced with melamine impregnated paper, in architect approved finish. Vertical spacing for each tier 450mm * Medium steel wall band double slotted 1825mm in 'Ivory Epoxy' finish, at 900mm spacing. * Wall gondola brackets 450mm (as applicable), in 'Ivory Epoxy' finish.

SANITARY SCHEDULE

- WC'S URINALS & SHOWER**
- U1: CERAMIC STANDARD WC (C/C) 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 487 & Fitted with 'Jazz Thermostat 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 blank flush plate.
- U2: CERAMIC PARALEGIC WC (C/C) CONCEALED CISTERN**
Vitreous china 90° outlet or equal and approved top inlet closed rim back-to-wall pan to comply with SABS 487. Fitted with Calen installed complete with all necessary fittings to manufacturer's specification and applicable SABS standards. Flush valve to be fitted with suitable extension lever.
- U3: CERAMIC PARALEGIC WC (C/C) 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 487 & Fitted with 'Jazz Thermostat 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 paralegic access.
- U4: CERAMIC STANDARD WC (C/C) INLET**
Vitreous china 90° outlet, back inlet pan to comply with SABS 487. Fitted complete with back inlet exposed flush-valve complete with all necessary fittings as per manufacturer's specifications and applicable SABS standards.
- U5: CERAMIC STANDARD WC (C/C)**
Vitreous china 90° outlet, back inlet pan to comply with SABS 487. Fitted complete with matching 7 litre pushbutton top dual flush cistern fitted with quality approved heavy duty thermoseal lid, seat and complete with all necessary fittings as per manufacturer's specifications and applicable SABS standards.
- U6: CERAMIC WALL HUNG URINAL**
Vitreous china size 415x315x275 mm wall hung bowl unit to comply with SABS 487. Supplied with suitable 38mm CP 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 standards.
- SHOWER**
2000mm x 1200mm Chrome plated steel shower tray size 900x900x160 mm manufactured with anti slip pattern, with rounded internal corners, and 38 mm GRP graded waste fitting in corner position fitted with Shower set and complying with SABS 228 comprising of approved:
* Grab Shower Cubicle with access door as per standard supply from manufacturer and fixed to its space configuration
* Wheelchair 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 connectors adjustable from 178 mm to 203 mm centres. Shower tray to access 50 mm dia. x 100mm high concrete pit with well exposed pitth face.
- WASH-HAND BASIN**
- B1: WMR & MISCER TAP**
1/2" Sanitaryware Vitreous china size 560 x 415mm rounded 'Tuscany' OR EQUAL AND APPROVED basin to comply with SABS 487 with single tap-hole configuration supplied with integrated overflow and chairstay hole and angle valves. 400mm long flexible inlets and chrome plated 32 mm standing overflow tube, chrome plated bottle trap supplied with all necessary pipe connections. Faced with concealed wall bracket in accordance to the manufacturer's specifications.
- B2: DISABLED BASIN**
Vitreous china 510 x 420mm semi rounded lavatory basin to comply with SABS 487, in two top hole configuration fitted with 2 No. chrome plated Elbow action pillar tap, with 1/2" 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. All brackets and fixing accessories in strict accordance to the manufacturer's specifications.
- B3: WHITE GLAZED PORCELAIN WHB (VANITY)**
Ceramic freesty size 450x300mm oval self-rimming vanity basin to comply with SABS 487 in one top hole configuration supplied without overflow and fitted with: No. chrome plated tap with flanged backnut (code KM2102) meeting 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 area in strict accordance to manufacturer's specifications.
- B4: SMALL BASIN & 2 TAPSTRAY & SHOWER SET (FOR WORKSHOPS)**
Vitreous china size 450x300mm wash basin to comply with SABS 487 in 2-top hole configuration supplied with integrated overflow and chairstay hole with 2No. pillar tap, chrome plated anti-rattle plug with sprinle 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: RUDITY BASIN & NO. TAP (FOR LABS)**
Ceramic fire clay 560x405mm rectangular heavy duty basin in one tap-hole configuration to comply with SABS 487 and R16 hole plugged and fitted with: No. pillar tap, Chrome Plated anti-rattle plug with sprinle 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 specifications.
- B6: MEDIC BASIN & FITTINGS (SICK BAY)**
Ceramic fire clay 510 x 400mm semi rounded lavatory basin to comply with SABS 487, in two top hole configuration fitted with: 2 No. chrome plated Elbow action pillar tap, with 1/2" 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. Faced with concealed wall bracket in accordance to the manufacturer's specifications.
Combination of sanitaryware, accessories and general fittings comprising of:
* Mixer type K2
* Paper towel dispenser K8 and bin type K3
* Soap dispenser type K7
* Soapback comprising 2No. rows of wall the 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.
- SINKS:**
- K1: STAINLESS STEEL SINK**
Stainless steel 304 1450 x 450mm inset single end bowl with recessed drainage ledge and folded edges. Bowl to be fitted to kitchen cupboard (cupboards 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 accessories in accordance to manufacturer's specifications. Sink installation height = 900mm AFPL.
- K2: STAINLESS STEEL SINK**
Stainless steel 304 1450 x 450mm inset double end bowl with recessed drainage ledge and folded edges. Bowl to be fitted to kitchen cupboard (cupboards elsewhere measured). Grade 304 (18/10) Stainless Steel sink to comply with SABS 906 fitted with: Approved sink mixer- wall type, with chrome plated overflow swivel Outlet, adjustable wall flanges and supplied with suitable accessories in accordance to manufacturer's specifications. Sink installation height = 900mm AFPL.
- K3: CERAMIC SINK**
Ceramic freesty size 485 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)
- K4: SINGLE WASH TROUGH (Inset) & 2 no. TAPS**
600mm x 300mm inset washtrough, manufactured from grade 18/10 SS, stainless steel with rounded internal corners and provision for a 40mm dia. outlet. Fitted with Approved 2No. CP labware - group extended chrome plated, complete with sliding wall flange, In-letted sink waste with back nut, plug with strip, chain and stay. CP, P-Trap, with deep seal and cleaning eye. Rough brass. Sink installation height = 900mm AFPL. Cut out size 555 x 425mm.
- K5: DOUBLE WASH TROUGH (Inset) & 2 no. TAPS**
1200 x 550 x 200mm Double wall hung washtrough manufactured from grade 304 (18/10) SS, rounded internal corners and provision for a 40mm dia. outlet. Fitted with Approved 2No. wall type labtops, with levelled, adjustable wall flange and separate adjustable connections. CP, In-letted sink waste with back nut and plug with strip, CP, Double drain back rubber deep seal P-Trap. Sink mounted on 2No. 30mm square SS galvok brackets, front leg and adjustable foot face of height of 915mm AFPL.

SANITARY ACCESSORIES

- K1: SS TOILET ROLL HOLDER - 2 ROLL**
Standard 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 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 fixed for and fixed, with chromium plated domed headed mirror screws
- K3: SS WASTE BIN**
200 x 650 x 2100 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)**
190mm x 320mm x 600mm Plastic Sanitary Pedal Bin with capacity of 100 Litres 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-PARALEGIC**
Stainless steel 91.4 x 91 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)-PARALEGIC**
Stainless steel 101.6 x 91 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**
300mmx300mmx200mm Paper 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, DIAL, WALL MOUNTED**
115W x 270H x 110D Stainless 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 HOOK (Multi-track)**
500mm x 220mm x 190mm top Aluminium Multi-track Hat and Coat Hook in multi-track two hooks Configuration With Anodised Silver Finish Complete with Screws
- K11: HAND DRYER (Hands free)**
As per Electrician's Engineers specification
- 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 architect's drawing.
- K13: SHOWER CURTAIN RAIL (straight)**
20mm dia. standard chromium plated shower curtain rail 1200mm long with flanged ends and screws CP fixing height as per FA's drawing.

GENERAL FIXTURES

- G1: DOOR PROTECTOR**
200mm wide PVC Door Protector manufactured in high impact resistant rigid PVC (Colour Grey) and cut to door width from 3m length, installed strictly in accordance to manufacturer's specifications. Installation height 900mm above FFL, or as specified.
- G2: PROTECTOR SCREEN**
Full cover screen size 2440 x 1850mm (viewing area 2240 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 manufacturer's instructions.
- G3: FINBOARD 1500W X 1000H**
Finboard size 1000mm H x 1500mm W comprising of laminated self board core priming 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.
- G4: FINBOARD 300W X 1200H**
Finboard size 1200mm H x 300mm W comprising of laminated self board core priming 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 BUNDS (vertical blinds)**
127 mm vertical deco blinds with anodised aluminium headrail fitted with colour coordinated insert. All runners to be wheeled and fitted with individual clutch mechanism. All runners to be connected by stainless steel links. The mechanism to be operated by a nylon ball chain with a reduction gear made a fully enclosed cap. Blinds to be face fixed (fixed over the window opening) by means of concealed tie fixing brackets.
- G6: FLOOR DRAIN**
Cast iron flat type full-flow outlets size 110 mm diameter with centre ball, including connectors to downpipes.
- G7: SS FLOOR EXPANSION JOINT COVER**
Concealed heavy-duty stainless steel movement joint, 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**
Vitreous system 1000 standard WHITEBOARD or EQUAL & APPROVED vitreous enamelled steel utility school chalkboards wall-mounted size 480mm x 1140mm high manufactured in accordance with SABS Standard CES 3620:4 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 (Vitreous Colour Reference - Chalk Board Green LM197/2), 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 with the manufacturer's instructions.

ISSUED FOR TENDER

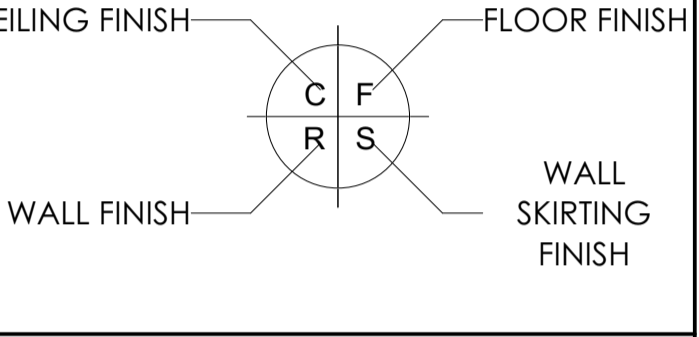
- LEGEND**
- NEW WALLS
 - EXISTING WALL TO BE RETAINED
 - EXISTING WALL TO BE DEMOLISHED
 - NEW FIXTURES & FITTING TO BE INSTALLED
 - ITEMS IN RED AND (OR) DASHED LINES ARE TO BE REPAIRED AND (OR) REPLACED

NOTES
ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE STATED

DIMENSIONS TO BE READ, NOT TO SCALED FROM THIS DRAWING

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

- FINISHES LEGEND**
- CEILING FINISH
- FLOOR FINISH
- WALL FINISH
- WALL SKIRTING FINISH



SIGNATURE TABLE

DISCIPLINE	SIGN	DATE
CLIENT		
PLAN EXAMINER		
FIRE CONTROL		
ENVIRONMENTAL		
ROADS / STORMWATER		
WATER & SANITATION		

REV. NO.	DATE	FIRST ISSUE FOR TENDER	DESCRIPTION
A	JUL 21		

REVISIONS



PUBLIC WORKS, ROADS & INFRASTRUCTURE

VUTIVI PRIMARY - 933 303 101

RESTORATIVES, REPAIRS & ADDITIONS

CONTRACT - SECTION

DOCUMENTATION & PROCUREMENT

ARCHITECTURAL 4

SMALL ADMINISTRATION BLOCK

WET AREAS & JOINERY DETAIL D03-01

DRG No.	101-06	06/09	ITEM No.
DESIGN	NA	CM	DRAWN
DATE	AS SHOWN	SMTN	CHECK

DATE	RESPONSIBLE PROFESSIONAL	PR. NUMBER
NOV 2019	T. MANAYAZA	Pr/CA 43981757

CONSULTANT

TECTURA PROJECTS

CAUTION: INFORMATION IS UNCLASSIFIED AND NOT FOR PUBLICATION
 CONTACT: 011 430 0000
 CONTACT: 011 430 0000
 CONTACT: 011 430 0000

CONTRACTOR

CAD SYSTEM	AUTOCAD	FEE RATE
SIZE	PROJECT NUMBER	REV
A1	LDPW - PROF/16002/F18	0

FINISHES LEGEND

FLOORS:
F1: PORCELAIN TILES - MATI (Corrosive Resistant & Anti-Slippery)
450x450 15mm kiln-dried floor tiles or similar approved by architects, fixed with adhesive, painted with finished waterproof jointing compound. Grouting to be grey. Tiles should have expansion joint and aluminium edging strip.
F2: PORCELAIN TILES - MATI
450 x 450 15mm 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 manufacturer's 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: CARPETILES
500mm x 500mm x 1005 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 54824 on wear test and SO body test at less than 20v at 25% RH on static electricity. Colour and pattern to architects approval.
F4: CEMENT SAND SCREED
30mm thick polished cement sand screed with 13mm Stone Nominal aggregate for Topping to comply with SABS 1083 or latest revision for concrete.
F5: EXTERIOR MULTI COLOURED CONCRETE INTERLOCKING PAVERS
65mm thick multi-coloured concrete pavers laid on sand bedding to civil/architectural 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 / Latest Revision.
F6: GRANOLITHIC FINISH
25mm thick finished 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)
225mm x 150mm x 50 mm thick concrete interlocking pavers, 25 mpa, manufactured to SABS spec 1058, laid on sand bedding to civil/architectural engineer's specification to a 'hermione' pattern as the Architect's approval.
F8: SEMI-FLEXIBLE VINYL SHEETING (CORROSION RESISTANT/ANTI-SLIPPERY)
2.5mm Thick Heavy Traffic Use, Corrosive Resistant & Anti-Slippery Vinyl Sheeting Semi-Flexible To Comply With SABS 584. With Static Dissipative Properties Throughout Thickness, Engineered for ESD or ID (anti-static) Protection Vinyl Sheet, Laid on Self Levelled, Smooth Screed grouted with conductive 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 & Polished 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 PFE Details installed in All Duct Chambers Accommodating Sanitary Services.

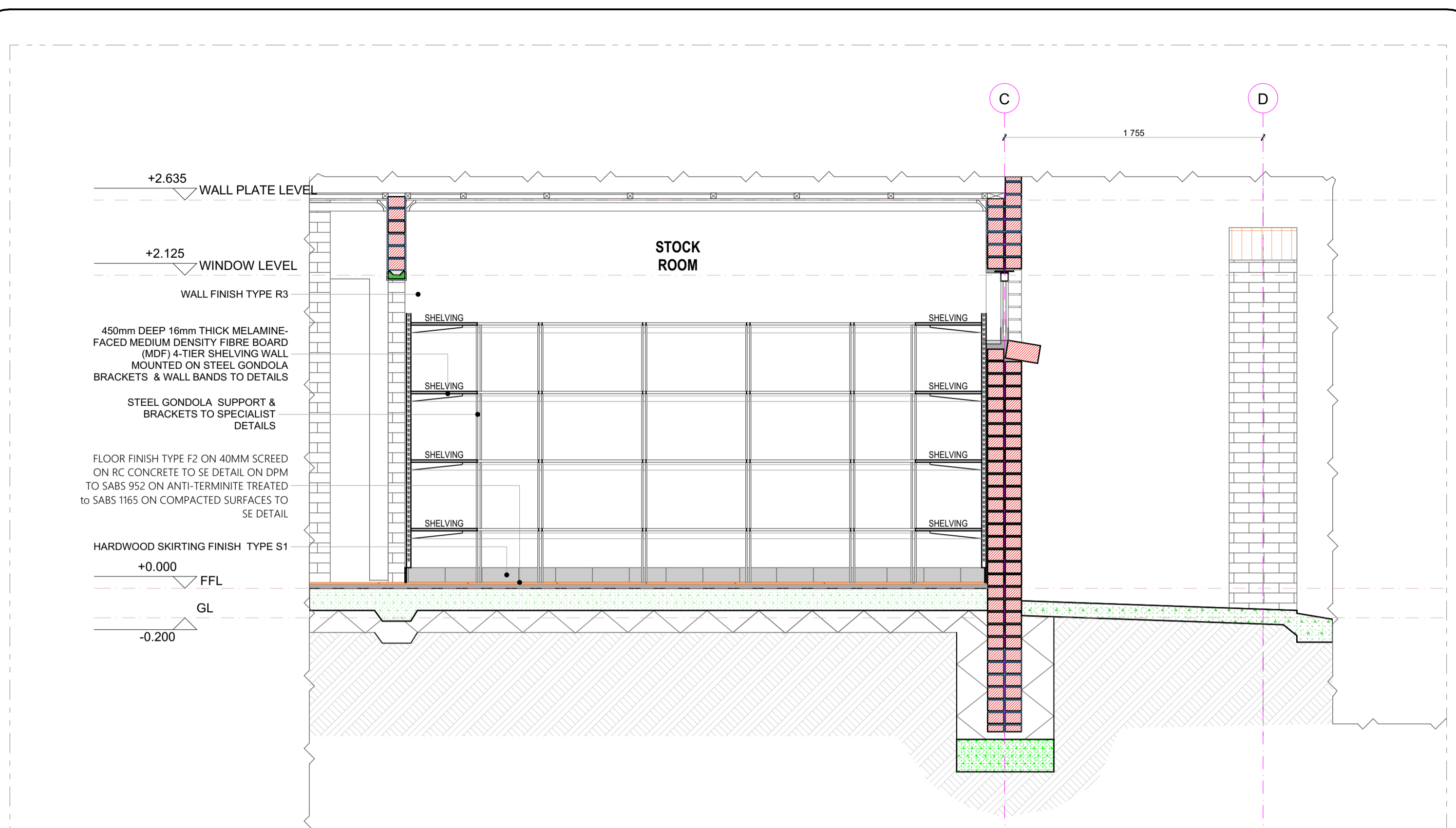
SKIRTING:
S1: HARDWOOD OR EQUAL AND APPROVED
18 x 25mm x 20mm Moulded Hardwood Skirting to comply with SANS 1099, fixed to walls in long lengths with splayed heading joints and mitred corners with screws and plugs at intervals not exceeding 400mm, and fixed with a 19mm x 19mm quadrant bedding. The skirting to be varnished with 3No. coats of egg shell clear varnish to comply with SABS/SANS 381 type 1.
S2: CERAMIC TILE SKIRTING
600mm wide x 100mm high x 7mm thick matt porcelain tile to comply with SABS 1449 laid with approved adhesives and grout on 20mm thick screeds in strict compliance to manufacturer's instructions and SABS specification, with one base and straight top. 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
75 mm high x 20 mm thick hardened cement sand screed skirting covered at 50 mm dia. to form a continuous joint with the adjoining screed floor finish to FA's approval. All to be manufactured and installed in strict compliance With SABS 1083 or latest revision.

WALL FINISHES:
R1: FACEBRICK
F81 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 1584 applied on plastered surface primed and with 1 no. coat undercoat to SABS 681 grade), in accordance to manufacturer's instructions.
R3: ALKYLID (ENAMEL) PAINT
2 no. coats matt (egg shell) finish alkylid (enamel) paint to SABS 430, type 2 applied on plastered surfaces with 1 no coat alkali resistant primer to SABS 1416 and 1 no. coat undercoat to SABS 681 grade), 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 "R2" To Comply with SABS 430 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: 7mm GYPSUM BOARDS FINISH PLASTERED CEILINGS OR EQUAL AND APPROVED
'GypCel Classic' gypsum plasterboard ceiling, EQUAL & APPROVED consisting of 1 layer Gyproc RhinoBoard 9mm (locally manufactured, ISO 9001 & 14001 certification, recycled paper content, Eco-specifier listing) fixed to timber bracing installed at maximum 300mm centres using Gyproc RhinoBoard Sharp Point Grabber Screws 32mm at maximum 150mm centres. Apply, Gyproc RhinoTape to all joints and skim the ceiling using Gyproc RhinoLite.
C2: FIBRE CEMENT BOARDS (H-JOINTEd)
6.4mm thick GypCel Prestige 5' fibre cement ceiling boards or EQUAL & APPROVED consisting of 1 layer Gyproc RhinoBoard 9 mm (locally manufactured, ISO 9001 & 14001 certification, recycled paper content, Eco-specifier listing, non-combustible to SANS 10177:5) fixed to Ek 38mm x 50mm timber bracing 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 Caloria (In Pre-finished or Fire Rated 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 TR 138 Ties @ 1.4m thickness, 2150 g/m² coating, locally manufactured, recycled content, ISO 9001 & 14001 certification) at 1200 centres & Donn SBV (1200 long) Cross Tees at 600 centres. Suspend main ties @ 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 end 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 1584 approved on 6mm thick light weight hemi-hydrate gypsum plaster on concrete slab soffits.

ROOF COVERING AND INSULATION:
F1: EMBOSSED ROOFING SHEET (TWO SIDES)
Roofing Sheets: 1.5mm Thick concealed fixing roofing sheets manufactured from roll-formed from certified steel complying with ISO 9001 (T). The profile shall have three trapezoidal ribs at 200mm centres giving a net cover of 450mm. The rib height shall be 41mm and provide caulking breaks. The nose rib shall have a gauge of 283mm centres to ensure a positive double interlocking action of side-laps. Each span shall incorporate two stiffener ribs. Profiled roofbeams to be coated on both sides with 'Global Coat' or 'Chromalok Colour' and laid on structural timber/steel structure incorporating all necessary accessories such as fixings and eave closes in strict compliance to manufacturer's instructions.
Insulation: SHALL EITHER BE: 1, where there are acoustic ceilings suspended board, a heavy duty 'Aluminium stonafon 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/m³ and finished with white meltable foil.
Galvanized Steel (GI) Gutter: 150mm Wide x 100mm Deep x 0.6mm Even Gauge of Commercial Grade Steel With Class Z275 Galvanizing To Comply With SABS 934 or latest Revision Fixed to Painted Fibre Cement Facia Board Together with standard accessories discharging into Rainwater Downpipes.
Downpipe: 110 x 110 x 0.8mm Thick Commercial Grade Galvanized Steel Sheet With Class Z275 Galvanizing To Comply With SABS 934 or Latest Revision to be built into walls or cast in concrete columns fixed to brickwork or steel including brackets and self-lapping screws to Manufacturer Installation Instructions.
Facia board: 250 x 110 mm Fibre Cement Facia/Barge Board. Screw Fixed to Tuss Ends & Counter Batten With Countersunk Brass Screws. Prepare & Apply One Universal Undercoat & Two Coats Super Acrylic F.P.V.A.



JOINERY SECTION DETAIL A9
Scale 1: 25

TYPE	LOCATION	DESCRIPTION/SPECIFICATION
MELAMINE FACED MDF SHELVING D450mm	STOCK ROOM	450mm deep 16mm thick Melamine-faced Medium Density Fibre board (MDF) 4-tier shelving wallmounted on steel gondola brackets and wall bands, comprising of: * Shelf boards comprising of plain "Supawood" MDF faced with melamine impregnated paper, in architect approved finish. Vertical spacing for each tier 450mm. * Medium steel wall band double slotted 1825mm in 'Ivory Epoxy' finish, at 900mm spacing. * Wall gondola brackets 450mm (as applicable), in 'Ivory Epoxy' finish.

SANITARY SCHEDULE

- WC'S URINALS & SHOWER**
U1: CERAMIC STANDARD WC (CCL) 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 Thermostat 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 blank flush plate.
U2: CERAMIC PARALEGIC WC
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.
U3: CERAMIC PARALEGIC WC (CCL) 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 Thermostat 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 paralegic access.
U4: 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.
U5: 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 thermostat (T3, seat and complete with all necessary fittings as per manufacturer's specifications and applicable SABS standards.
U6: CERAMIC WALL HUNG URINAL
Vitreous china size 415x152x275 mm wall hung bowl urinal to comply with SABS 497, Supplied with suitable 38mm CP domical grating, CP tap 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 standards.
SHOWER
2000mm Thick Enameled 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:
* Glass/Shower Cubicle with access door as per standard supply from manufacturer and sized to fit space configuration
* Wheelchair 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 connectors adjustable from 178 mm to 203 mm centres. Shower tray to be recessed 50 mm into a 100mm high concrete pit with exposed pit/fin face.
WASH-HAND BASIN
B1: WMR & MIRROR TAP
Top Sanitaryware Vitreous china size 565 x 415mm rounded 'Tuscany' OR EQUAL AND APPROVE basin to comply with SABS 497 with single tap-hole configuration supplied with integrated overflow and chairstay hole through the centre semi-punched supplied with a 'Tuscany' pedestal and fitted with 'No. Cobro WaterTech' 15mm chrome pushbutton demand pillar tap with flanged bacnet (code KM2102) metering tap, 309-32 CP anti-hell plug with spindle. 308 basin-walls fitted with 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 1/2 turn ceramic disc head and blue & Red indicators water applications and flanged bacnet, chrome plated waste, chrome plated 32 mm standing overflow tube, chrome plated bottle trap supplied with all necessary pipe connectors. Faced with concealed wall bracket in accordance to the manufacturer's specifications.
B3: WHITE GLAZED PORCELAIN WHB (VANITY)
Ceramic freecy size 450x350mm oval self-rimming vanity basin to comply with SABS 497 in one tap hole configuration supplied without overflow and fitted with: No. chrome plated tap with flanged bacnet (code KM2102) metering tap, mounting kit and angle valves. 400mm long flexible inlets and chrome plated bottle trap supplied with all necessary pipe connectors. Basin mounted on cabinet or vanity slab with silicon sealant between contact areas in strict accordance to manufacturer's specifications.
B4: SMALL BASIN & 2 TAPSTRAY & SHOWER SET (FOR WORKSHOPS)
Vitreous china size 450x290mm wash basin to comply with SABS 497 in 2-tap hole configuration supplied with integrated overflow and chairstay hole with 2No. pillar tap, chrome plated anti-hell 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 connectors. All brackets and fixing accessories in strict accordance to the manufacturer's specifications.
B5: HUIDITY BASIN & No. TAP (FOR LABS)
Ceramic fire clay 560x455mm rectangular heavy duty basin in one tap-hole configuration to comply with SABS 497 and R15 hole plugged and fitted with: No. pillar tap, Chrome Plated anti-hell 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 connectors. Fitted to wall using 2No. Semi-concealed cast iron brackets in accordance to the manufacturer's specifications.
B6: MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china 510 x 400mm 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 1/2 turn ceramic disc head and blue & Red indicators water applications and flanged bacnet, chrome plated waste, chrome plated 32mm standing overflow tube, chrome plated bottle trap supplied with all necessary pipe connectors. Faced 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 KB and bin type K3
* Soap dispenser type K9
* Soapback comprising 2no. rows of wall tie 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.
SINKS:
K1: STAINLESS STEEL SINK
Stainless steel 450 x 450mm inset single and 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 accessories in accordance to manufacturer's specifications. Sink installation height = 900mm AFRL.
K2: STAINLESS STEEL SINK
Stainless steel 450 x 450mm 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 type, with chrome plated overarm swivel Outlet, adjustable wall flanges and supplied with suitable accessories in accordance to manufacturer's specifications. Sink installation height = 900mm AFRL.
K3: CERAMIC SINK
Ceramic freecy 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)
K4: SINGLE WASH TROUGH (Inset) & 2 no. TAPS
600mm x 300mm inset washtrough, manufactured from grade 18/10 SS, stainless steel with rounded internal corners and provision for a 40mm dia. outlet. Fitted with Approved 2no. CP tapbars - plain ended and chrome plated, complete with sliding wall flanges. Unslotted sink waste with back nut, plug with string, chain and stay, CP, 'P' trap, with deep seal and cleaning eye. Rough brass, Sink installation height = 900mm AFRL, Cut out size 555 x 425mm.
K5: DOUBLE WASH TROUGH (Inset) & 2 no. TAPS
1200 x 555 x 260mm Double wall hung washub manufactured from grade 304 (18/10) SS, rounded internal corners and provision for a 40mm dia. outlet. Fitted with Approved 2no. wall type tapbars, with levelled Outlet, adjustable wall flanges and exposed adjustable connectors, CP, In-slotted sink waste with back nut and plug with string, CP, Double drain black rubber deep seal 'P'-trap. Sink mounted on 2no. 35mm square SS galvanized brackets, front leg and adjustable foot piece at height of 915mm AFRL.
SANITARY ACCESSORIES
K1: SS TOILET ROLL HOLDER - 2 ROLL
Standard 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 450x90mm height with polished bevelled edges 4 times wider and fixed, with chromium plated dome-headed mirror screws
K3: SS WASTE BIN
200mm x 65mm x 200mm 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)
190mm x 320mm x 600mm Plastic Sanitary Pedal Bin with capacity of 100 Litres 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-PARALEGIC
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)-PARALEGIC
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
350mmx160mmx200mm) Paper 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 Stainless 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 (MULTI-HOOK)
500mm Wide x 220mm High 19mm High Aluminium Multi-track Hat and Coat Hook in multi-track two hooks Configuration With Anodized Silver Finish Complete with Screws
K11: HAND DRYER (Hands free)
As per Bosch's Engineers specification
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 architect's drawing.
K13: SHOWER CURTAIN RAIL (straight)
20mm dia. standard chromium plated shower curtain rail 1200mm long with flanged ends and screws CP fixing height as per FA's drawing.

GENERAL FIXTURES

- G1: DOOR PROTECTOR**
2000mm wide PVC Door Protector manufactured in high impact resistant rigid PVC (Colour Grey) and cut to door width from 3m length, installed strictly in accordance to manufacturer's specifications. Installation height 900mm above FL, or as specified.
G2: PROTECTOR SCREEN
Full door PVC screen size 2440 x 1850mm (viewing area 2240 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 self board c/pnning 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.
G4: PINBOARD 900W X 1200H
Pinboard size 1200mm H x 900mm W comprising of laminated self board c/pnning 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 BUNDS (vertical blinds)
127 mm vertical deco blinds with anodised aluminium headrail fitted with colour coordinated insert. All runners to be wheeled and fitted with individual clutch mechanism. All runners to be connected by stainless steel links. The mechanism to be operated by 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 tie fixing brackets.
G6: FLOOR DRAIN
Cast iron flat type full-flow outlets size 110 mm diameter with centre ball, including connectors to downpipes.
G7: SS FLOOR EXPANSION JOINT COVER
Concealed 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
Vitreous system 1000 standard WHITEBOARD OR EQUAL & APPROVED vitreous enamelled steel utility school chalkboards wall-mounted size 480mm x 1140mm high manufactured in accordance with SABS Standard CES 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 (Vitreous Colour Reference - Chalk Board Green LM197/2), supplied complete with integral anodised aluminium chalk rail (ACKR), fixing components and secured in position to brickwork. The Chalk boards are to be fixed in position strictly in accordance with the manufacturer's instructions.

ISSUED FOR TENDER

LEGEND

- 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

NOTES
ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE STATED
DIMENSIONS TO BE READ, NOT TO SCALED FROM THIS DRAWING
CONTRACTORS TO CONFIRM ALL DIMENSIONS ON SITE BEFORE CONSTRUCTION COMMENCES & ANY DISCREPANCY TO BE REPORTED TO THE PROJECT ARCHITECT

FINISHES LEGEND

SIGNATURE TABLE

DISCIPLINE	SIGN	DATE
CLIENT		
PLAN EXAMINER		
FIRE CONTROL		
ENVIRONMENTAL		
ROADS / STORMWATER		
WATER & SANITATION		

REV. NO.	DATE	FIRST ISSUE FOR TENDER	DESCRIPTION
A	JUL 21		

REVISIONS

REV. NO.	DATE	FIRST ISSUE FOR TENDER	DESCRIPTION
A	JUL 21		



DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE

VUTIVI PRIMARY - 933 303 101

RESTORATIVES, REPAIRS & ADDITIONS

DOCUMENTATION & PROCUREMENT

ARCHITECTURAL 4

SMALL ADMINISTRATION BLOCK

JOINERY DETAILS D03-02

DRG No.	101-07	07/09	ITEM No.
DESIGN	NA	CM	DRAWN
DATE	AS SHOWN	SMTN	CHECK
NOV 2019	T. MANYAZZA		Pr/Arch 43981757

RESPONSIBLE PROFESSIONAL

DATE	NAME	SIGN	PR. NUMBER
NOV 2019	T. MANYAZZA		Pr/Arch 43981757

CONSULTANT TECTURA PROJECTS

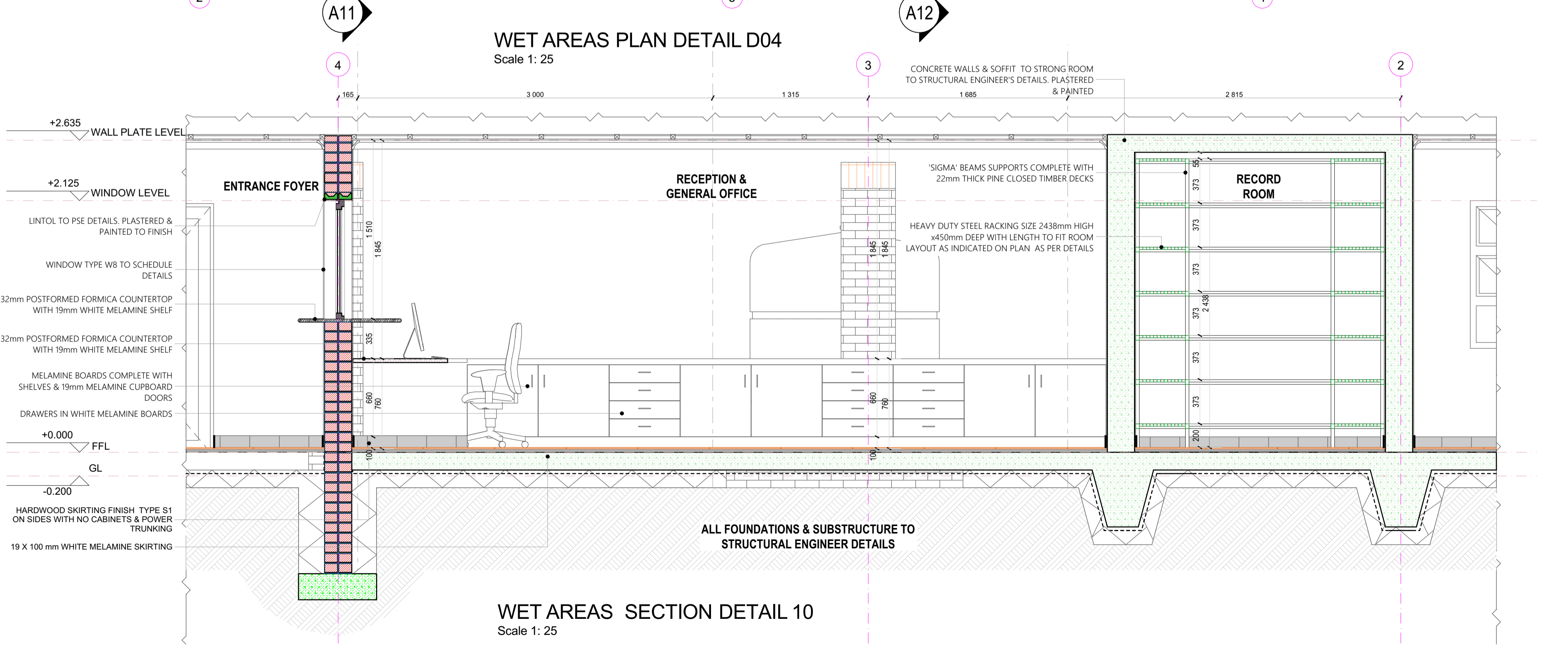
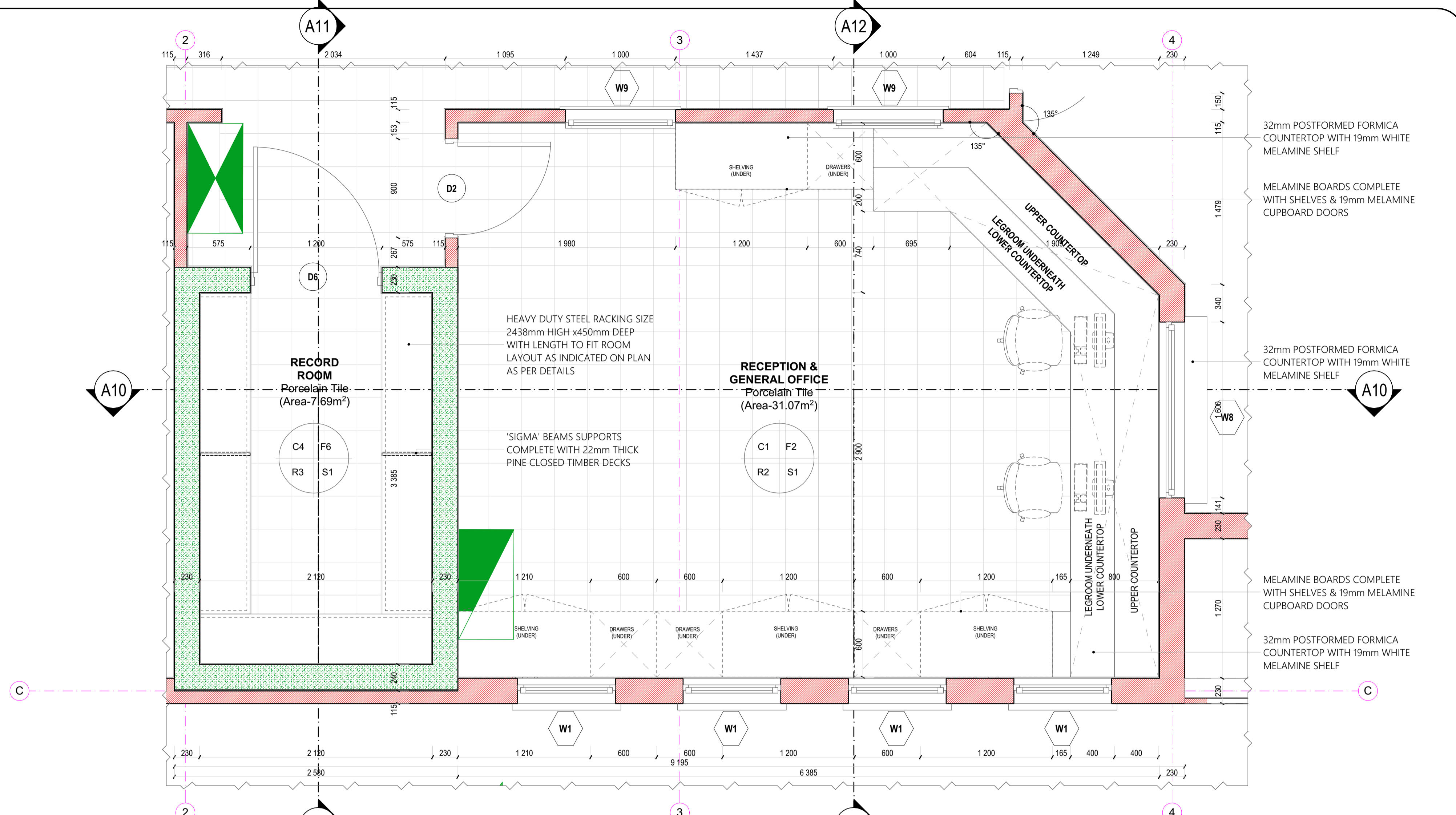
ALSO IN NAIROBI, KENYA AND GABORONE, BOTSWANA

CONTRACTOR

CAD SYSTEM	AUTOCAD	FILE NAME	REV.
SIZE	PROJECT NUMBER		DATE
A1	LDPW - PROF/16002/F18		0

FINISHES LEGEND

- FLOORS:**
- F1: PORCELAIN TILES - MATI (CORROSION RESISTANT & ANTI-SLIPPER)**
420 x 420 11.5mm kiln-fired floor tiles or similar approved by architects, fixed with adhesive, painted with finished waterproof jointing compound. Grouting to be grey. Tiles should have expansion joint and aluminium edging strip.
- F2: PORCELAIN TILES - MATI**
420 x 420 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 manufacturer's 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: CARPETILES**
500mm x 500mm . 1005 PFK 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 54824 on wear test and 50 body test at less than 20v at 25% RH on static electricity. Colour and pattern to architects approval.
- F4: CEMENT SAND SCREED**
30mm thick polished cement sand screed with 13mm Stone Nominal aggregate for Topping to comply with SABS 1083 or latest revision for concrete.
- 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: GRANITIC FINISH**
22mm thick unsealed 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 193mm x 60 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 VINYL SHEETING (CORROSION RESISTANT/ANTI-SLIPPER)**
2.5mm Thick Heavy Traffic Use, Corrosive Resistant & Anti-Slippery Vinyl Sheeting Semi-Flexible To Comply With SABS 584. With Static Dissipative Properties Throughout Thickness, Engineered for ESD or I/O (Anti-static) Protection Vinyl Sheet, Laid on Self-Levelled Smooth Screed glued with conductive 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**
18 x 25mm x 20mm Moulded Hardwood Skirting to comply with SANS 1099 fixed to walls in long lengths with splayed heading joints and mitred corners with screws and plugs at centres not exceeding 400mm, and fixed with a 19mm x 19mm quadrant bedding. The skirting to be varnished with 3No. coats of egg shell clear varnish to comply with SABS/SANS 381 type 1.
- S2: CERAMIC TILE SKIRTING**
60mm 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 manufacturer's instructions and SABS specification, with cove base and straight top. 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**
75 mm high x 20 mm thick hardened cement sand screed skirting covered at 50 mm dia. to form a continuous joint with the adjoining screed floor finish to FA's approval. All to be manufactured and installed in strict compliance With SABS 1083 or latest revision.
- WALL FINISHES:**
- R1: FACE BRICK**
FKX 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 1584 applied on plastered surface primed and with 1 no. coat undercoat to SABS 681 grade), in accordance to manufacturer's instructions.
- R3: ALKYL (ENAMEL) PAINT**
2 no. coats matt (egg shell) finish alkyl (enamel) paint to SABS 630, type 2 applied on plastered surfaces with 1 no coat alkyl resistant primer to SABS 1416 and 1 no. coat undercoat to SABS 681 grade), 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 to the latest SABS Standards.
- CEILING AND CORNICE:**
- C1: 7mm GYPSUM BOARDS FINISH PLASTERED CEILINGS OR EQUAL AND APPROVED**
GypCel Classic gypsum plasterboard ceiling EQUAL & APPROVED consisting of 1 layer Gyproc RhinoBoard 9mm (locally manufactured, ISO 9001 & 14001 certification, recycled paper content, Eco-specifier listing) fixed to timber bracing installed at maximum 300mm centres using Gyproc RhinoBoard Sharp Point Grabber Screws 32mm at maximum 150mm centres. Apply, Gyproc RhinoTape to all joints and skim the ceiling using Gyproc RhinoTape.
- C2: FIBRE CEMENT BOARDS (H-JOINTED)**
6.4mm thick GypCel Prestige 5' fibre cement ceiling boards or EQUAL & APPROVED consisting of 1 layer Gyproc RhinoBoard 9mm (locally manufactured, ISO 9001 & 14001 certification, recycled paper content, Eco-specifier listing non-combustible to SANS 10177:5) fixed to Ek 38mm x 50mm timber bracing 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 RhinoTape.
- C3: PATENT SUSPENDED ACOUSTIC TILES OR EQUAL AND APPROVED**
1200mm x 600mm x 15mm Gyproc Calceus (Pre-finished or Fire Rated OR EQUAL & APPROVED) laid into Donn ceiling grid and secured into place using Donn Hold Down Clips @ 200mm c/c. Donn Wall Angle M4 fixed to the perimeter wall using fixings of 300mm centres. Donn 138 FR Main Tees @ 4mm thickness, 1150 gwg, 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 Stud 3No. coats of PVA emulsion ceiling paint to latest SANS 1584 approved on 6mm thick light weight hemi-hydrate gypsum plaster on concrete slab soffit.
- ROOF COVERING AND INSULATION:**
- R1: EMBOSSED ROOFING SHEET (TWO SIDES)**
Roofing Sheets: 1.58mm thick concealed fixing roofing sheets manufactured from roll-formed from certified steel conforming with SANS 520 (S1). The profile shall have three trapezoidal ribs of 20mm spacing giving a total cover of 456mm. The rib height shall be 41mm and provide cavity breaks. The main ribs shall have gaps of 28mm centres to ensure a positive double interlocking action of side-laps. Each span shall incorporate two stiffener ribs. Profiled rooflights to be coated on both sides with 'Global Coat' or 'Chromalok Colour' and laid on structural timber/steel structure incorporating all necessary accessories such as flashings and eave closes in strict compliance to manufacturer's instructions.
- Insulation:** SHALL EITHER BE: 1. where there are acoustic ceilings suspended board, a heavy duty 'Aluminium stonaflex' 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/m³ and finished with metalized foil.
- Galvanized Steel (GI) Gutter:** 150mm wide x 100mm Deep x 0.6mm Eave Gutter of Commercial Grade Steel With Class Z275 Galvanizing To Comply With SABS 934 or latest Revision Fixed to Painted Fibre Cement Facia Board Together with standard accessories discharging into Rainwater Downpipes.
- Downpipe:** 110 x 110 x 0.8mm Thick Commercial Grade Galvanized Steel Sheet With Class Z275 Galvanizing 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-lapping screws to Manufacturer Installation Instructions.
- Facia board:** 250 x 10 mm Fibre Cement Facia/Barge Board. Screw fixed to Tuss Ends & Counter Batten With Countersunk Brass Screws. Prepare & Apply One Universal Undercoat & Two Coats Super Acrylic P.V.A.



STEEL SHELVING		
TYPE	LOCATION	DESCRIPTION/SPECIFICATION
HEAVY DUTY STEEL RACKING (Length as per Layout Plan)	STRONG ROOM	Heavy Duty steel Racking size 2438mm (height) x 450mm (deep) x Legth as per floor plan layout detail, assembled from purpose made long 'sigma' beams, complete with a 22mm thick Pine closed timber deck (to fit configuration size). Load capacity should not be less than 500kg per frame.

ISSUED FOR TENDER

LEGEND

- 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

NOTES
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FINISHES LEGEND

CEILING FINISH: C, R, S
FLOOR FINISH: F
WALL FINISH: W
WALL SKIRTING FINISH: S

SIGNATURE TABLE

DISCIPLINE	SIGN	DATE
CLIENT		
PLAN EXAMINER		
FIRE CONTROL		
ENVIRONMENTAL		
ROADS / STORMWATER		
WATER & SANITATION		

REVISIONS

REV. NO.	DATE	DESCRIPTION
A	JUL 21	FIRST ISSUE FOR TENDER

LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF
PUBLIC WORKS, ROADS & INFRASTRUCTURE

VUTIVI PRIMARY - 933 303 101

RESTORATIVES, REPAIRS & ADDITIONS

DOCUMENTATION & PROCUREMENT

ARCHITECTURAL 4

SMALL ADMINISTRATION BLOCK

JOINERY DETAILS D04-01

DRG No.	101-08	08/09	ITEM No.
DESIGN	NA	CM	DRAWN
DATE	AS SHOWN	SMTN	CHECK

DATE	NAME	SIGN	PR. NUMBER
NOV 2019	T. MANYADZA		PrArch 43981757

CONSULTANT
TECTURA PROJECTS

CONTRACTOR

CAD SYSTEM	PROJECT NUMBER	REV
A1	LDPW - PROF/16002/F18	0

FINISHES LEGEND

FLOORS:

F1: POLYURETHANE MATT (CONTASIVE RESISTANT & ANTI-SLIPPER)
420x420 11.5mm kiln-dried floor tiles or similar approved by architects, fixed with adhesive, painted with finished waterproof jointing compound. Grouting to be grey. Tiles should have expansion joint and aluminium edging strip.

F2: POLYURETHANE 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 manufacturer's instructions and SABS specification. Fittings to include, ribbed angle files 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: CARPETILES
500mm x 500mm . 1005 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 54824 on wira test and ISO body test at less than 20v at 25% RH on static electricity. Colour and pattern to architects approval.

F4: CEMENT SAND SCREED
30mm thick polished cement sand screed with 13mm Stone Nominal aggregate for Topping to comply with SABS 1083 or latest revision for concrete.

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: GRANULITIC FINISH
22mm thick unsealed Granulitic 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 60 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 VINYL SHEETING (CORROSION RESISTANT/ANTI-SLIPPERY)
2.5mm Thick Heavy Traffic Use, Corrosive Resistant & Anti-Slippery Vinyl Sheeting Semi-Flexible To Comply With SABS 584. With Static Dissipative Properties Throughout Thickness, Engineered for ISO 9001 (anti-static) Protection Vinyl Sheet. Laid on Self-Levelled Smooth Screed glued with conductive 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 PFE Details installed in All Duct Chambers Accommodating Sanitary Services.

SKIRTING:

S1: HARDWOOD OR EQUAL AND APPROVED

18 x 25mm x 20mm Moulded Hardwood Skirting to comply with SANS 1099, fixed to walls in long lengths with splayed heading joints and mitred corners with screws and plugs at centres not exceeding 400mm, and fixed with a 19mm x 19mm quadrant beading. The skirting to be varnished with 3No. coats of egg shell clear varnish to comply with SABS/SANS 381 type 1.

S2: CERAMIC TILE SKIRTING

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

S3: CEMENT SAND SCREED

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

WALL FINISHES:

R1: FACE BRICK

F8X 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 1584 applied on plastered surface primed and with 1 no. coat undercoat to SABS 681 grade 1, in accordance to manufacturer's instructions.

R3: ENAMEL (ENAMEL) PAINT

2 no. coats matt (egg shell) finish alkyl (jeromel) paint to SABS 430, type 2 applied on plastered surfaces with 1 no coat alkali resistant primer to SABS 1416 and 1 no. coat undercoat to SABS 681 grade 1, 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 430 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 to the latest SABS Standards.

CEILING AND CORNICE:

C1: 7mm GYPSUM BOARDS FLUSH PLASTERED CEILINGS OR EQUAL AND APPROVED

7mm Gyproc Classic gypsum plasterboard ceiling EQUAL & APPROVED consisting of 1 layer Gyproc RhinoBoard 9mm (locally manufactured, ISO 9001 & 14001 certification, recycled paper content, EcoSpecifier listing) fixed to timber bracing installed at maximum 300mm centres using Gyproc RhinoBoard Sharp Point Grabber Screws 32mm at maximum 150mm centres. Apply Gyproc RhinoTape to all joints and skim the ceiling using Gyproc RhinoLite.

C2: FIBRE CEMENT BOARDS (H-JOINTED)

6.4mm thick GyprocCell Prestige 5 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 Ek 38mm x 50mm timber bracing 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 Calotex 7H Prefinished or Fire Rated OR EQUAL & APPROVED laid into Dorn ceiling grid and secured into place using Dorn Hold Down Clips @ 200mm c/c. Dorn Wall Angle M4 fixed to the perimeter wall using fixings of 300mm centres. Dorn 138 FR Main Tees @ 4mm thickness, 2150 g/m2, coating. Locally manufactured, recycled content, ISO 9001 & 14001 certification) at 1200 centres & Dorn 138V (1200 long) Cross Tees at 600 centres. Suspend main tees @ 1200mm c/c using Dorn Hanger Strap 19mm suitably fixed to the building structural members. Dorn 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 Dorn 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 Stud 3No. coats of PVA emulsion ceiling paint to latest SANS 1584 approved on 6mm thick light weight hemi-hydrate gypsum plaster on concrete slab soffits.

ROOF COVERING AND INSULATION:

R1: EMBOSSED ROOFING SHEET (TWO SIDES)

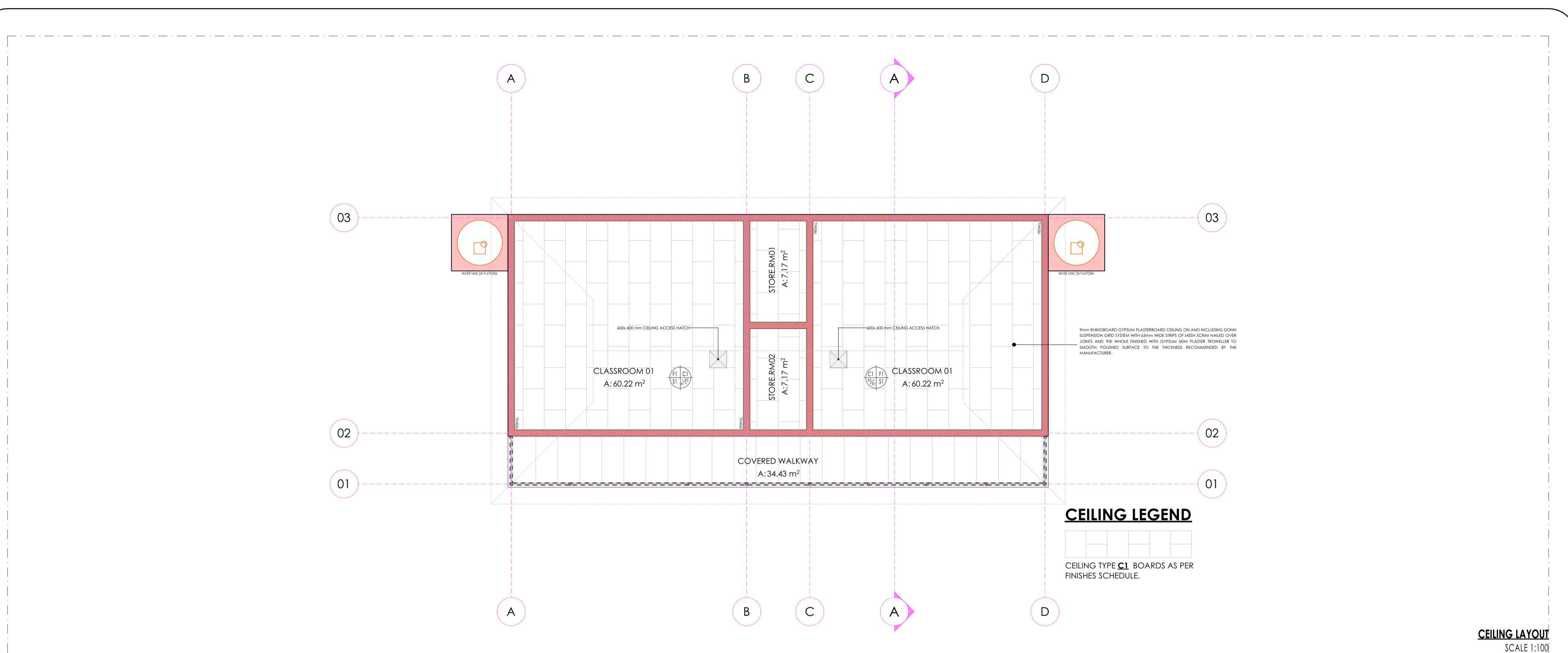
Roofing Sheets: 1.58mm thick concealed fixing roofing sheets manufactured from roll-formed from certified steel complying with ISO 9001. The profile shall have three trapezoidal ribs at 200mm centres giving a total cover of 456mm. The rib height shall be 41mm and provide cavity breaks. The main ribs shall have a depth of 28mm centres to ensure a positive double interlocking action at side-laps. Each pan shall incorporate two stiffener ribs. Profiled roof sheets 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 fixings and eave closes in strict compliance to manufacturer's instructions.

Insulation: SHALL EITHER BE: 1; where there are acoustic ceilings suspended board, a heavy duty 'Aluminium stonafon' 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/m³ and finished with white metalized foil.

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

Downpipe: 110 x 110 x 0.8mm Thick Commercial Grade Galvanized Steel Sheet With Class Z275 Galvanizing To Comply With SABS 934 or Latest Revision to be built into walls or cast in concrete columns fixed to brickwork or steel including brackets and self-lapping screws to Manufacturer Installation instructions.

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



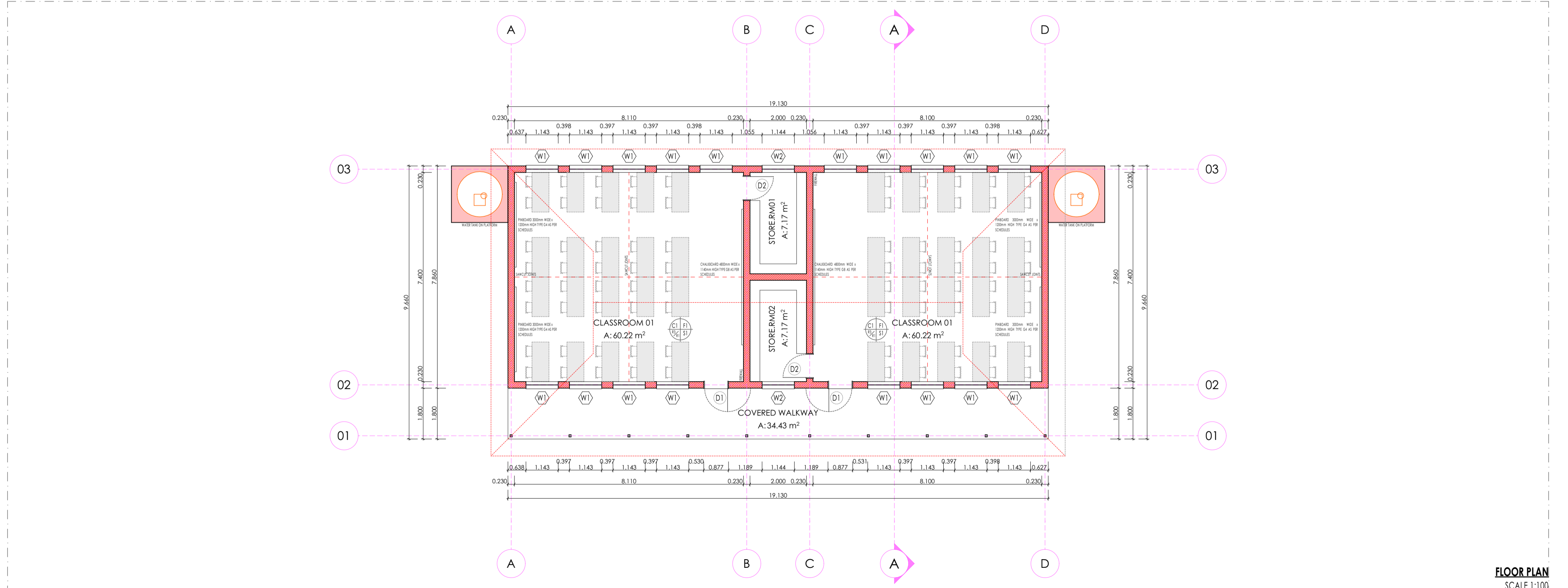
CEILING LEGEND



CEILING TYPE C1. BOARDS AS PER FINISHES SCHEDULE.

CEILING LAYOUT

SCALE 1:100



FLOOR PLAN

SCALE 1:100

ISSUED FOR TENDER

LEGEND

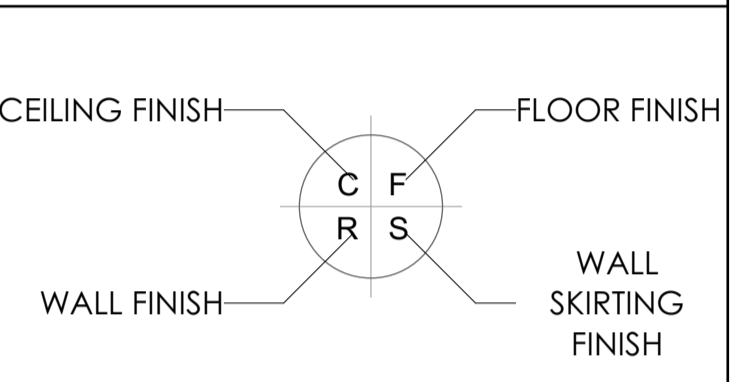
- NEW WALLS
- EXISTING WALL TO BE RETAINED
- EXISTING WALL TO BE DEMOLISHED
- NEW FIXTURES & FITTING TO BE INSTALLED
- ITEMS IN RED AND (OR) DASHED LINES ARE TO BE REPAIRED AND (OR) REPLACED

NOTES
ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE STATED

DIMENSIONS TO BE READ, NOT TO SCALED FROM THIS DRAWING

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

FINISHES LEGEND



SIGNATURE TABLE

DISCIPLINE	SIGN	DATE
CLIENT		
PLAN EXAMINER		
FIRE CONTROL		
ENVIRONMENTAL		
ROADS STORMWATER		
WATER & SANITATION		

REV. NO.	DATE	DESCRIPTION
0	JUL 21	FIRST ISSUE FOR TENDER

REVISIONS



DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE

VUTVI PRIMARY - 933 303 101

RESTORATIVES, REPAIRS & ADDITIONS

DOCUMENTATION & PROCUREMENT

DISCIPLINE	4
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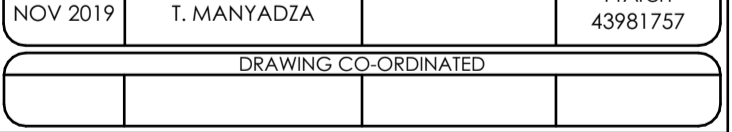
WORK DESCRIPTION - SUB DIVISION
BLOCK PG 01 - 02 CLASSROOM

FLOOR PLAN & CEILING PLAN

DRG No.	201-01	01/03	ITEM No.
DESIGN	NA	S MIN	DRAWN
SCALE	AS SHOWN	T.M	CHECK

DATE	NAME	SIGN	PR. NUMBER
NOV 2019	T. MANYADZA		PrArch 43981757

DRAWING CO-ORDINATED



CONTACT INFORMATION for Tectura Projects in various locations including Gaiterhof, Northwest, and Northern Cape.

CONTRACTOR

CAD SYSTEM	AUTOCAD	FILE NAME
SIZE	PROJECT NUMBER	REV
A1	LDPW - PROF/16002/F18	0

FINISHES LEGEND

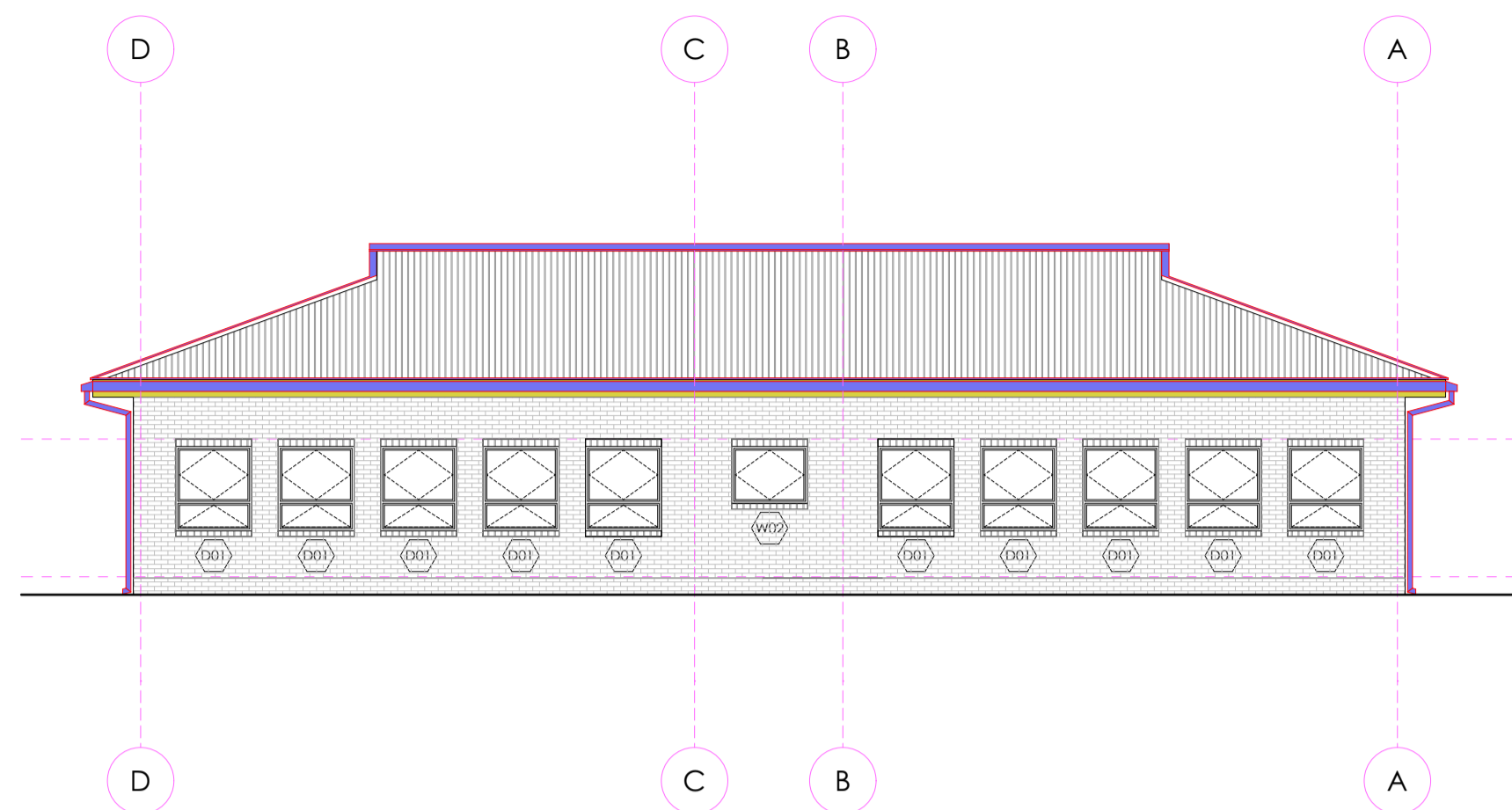
- FLOORS:**
- F1: PORCELAIN TILES - MATI (CORROSION RESISTANT & ANTI-SLIPPERY)**
450 x 450 11.5mm kiln-fired floor tiles or similar approved by architects, fixed with adhesive, painted with fired waterproof jointing compound. Grouting to be grey, tiles should have expansion joint and aluminium edging strip.
 - F2: PORCELAIN TILES - MATI**
450 x 450 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 manufacturer's instructions and SABS specification. Fittings to include, ribbed angle files 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 . 1005 PFK 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 54824 on wira test and 50 body test at less than 2kV at 25% RH on static electricity. Colour and pattern to architects approval.
 - F4: CEMENT SAND SCREED**
30mm thick polished cement sand screed with 13mm Stone Nominal aggregate for Topping to comply with SABS 1083 or latest revision for concrete.
 - 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: GRANULITIC FINISH**
22mm thick unsealed Granulitic 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 50 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 VINYL SHEETING (CORROSION RESISTANT/ANTI-SLIPPERY)**
2.5mm Thick Heavy Traffic Use, Corrosive Resistant & Anti-Slippery Vinyl Sheeting Semi-Flexible To Comply With SABS 584. With Static Dissipative Properties Throughout Thickness, Engineered for ESD or ID (anti-static) Protection Vinyl Sheet. Laid on Self Levelled Smooth Screed glued with conductive 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 PFE Details installed in All Duct Chambers Accommodating Sanitary Services.

- SKIRTING:**
- S1: HARDWOOD OR EQUAL AND APPROVED**
18 x 25mm x 20mm Moulded Hardwood Skirting to comply with SANS 1099, fixed to walls in long lengths with splayed heading joints and mitred corners with screws and plugs at centres not exceeding 400mm, and fixed with a 19mm x 19mm quadrant bedding. The skirting to be varnished with 3No. coats of egg shell clear varnish to comply with SABS/SANS 381 type 1.
 - S2: CERAMIC TILE SKIRTING**
600mm wide x 102mm 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 manufacturer's instructions and SABS specification, with cove base and height tops. Complete with corner and top trims. Fittings to include, ribbed angle files where there is change of level. Colour and pattern to architects approval.
 - S3: CEMENT SAND SCREED**
75 mm high x 20 mm thick hardened cement sand screed skirting covered at 50 mm dia. to form a continuous joint with the adjoining screed floor finish to FA's approval. All to be manufactured and installed in strict compliance With SABS 1083 or latest revision.

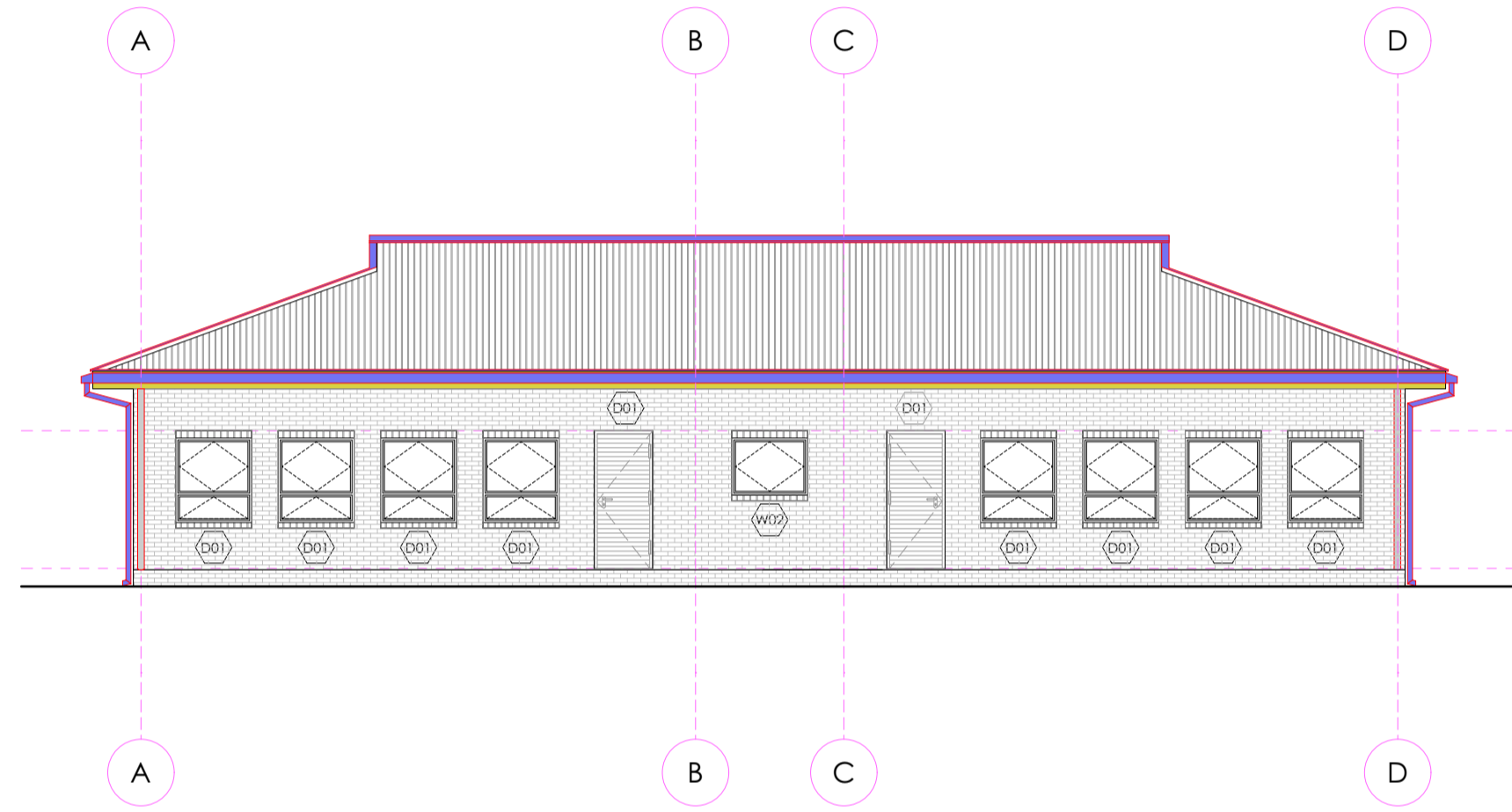
- WALL FINISHES:**
- R1: FACE BRICK**
FKX face brick in common running bond to comply with SABS 227 and forming part of the structural work.
 - R2: EMULSION (PVA) PAINT - FULL HEIGHT**
2 no. coats of PVA matt finish emulsion paint to SABS 1584 applied on plastered surface primed and with 1 no. coat undercoat to SABS 681 grade 1, in accordance to manufacturer's instructions.
 - R3: ALKYD (ENAMEL) PAINT**
2 no. coats matt (egg shell) finish alkylid (enamel) paint to SABS 430, type 2 applied on plastered surfaces with 1 no coat alkali resistant primer to SABS 1416 and 1 no. coat undercoat to SABS 681 grade 1, in accordance to manufacturer's instructions.
 - R4: GLAZED CERAMIC WALL TILES / ENAMEL PAINT COAT**
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 "R2" To Comply with SABS 430 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: 7mm GYPSUM BOARDS FLUSH PLASTERED CEILINGS OR EQUAL AND APPROVED**
"GypCel Classic" gypsum plasterboard ceiling EQUAL & APPROVED consisting of 1 layer Gyproc RhinoBoard 9mm (locally manufactured, ISO 9001 & 14001 certification, recycled paper content, Eco-specifier listing) fixed to timber bracing installed at maximum 300mm centres using Gyproc RhinoBoard Sharp Point Grabber Screws 32mm at maximum 150mm centres. Apply, Gyproc RhinoTape to all joints and skim the ceiling using Gyproc RhinoLite.
 - C2: FIBRE CEMENT BOARDS (H-JOINTED)**
6.4mm thick GypCel Prestige 5' fibre cement ceiling boards or EQUAL & APPROVED consisting of 1 layer Gyproc RhinoBoard 9 mm (locally manufactured, ISO 9001 & 14001 certification, recycled paper content, Eco-specifier listing, non-combustible to SANS 10177:5) fixed to EK 38mm x 50mm timber bracing 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 Calcelex PH Prefinished or Fire Rated OR EQUAL & APPROVED laid into Dorn ceiling grid and secured into place using Dorn Hold Down Clips @ 200mm c/c. Dorn Wall Angle M4 fixed to the perimeter wall using fixings at 300mm centres. Dorn T38 FR Main Tees @ 4mm thickness, 2150 g/m² coating, locally manufactured, recycled content, ISO 9001 & 14001 certification) at 1200 centres & Dorn T38V (1200 long) Cross Tees at 600 centres. Suspend main tees @ 1200mm c/c using Dorn Hanger Strap 19mm suitably fixed to the building structural members. Dorn 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 Dorn 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 Stud" 3No. coats of PVA emulsion ceiling paint to latest SANS 1584 approved on 6mm thick light weight hemi-hydrate gypsum plaster on concrete slab soffits.

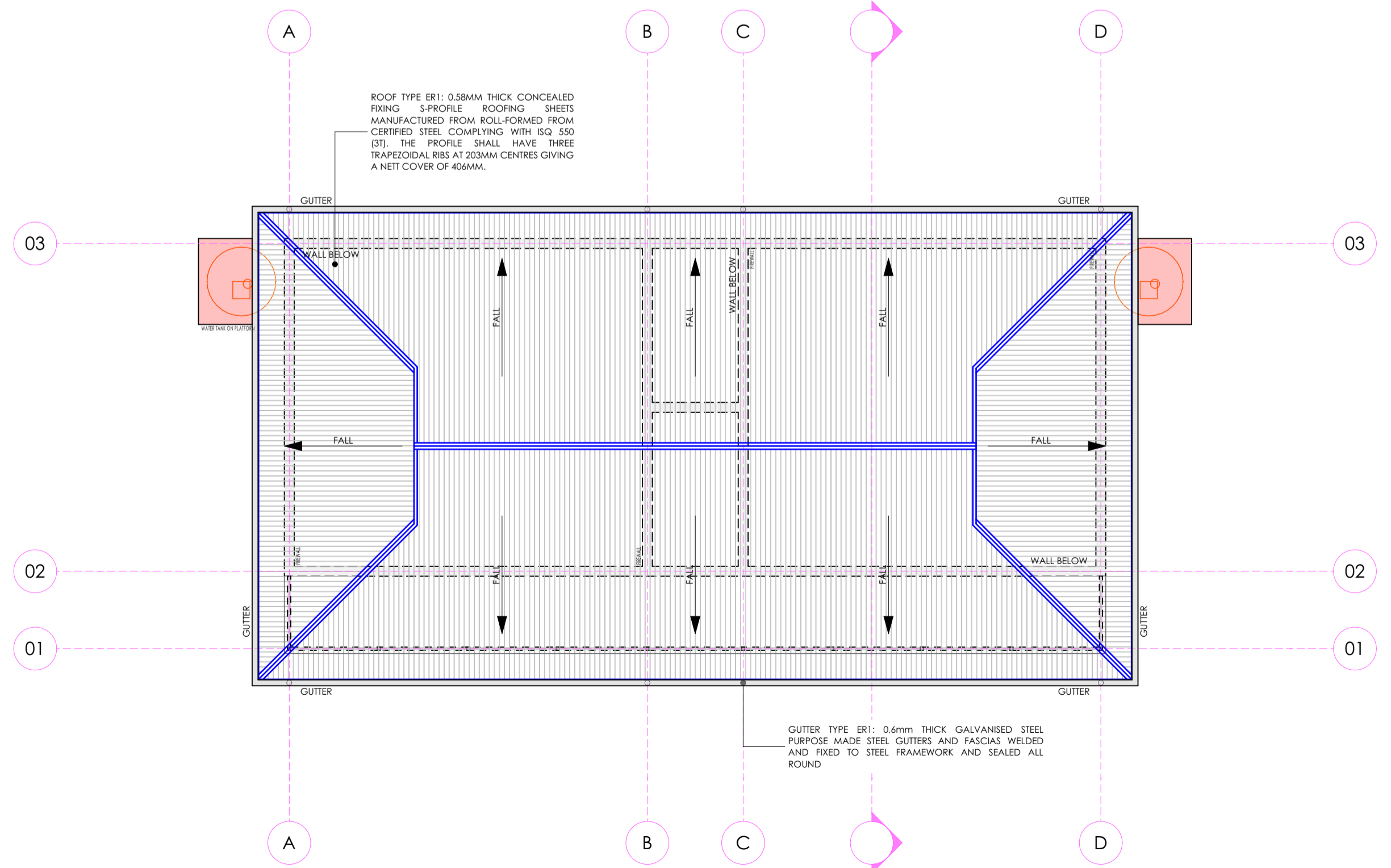
- ROOF COVERING AND INSULATION:**
- R1: EMBOSSED ROOFING SHEET (TWO SIDES)**
Roofing Sheets: 0.58mm thick concealed fixing roofing sheets manufactured from roll-formed from certified steel complying with ISO 550 (S1). The profile shall have three trapezoidal ribs at 200mm centres giving a net cover of 456mm. The rib height shall be 41mm and provide cavity breaks. The male rib shall have gaps of 28mm centres to ensure a positive double interlocking action at side-laps. Each pan shall incorporate two stiffener ribs. Profiled roof sheets to be coated on both sides with "Global Coat" or "Chromadisk Colour" and laid on structural timber/steel structure incorporating all necessary accessories such as fixings and eave closes in strict compliance to manufacturer's instructions.
 - Insulation:** SHALL EITHER BE: 1; where there are acoustic ceilings suspended board, a heavy duty "Aluminium station 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/m³ and finished with white metalized foil.
 - Galvanized Steel (GI) Gutter:** 150mm Wide x 100mm Deep x 0.6mm Eave Gutter of Commercial Grade Steel With Class Z275 Galvanizing To Comply With SABS 934 or latest Revision Fixed To Painted Fibre Cement Facia Board Together with standard accessories discharging into Rainwater Downpipes.
 - Downpipes:** 110 x 110 x 0.6mm Thick Commercial Grade Galvanized Steel Sheet With Class Z275 Galvanizing To Comply With SABS 934 or Latest Revision to be built into walls or cast in concrete columns fixed to brickwork or steel including brackets and self-tapping screws To Manufacturer Installation Instructions.
 - Facia board:** 250 x 10 mm Fibre Cement Facia/Barge Board. Screw Fixed To Tuss Ends & Counter Batten With Countersunk Brass Screws. Prepare & Apply One Universal Undercoat & Two Coats Super Acrylic P.V.A.



REAR ELEVATION
SCALE 1:100



FRONT ELEVATION
SCALE 1:100

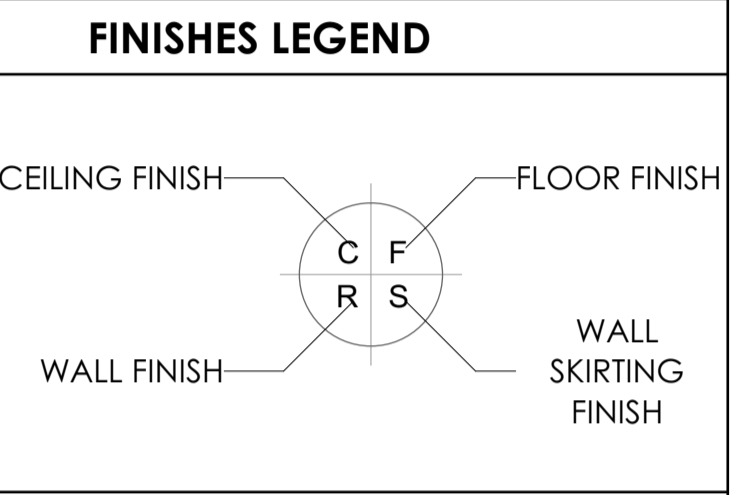


ROOF PLAN
SCALE 1:100

ISSUED FOR TENDER

- LEGEND**
- 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

NOTES
ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE STATED
DIMENSIONS TO BE READ, NOT TO SCALED FROM THIS DRAWING
CONTRACTORS TO CONFIRM ALL DIMENSIONS ON SITE BEFORE CONSTRUCTION COMMENCES & ANY DISCREPANCY TO BE REPORTED TO THE PROJECT ARCHITECT



SIGNATURE TABLE

DISCIPLINE	SIGN	DATE
CLIENT		
PLAN EXAMINER		
FIRE CONTROL		
ENVIRONMENTAL		
ROADS STORMWATER		
WATER & SANITATION		

REVISIONS

REV. NO.	DATE	DESCRIPTION
0	JUL 21	FIRST ISSUE FOR TENDER

LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF
PUBLIC WORKS, ROADS & INFRASTRUCTURE
INSTITUTION

VUTVI PRIMARY - 933 303 101

CONTRACT - SECTION

DOCUMENTATION & PROCUREMENT

DISCIPLINE: **ARCHITECTURAL** 4

WORK DESCRIPTION - SUB DIVISION
BLOCK PG 01 - 02 CLASSROOM

DRAWING DESCRIPTION
ROOF PLAN | FRONT & REAR ELEVATION

DRG. No.	201-02	02/03	ITEM No.
DESIGN	NA	SMIN	DRAWN
SCALE	AS SHOWN	T.M	CHECK
DATE	NOV 2019	T. MANYADZA	PtArch 43981757

CONSULTANT

TECTURA PROJECTS

ALSO IN NAIROBI, KENYA AND GABORONE, BOTSWANA

www.tectura.com

CONTRACTOR

CAD SYSTEM	AUTOCAD	FILE NAME
SIZE	PROJECT NUMBER	REV
A1	LDPW - PROF/16002/F18	0

FINISHES LEGEND

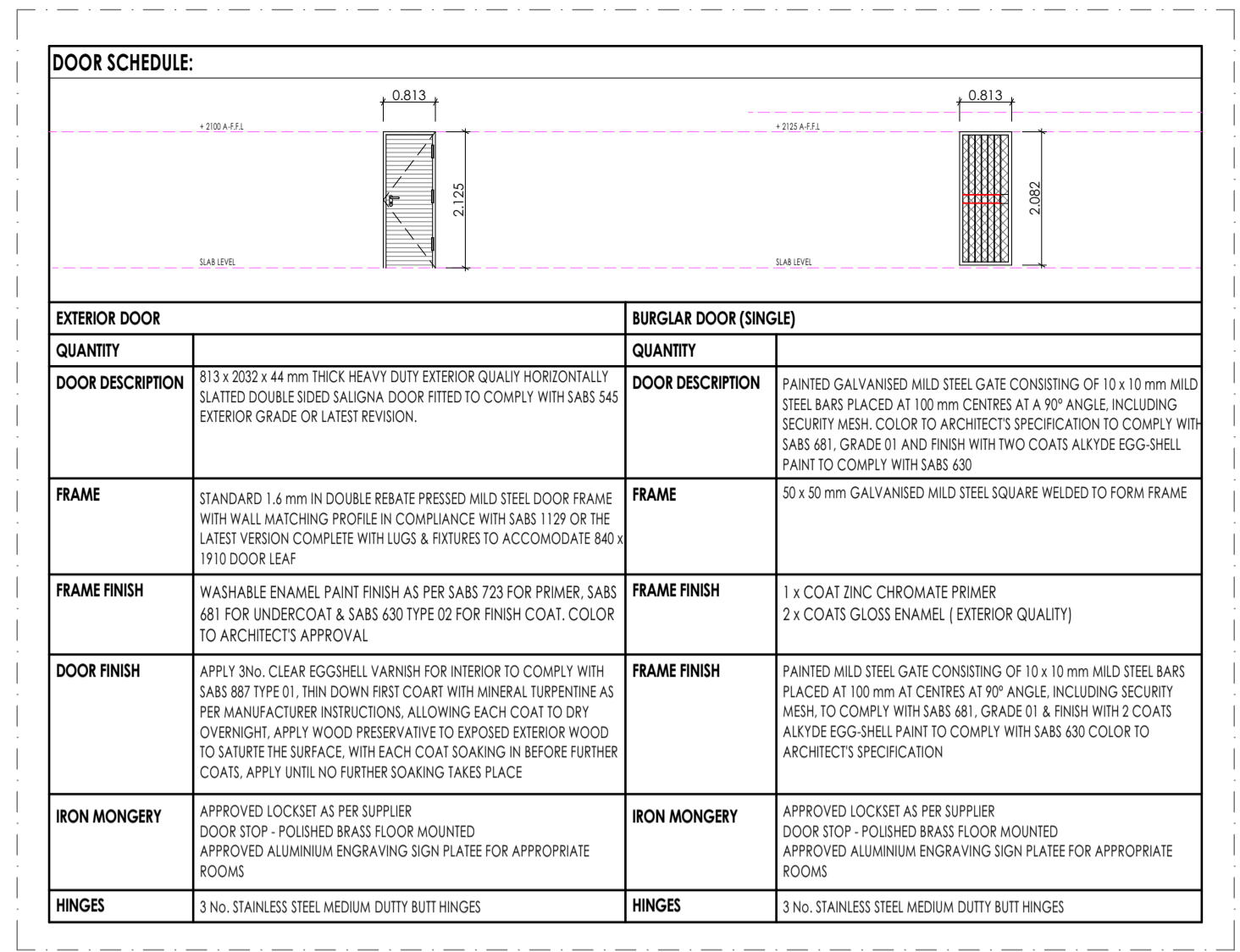
- FLOORS:**
- F1: FULLY FLEXIBLE TILES (CORROSION RESISTANT & ANTI-SLIP)**
430x430 15mm lithium glass floor tiles or similar approved by architects, fixed with adhesive, painted with finished waterproof jointing compound. Grouting to be grey. Tiles should have expansion joint and aluminium edging strip.
- F2: PORCELAIN TILE - MAT**
600 x 600 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 scribed With Thickness/Specification in strict compliance to manufacturer's instructions and SABS specification. Fittings to include, ribbed angle tiles where there is change of level and 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, 1.00S 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 and 20mm thick commercial screeds in strict compliance with manufacturer's instructions. Carpet tiles to conform to BS 4790 on fire rating, on DIN S424 on wear test and 500 body test at 25% RH on static electricity. Colour and pattern to architects approval.
- F4: CEMENT SAND SCREED**
30mm thick polished cement sand screed with 13mm Stone Nominal aggregate for Topping to comply with SABS 1083 at latest revision for concrete.
- F5: EXTERIOR MULTI-COURED CONCRETE INTERLOCKING PAVES**
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 at latest Revision.
- F6: GRANULITIC FINISH**
22mm thick unsealed Granulitic 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 100m², 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 PAVES (RIGID PAVING/VEHICULAR WAYS)**
20mm x 150mm x 50 mm thick concrete interlocking paves, 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 VINYL SHEETING (CORROSION RESISTANT/ANTI-SLIP)**
2.5mm Thick Heavy Traffic Use, Corrosion Resistant & Anti-Slippery Vinyl Sheeting Semi-Flexible To Comply With SABS 584. With Static Dissipative Properties Throughout Thickness, Engineered for ISO or ISO (anti-static) Protection Vinyl Sheet. Laid on Self-Levelled Smooth Scribed grout with conductive adhesive to SABS 070 at 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 P&E Details installed in All Duct Chambers Accommodating Sanitary Services.
- SKIRTING:**
- S1: HARDWOOD OR EQUAL AND APPROVED**
18 x 75mm x 20mm Moulded Hardwood Skirting to comply with SANS 1099, fixed to walls in long lengths with splayed heading joints and mitred corners with screws and plugs of centres not exceeding 400mm, and fixed with a 19mm x 19mm quadrant bedding. The skirting to be varnished with 3No. coats of egg shell clear varnish to comply with SABS/SANS 381 type 1.
- S2: CERAMIC TILE SKIRTING**
600mm wide x 100mm high x 7mm thick matt porcelain tile to comply with SABS 1449 laid with approved adhesives and grout on 22mm thick screed in strict compliance to manufacturer's instructions and SABS specification, with one base and thigh top. 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**
75mm high x 20 mm thick hardened cement sand screed skirting covered at 20 mm dia. to form a continuous joint with the adjoining screed floor finish to FA's approval. All to be manufactured and installed in strict compliance with SABS 1083 or latest revision.

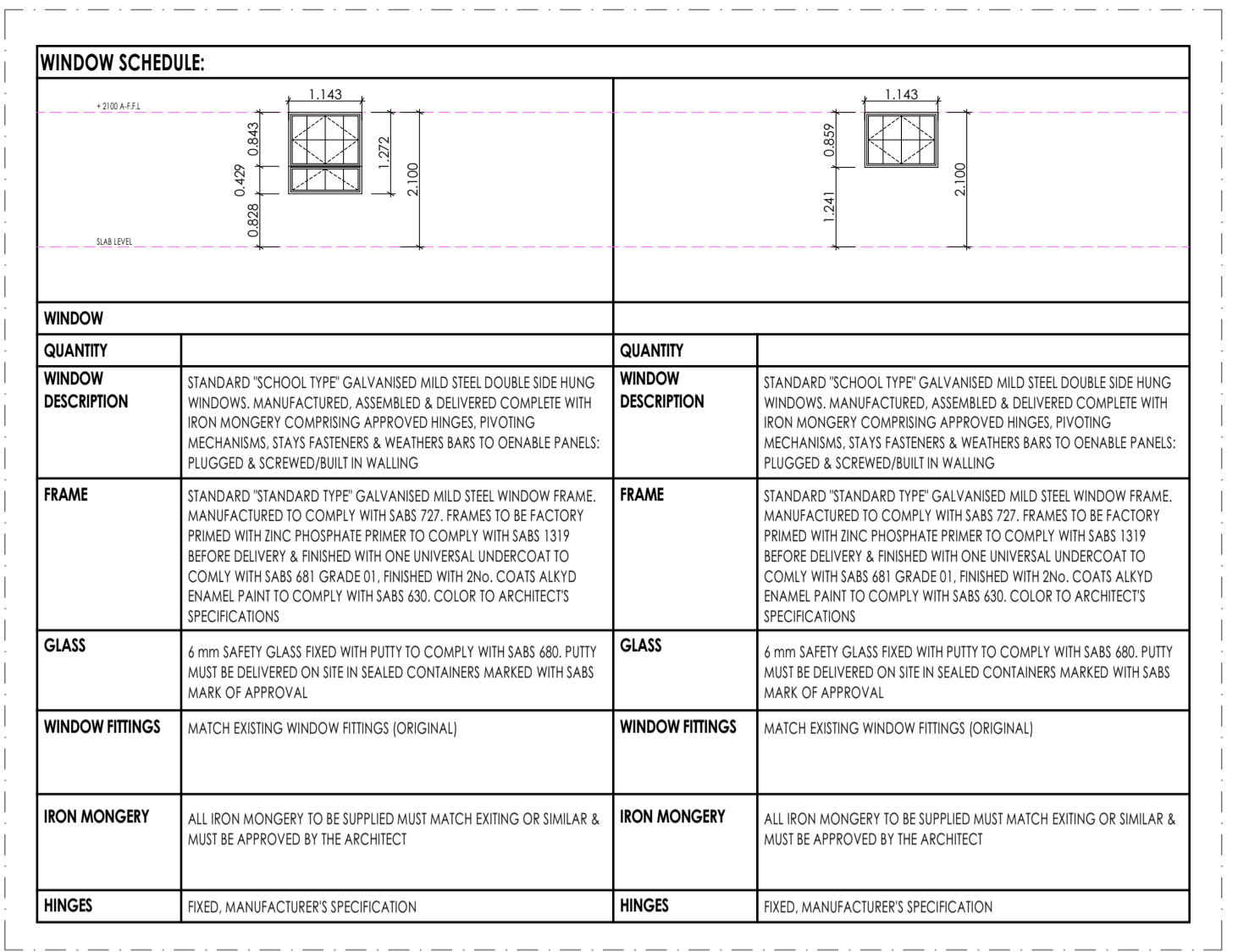
- WALL FINISHES:**
- R1: FACE BRICK**
FXX face brick in common running bond to comply with SABS 227 and forming part of the structural work.
- R2: EMULSION (PVA) PAINT - FULL HEIGHT**
2 No. coats of PVA matt finish emulsion paint to SABS 1586 applied on plastered surface primed and with 1 no. coat undercoat to SABS 681 grade1, in accordance to manufacturer's instructions.
- R3: 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 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 COMB)**
Combination of 600mm wide x 300mm x 7mm thick high glazed ceramic tile to Specification "R4", 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 laid from finish floor level to window level AND ENAMEL paint to specification "R2" 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: 7mm GYPSUM BOARDS FLUSH FLATTERED CEILINGS OR EQUAL AND APPROVED**
"GypCel Classic" gypsum plasterboard ceiling EQUAL & APPROVED consisting of 1 layer Gyproc Rhino-board 9mm (locally manufactured, SO 9001 & 1400) certification, recycled paper content, Eco-specifier listing laid to timber branding installed at maximum 300mm centres using Gyproc Rhino-board Sharp Point Grabber Screws 32mm at maximum 150mm centres. Apply, Gyproc Rhino-tape to all joints and trim the ceiling using Gyproc Rhino-tape.
- C2: FIBRE CEMENT BOARDS (H-JOINTED)**
6.4mm thick GypCel Prestige 5' fibre cement ceiling boards or EQUAL & APPROVED consisting of 1 layer Gyproc Rhino-board 9mm (locally manufactured, SO 9001 & 1400) certification, recycled paper content, Eco-specifier listing, non-combustible to SANS 10177:5 fixed to Ek 38mm x 50mm timber branding installed at maximum 400mm centres using Gyproc Rhino-board 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 Rhino-tape to all joints and trim the ceiling using Gyproc Rhino-tape.
- C3: PAINT SUSPENDED ACOUSTIC TILES OR EQUAL AND APPROVED**
1200mm x 600mm x 15mm Gyproc Celotex Fin Plastered or Fire Rated OR EQUAL & APPROVED laid into Donn ceiling grid and secured into place using Donn Hold Down Clips @ 200mm c/c. Donn Wall Angle 146 fixed to the perimeter wall using fixings at 300mm centres. Donn T38 FR Main Tees @ 4mm thickness, 2150 gwg, coating locally manufactured, recycled content, SO 9001 & 1400) certification, at 1200 centres & Donn T38V (1200 long) Cross Tees at 600 centres. Supports 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 Sto2 3No. coats of PVA emulsion ceiling paint to latest SANS 1586 approved on 6mm thick light weight hemi-hydrate gypsum plaster on concrete slab soffits.

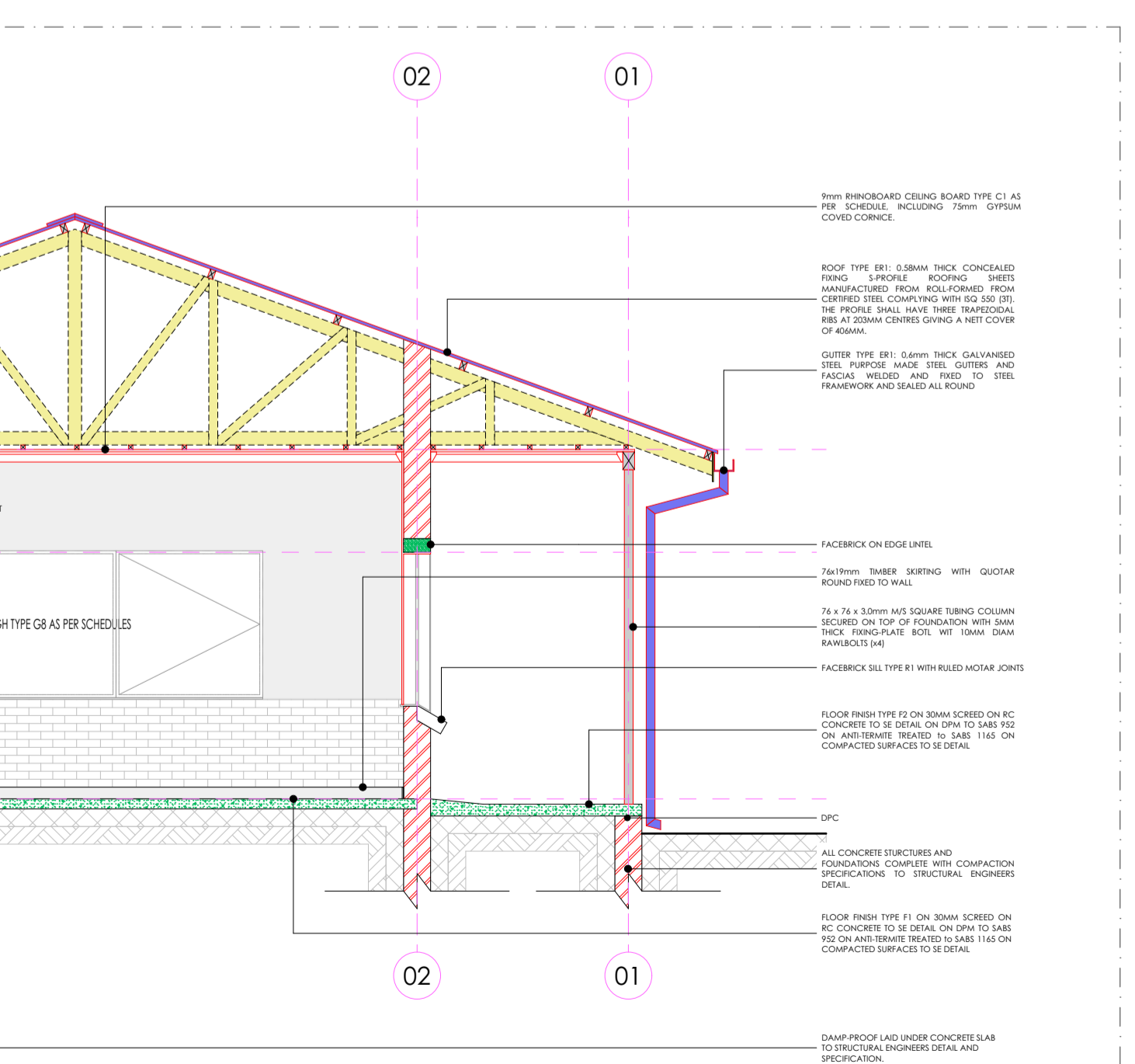
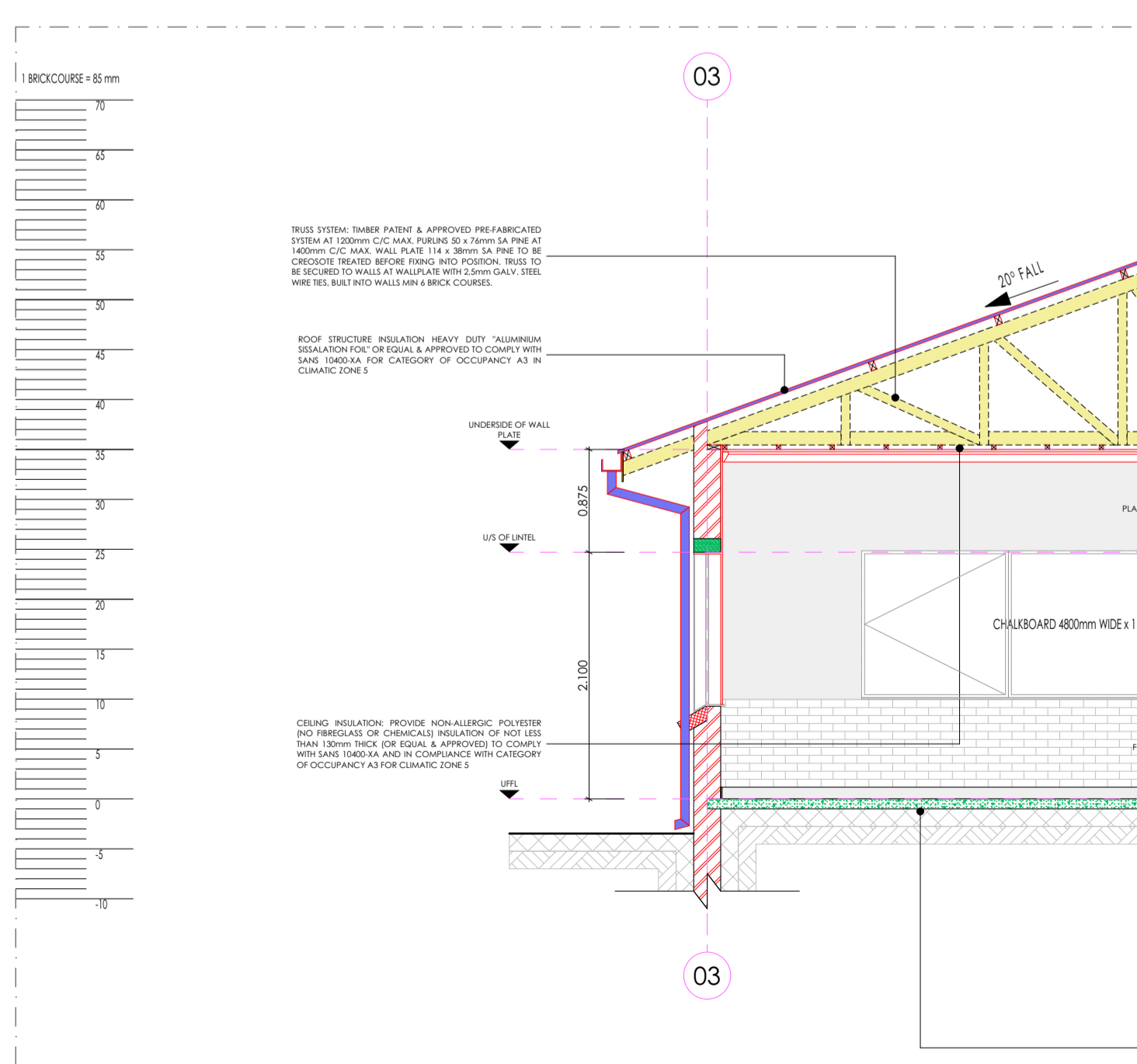
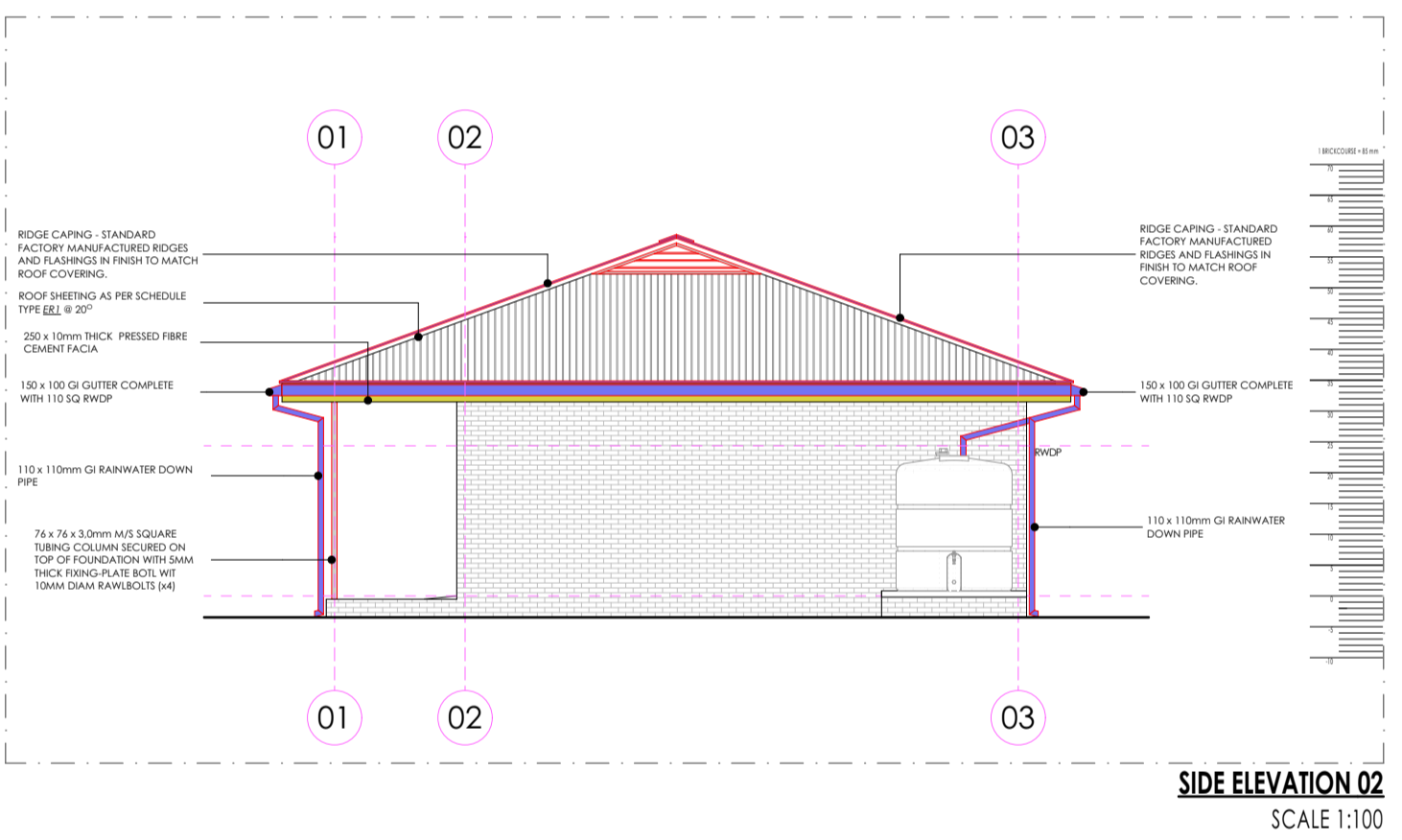
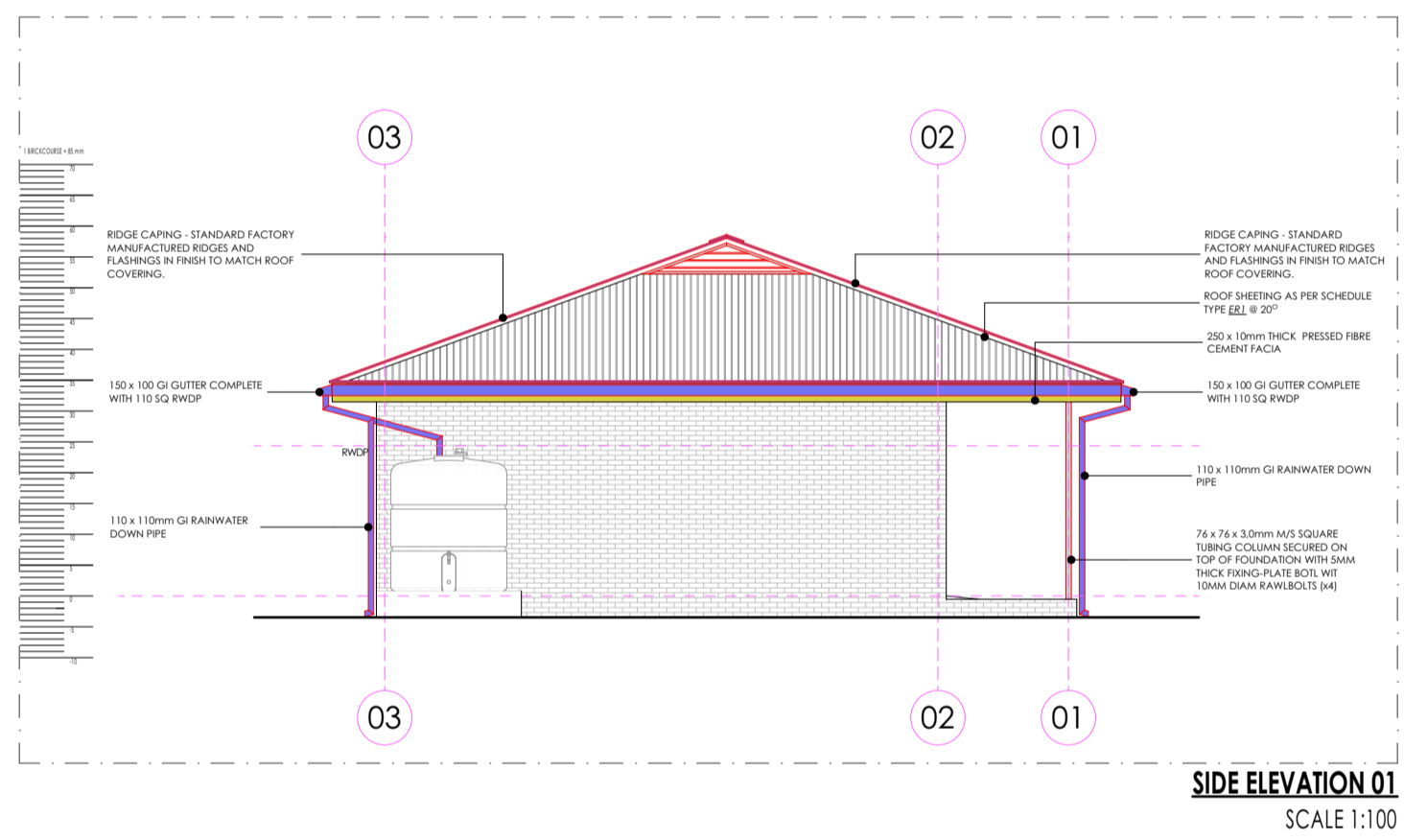
- ROOF COVERING AND INSULATION:**
- R1: EMBOSSED ROOFING SHEET (TWO SIDES)**
Roofing Sheets: 1.50mm thick concealed fixing roofing sheets manufactured from roll-formed from certified steel complying with ISO 9001 (T). The profile shall have three trapezoidal ribs at 200mm centering giving a net cover of 456mm. The rib height shall be 41mm and provide collars breaks. The middle rib shall have gaps of 280mm centers to ensure a positive double interlocking action at side-laps. Each pan shall incorporate two stiffener ribs. Profiled roofbeams to be coated on both sides with "Global Coat" or Chromosol Colour and laid on structural timber/steel structure incorporating all necessary accessories such as fixings and eave closes in strict compliance to manufacturer's instructions.
- Insulation:** SHALL EITHER BE: 1. where there are acoustic ceilings suspended above, a heavy duty Aluminium stasion foil shall be installed AND 2. where the steel work is exposed, a 50mm "Totoboard" manufactured from noncombustible glass fibres and thermo-setting resin binder supplied size 2400mm x 1200mm and 80kg/m³ and finished with white meltable foil.
- Galvanized Steel (GI) Gutter:** 150mm Wide x 100mm Deep x 0.6mm Eaves Gutter of Commercial Grade Steel With Class Z275 Galvanizing to Comply With SABS 934 or latest Revision Fixed to Painted Fibre Cement Facia Board Together with standard accessories discharging into Rainwater Downpipes.
- Downpipe:** 110 x 110 x 0.8mm Thick Commercial Grade Galvanized Steel Sheet With Class Z275 Galvanizing to Comply With SABS 934 or Latest Revision to be built into walls or cast in concrete columns laid to brickwork or steel including brackets and self-lapping screws to Manufacturer Installation instructions.
- Facia board:** 350 x 110 mm Fibre Cement Facia/Barge Board, Screw Fixed to Tuss Ends & Corner Butters With Countersunk Brass Screws. Repairs & Apply One Universal Undercoat & Two Coats Super Acrylic P.V.A.



DOOR SCHEDULE
SCALE 1:100



WINDOW SCHEDULE
SCALE 1:100



SANITARY SCHEDULE

- WC'S URINALS & SHOWER**
- 11: CERAMIC STANDARD WC (C/C) - 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 Thermo-Seal 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 blank flush plate.
- 12: CERAMIC PARALEGIC WC**
Vitreous china 90° outlet WC 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.
- 13: CERAMIC PARALEGIC WC (C/C) - 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 Thermo-Seal 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 passage access.
- 14: CERAMIC STANDARD WC (BACK INLET)**
Vitreous china 90° outlet back inlet WC 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.
- 15: CERAMIC STANDARD WC (C/C)**
Vitreous china 90° outlet WC to comply with SABS 497 Fitted complete with matching 7 litre pushbutton top dual flush cistern fitted with quality approved heavy duty Thermo-Seal seat and complete with all necessary fittings as per manufacturer's specifications and applicable SABS standards.
- 16: CERAMIC WALL HUNG URINAL**
Vitreous china 90° outlet wall hung urinal to comply with SABS 497. Supplied with suitable 38mm CP domical grating, CP top inlet spreader and 2 hanger brackets and fitted with exposed flush-valve, and suitable bottle trap chrome finish as per manufacturer's specifications and applicable SABS standards.
- S01: SHOWER**
2mm thick Enamelled steel shower tray 900x900x160 mm manufactured with anti slip pattern, with rounded internal corners, and 38 mm BSP grouted waste in corner position fitted with Shower set and complying with SABS 226 in compliance of approval.
• Glazed Shower Cubicle with access door as per standard supply with manufacturer and fixed to fit space configuration
• Overhead shower arm with wall flange.
• Chrome Plated Shower Head with adjustable connector
• Chrome Plated Split Shower Diverter Mixer Valve with sliding wall flanges and concealed connectors adjustable from 178mm to 203 mm centres. Shower tray to be recessed 50 mm into a 100mm high concrete plinth with exposed plinth face.
- WASH-HAND BASIN**
- R1: WASH & MIRROR TAP**
Vitreous china size 560 x 415mm rounded "Tuscany" OR EQUAL AND APPROVE basin to comply with SABS 497 with single tap hole configuration supplied with integrated overflow and chinistry hole through the centre semi-purchased supplied with a "Tuscany" pedestal and fitted with "Inca Ceram" Model# 15mm chrome plated tap with flanged backnut (code KM2102) meeting tap, 300-32 CP anti-bleed mixing tap, 300-32 CP anti-bleed mixing tap, 300 basin waste, 365/40 CP bottle trap, mounting kit and angle valves.
- R2: DISABLED BASIN**
400mm semi rounded lavatory basin to comply with SABS 497. In two top hole configuration fitted with 2 No. chrome plated Elbow action pillar-top, with 1/4" lum 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.
- R3: WHITE GLAZED PORCELAIN WASH (VANITY)**
Ceramic freecast size 450x350mm oval self-terminating vanity basin to comply with SABS 497 in one top hole configuration supplied without overflow and fitted with 1No. chrome plated tap with flanged backnut (code KM2102) meeting 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 unit with silicon beaded contact gaskets in strict accordance to manufacturer's specifications.
- R4: SMALL BASIN & 2 TAPSTRAY & SHOWER SET (FOR WORKSHOPS)**
Vitreous china size 450x300mm wash basin to comply with SABS 497 in 2-top hole configuration supplied with integrated overflow and chinistry hole with 2No. pillar-top, chrome plated anti-bleed plug with grange plug, sited 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.
- R5: URINAL BASIN & No. TAP (FOR LABS)**
Ceramic freecast heavy duty basin in one tap hole configuration to comply with SABS 497 and R16 hole plugged and fitted with 1No. pillar-top. Chrome Plated anti-bleed plug with spindle plug, sited 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 specifications.
- R6: MEDIC BASIN & FITTINGS (SICK BAY)**
Vitreous china 510 x 400mm semi rounded lavatory basin to comply with SABS 497. In two top hole configuration fitted with: 2 No. chrome plated Elbow action pillar-top, with 1/4" lum 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.
• Tapstock comprising 2No. rows of wall fix type K5 as per finishes schedule and grout in compliance to manufacturer's specifications and government standard specifications. Installation heights as indicated in the drawings.
- SINKS:**
- 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 956 fitted with: Approved Sink mixer-wall type, chrome plated swivel Outlet, adjustable and supplied with suitable accessories in accordance to manufacturer's specifications. Sink installation height = 900mm AFFL.
- X2: STAINLESS STEEL SINK**
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 956 fitted with: Approved Sink mixer-wall type, with chrome plated overall swivel Outlet, adjustable wall flanges and supplied with suitable accessories in accordance to manufacturer's specifications. Sink installation height = 900mm AFFL.
- X3: CERAMIC SINK**
Ceramic freecast 455 x 355 x 180 mm rectangular laboratory sink without overflow, with a centre end outlet, fitted to 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 300mm inset wash trough manufactured from grade 18/10 SS, stainless steel with rounded internal corners and provision for a 40mm dia. outlet. Fitted with Approved 2No. CP bibcoaps - plain extended chrome plated, complete with sliding wall flange, Un-bleed sink waste with back nut, plug with stirrup, chain and stay, CP, 1" top, with deep seal and cleaning eye. Rough brass. Sink installation height = 900mm AFFL. Cut out size 555 x 425mm.
- X5: DOUBLE WASH TROUGH (Inset & 2 No. TAPS)**
1200mm x 350 x 200mm Double end wash trough manufactured from grade 304 (18/10) SS, stainless steel with rounded internal corners and provision for a 40mm dia. outlet, fitted with: Approved 2No. wall type biblaps, with Swivel Outlet, adjustable wall flanges and exposed adjustable connections. CP, Un-bleed sink waste with back nut and plug with stirrup, CP, Double drain back rubber deep seal 1" top. Sink mounted on 2No. 25mm square S5 gallow brackets, front leg and adjustable foot piece of height of 915mm AFFL.

- SANITARY ACCESSORIES**
- K1: SS TOILET ROLL HOLDER - 2 ROLL**
Standard stainless steel toilet roll holder (2 roll) 150mm width x 270mm high 275mm depth Toilet Roll Holder manufactured from 18/10 Stainless Steel, surface Sata 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 beveled edges 4 times folded for and fixed, with chromium plated dome-headed mirror screws
- K3: WASTE BIN**
280W x 525H x 200D Waste bin manufactured from 18/10 Stainless Steel, Surface Sata Finish, Material Thickness 1.5mm, including Screws, dowels and all necessary accessories in accordance to manufacturer's specifications.
- K4: SANITARY BIN (PLASTIC)**
190mm x 200mm x 600mm Plastic Sanitary Pedal Bin with capacity of 100 Litres 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 BARS-PARALEGIC**
Stainless steel 914 x 90 x 20mm diameter wall grab rail in satin polished finish complete with SS fixing screws and plastic wall plugs, installed as per manufacturer's instructions.
- K7: GRAB BARS (RIGHT-HAND)-PARALEGIC**
Stainless steel 914 x 90 x 20mm diameter wall grab rail and side toilet grab rail with 450mm high centre flange, to satin polished finish complete with SS fixing screws and plastic wall plugs, installed as per manufacturer's instructions.
- K8: PAPER TOWEL DISPENSER**
300mmWx350mmX230mmD 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 (ISH)-WALL MOUNTED**
115mm x 200H x 110D Stainless steel hand soap dispenser. Complete with screws, locking key, and all necessary accessories and installed in accordance to manufacturer's specifications.
- K10: ALUMINIUM COAT HOOKS (MULTITRACK)**
800mm Wide x 220mm High x 90mm High Aluminium Multitrack Hat and Coat Hook in multi-track two hooks Configuration With Anodised Silver Finish Complete with Screws
- K11: HAND DRYER (Hands free)**
As per Electrich Engineers specification
- 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 architect's drawing
- K13: SHOWER CURTAIN RAIL (Single)**
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**
- G1: DOOR PROTECTOR**
200mm wide PVC Door Protector manufactured in high impact resistant rigid PVC (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: PROTECTOR SCREENS**
Full cover PVC Screen (Screen size 2340 x 1830mm) with wall-mounted code S0400 Keystone Brackets Adjustable Set of 2, size 300mm. To be supplied complete with all accessories, and fitted in strict accordance with manufacturer's instructions.
- G3: FINBOARD 1500W X 1000H**
Finboard size 1500mm H x 1000mm W comprising of laminated self board core priming material beaded all round with anodised aluminium channel surround milled at the corners. To be fitted complete with fixing brackets, screws and wall plugs at 900mm above floor level.
- G4: FINBOARD 300W X 1200H**
Finboard size 1200mm H x 300mm W comprising of laminated self board core priming material beaded all round with anodised aluminium channel surround milled at the corners. To be fitted complete with fixing brackets, screws and wall plugs at 900mm above floor level
- G5: WINDOW NORMAL BUNDS (vertical blinds)**
127 mm vertical deco blinds with anodised aluminium headrail fitted with colour coordinated insert. All runners to be wheeled and fitted with individual clutch mechanism. All runners to be connected by stainless steel links. The 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 ball, including connectors to downpipes.
- G7: 36 FLOOR EXPANSION JOINT COVER**
Concealed heavy-duty fibreglass fibre movement joint, 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**
Vitex system 1000 standard WHITEBOARD or EQUAL & APPROVED vitreous enameled steel utility school chalkboards wall-mounted size 480mm x 1140mm high manufactured in accordance with SABS Standard C16 362004 Edition 4 and suitable for Class 1 Heavy Duty applications, as defined therein. Enamel steel utility chalk board surfaces to be matt and freely structured, olive green in colour (Vitex Colour Reference - Chalk Board Green LM19772), 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 with the manufacturer's instructions.

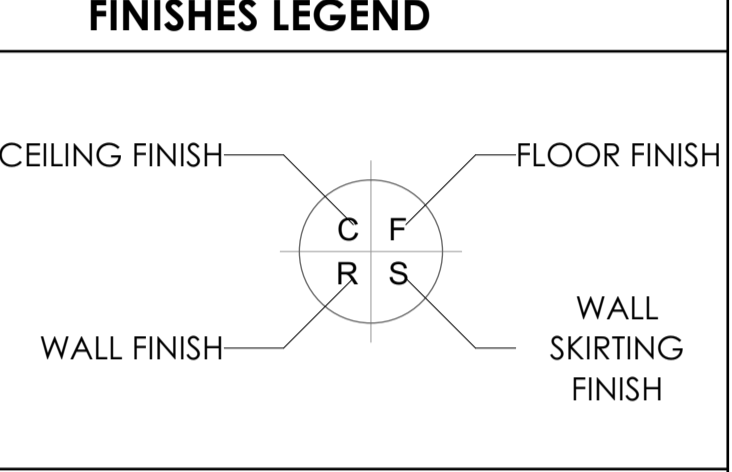
ISSUED FOR TENDER

- LEGEND**
- 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

NOTES
ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE STATED

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



SIGNATURE TABLE

DISCIPLINE	SIGN	DATE
CLIENT		
PLANNING EXAMINER		
FIRE CONTROL		
ENVIRONMENTAL		
ROADS & STORMWATER		
WATER & SANITATION		

REV. NO.	DATE	FIRST ISSUE FOR TENDER	DESCRIPTION
0	JUL 21	FIRST ISSUE FOR TENDER	

REVISIONS



DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE

VUTIVI PRIMARY - 933 303 101

RESTORATIVES, REPAIRS & ADDITIONS

DOCUMENTATION & PROCUREMENT

ARCHITECTURAL 4

WORK DESCRIPTION - SUB DIVISION BLOCK PG 01 - 02 CLASSROOM

SECTION | SIDE ELEVATION | SCHEDULES

DRG. NO.	DATE	DESIGN	AS SHOWN	NOV 2019	201-03	NA	03/03	SMIN	ITEM No.	PR. NUMBER	DRAWN	CHECK

CONSULTANT

TECTURA PROJECTS

ALSO IN NAIROBI, KENYA AND GABORONE, BOTSWANA

CONTRACTOR

CAD SYSTEM	AUTOCAD	FILE NAME	REV
SIZE	PROJECT NUMBER		
A1	LDPW - PROF/16002/F18		0

FINISHES LEGEND

FLOORS:

F1: PORCELAIN TILES - MATI (CONTOUR RESISTANT & ANTI-SLIPPERY)

400x400 11.5mm kiln-fired floor tiles or similar approved by architects, fixed with adhesive, painted with finished waterproof jointing compound. Grouting to be grey. Tiles should have expansion joint and aluminium edging strip.

F2: PORCELAIN TILES - MATI

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 manufacturer's 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: CARPETILES

500mm x 500mm . 1005 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 54824 on wira test and ISO body test at less than 20v at 25% RH on static electricity. Colour and pattern to architects approval.

F4: CEMENT SAND SCREED

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

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: GRANULITIC FINISH

22mm thick unsealed Granulitic 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 50 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 VINYL SHEETING (CORROSION RESISTANT/ANTI-SLIPPERY)

2.5mm Thick Heavy Traffic Use, Corrosive Resistant & Anti-Slippery Vinyl Sheeting Semi-Flexible To Comply With SABS 584. With Static Dissipative Properties Throughout Thickness, Engineered for ISO 9001 (anti-static) Protection Vinyl Sheet, Laid on Self-Levelled Smooth Screed glued with conductive 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 PFE Details installed in All Duct Chambers Accommodating Sanitary Services.

SKIRTING:

S1: HARDWOOD OR EQUAL AND APPROVED

18 x 25mm x 20mm Moulded Hardwood Skirting to comply with SANS 1099, fixed to walls in long lengths with splayed heading joints and mitred corners with screws and plugs at centres not exceeding 400mm, and fixed with a 19mm x 19mm quadrant beading. The skirting to be varnished with 3No. coats of egg shell clear varnish to comply with SABS/SANS 381 type 1.

S2: CERAMIC TILE SKIRTING

60mm 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 manufacturer's instructions and SABS specification, with concave base and straight top. 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

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

WALL FINISHES:

R1: FACE BRICK

F&X face brick in common running bond to comply with SABS 227 and forming part of the structural wall.

R2: EMULSION (PVA) PAINT - FULL HEIGHT

2 no. coats of PVA matt finish emulsion paint to SABS 1584 applied on plastered surface primed and with 1 no. coat undercoat to SABS 681 grade1, in accordance to manufacturer's instructions.

R3: ALKYLID (ENAMEL) PAINT

2 no. coats matt (egg shell) finish alkylid (enamel) paint to SABS 630, type 2 applied on plastered surfaces with 1 no coat alkali resistant 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 to the latest SABS Standards.

CEILING AND CORNICE:

C1: 7mm GYPSUM BOARDS FLUSH PLASTERED CEILINGS OR EQUAL AND APPROVED

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

C2: FIBRE CEMENT BOARDS (H-JOINTED)

6.4mm thick GypCel 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 Ek 38mm x 50mm timber bracing 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 Calceus Pli Prefinished or Fire Rated OR EQUAL & APPROVED laid into Dorn ceiling grid and secured into place using Dorn Hold Down Clips @ 200mm c/c. Dorn Wall Angle M4 fixed to the perimeter wall using fixings of 300mm centres. Dorn T38 FR Main Tees @ 4mm thickness, 2150 g/m2, coating, locally manufactured, recycled content, ISO 9001 & 14001 certification) at 1200 centres & Dorn T38V (1200 long) Cross Tees at 600 centres. Suspend main tees @ 1200mm c/c using Dorn Hanger Strap 19mm suitably fixed to the building structural members. Dorn 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 Dorn 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 1584 approved on 6mm thick light weight hemi-hydrate gypsum plaster on concrete slab soffits.

ROOF COVERING AND INSULATION:

R1: EMBOSSED ROOFING SHEET (TWO SIDES)

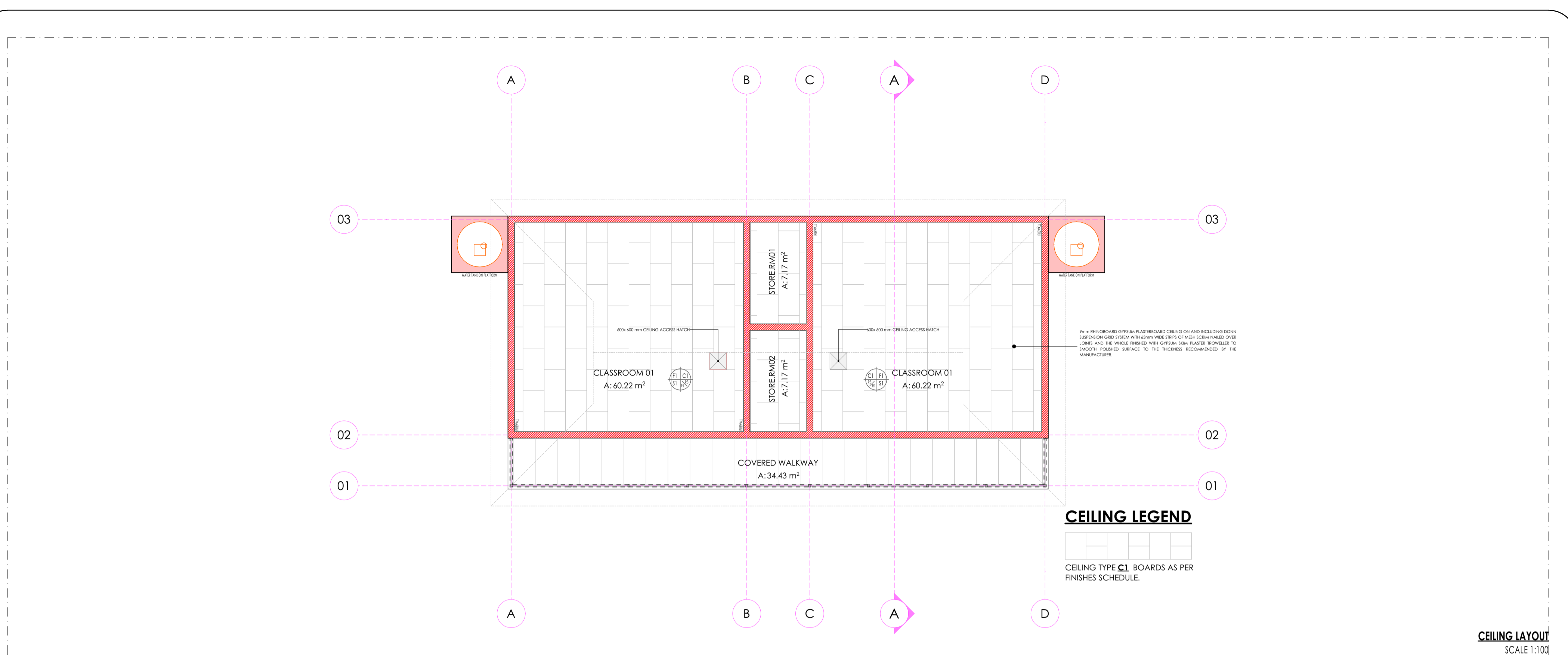
Roofing Sheets: 1.58mm thick concealed fixing roofing sheets manufactured from roll-formed from certified steel complying with ISO 9001. The profile shall have three trapezoidal ribs at 200mm centres giving a total cover of 456mm. The rib height shall be 41mm and provide cavity breaks. The main rib shall have an 89mm centres to ensure a positive double interlocking action at side-laps. Each pan shall incorporate two stiffener ribs. Profiled roof sheets 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 fixings and eave closes in strict compliance to manufacturer's instructions.

Insulation: SHALL EITHER BE: 1. where there are acoustic ceilings suspended board, a heavy duty 'Aluminium stonafon 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/m3 and finished with white metalized foil.

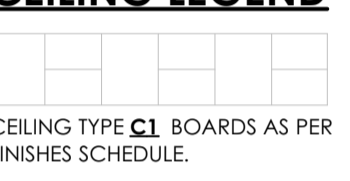
Galvanized Steel (GI) Gutter: 150mm Wide x 100mm Deep x 0.6mm Eaves Gutter of Commercial Grade Steel With Class Z275 Galvanizing To Comply With SABS 934 or latest Revision Fixed To Painted Fibre Cement Facia Board Together with standard accessories discharging into Rainwater Downpipes.

Downpipe: 110 x 110 x 0.8mm Thick Commercial Grade Galvanized Steel Sheet With Class Z275 Galvanizing To Comply With SABS 934 or Latest Revision to be built into walls or cast in concrete columns fixed to brickwork or steel including brackets and self-lapping screws to Manufacturer Installation Instructions.

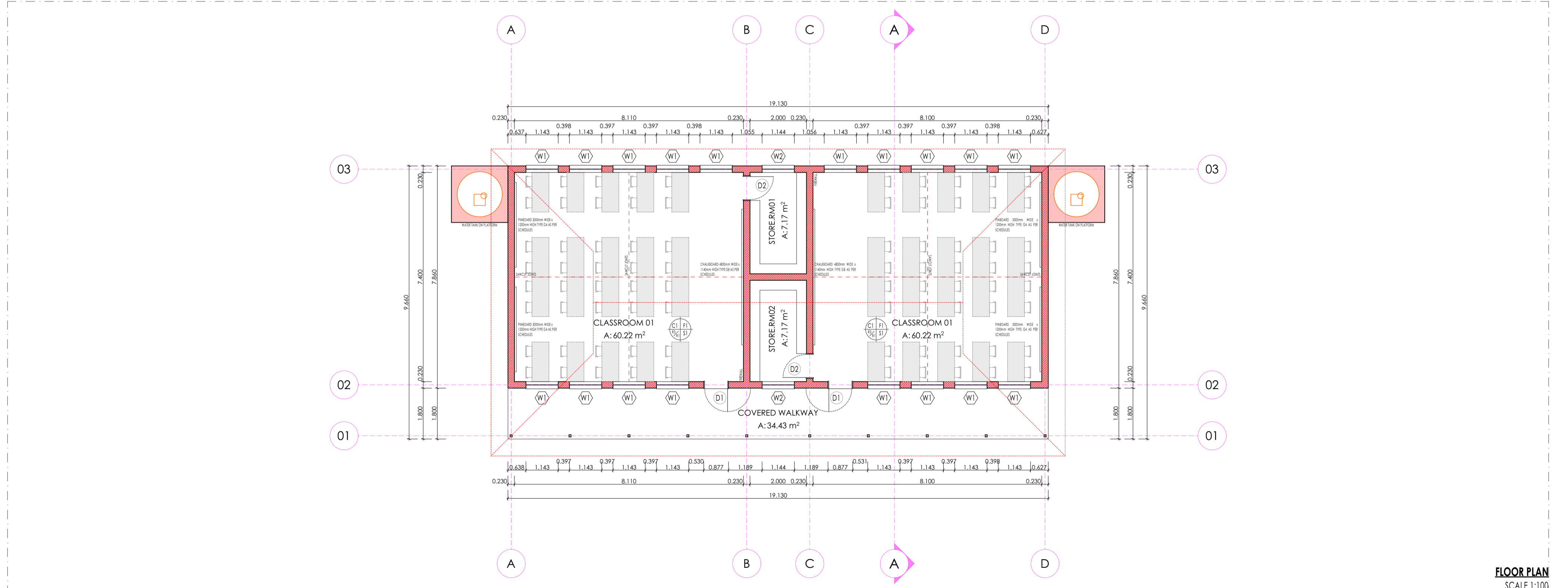
Facia board: 250 x 10 mm Fibre Cement Facia/Barge Board. Screw Fixed To Tuss Ends & Counter Batten With Countersunk Brass Screws. Prepare & Apply One Universal Undercoat & Two Coats Super Acrylic P.V.A.



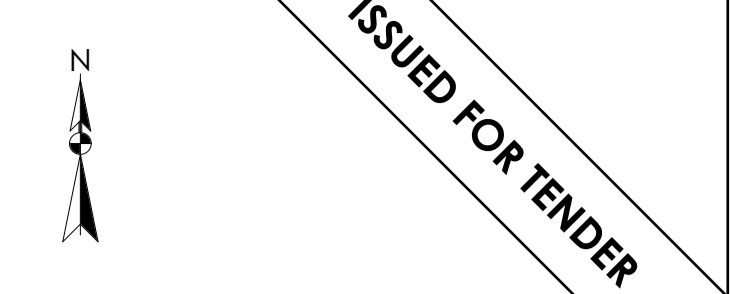
CEILING LEGEND



CEILING LAYOUT SCALE 1:100

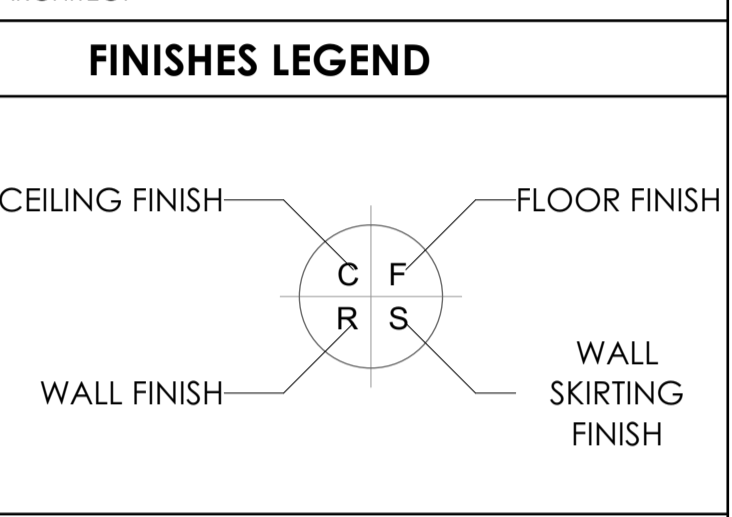


FLOOR PLAN SCALE 1:100



LEGEND table with symbols for new walls, existing walls to be retained/demolished, new fixtures, and items to be repaired.

NOTES: ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE STATED. 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.



SIGNATURE TABLE table with columns for DISCIPLINE, SIGN, and DATE.

REVISIONS table with columns for REV. NO., DATE, and DESCRIPTION.

Project information block including LIMPOPO Provincial Government logo, DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE, VUTVI PRIMARY - 933 303 101, ARCHITECTURAL 4, BLOCK PG 02 - 02 CLASSROOM, FLOOR PLAN & CEILING PLAN, CONSULTANT TECTURA PROJECTS, and CONTRACTOR information.

FINISHES LEGEND

FLOORS:

F1: FLOOR FINISH - MATT (CONCRETE RESISTANT & ANTI-SLIPPERY)
420 x 420 11.5mm kiln-dried floor tiles or similar approved by architects, fixed with adhesive, painted with finished waterproof jointing compound. Grouting to be grey, tiles should have expansion joint and aluminium edging strip.

F2: FLOOR FINISH - 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 manufacturer's instructions and SABS specification. Fittings to include, ribbed angle files 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 x 1005 PFK 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 54824 on wira test and 50 body test at less than 2kV at 25% RH on static electricity. Colour and pattern to architects approval.

F4: CEMENT SAND SCREED
30mm thick polished cement sand screed with 13mm Stone Nominal aggregate for Topping to comply with SABS 1083 or latest revision for concrete.

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: GRANULITIC FINISH
22mm thick unadorned Granulitic 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 50 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 VINYL SHEETING (CORROSION RESISTANT/ANTI-SLIPPERY)
2.5mm Thick Heavy Traffic Use, Corrosive Resistant & Anti-Slippery Vinyl Sheeting Semi-Flexible To Comply With SABS 584. With Static Dissipative Properties Throughout Thickness, Engineered for ESD or ID (Anti-static) Protection Vinyl Sheet, Laid on Self-Levelled Smooth Screed glued with conductive 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 PFE Details installed in All Duct Chambers Accommodating Sanitary Services.

SKIRTING:

S1: HARDWOOD OR EQUAL AND APPROVED
18 x 25mm x 20mm Moulded Hardwood Skirting to comply with SANS 1099, fixed to walls in long lengths with splayed heading joints and mitred corners with screws and plugs at centres not exceeding 400mm, and fixed with a 19mm x 19mm quadrant beading. The skirting to be varnished with 3No. coats of egg shell clear varnish to comply with SABS/SANS 381 type 1.

S2: CERAMIC TILE SKIRTING
600mm wide x 100mm high x 7mm thick matt porcelain tile to comply with SABS 1449 laid with approved adhesives and grout on 22mm thick screeds in strict compliance to manufacturer's instructions and SABS specification, with cove base and height top. Complete with corner and top trims. Fittings to include, ribbed angle files where there is change of level. Colour and pattern to architects approval.

S3: CEMENT SAND SCREED
75 mm high x 20 mm thick hardened cement sand screed skirting covered at 50 mm dia. to form a continuous joint with the adjoining screed floor finish to FA's approval. All to be manufactured and installed in strict compliance With SABS 1083 or latest revision.

WALL FINISHES:

W1: FACE BRICK
PFK face brick in common running bond to comply with SABS 227 and forming part of the structural work.

W2: EMULSION (PVA) PAINT - FULL HEIGHT
2 No. coats of PVA matt finish emulsion paint to SABS 1584 applied on plastered surface primed and with 1 no. coat undercoat to SABS 681 grade 1, in accordance to manufacturer's instructions.

W3: ALKYD (ENAMEL) PAINT
2 no. coats matt (egg shell) finish alkyd (enamel) paint to SABS 430, type 2 applied on plastered surfaces with 1 no coat alkali resistant primer to SABS 1416 and 1 no. coat undercoat to SABS 681 grade 1, in accordance to manufacturer's instructions.

W4: GLAZED CERAMIC WALL TILES / ENAMEL PAINT COAT
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 "R2" To Comply with SABS 430 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.

W5: 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: 7mm GYPSUM BOARDS FLUSH PLASTERED CEILINGS OR EQUAL AND APPROVED
"GypCel Classic" gypsum plasterboard ceiling EQUAL & APPROVED consisting of 1 layer Gyproc RhinoBoard 9mm (locally manufactured, ISO 9001 & 14001 certification, recycled paper content, Eco-specifier listing) fixed to timber bracing installed at maximum 300mm centres using Gyproc RhinoBoard Sharp Point Grabber Screws 32mm at maximum 150mm centres. Apply Gyproc RhinoTape to all joints and skim the ceiling using Gyproc RhinoLite.

C2: FIBRE CEMENT BOARDS (H-JOINTED)
6.4mm thick GypCel Prestige 5 fibre cement ceiling boards or EQUAL & APPROVED consisting of 1 layer Gyproc RhinoBoard 9 mm (locally manufactured, ISO 9001 & 14001 certification, recycled paper content, Eco-specifier listing, non-combustible to SANS 10177-5) fixed to EK 38mm x 50mm timber bracing 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 Calcelex PH Prefinished or Fire Rated 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 @ 4mm thickness, 2150 g/m² 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 Stud" 3No. coats of PVA emulsion ceiling paint to latest SANS 1584 approved on 6mm thick light weight hemi-hydrate gypsum plaster on concrete slab soffits.

ROOF COVERING AND INSULATION:

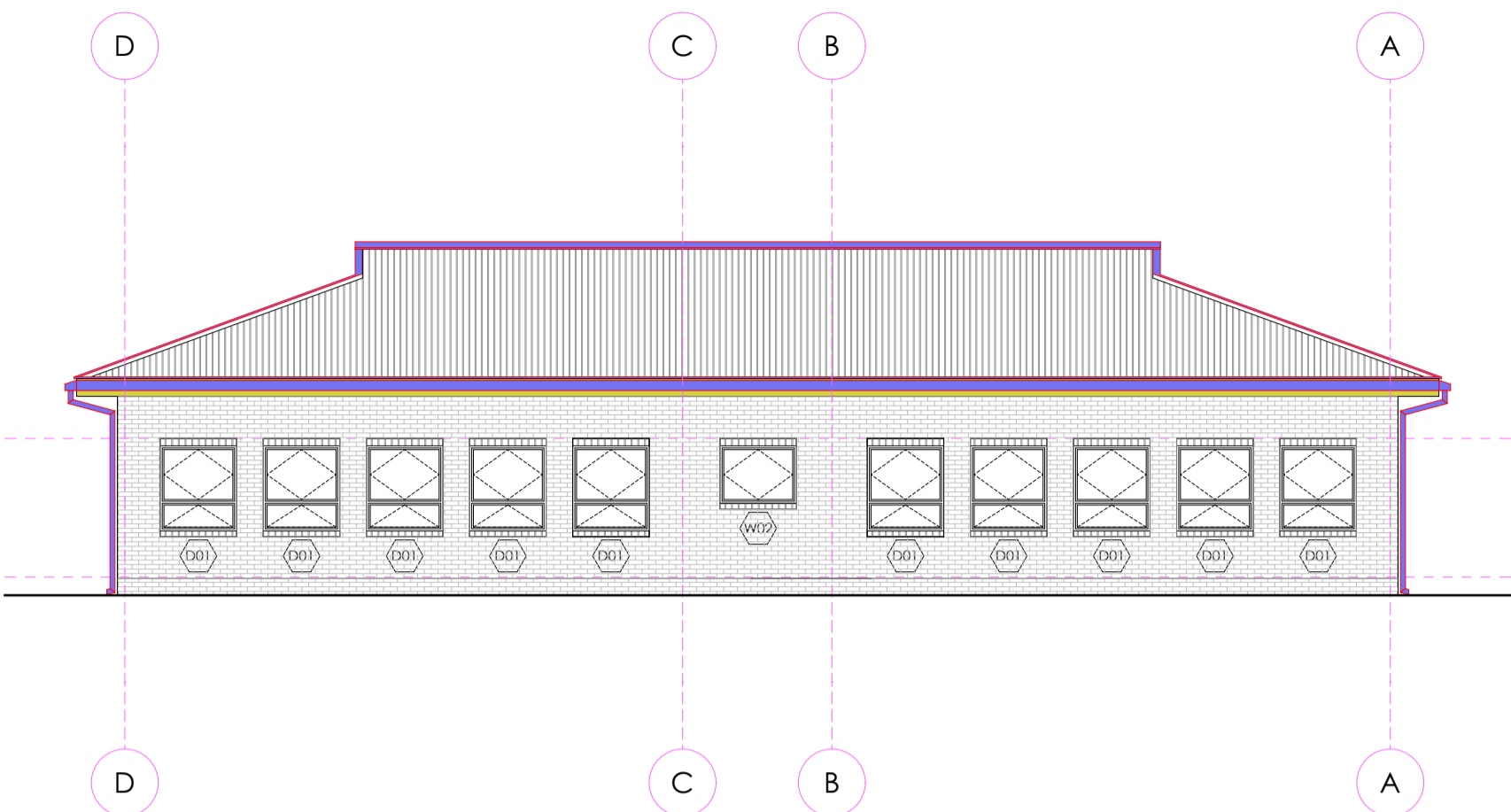
R1: EMBOSSED ROOFING SHEET (TWO SIDES)
Roofing Sheets: 1.58mm thick concealed fixing roofing sheets manufactured from roll-formed from certified steel complying with ISO 530 (E). The profile shall have three trapezoidal ribs at 200mm centres giving a net cover of 456mm. The rib height shall be 41mm and provide cavity breaks. The male rib shall have gaps of 28mm centres to ensure a positive double interlocking action at side-laps. Each pan shall incorporate two stiffener ribs. Profiled roof sheets 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 fixings and eave closes in strict compliance to manufacturer's instructions.

Insulation: SHALL EITHER BE: 1. where there are acoustic ceilings suspended board, a heavy duty "Aluminium station 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/m³ and finished with white metalized foil.

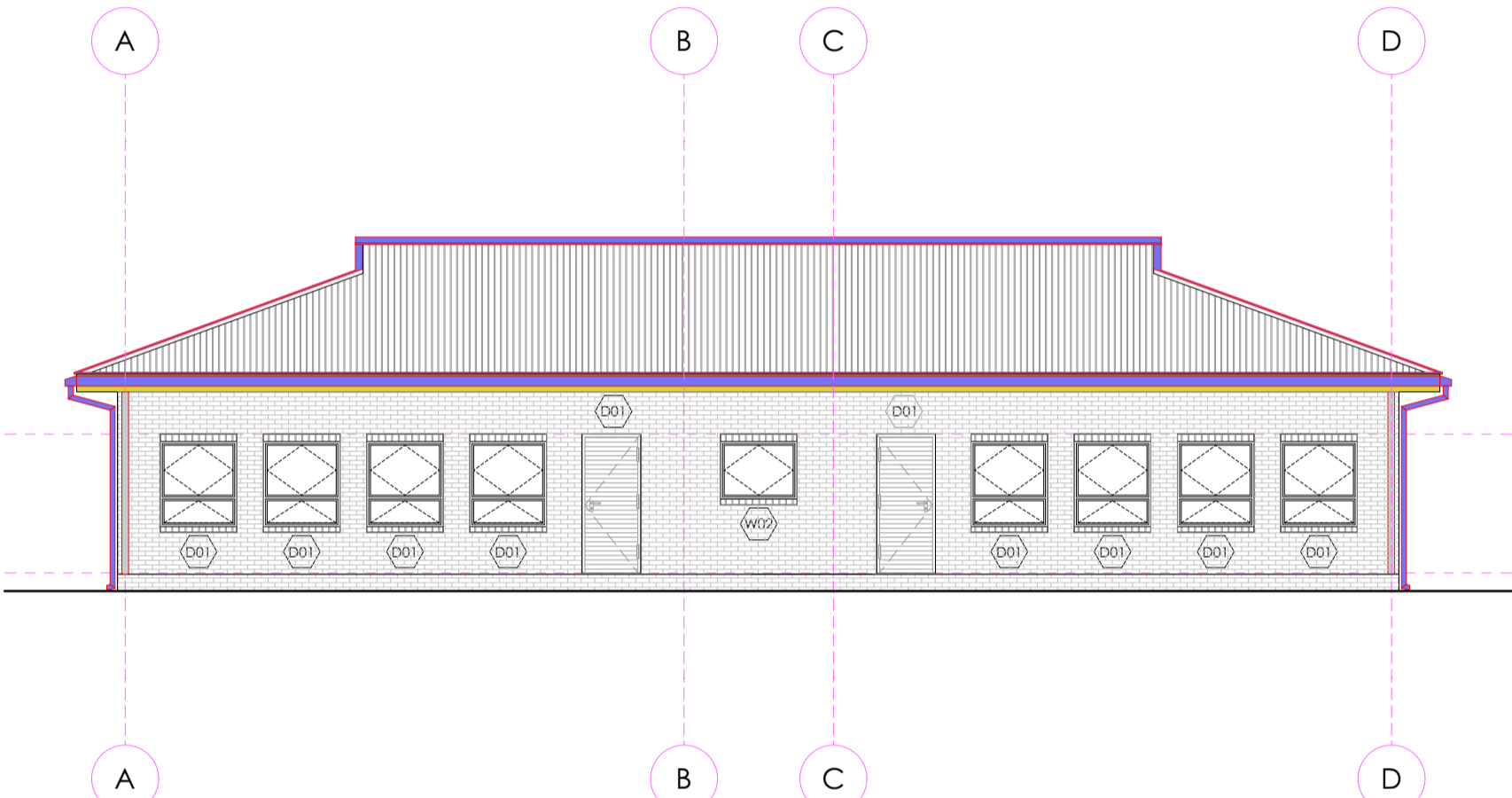
Galvanized Steel (GI) Gutter: 150mm Wide x 100mm Deep x 0.6mm Eave Gutter of Commercial Grade Steel With Class Z275 Galvanizing To Comply With SABS 934 or latest Revision Fixed To Painted Fibre Cement Facia Board Together with standard accessories discharging into Rainwater Downpipes.

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

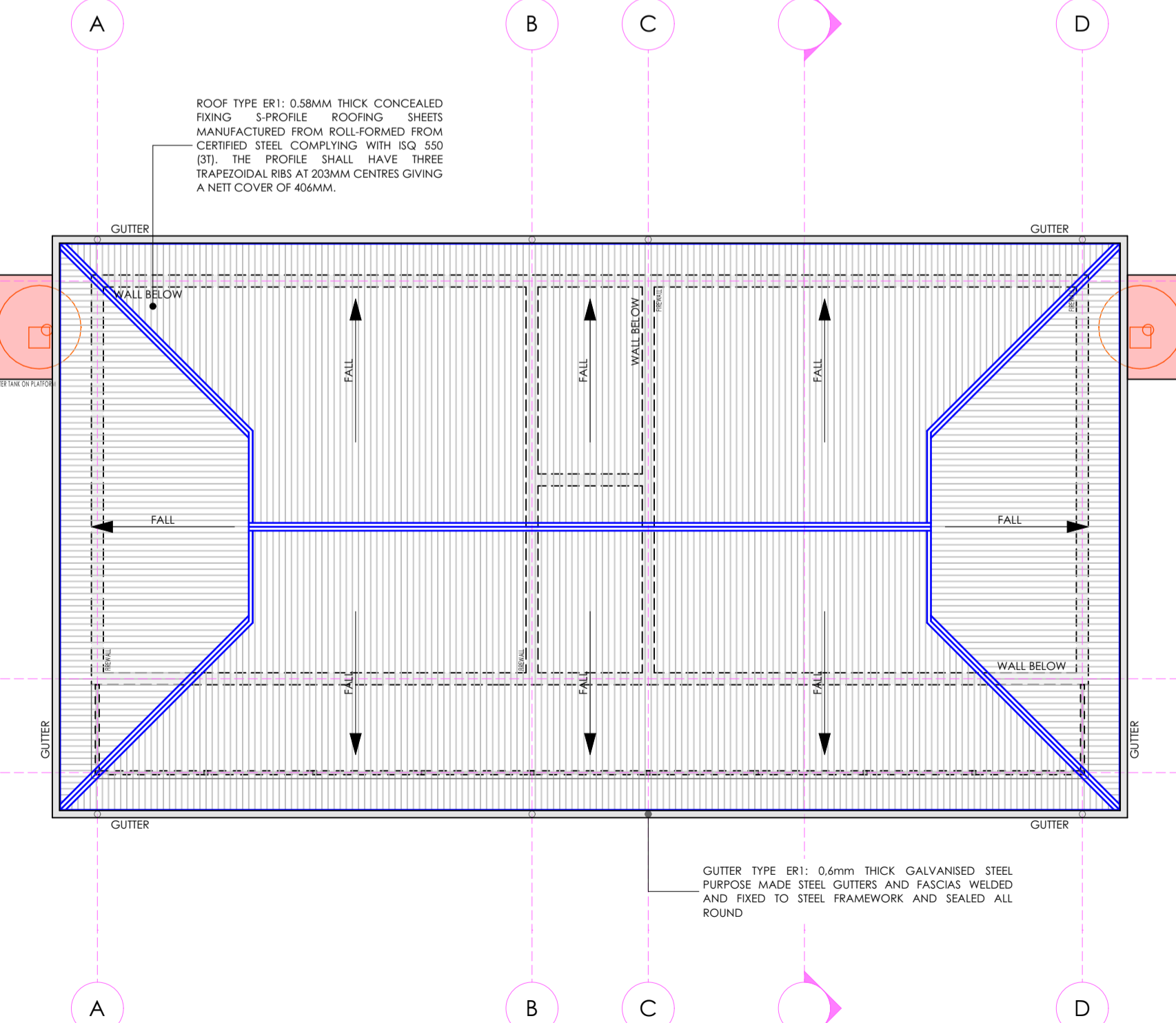
Facia board: 250 x 110 mm Fibre Cement Facia/Barge Board, Screw Fixed To Tuss Ends & Counter Batten With Countersunk Brass Screws. Prepare & Apply One Universal Undercoat & Two Coats Super Acrylic F.V.A.



REAR ELEVATION
SCALE 1:100



FRONT ELEVATION
SCALE 1:100



ROOF PLAN
SCALE 1:100

ISSUED FOR TENDER

LEGEND

- 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

NOTES
ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE STATED
DIMENSIONS TO BE READ, NOT TO SCALED FROM THIS DRAWING
CONTRACTORS TO CONFIRM ALL DIMENSIONS ON SITE BEFORE CONSTRUCTION COMMENCES & ANY DISCREPANCY TO BE REPORTED TO THE PROJECT ARCHITECT

FINISHES LEGEND

CEILING FINISH	C	F	FLOOR FINISH
WALL FINISH	R	S	WALL SKIRTING FINISH

SIGNATURE TABLE

DISCIPLINE	SIGN	DATE
CLIENT		
PLAN EXAMINER		
FIRE CONTROL		
ENVIRONMENTAL		
ROADS STORMWATER		
WATER & SANITATION		

REVISIONS

REV. NO.	DATE	DESCRIPTION
0	JUL 21	FIRST ISSUE FOR TENDER

LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE
INSTITUTION

VUTVI PRIMARY - 933 303 101

RESTORATIVES, REPAIRS & ADDITIONS
CONTRACT - SECTION

DOCUMENTATION & PROCUREMENT
DISCIPLINE: ARCHITECTURAL, 4
WORK DESCRIPTION - SUB DIVISION: BLOCK PG 02 - 02 CLASSROOM

ROOF PLAN | FRONT & REAR ELEVATION

DRG No.	202-02	02/03	ITEM No.
DESIGN	NA	SMIN	DRAWN
SCALE	AS SHOWN	T.M	CHECK

DATE	RESPONSIBLE PROFESSIONAL	PR. NUMBER
NAME	SIGN	
NOV 2019	T. MANYADZA	P/Arch 43981757

DRAWING CO-ORDINATED

CONSULTANT
TECTURA PROJECTS

ALSO IN NAIROBI, KENYA AND GABORONE, BOTSWANA

CONTRACTOR

CAD SYSTEM	AUTOCAD	FILE NAME	
SIZE	PROJECT NUMBER	REV	
A1	LDPW - PROF/16002/F18	0	

FINISHES LEGEND

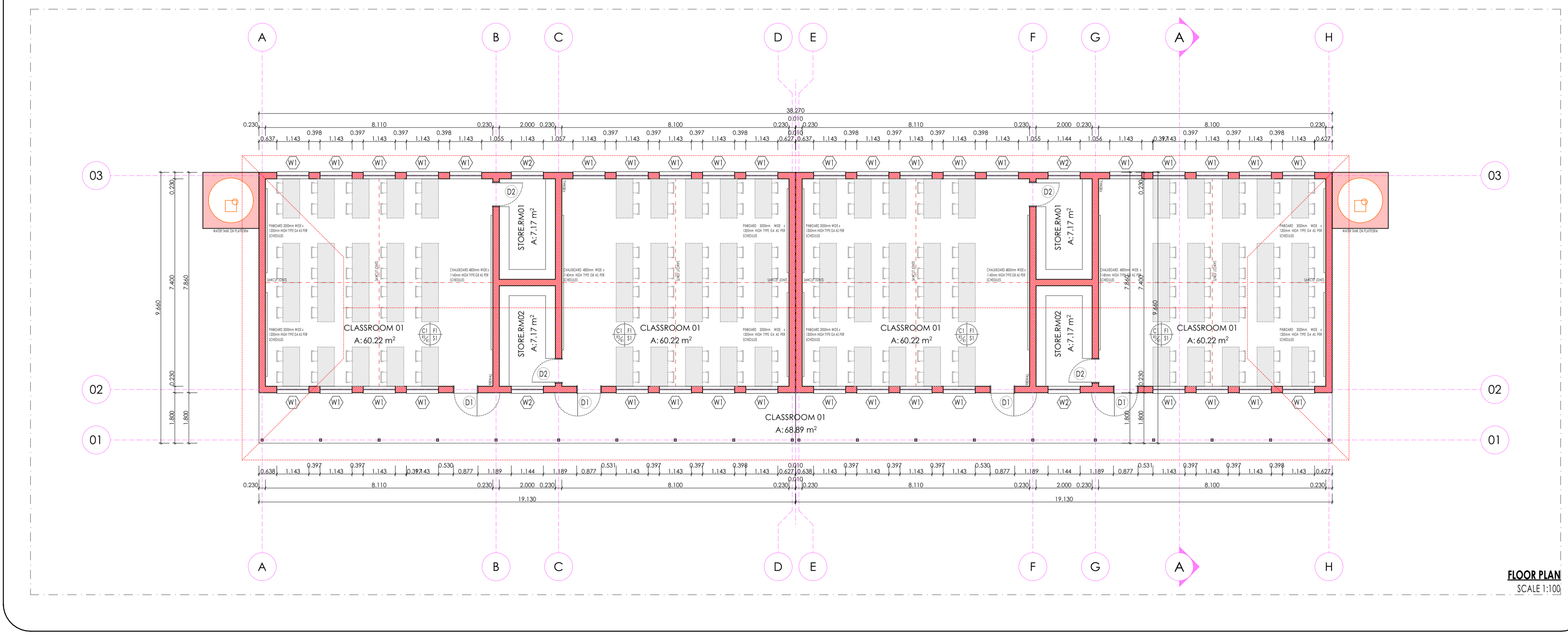
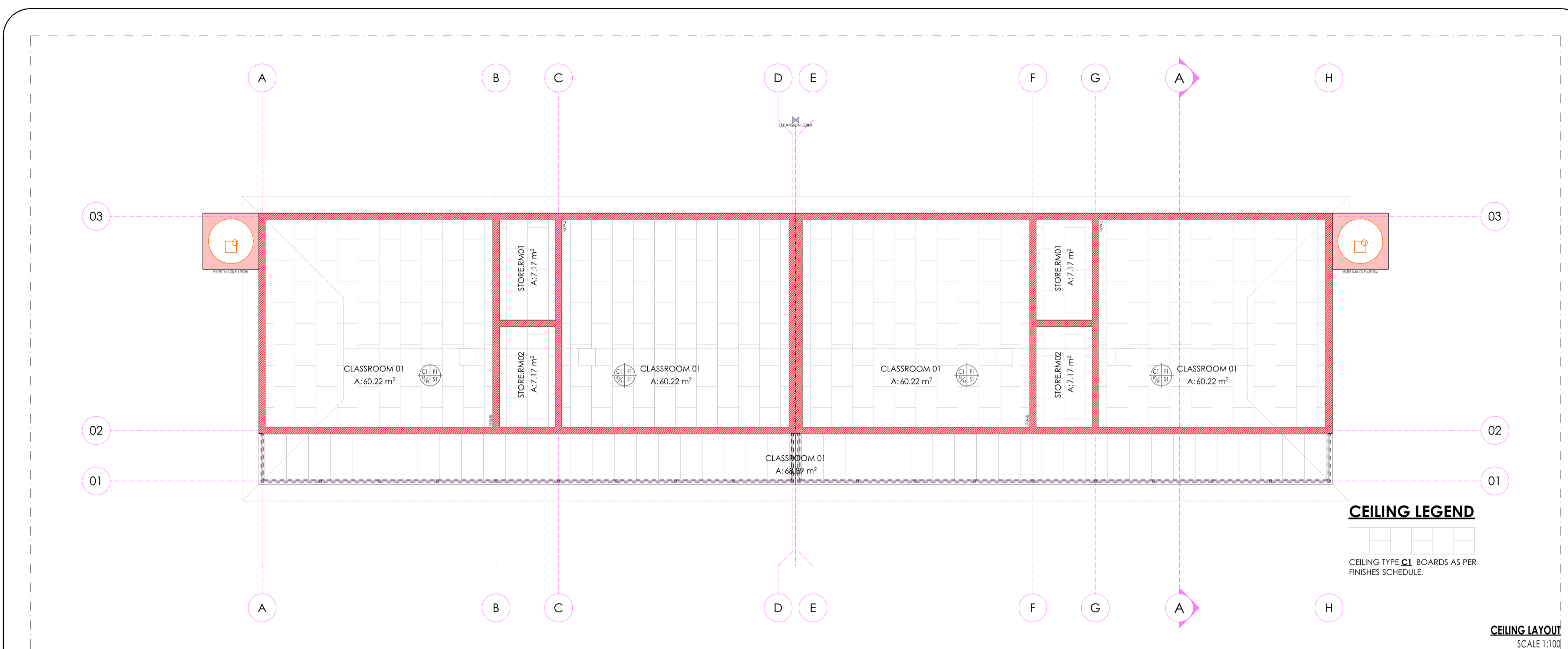
- FLOORS:**
- F1: PORCELAIN TILES - MATI (CONTOUR RESISTANT & ANTI-SLIPPER)**
420x420 11.5mm kiln-fired floor tiles or similar approved by architects, fixed with adhesive, painted with finished waterproof jointing compound. Grouting to be grey. Tiles should have expansion joint and aluminium edging strip.
 - F2: PORCELAIN TILES - MATI**
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 manufacturer's instructions and SABS specification. Fittings to include, ribbed angle files 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: CARPETILES**
500mm x 500mm . 1005 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 54824 on wira test and ISO body test at less than 20v at 25% RH on static electricity. Colour and pattern to architects approval.
 - F4: CEMENT SAND SCREED**
30mm thick polished cement sand screed with 13mm Stone Nominal aggregate for Topping to comply with SABS 1083 or latest revision for concrete.
 - 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**
22mm thick finished 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 50 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 VINYL SHEETING (CORROSION RESISTANT/ANTI-SLIPPERY)**
2.5mm Thick Heavy Traffic Use, Corrosion Resistant & Anti-Slippery Vinyl Sheeting Semi-Flexible To Comply With SABS 584. With Static Dissipative Properties Throughout Thickness, Engineered for ISO x ISO (anti-static) Protection Vinyl Sheet. Laid on Self-Levelled Smooth Screed glued with conductive 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, Corrosion resistant & Anti-Slippery.
 - F9: GRAVEL FINISH ON SAND LAYER**
32mm Gravel On Compacted Sand Layer Base as Per PEE Details installed in All Duct Chambers Accommodating Sanitary Services.

- SKIRTING:**
- S1: HARDWOOD OR EQUAL AND APPROVED**
18 x 15mm x 20mm Moulded Hardwood Skirting to comply with SANS 1099, fixed to walls in long lengths with splayed heading joints and mitred corners with screws and plugs at centres not exceeding 400mm, and fixed with a 19mm x 19mm quadrant bedding. The skirting to be varnished with 3No. coats of egg shell clear varnish to comply with SABS/SANS 381 type 1.
 - S2: CERAMIC TILE SKIRTING**
600mm wide x 102mm 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 manufacturer's instructions and SABS specification, with one base and height top. Complete with corner and top trims. Fittings to include, ribbed angle files where there is change of level. Colour and pattern to architects approval.
 - S3: CEMENT SAND SCREED**
75 mm high x 20 mm thick hardened cement sand screed skirting covered at 50 mm dia. to form a continuous joint with the adjoining screed floor finish to FA's approval. All to be manufactured and installed in strict compliance With SABS 1083 or latest revision.

- WALL FINISHES:**
- W1: FACEBRICK**
FXX face brick in common running bond to comply with SABS 227 and forming part of the structural work.
 - W2: EMULSION (PVA) PAINT - FULL HEIGHT**
2 no. coats of PVA matt finish emulsion paint to SABS 1584 applied on plastered surface primed and with 1 no. coat undercoat to SABS 681 grade), in accordance to manufacturer's instructions.
 - W3: ENAMEL (ENAMEL) PAINT**
2 no. coats matt (egg shell) finish alkyl (jeromel) paint to SABS 430, type 2 applied on plastered surfaces with 1 no coat alkali resistant primer to SABS 1416 and 1 no. coat undercoat to SABS 681 grade), in accordance to manufacturer's instructions.
 - W4: 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 430 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.
 - W5: 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: 7mm GYPSUM BOARDS FLUSH PLASTERED CEILINGS OR EQUAL AND APPROVED**
"GypCel Classic" gypsum plasterboard ceiling EQUAL & APPROVED consisting of 1 layer Gyproc RhinoBoard 9mm (locally manufactured, ISO 9001 & 14001 certification, recycled paper content, Eco-specifier listing) fixed to timber branding installed at maximum 300mm centres using Gyproc RhinoBoard Sharp Point Grabber Screws 32mm at maximum 150mm centres. Apply, Gyproc RhinoTape to all joints and skim the ceiling using Gyproc RhinoLite.
 - C2: FIBRE CEMENT BOARDS (H-JOINTED)**
4mm thick GypCel Prestige S fibre cement ceiling boards or EQUAL & APPROVED consisting of 1 layer Gyproc RhinoBoard 9mm (locally manufactured, ISO 9001 & 14001 certification, recycled paper content, Eco-specifier listing non-combustible to SANS 10177.5) fixed to Ek 38mm x 50mm timber branding 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 Calotex Pn Prefinished or Fire Rated OR EQUAL & APPROVED laid into Dorn ceiling grid and secured into place using Dorn Hold Down Clips @ 200mm c/c. Dorn Wall Angle M6 fixed to the perimeter wall using fixings of 300mm centres. Dorn T38 Fix Main Tees @ 14mm thickness, 2150 galv. coating, locally manufactured, recycled content, ISO 9001 & 14001 certification) at 1200 centres & Dorn T38V (1200 long) Cross Tees at 600 centres. Suspend main tees @ 1200mm c/c using Dorn Hanger Strap 19mm suitably fixed to the building structural members. Dorn 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 Dorn 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 Scaff 3No. coats of PVA emulsion ceiling paint to latest SANS 1584 approved on 6mm thick light weight hemi-hydrate gypsum plaster on concrete slab soffit.

- ROOF COVERING AND INSULATION:**
- R1: EMBOSSED ROOFING SHEET (TWO SIDES)**
Roofing Sheets: 120mm thick concealed fixing roofing sheets manufactured from roll-formed from certified steel complying with ISO 9001. The profile shall have three trapezoidal ribs of 20mm centres giving a total cover of 450mm. The rib height shall be 41mm and provide cavity breaks. The male rib shall have gaps of 28mm centres to ensure a positive double interlocking action of side-laps. Each pan shall incorporate two stiffener ribs. Profiled rooflights to be coated on both sides with "Global Coat" or "Chromadisk Colour" and laid on structural timber/steel structure incorporating all necessary accessories such as flashings and eave closes in strict compliance to manufacturer's instructions.
 - Insulation:** SHALL EITHER BE: 1, where there are acoustic ceilings suspended board, a heavy duty Aluminium station 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/m³ and finished with white meltable foil.
 - Galvanized Steel (GI) Gutter:** 150mm Wide x 100mm Deep x 0.6mm Eave Gutter of Commercial Grade Steel With Class Z275 Galvanizing To Comply With SABS 934 or latest Revision Fixed to Painted Fibre Cement Facia Board Together with standard accessories discharging into Rainwater Downpipes.
 - Downpipe:** 110 x 110 x 0.8mm Thick Commercial Grade Galvanized Steel Sheet With Class Z275 Galvanizing 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-tapping screws To Manufacturer Installation Instructions.
 - Facia board:** 250 x 10 mm Fibre Cement Facia/Barge Board. Screw Fixed to Tuss Dibs & Counter Batten With Countersunk Brass Screws. Prepare & Apply One Universal Undercoat & Two Coats Super Acrylic P.V.A.



ISSUED FOR TENDER

LEGEND

- 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

NOTES
ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE STATED
DIMENSIONS TO BE READ, NOT TO SCALED FROM THIS DRAWING
CONTRACTORS TO CONFIRM ALL DIMENSIONS ON SITE BEFORE CONSTRUCTION COMMENCES & ANY DISCREPANCY TO BE REPORTED TO THE PROJECT ARCHITECT

FINISHES LEGEND

CEILING FINISH: C F
FLOOR FINISH: F S
WALL FINISH: W R S
WALL SKIRTING FINISH

SIGNATURE TABLE

DISCIPLINE	SIGN	DATE
CLIENT		
PLAN EXAMINER		
FIRE CONTROL		
ENVIRONMENTAL		
ROADS STORMWATER		
WATER & SANITATION		

0 JUL 21 FIRST ISSUE FOR TENDER

REV. NO.	DATE	DESCRIPTION

REVISIONS

LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE
INSTITUTION

VUTVI PRIMARY - 933 303 101

RESTORATIVES, REPAIRS & ADDITIONS
CONTRACT - SECTION

DOCUMENTATION & PROCUREMENT
DISCIPLINE: ARCHITECTURAL 4
WORK DESCRIPTION - SUB DIVISION: BLOCK PJ 01 - 04 CLASSROOM
DRAWING DESCRIPTION: FLOOR PLAN & CEILING PLAN

DRG No.	203-01	01/03	ITEM No.
DESIGN	NA	SMIN	DRAWN
DATE	AS SHOWN	T.M	CHECK
NOV 2019	T. MANTAZA		PrArch 43981757

CONSULTANT
TECTURA PROJECTS

CONTRACTOR

CAD SYSTEM	AUTOCAD	FILE NAME
SIZE	PROJECT NUMBER	REV
A1	LDPW - PROF/16002/F18	0

FINISHES LEGEND

FLOORS:

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

400x400 11.5mm kiln-fired floor tiles or similar approved by architects, fixed with adhesive, painted with fired waterproof jointing compound. Grouting to be grey. Tiles should have expansion joint and aluminium edging strip.

F2: PORCELAIN TILES - MATI

400 x 400 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 manufacturer's instructions and SABS specification. Fittings to include, ribbed angle files 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: CARPETILES

500mm x 500mm . 1005 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 54824 on wick test and ISO body test at less than 2kV at 25% RH on static electricity. Colour and pattern to architects approval.

F4: CEMENT SAND SCREED

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

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

22mm thick unsealed 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 193mm x 50 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 VINYL SHEETING (CORROSION RESISTANT/ANTI-SLIPPERY)

2.5mm Thick Heavy Traffic Use, Corrosive Resistant & Anti-Slippery Vinyl Sheeting Semi-Flexible To Comply With SABS 584, With Static Dissipative Properties Throughout Thickness, Engineered for ISO 9001 (anti-static) Protection Vinyl Sheet, Laid on Self-Levelled Smooth Screed glued with conductive 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 PFE Details installed in All Duct Chambers Accommodating Sanitary Services.

SKIRTING:

S1: HARDWOOD OR EQUAL AND APPROVED

18 x 15mm x 20mm Moulded Hardwood Skirting to comply with SANS 1099, fixed to walls in long lengths with splayed heading joints and milled corners with screws and plugs at centres not exceeding 400mm, and fixed with a 19mm x 19mm quadrant bedding. The skirting to be varnished with 3No. coats of egg shell clear varnish to comply with SABS/SANS 381 type 1.

S2: CERAMIC TILE SKIRTING

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

S3: CEMENT SAND SCREED

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

WALL FINISHES:

W1: FACE BRICK

F8X face brick in common running bond to comply with SABS 227 and forming part of the structural work.

W2: EMULSION (PVA) PAINT - FULL HEIGHT

2 no. coats of PVA matt finish emulsion paint to SABS 1584 applied on plastered surface primed and with 1 no. coat undercoat to SABS 681 grade, in accordance to manufacturer's instructions.

W3: ENAMEL PAINT

2 no. coats matt (egg shell) finish alkyl (jeromel) paint to SABS 430, type 2 applied on plastered surfaces with 1 no. coat alkali resistant primer to SABS 1416 and 1 no. coat undercoat to SABS 681 grade, in accordance to manufacturer's instructions.

W4: 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 "R2" To Comply with SABS 430 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.

W5: 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: 7mm GYPSUM BOARDS FINISH PLASTERED CEILINGS OR EQUAL AND APPROVED

'GypCel Classic' gypsum plasterboard ceiling or EQUAL & APPROVED consisting of 1 layer Gyproc RhinoBoard 9mm (locally manufactured, ISO 9001 & 14001 certification, recycled paper content, Eco-specifier listing) fixed to timber branding installed at maximum 300mm centres using Gyproc RhinoBoard Sharp Point Grabber Screws 32mm at maximum 150mm centres. Apply, Gyproc RhinoTape to all joints and skim the ceiling using Gyproc RhinoLite.

C2: FIBRE CEMENT BOARDS (H-JOINTED)

6.4mm thick GypCel Prestige 5' fibre cement ceiling boards or EQUAL & APPROVED consisting of 1 layer Gyproc RhinoBoard 9 mm (locally manufactured, ISO 9001 & 14001 certification, recycled paper content, Eco-specifier listing, non-combustible to SANS 10177-5) fixed to EK 38mm x 50mm timber branding 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 Calceus Pn Perforated or Fire Rated 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 of 300mm centres. Donn 138 FR Main Tees @ 14mm thickness, 2150 g/m² 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 Sto' 3No. coats of PVA emulsion ceiling paint to latest SANS 1584 approved on 6mm thick light weight hemi-hydrate gypsum plaster on concrete slab soffit.

ROOF COVERING AND INSULATION:

R1: EMBOSSED ROOFING SHEET (TWO SIDES)

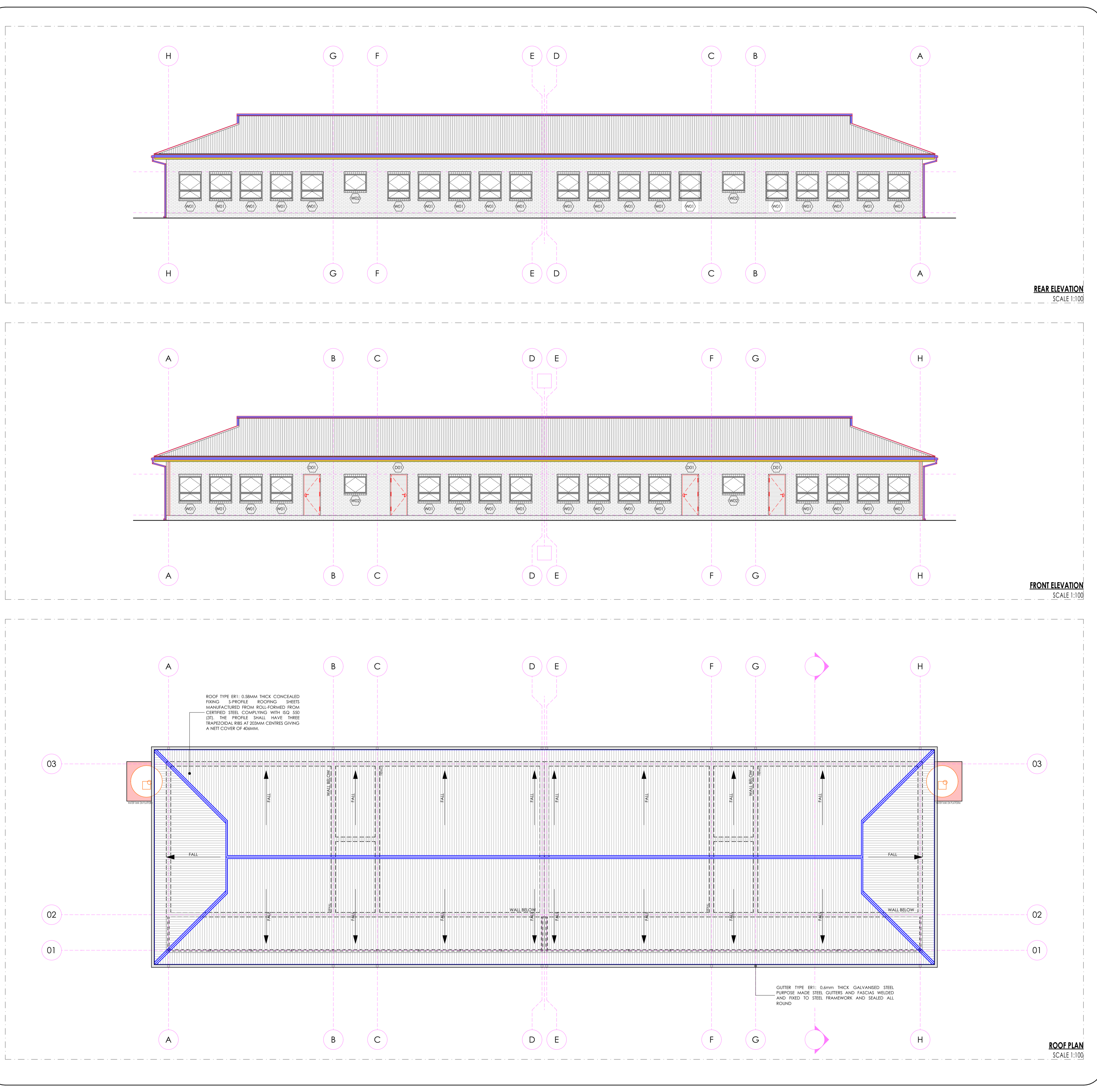
Roofing Sheets: 0.38mm thick concealed fixing roofing sheets manufactured from roll-formed from certified steel, with a rib height of 45mm. The ribs shall be 41mm and provide cavity breaks. The male ribs shall have an 28mm centres to ensure a positive double interlocking action of side-laps. Each span shall incorporate two stiffener ribs. Profiled roof sheets 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 closes in strict compliance to manufacturer's instructions.

Insulation: SHALL EITHER BE: 1, where there are acoustic ceilings suspended board, a heavy duty 'Aluminium station 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/m³ and finished with white metalized foil.

Galvanized Steel (GI) Gutter: 150mm Wide x 100mm Deep x 0.6mm Eave Gutter of Commercial Grade Steel With Class Z275 Galvanizing To Comply With SABS 934 or latest Revision Fixed To Painted Fibre Cement Facia Board Together with standard accessories discharging into Rainwater Downpipes.

Downpipes: 110 x 110 x 0.6mm Thick Commercial Grade Galvanized Steel Sheet With Class Z275 Galvanizing 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-tapping screws to Manufacturer Installation Instructions.

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



ISSUED FOR TENDER

LEGEND

- 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

NOTES
ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE STATED
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

CEILING FINISH	C	F	FLOOR FINISH
WALL FINISH	R	S	WALL SKIRTING FINISH

SIGNATURE TABLE

DISCIPLINE	SIGN	DATE
CLIENT		
PLAN EXAMINER		
FIRE CONTROL		
ENVIRONMENTAL		
ROADS STORMWATER		
WATER & SANITATION		

REVISIONS

REV. NO.	DATE	FIRST ISSUE FOR TENDER	DESCRIPTION
0	JUL 21	FIRST ISSUE FOR TENDER	

LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE

VUTVI PRIMARY - 933 303 101

RESTORATIVES, REPAIRS & ADDITIONS

DOCUMENTATION & PROCUREMENT

ARCHITECTURAL 4

BLOCK PJ 01 - 04 CLASSROOM

ROOF PLAN | FRONT & REAR ELEVATION

DRG. NO.	203-02	02/03	ITEM No.
DESIGN	NA	SMIN	DRAWN
SCALE	AS SHOWN	T.M	CHECK

DATE	RESPONSIBLE PROFESSIONAL	PR. NUMBER
NOV 2019	T. MAN'ADZA	PrArch 43981757

CONSULTANT
TECTURA PROJECTS

CONTRACTOR

CAD SYSTEM	AUTOCAD	FILE NAME
SIZE	PROJECT NUMBER	REV
A1	LDPW - PROF/16002/F18	0

FINISHES LEGEND

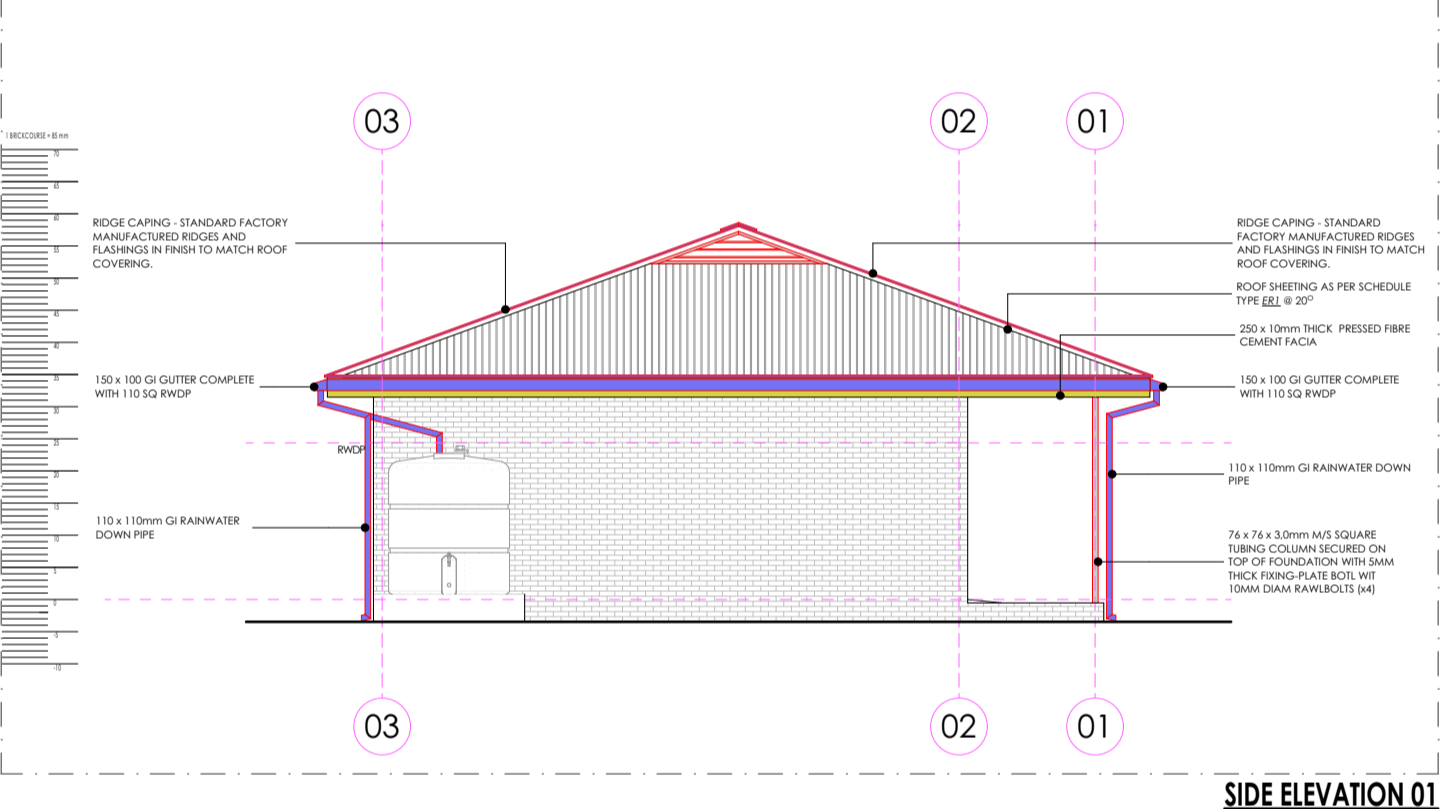
- FLOORS:**
F1: FULLY FLEXIBLE TILES (CORROSION RESISTANT & ANTI-SLIP)
400x400 15mm lithium base tiles or similar approved by architects, fixed with adhesive, painted with finished waterproof jointing compound. Grouting to be grey. Tiles should have expansion joint and aluminium edging strip.
F2: PORCELAIN TILE - MAT
600 x 600 10mm thick matt porcelain tile to comply with SABS 1449 laid on approved pattern by an approved specialist to comply with SABS 1107 and approved adhesives and grout on screeds. With Thickness/Specification in strict compliance to manufacturer's instructions and SABS specification. Fittings to include, ribbed angle tiles where there is change of level and 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: CARPETILES
500mm x 500mm, 1.00S PFK 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 S4230 on wear test and 500 body test at 25% RH on static electricity. Colour and pattern to architects approval.
F4: CEMENT SAND SCREED
30mm thick polished cement sand screed with 13mm Stone Nominal aggregate for Topping to comply with SABS 1083 at latest revision for concrete.
F5: EXTERIOR MULTI COLOURED CONCRETE INTERLOCKING PAVES
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 at Latest Revision.
F6: GRANULITIC FINISH
22 mm thick unsealed Granulitic 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 100m², 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 PAVES (RIGID PAVING/VEHICULAR WAYS)
20mm x 150mm x 50 mm thick concrete interlocking paves, 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 VINYL SHEETING (CORROSION RESISTANT/ANTI-SLIPPERY)
2.5mm Thick Heavy Traffic Use, Corrosion Resistant & Anti-Slippery Vinyl Sheeting Semi-Flexible To Comply With SABS 584. With Static Dissipative Properties Throughout Thickness, Engineered for ESD or DQ (Anti-Static) Protection Vinyl Sheet, Laid on Self Levelled Smooth Screed gird with conductive adhesive to SABS 070 at 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 & Polix 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 PFE Details installed in All Duct Chambers Accommodating Sanitary Services.
SKIRTING:
S1: HARDWOOD OR EQUAL AND APPROVED
18 x 25mm x 20mm Moulded Hardwood Skirting to comply with SANS 1099, fixed to walls in long lengths with splayed heading joints and mitred corners with screws and plugs at centres not exceeding 600mm, and fixed with a 19mm x 19mm quadrant bedding. The skirting to be varnished with 3no. coats of egg shell clear varnish to comply with SABS/SANS 381 type 1.
S2: CERAMIC TILE SKIRTING
600mm wide x 100mm high x 7mm thick matt porcelain tile to comply with SABS 1449 laid with approved adhesives and grout on 22mm thick concrete in strict compliance to manufacturer's instructions and SABS specification, with one base and thigh top. 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
75 mm high x 20 mm thick hardened cement sand screed skirting covered at 20 mm dia. to form a continuous joint with the adjoining screed finish to FA's approval. All to be manufactured and installed in strict compliance with SABS 1083 or latest revision.
WALL FINISHES:
R1: FACE BRICK
FKX face brick in common running bond to comply with SABS 227 and forming part of the structural wall.
R2: EMULSION (PVA) PAINT - FULL HEIGHT
2 no. coats of PVA matt finish emulsion paint to SABS 1584 applied on plastered surface primed and with 1 no. coat undercoat to SABS 681 grade), in accordance to manufacturer's instructions.
R3: 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 primer to SABS 1416 and 1 no. coat undercoat to SABS 681 grade), 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 tile to Specification "R3", 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 laid from finish floor level to window level AND ENAMEL paint to specification "R2" To Comply with SABS 630 at 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 at 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: 7mm GYPSUM BOARDS FLUSH FLASTERED CEILINGS OR EQUAL AND APPROVED
GypCel Classic gypsum plasterboard ceiling or EQUAL & APPROVED consisting of 1 layer Gyproc RhinoBoard 9mm (locally manufactured, SO 9001 & 14001 certification, recycled paper content, EcoSpecifier listing valid to timber branding installed at maximum 300mm centres using Gyproc RhinoBoard Snap Point Grabber Screws 32mm at maximum 150mm centres. Apply, Gyproc RhinoTape to all joints and trim the ceiling using Gyproc RhinoTite.
C2: FIBRE CEMENT BOARDS (H-JOINTE)
6.4mm thick GypCel Prestige 5' fibre cement ceiling boards or EQUAL & APPROVED consisting of 1 layer Gyproc RhinoBoard 9 mm (locally manufactured, SO 9001 & 14001 certification, recycled paper content, EcoSpecifier listing, non-combustible to SANS 10177:5) fixed to EX 38mm x 50mm timber branding installed at maximum 400mm centres using Gyproc RhinoBoard Snap 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 trim the ceiling using Gyproc RhinoTite.
C3: PAINT SUSPENDED ACOUSTIC TILES OR EQUAL AND APPROVED
1200mm x 600mm x 15mm Gyproc Caloria Fibre Plastered or Fire Rated OR EQUAL & APPROVED laid into Donn ceiling grid and secured into place using Donn Hold Down Clips @ 200mm c/c. Donn Wall Angle 146 fixed to the perimeter wall using fixings at 300mm centres. Donn T38 FR Main Tees @ 4mm thickness, 2150 gwg, coating locally manufactured, recycled content, SO 9001 & 14001 certification), at 1200 centres & Donn T38V (1200) long Cross Tees at 600 centres. Supports 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 Sto" 3no. coats of PVA emulsion ceiling paint to latest SANS 1584 approved on 6mm thick light weight hemi-hydrate gypsum plaster on concrete slab soffit.
ROOF COVERING AND INSULATION:
R1: EMBOSSED ROOFING SHEET (TWO SIDES)
Roofing Sheets: 1.50mm thick concealed fixing roofing sheets manufactured from roll-formed from certified steel complying with SABS 021. The profile shall have three longitudinal ribs at 200mm centering giving a net cover of 456mm. The rib height shall be 41mm and provide callousy breaks. The male to shall have gaps of 28mm centres to ensure a positive double interlocking action at side-laps. Each pan shall incorporate two stiffener ribs. Profiled roofbeams to be coated on both sides with 'Global Coat' or 'Chromosold Colour' and laid on structural timber/steel structure incorporating all necessary accessories such as fixings and eave closes in strict compliance to manufacturer's instructions.
Insulation: SHALL EITHER BE: 1. where there are acoustic ceiling suspended board, a heavy duty 'Aluminium station foil' shall be installed AND 2. where the steel work is exposed, a 50mm 'Focotryboard' manufactured from noncombustible glass fibres and thermo-setting resin binder supplied size 2400mm x 1200mm and 80kg/m³ and finished with white meltable foil.
Galvanized Steel (GI) Gutter: 150mm Wide x 100mm Deep x 0.6mm Eaves Gutter of Commercial Grade Steel With Class Z275 Galvanizing To Comply With SABS 934 or latest Revision Fixed To Painted Fibre Cement Facia Board Together with standard accessories discharging into Rainwater Downpipes.
Downpipe: 110 x 110 x 0.6mm Thick Commercial Grade Galvanized Steel Sheet With Class Z275 Galvanizing To Comply With SABS 934 or Latest Revision to be built into walls or cast in concrete columns laid to brickwork or steel including brackets and self-tapping screws to Manufacturer Installation instructions.
Facia board: 250 x 110 mm Fibre Cement Facia/Barge Board. Screw Fixed to Tuss Ends & Counter Butten With Countersunk Brass Screws. Repairs & Apply One Universal Undercoat & Two Coats Super Acrylic P.V.A.

DOOR SCHEDULE: Table with columns for EXTERIOR DOOR, BURGLAR DOOR (SINGLE), QUANTITY, DOOR DESCRIPTION, FRAME, FRAME FINISH, DOOR FINISH, IRON MONGERY, HINGES.

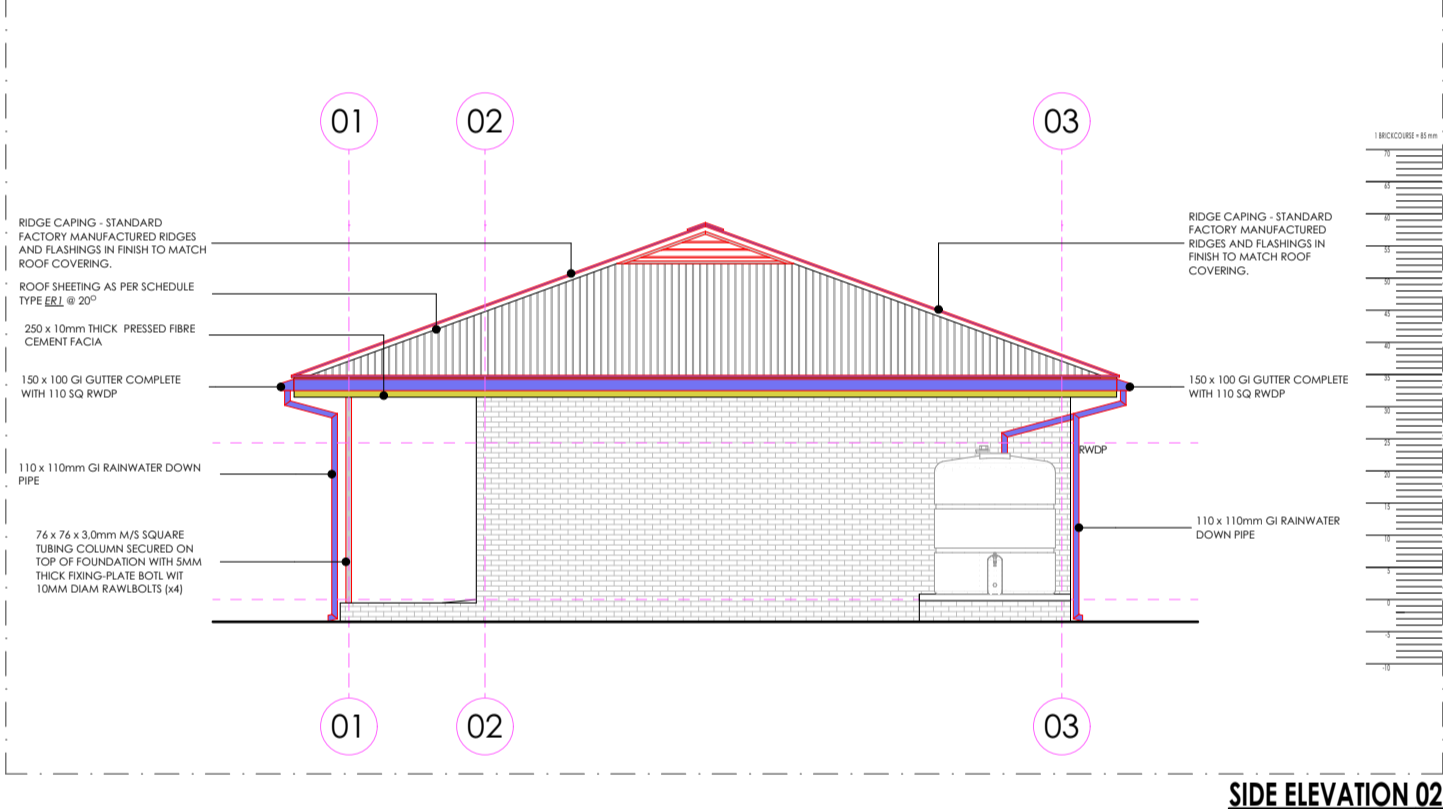
DOOR SCHEDULE SCALE 1:100

WINDOW SCHEDULE: Table with columns for WINDOW, QUANTITY, WINDOW DESCRIPTION, FRAME, GLASS, WINDOW FITTINGS, IRON MONGERY, HINGES.

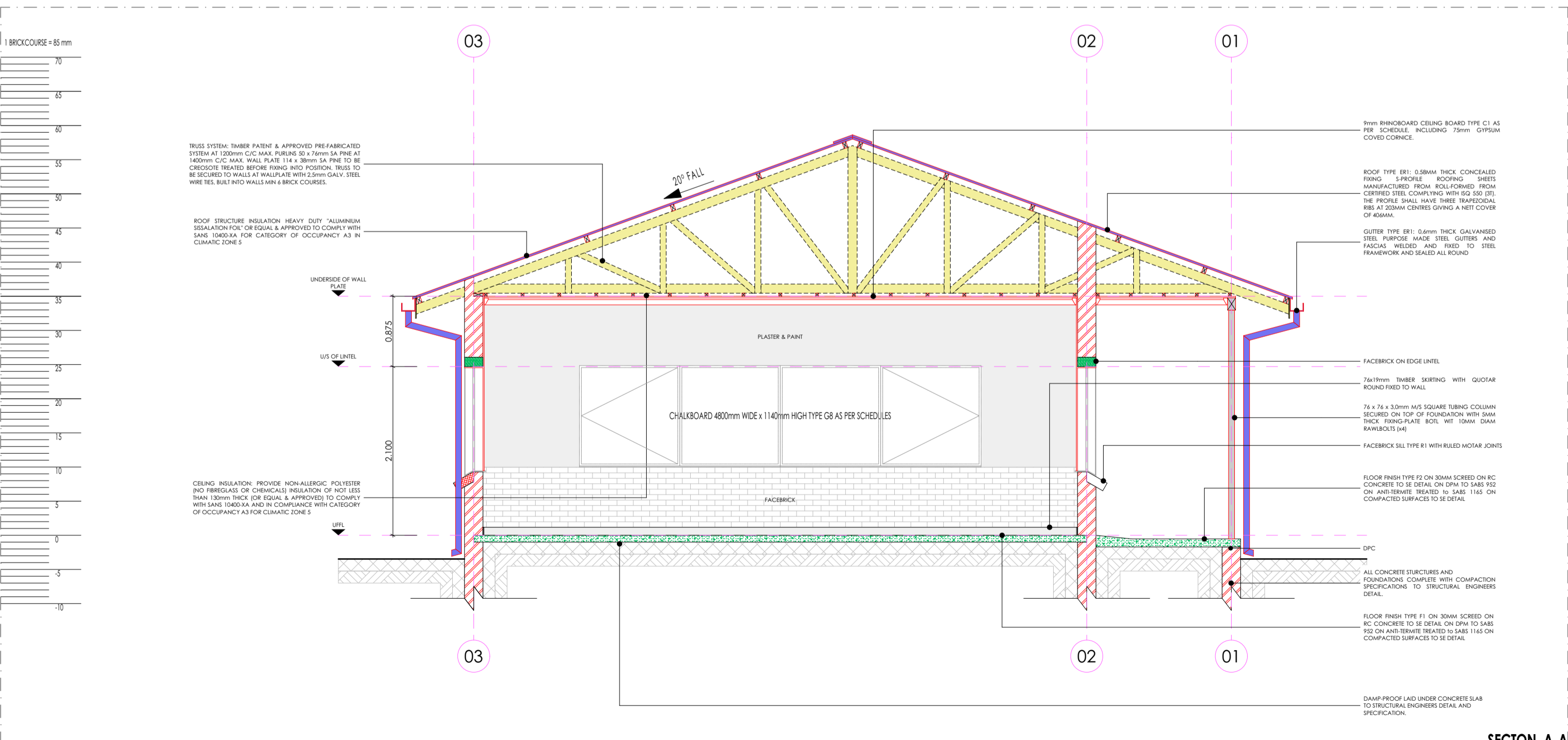
WINDOW SCHEDULE SCALE 1:100



SIDE ELEVATION 01 SCALE 1:100



SIDE ELEVATION 02 SCALE 1:100



SECTION A-A SCALE 1:50

SANITARY SCHEDULE

- WC'S URINALS & SHOWER**
W1: CERAMIC STANDARD WC (C/C) - 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 ThermoSeal Plastic Seal'. 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 blank flush plate.
W2: CERAMIC PARALEGIC WC
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.
W3: CERAMIC PARALEGIC WC (C/C) - 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 ThermoSeal Plastic Seal'. 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 passage access.
W4: 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.
W5: CERAMIC STANDARD WC (C/C)
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 thermoseal seal and complete with all necessary fittings as per manufacturer's specifications and applicable SABS standards.
W6: CERAMIC WALL HUNG URINAL
Vitreous china 90° outlet wall hung urinal to comply with SABS 497. Supplied with suitable 38mm CP domical grating, CP tap 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 standards.
S01: SHOWER
2mm thick Enamel steel shower tray 900x900x160 mm manufactured with anti slip pattern, with rounded internal corners, and 38 mm BSP grouted waste in corner position fitted with shower set and complying with SABS 226 in compliance of approval.
- Glazed Shower Cubicle with access door as per standard supply with manufacturer and fixed to fit space configuration
- Overhead shower arm with wall flange.
- Chrome Plated Shower Head with adjustable connector
- Chrome Plated Softly Shower diverter mixer tap with sliding wall flanges and concealed connectors adjustable from 178mm to 203 mm centres. Shower tray to be recessed 50 mm into a 100mm high concrete plinth with exposed plinth face.
WASH-HAND BASIN
R1: WTB & MIRROR TAP
Vitreous china size 560 x 415mm rounded 'Tuscan', OR EQUAL AND APPROVE basin to comply with SABS 497 with single tap hole configuration supplied with integrated overflow and chinistry hole through the centre semi-purchased supplied with a 'Tuscan' pedestal and fitted with 'No. 2000 Model' 15mm chrome plated ball tap with flanged backnut (code KM2.102) meeting tap, 300-32 CP anti-thrust plug with spring, 308 basin waste, 365/40 CP bottle trap, mounting kit and angle valves.
R2: DISABLED BASIN
400mm semi rounded lavatory basin to comply with SABS 497, in two tap hole configuration fitted with 2 No chrome plated Elbow action pillar-top, with 1/4" 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. Fitted with concealed wall bracket in accordance to the manufacturer's specifications.
R3: WHITE GLAZED PORCELAIN WTB (VANITY)
Ceramic freecry size 450x350mm oval self-removing 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) meeting 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 unit with silicon sealed between cabinet tops in strict accordance to manufacturer's specifications.
R4: SMALL BASIN & 2 TAPSTRAY & SHOWER SET (FOR WORKSHOPS)
Vitreous china size 450x300mm wash basin to comply with SABS 497 in 2 tap hole configuration supplied with integrated overflow and chinistry hole with 2No. pillar-top, chrome plated anti-thrust plug with spring 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.
R5: URINALY BASIN & No. TAP (FOR LABS)
Ceramic freecry size 450mm x 300mm heavy duty basin in one tap hole configuration to comply with SABS 497 and R18 hole plugged and fitted with 1No. pillar-top, Chrome Plated anti-thrust plug with spring 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 specifications.
R6: MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china 510 x 400mm semi rounded lavatory basin to comply with SABS 497, in two tap hole configuration fitted with: 2 No. chrome plated Elbow action pillar-top, with 1/4" 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. Fitted 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.
- Tapback comprising 2no. rows of wall fix type K5 as per finishes schedule and grout in compliance to manufacturer's specifications and government standard specifications. Installation heights as indicated in the drawings.
SINKS:
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 S14 (1810) Stainless Steel sink to comply with SABS 956 fitted with Approved Sink mixer-wall tap, chrome plated swivel Outlet, adjustable and supplied with suitable accessories in accordance to manufacturer's specifications. Sink installation height = 900mm AFFL.
X2: STAINLESS STEEL SINK
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 S14 (1810) Stainless Steel sink to comply with SABS 956 fitted with Approved Sink mixer-wall tap, with chrome plated overarm swivel Outlet, adjustable wall flanges and supplied with suitable accessories in accordance to manufacturer's specifications. Sink installation height = 900mm AFFL.
X3: CERAMIC SINK
Ceramic freecry 455 x 335 x 180 mm rectangular laboratory sink without an overflow, with a centre end outlet, fitted to 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 300mm inset wash trough manufactured from grade 18/10 SS, stainless steel with radius internal corners and provision for a 40mm dia. outlet. Fitted with Approved 2no. CP bibcoaps - plain extended chrome plate, complete with sliding wall flange, Un-slotted sink waste with back nut, plug with strip, chain and stay, CP, 'P' trap, with deep seal and cleaning eye. Rough brass Sink installation height = 900mm AFFL. Cut out size 555 x 425mm.
X5: DOUBLE WASH TROUGH (Inset & 2 no. TAPS)
600mm x 350 x 200mm Double drain wash trough manufactured from grade 304 (1810) SS, stainless steel with radius internal corners and provision for a 40mm dia. outlet. Fitted with Approved 2no wall type tap, with Swivel Outlet, adjustable wall flanges and spaced adjustable connections. CP, Un-slotted sink waste with back nut and plug with strip, CP, Double drain back rubber deep seal 'P'-trap. Sink mounted on 2no. 25mm square S5 gallow brackets, front leg and adjustable foot piece or height of 915mm AFFL.
SANITARY ACCESSORIES
K1: SS TOILET ROLL HOLDER - 2 ROLL
Standard stainless steel toilet roll holder (2 roll) 150mm width x 270mm high 275mm depth Toilet Roll Holder manufactured from 18/10 Stainless Steel, surface S409 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 beveled edges 4 times folded for and fixed, with chromium plated dome-headed mirror screws
K3: 15 WASTE BIN
285W x 525H x 200D Waste bin manufactured from 1810 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)
190mm x 200mm x 600mm Plastic Sanitary Pedal Bin with capacity of 100 Litres 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 BAILS-PARALEGIC
Stainless steel 914 x 90 x 32mm diameter wall grab rail, in satin polished finish complete with SS fixing screws and plastic wall plugs, installed as per manufacturer's instructions.
K7: GRAB BAILS (RIGHT HAND) - PARALEGIC
Stainless steel 914 x 90 x 125mm diameter wall grab rail and side toilet grab rail with 450mm high centre flange, to satin polished finish complete with SS fixing screws and plastic wall plugs, installed as per manufacturer's instructions.
K8: PAPER TOWEL DISPENSER
330mmWx350mmX230mmD 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 (ISH - WALL MOUNTED)
115mm x 200H x 110D Stainless steel hand soap dispenser. Complete with screws, locking key, and all necessary accessories and installed in accordance to manufacturer's specifications.
K10: ALUMINIUM COAT HOOKS (MULTI TRACK)
800mm Wide x 220mm High x 90mm High Aluminium Multitrack Hat and Coat Hook in multi-track two hooks Configuration With Anodised Silver Finish Complete with Screws.
K11: HAND DRYER (Hands free)
As per Electrich Engineers specification
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 architect's drawing.
K13: SHOWER CURTAIN RAIL (slight)
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
G1: DOOR PROTECTOR
200mm wide PVC Door Protector manufactured in high impact resistant rigid PVC (Colour Grey) and cut to suit door width from 3m length, installed strictly in accordance to manufacturer's specifications. Installation height 900mm above FF, or as specified.
G2: PROTECTOR SCREENS
Full door PVC Screen (Colour: 2440 x 1850mm (viewing area 2340 x 1750mm) with wall-mounted code S0400 Keystone Brackets Adjustable Set of 2, size 300mm. To be supplied complete with all accessories, and fitted in strict accordance with manufacturer's instructions.
G3: FINBOARD 1500W X 1000H
Finboard size 1000mm H x 1500mm W comprising of laminated self board core priming 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.
G4: FINBOARD 300W X 1200H
Finboard size 1200mm H x 300mm W comprising of laminated self board core priming 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 BUNDS (vertical blinds)
127 mm vertical deco blinds with anodised aluminium headrail fitted with colour coordinated insert. All runners to be wheeled and fitted with individual clutch mechanism. All runners to be connected by stainless steel links. The mechanism to be operated by a nylon ball chain with a reduction gear ratio 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 ball, including connectors to downpipes.
G7: 36 FLOOR EXPANSION JOINT COVER
Concealed heavy-duty fibreglass steel movement joint, 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
Vitex system 1000 standard WHITEBOARD or EQUAL & APPROVED vitreous enamel steel utility school chalkboards wall-mounted size 480mm x 1140mm high manufactured in accordance with SABS Standard CES 362004 Edition 4 and suitable for Class 1 Heavy Duty applications, as defined therein. Enamel steel Utility chalk board surfaces to be matt and freely structured, olive green in colour (Vitex Chalk Reference - Chalk Board Green LM197/2), supplied complete with integral anodised aluminium chalk rail (ACR), fixing components and secured in position to brickwork or steel including brackets and self-tapping screws in accordance with the manufacturer's instructions.

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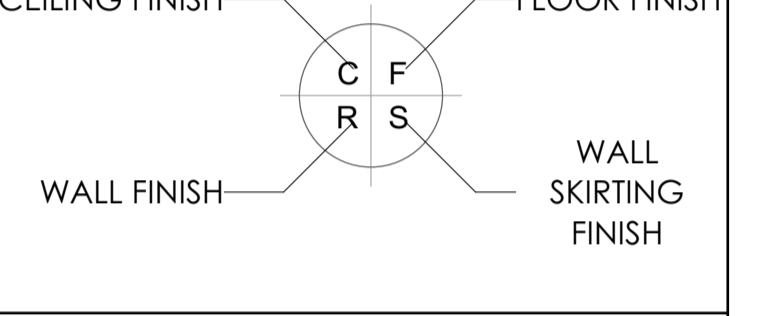
- LEGEND**
- NEW WALLS
- EXISTING WALL TO BE RETAINED
- EXISTING WALL TO BE DEMOLISHED
- NEW FIXTURES & FITTING TO BE INSTALLED
- ITEMS IN RED AND (OR) DASHED LINES ARE TO BE REPAIRED AND (OR) REPLACED

NOTES
ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE STATED

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



SIGNATURE TABLE

Table with columns for DISCIPLINE, SIGN, DATE. Includes rows for CLIENT, FIRE EXAMINER, ENVIRONMENTAL, ROADS / STORMWATER, WATER & SANITATION.

Table with columns for REV. NO., DATE, DESCRIPTION. Includes rows for 0, JUL 21, FIRST ISSUE FOR TENDER.

REVISIONS

LIMPOPO PROVINCIAL GOVERNMENT REPUBLIC OF SOUTH AFRICA. DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE. INSTITUTION: VUTIVI PRIMARY - 933 303 101.

RESTORATIVES, REPAIRS & ADDITIONS

DOCUMENTATION & PROCUREMENT

ARCHITECTURAL 4. WORK DESCRIPTION - SUB DIVISION: BLOCK PJ 01 - 04 CLASSROOM.

SECTION | SIDE ELEVATION | SCHEDULES

Table with columns for DRG. NO., DESIGN, DATE, 203-03, NA, AS SHOWN, 03/03, SMIN, T.M, ITEM No., DRAWN, CHECK.

Table with columns for RESPONSIBLE PROFESSIONAL, NAME, SIGN, PR. NUMBER. Includes row for NOV 2019, T. MANDAIZA, P/Arch, 43981757.

CONSULTANT: TECTURA PROJECTS. Includes contact information for Gauteng, Northern Cape, Northern Free State, Western Cape, Eastern Cape, Free State, KwaZulu-Natal, Limpopo, Mpumalanga, North West, Northern Cape, Northern Free State, Western Cape, Eastern Cape, Free State, KwaZulu-Natal, Limpopo, Mpumalanga, North West.

CONTRACTOR

Table with columns for CAD SYSTEM, AUTOCAD, FILE NAME, SIZE, PROJECT NUMBER, DRAWING NUMBER, A1, LDPW - PROF/16002/F18, 0.

FINISHES LEGEND

- FLOORS:**
F1: PORCELAIN TILES - MATI (Corrosive Resistant & Anti-Slippery)
450x450 11.5mm kiln-fired floor tiles or similar approved by architects, fixed with adhesive, painted with finished waterproof jointing compound. Grouting to be grey, tiles should have expansion joint and aluminium edging strip.
F2: PORCELAIN TILE - MATI
450 x 450 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 Manufacturer's 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: CARPETILES
500mm x 500mm . 1005 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 54824 on wira test and ISO body test at less than 2kV at 25% RH on static electricity. Colour and pattern to architects approval.
F4: CEMENT SAND SCREED
30mm thick polished cement sand screed with 13mm Stone Nominal aggregate for Topping to comply with SABS 1083 or latest revision for concrete.
F5: EXTERIOR MULTI COLOURED CONCRETE INTERLOCKING PAVES
45mm thick multi-coloured concrete paves 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: GRANITIC FINISH
22mm thick finished 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 PAVES (BICO PAVING/VEHICULAR WAYS)
220mm x 193mm x 50 mm thick concrete interlocking paves, 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 VINYL SHEETING (CORROSION RESISTANT/ANTI-SLIPPERY)
2.5mm Thick Heavy Traffic Use, Corrosive Resistant & Anti-Slippery Vinyl Sheeting Semi-Flexible To Comply With SABS 584. With Static Dissipative Properties Throughout Thickness, Engineered for ISO or ISO Anti-static Protection Vinyl Sheet. Laid on Self-Levelled Smooth Screed glued with conductive 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 & Polished 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 PFE Details installed in All Duct Chambers Accommodating Sanitary Services.

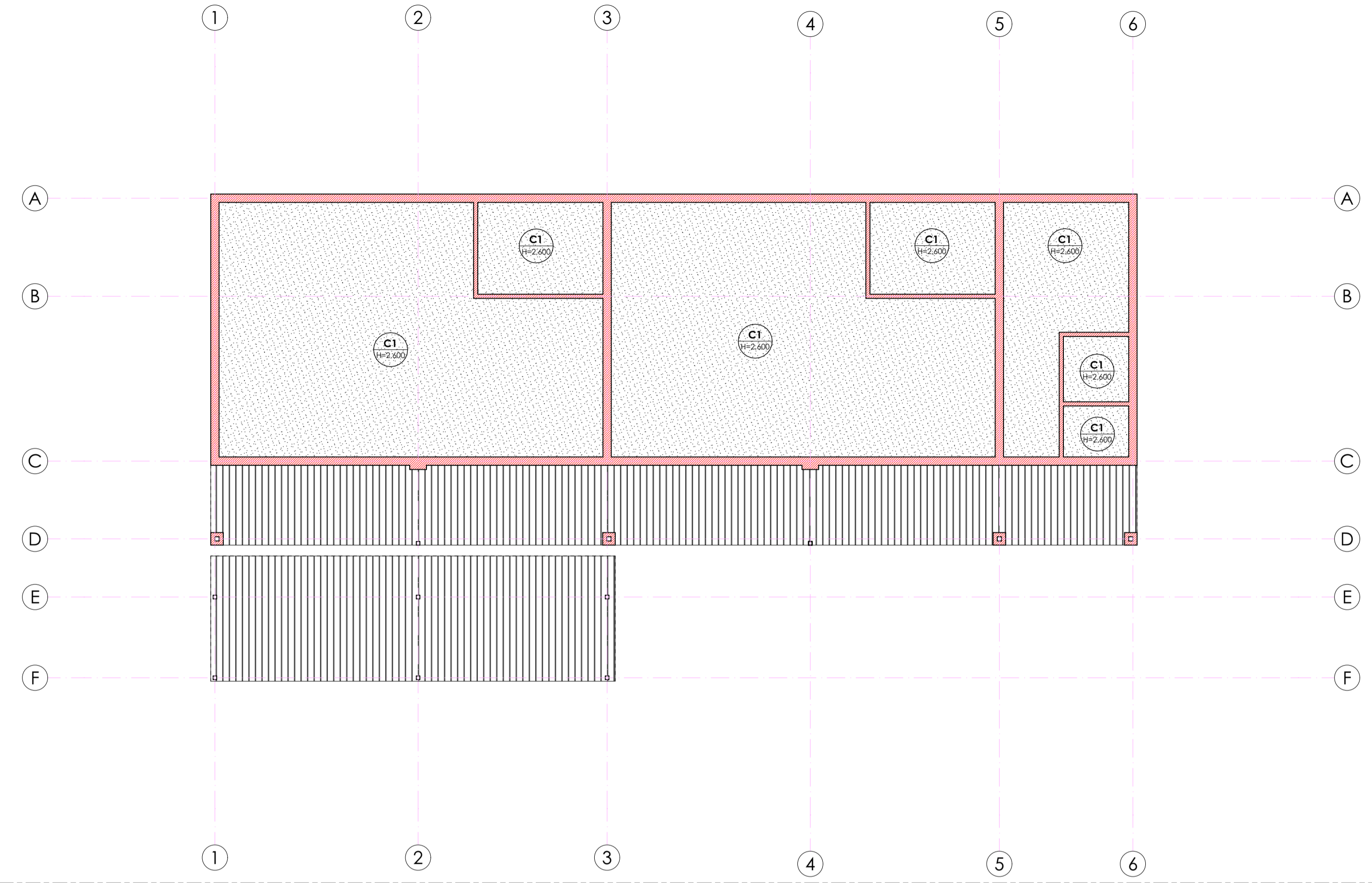
- SKIRTING:**
S1: HARDWOOD OR EQUAL AND APPROVED
18 x 15mm x 20mm Moulded Hardwood Skirting to comply with SANS 1099, fixed to walls in long lengths with splayed heading joints and mitred corners with screws and plugs at centres not exceeding 400mm, and fixed with a 19mm x 19mm quadrant bedding. The skirting to be varnished with 3No. coats of egg shell clear varnish to comply with SABS/SANS 381 type 1.
S2: CERAMIC TILE SKIRTING
600mm wide x 100mm high x 7mm thick matt porcelain tile to comply with SABS 1449 laid with approved adhesives and grout on 22mm thick screeds in strict compliance to manufacturer's instructions and SABS specification, with one base and height top. 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
75 mm high x 20 mm thick hardened cement sand screed skirting covered at 50 mm dia. to form a continuous joint with the adjoining screed floor finish to FA's approval. All to be manufactured and installed in strict compliance With SABS 1083 or latest revision.

- WALL FINISHES:**
R1: FACE BRICK
F&X 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 1584 applied on plastered surface primed and with 1 no. coat undercoat to SABS 681 grade), in accordance to manufacturer's instructions.
R3: ENAMEL PAINT
2 no. coats matt (egg shell) finish alkyl (jeromel) paint to SABS 430, type 2 applied on plastered surfaces with 1 no coat alkali resistant primer to SABS 1416 and 1 no. coat undercoat to SABS 681 grade), 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 'R2' 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: 7mm GYPSUM BOARDS FLUSH PLASTERED CEILINGS OR EQUAL AND APPROVED
'GypCel Classic' gypsum plasterboard ceiling EQUAL & APPROVED consisting of 1 layer Gyproc RhinoBoard 9mm (locally manufactured, ISO 9001 & 14001 certification, recycled paper content, EcoSpecifier listing) fixed to timber bracing installed at maximum 300mm centres using Gyproc RhinoBoard Sharp Point Grabber Screws 32mm at maximum 150mm centres. Apply, Gyproc RhinoTape to all joints and skim the ceiling using Gyproc RhinoTape.
C2: FIBRE CEMENT BOARDS (H-JOINTED)
4mm thick GypCel Prestige 5 fibre cement ceiling boards or EQUAL & APPROVED consisting of 1 layer Gyproc RhinoBoard 9mm (locally manufactured, ISO 9001 & 14001 certification, recycled paper content, EcoSpecifier listing, non-combustible to SANS 10177:5) fixed to Ek 38mm x 50mm timber bracing 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 RhinoTape.
C3: PATENT SUSPENDED ACOUSTIC TILES OR EQUAL AND APPROVED
1200mm x 600mm x 15mm Gyproc Calotex Ph Prefabricated or Fire Rated OR EQUAL & APPROVED laid into Dorn ceiling grid and secured into place using Dorn Hold Down Clips @ 200mm c/c. Dorn Wall Angle M6 fixed to the perimeter wall using fixings of 300mm centres. Dorn 138 Fr Main Tees @ 4mm thickness, 1150 g/m, coating, locally manufactured, recycled content, ISO 9001 & 14001 certification) at 1200 centres & Dorn TSBV (1200 long) Cross Tees at 600 centres. Suspend main tees @ 1200mm c/c using Dorn Hanger Strap 19mm suitably fixed to the building structure members. Dorn 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 Dorn Hanger Strap 19mm suitably fixed to the building structure 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 Stud 3No. coats of PVA emulsion ceiling paint to latest SANS 1584 approved on 6mm thick light weight hemi-hydrate gypsum plaster on concrete slab soffit.

- ROOF COVERING AND INSULATION:**
R1: EMBOSSED ROOFING SHEET (TWO SIDES)
Roofing Sheets: 1.5mm Thick concealed fixing roofing sheets manufactured from roll-formed from certified steel complying with IS 550:07. The profile shall have three trapezoidal ribs at 200mm centres giving a roll cover of 456mm. The rib height shall be 41mm and provide cavity breaks. The male rib shall have a depth of 28mm centres to ensure a positive double interlocking action at side-laps. Each span shall incorporate two stiffener ribs. Profiled roof sheets to be coated on both sides with 'Global Coat' or 'Chromalok Colour' and laid on structural timber/steel structure incorporating all necessary accessories such as fixings and eave closes in strict compliance to manufacturer's instructions.
Insulation: SHALL EITHER BE: 1, where there are acoustic ceilings suspended board, a heavy duty 'Aluminum stator foil' shall be installed AND 2, where the steel work is exposed, a 50mm 'Factoryboard' manufactured from noncombustible glass fibre and thermo-setting resin binder supplied size 2400mm x 1200mm and 80kg/m³ and finished with metalized foil.
Galvanized Steel (GI) Gutter: 150mm Wide x 100mm Deep x 0.6mm Eave Gutter of Commercial Grade Steel With Class Z275 Galvanizing To Comply With SABS 934 or latest Revision Fixed to Painted Fibre Cement Facia Board Together with standard accessories discharging into Rainwater Downpipes.
Downpipes: 110 x 110 x 0.8mm Thick Commercial Grade Galvanized Steel Sheet With Class Z275 Galvanizing 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-tapping screws to Manufacturer Installation Instructions.
Facia board: 250 x 10 mm Fibre Cement Facia/Barge Board. Screw Fixed to Tuss Ends & Counter Batten With Countersunk Brass Screws. Prepare & Apply One Universal Undercoat & Two Coats Super Acrylic P.V.A.

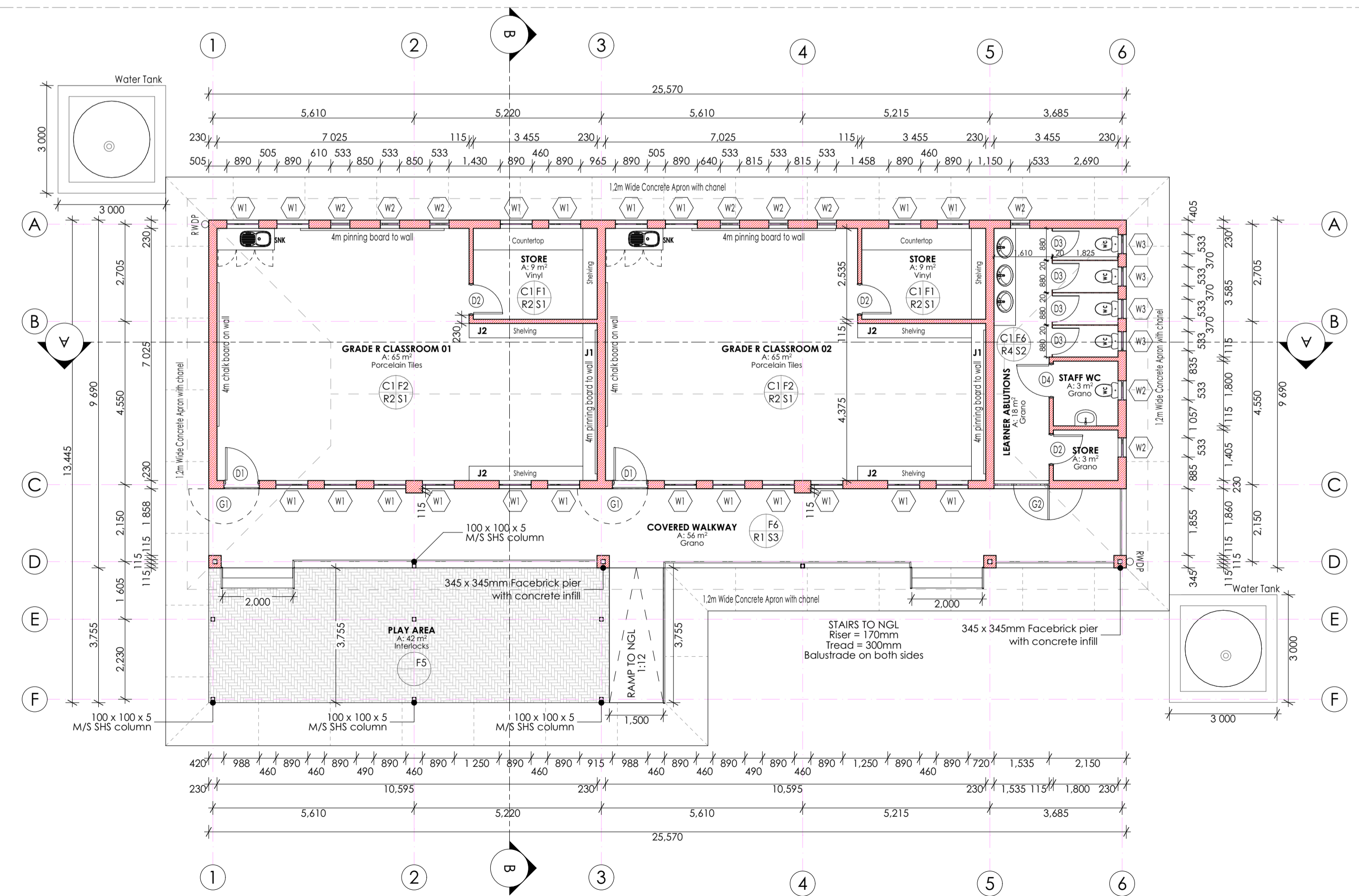
CEILING PLAN:
Scale 1:100.



CEILING LEGEND:

[Pattern]	CEILING TYPE C1 GYPSUM BOARDS AS PER FINISHES SCHEDULE.
[Pattern]	CEILING TYPE C2 FIBRE-CEMENT BOARDS AS PER FINISHES SCHEDULE.
[Pattern]	CEILING TYPE C3 PATENT ACOUSTIC TILES PER FINISHES SCHEDULE.
[Pattern]	CEILING TYPE C4 EMULSION PAINT ON SKIMMED SOFFIT AS PER FINISHES SCHEDULE.
[Pattern]	EXPOSED ROOFING SHEETS AS PER FINISHES SCHEDULE.

FLOOR PLAN:
Scale 1:100.

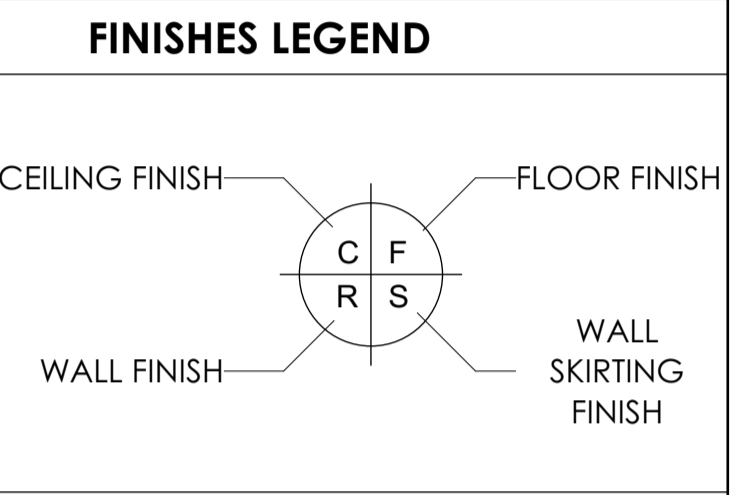


ISSUED FOR TENDER

LEGEND

- NEW WALLS
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NOTES
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DIMENSIONS TO BE READ, NOT TO SCALED FROM THIS DRAWING
CONTRACTORS TO CONFIRM ALL DIMENSIONS ON SITE BEFORE CONSTRUCTION COMMENCES & ANY DISCREPANCY TO BE REPORTED TO THE PROJECT ARCHITECT



SIGNATURE TABLE

DISCIPLINE	SIGN	DATE
CLIENT		
PLAN EXAMINER		
FIRE CONTROL		
ENVIRONMENTAL		
ROADS STORMWATER		
WATER & SANITATION		

REVISIONS

REV. NO.	DATE	DESCRIPTION
0	JUL 21	FIRST ISSUE FOR TENDER

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PROVINCIAL GOVERNMENT
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DEPARTMENT OF
PUBLIC WORKS, ROADS & INFRASTRUCTURE
INSTITUTION
VUTVI PRIMARY - 933 303 101

RESTORATIVES, REPAIRS & ADDITIONS
CONTRACT - SECTION
DOCUMENTATION & PROCUREMENT
DISCIPLINE: ARCHITECTURAL 4
WORK DESCRIPTION - SUB DIVISION: GRADE R 2 CLASSROOM BLOCK G2
DRAWING DESCRIPTION: FLOOR PLAN & CEILING LAYOUT

DRG No.	301-01	01/08	ITEM No.
DESIGN	NA	KSN	DRAWN
SCALE	AS SHOWN	ES	CHECK

DATE	RESPONSIBLE PROFESSIONAL	SIGN	PR. NUMBER
NOV 2019	A. SINKALA		PrArch 24750409

DRAWING CO-ORDINATED

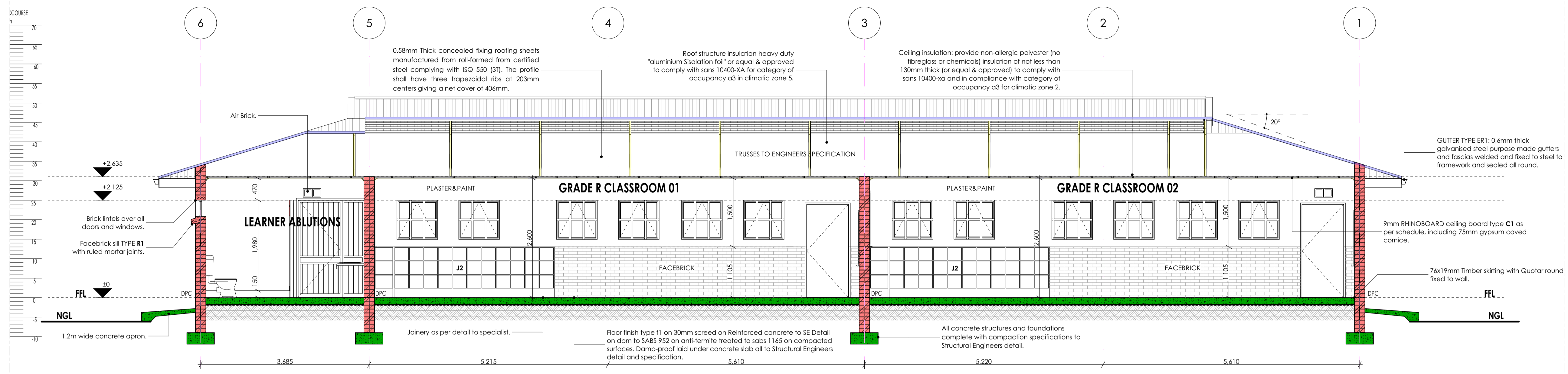
CONSULTANT
TECTURA PROJECTS

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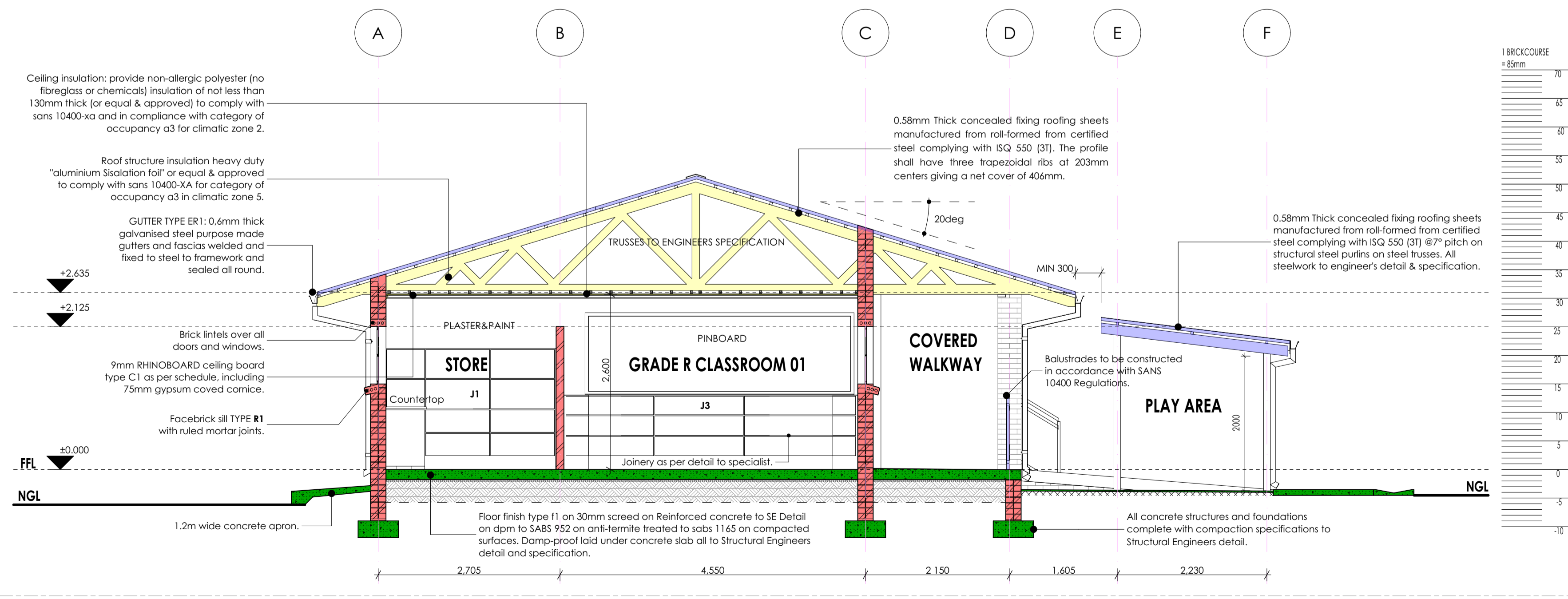
CONTRACTOR

CAD SYSTEM	AUTOCAD	FILE NAME
SIZE	PROJECT NUMBER	REV
A1	LDPW - PROF/16002/F18	0

ISSUED FOR TENDER



SECTION A-A:
Scale 1:50.



SECTION B-B:
Scale 1:50.

LEGEND

- 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

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FINISHES LEGEND

CEILING FINISH	FLOOR FINISH
WALL FINISH	WALL SKIRTING FINISH

SIGNATURE TABLE

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FIRE CONTROL		
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ROADS STORMWATER		
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RESTORATIVES, REPAIRS & ADDITIONS

CONTRACT - SECTION

DOCUMENTATION & PROCUREMENT

DISCIPLINE: **ARCHITECTURAL** 4

WORK DESCRIPTION - SUB DIVISION: **GRADE R 2 CLASSROOM BLOCK G2**

DRAWING DESCRIPTION: **SECTIONS A & B**

DRG No.	301-03	03/08	ITEM No.
DESIGN	NA	KSN	DRAWN
SCALE	AS SHOWN	ES	CHECK

DATE	RESPONSIBLE PROFESSIONAL NAME	SIGN	PR. NUMBER
NOV 2019	A. SINKALA		PrArch 24750409

DRAWING CO-ORDINATED

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TECTURA PROJECTS

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CONTRACTOR

CAD SYSTEM	AUTOCAD	FILE NAME
SIZE	PROJECT NUMBER	REV
A1	LDPW - PROF/16002/F18	0

SANITARY SCHEDULE

WC'S URINALS & SHOWER

11: 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 Thermostat 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 blank flush plate.

12: CERAMIC PARAPLEGIC WC
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.

13: 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 Thermostat 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.

14: 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.

15: 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 thermostat FS, seat and complete with all necessary fittings as per manufacturer's specifications and applicable SABS standards.

16: CERAMIC WALL HUNG URINAL
Vitreous china size 415x315x75 mm wall hung bowl urinal to comply with SABS 497. Supplied with suitable 38mm CP 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 standards.

17: CERAMIC PARAPLEGIC WC (JUNIOR LOW LEVEL SEAT)
Vitreous china 90° outlet or equal and approved. Top inlet closed rim back-to-wall pan to comply with SABS 497. Fitted with 6 litre Cistern installed complete with all necessary fittings to manufacturer's specification and applicable SABS standards. Flush valve to be fitted with suitable extension lever.

WASH-HAND BASIN

18: WHB & MIXER TAP
Rosa Sanitaryware Vitreous china size 560 x 415mm rounded "Tuscany", OR EQUAL AND APPROVE valve to comply with SABS 497 with single tap hole configuration supplied with integrated overflow and chairstay hole through the centre semi-punched supplied with a "Tuscany" pedestal and fitted with No. "Cobra Waterjet" 15mm chrome pushbutton demand pillar tap with flanged backnut (code KM2.102) metering tap, 30V-32 CP anti-fret plug with spindle, 308 basin waste, 345 CP bottle trap, mounting kit and angle valves.

19: 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 1/2 turn ceramic disc head and blue & Red indicators water applications and flanged backnut, chrome plated 32 mm standing overflow tube, chrome plated bottle trap supplied with all necessary pipe connections. Fitted with concealed wall bracket in accordance to the manufacturer's specifications.

20: WHITE GLAZED PORCELAIN WHB (VANITY)
Ceramic freecast 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 manufacturer's specifications.

21: SMALL BASIN & 2 TAP STRAY & 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 chairstay hole with: 2No. pillar taps, chrome plated anti-fret 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.

22: HEAVY DUTY BASIN & 2 TAP (FOR LABS)
Ceramic fire clay 500x350mm rectangular heavy duty basin in one tap hole configuration to comply with SABS 497 and R4H hole plugged and fitted with: 1No. pillar tap, Chrome Plated anti-fret 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 specifications.

23: 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 1/2 turn ceramic disc head and blue & Red indicators water applications and flanged backnut, chrome plated 32mm standing overflow tube, chrome plated bottle trap supplied with all necessary pipe connections. Fitted with concealed wall bracket in accordance to the manufacturer's specifications.

Combination of sanitaryware, accessories and general fittings comprising of:
• Mirror type K2 • Paper towel dispenser K8 and bin type K3 • Soap dispenser type K9 • Splashback comprising 2No. rows of wall tile finish type R5 as per finishes schedule and gROUT in compliance to manufacturer's specifications and government standard specifications. Installation heights as indicated in the drawings.

SINKS:

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 accessories in accordance to manufacturer's specifications. Sink installation height = 900mm AFFL.

X2: STAINLESS STEEL SINK
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 type, with chrome plated overarm swivel Outlet, adjustable wall flanges and supplied with suitable accessories in accordance to manufacturer's specifications. Sink installation height = 900mm AFFL.

X3: CERAMIC SINK
Ceramic freecast 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
2000 x 550mm stainless steel wash trough 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 but nut, plug with strip, chain and stay. CP, P trap, with deep seal and cleaning eye. Rough brass. Sink installation height = 900mm AFFL. Cut out size 335 x 425mm.

X5: DOUBLE WASH TROUGH (Inset) & 2 no. TAPS
1200 x 550 x 200mm Double bowl wall hung wash trough 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 but nut and plug with strip. CP, Double drain black rubber deep seal P-trap. Sink mounted on 2No. 25mm square SS gallow brackets, front leg and adjustable foot piece of height of 915mm AFFL.

SANITARY ACCESSORIES

K1: SS TOILET ROLL HOLDER - 2 ROLL
Standard stainless steel toilet roll holder (2 roll) 152mm 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 dome-headed mirror screws.

K3: WASTE BIN
320W x 520H x 200D 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)
100mm x 200mm x 800mm Plastic Sanitary Pedal Bin with capacity of 100 Litres 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 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 HAND)-PARAPLEGIC
Stainless steel 914 x 90 x 32mm diameter right 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
330mmWx365mmHx230mmD 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 (ISH)-WALL MOUNTED
115W x 270H x 110D Stainless 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 (Multitrack)
800mm Wide x 220mm High x 90mm High Aluminium Multitrack Hat and Coat Hook in multi-track two hooks Configuration with Anodised Silver Finish Complete with Screws.

K11: HAND DRYER (Hands free)
As per Electrical Engineers specification

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 architect's drawing.

K13: SHOWER CURTAIN RAIL (alright)
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

G1: DOOR PROTECTOR
200mm wide UPVC Door Protector manufactured in high impact resistant rigid UPVC (Colour Grey) and cut to door width from 3m length, installed strictly in accordance to manufacturer's specifications. Installation height 900mm above FF, or as specified.

G2: PROTECTOR SCREEN
Full down UPVC screen 284 x 1850mm (Viewing area 2340 x 1750mm) with wall-mounted code SC400 Keystone Brackets Adjustable Set of 2, size 300mm. To be supplied complete with all accessories, and fitted in strict accordance with manufacturer's instructions.

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

G4: FINBOARD 300W X 1500H
Finboard size 300mm H x 1500mm W comprising of laminated solid board core pinning material beaded all round with anodised aluminium channel surround milled at the corners. To be fitted complete with fixing brackets, screws and wall plugs at 900mm above floor level.

G5: WINDOW NORMAL BUNDS (vertical fabric)
127 mm vertical deco blinds with anodised aluminium headrail fitted with colour coordinated insert. All runners to be wheeled and fitted with individual clutch mechanism. All runners to be connected by stainless steel tie. Tie mechanism to be operated by a nylon ball chain with a reduction gear inside a fully enclosed cap. Blinds to be face fixed (faced over the window opening) by means of concealed type fixing brackets.

G6: FLOOR DRAIN
Cast iron flat type 5/8 floor outlets size 110 mm diameter with centre ball, including connections to downpipes.

G7: 36 FLOOR EXPANSION JOINT COVER
Co-ordinated 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
Vitrex system 1000 standard WHITEBOARD OR EQUAL & APPROVED vitreous enameled steel utility school chalkboards wall-mounted size 800mm x 1140mm high manufactured in accordance with SABS Standards CE 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 LM1797Z), applied 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.

WC'S URINALS & SHOWER

11: CERAMIC STANDARD WC (CC) CONCEALED CISTERN

12: CERAMIC PARAPLEGIC WC

13: CERAMIC PARAPLEGIC WC (CC) CONCEALED CISTERN

14: CERAMIC STANDARD WC (BACK INLET)

15: CERAMIC STANDARD WC (CC)

16: CERAMIC WALL HUNG URINAL

17: CERAMIC PARAPLEGIC WC (JUNIOR LOW LEVEL SEAT)

WASH-HAND BASIN

18: WHB & MIXER TAP

19: DISABLED BASIN

20: WHITE GLAZED PORCELAIN WHB (VANITY)

21: SMALL BASIN & 2 TAP STRAY & SHOWER SET (FOR WORKSHOPS)

22: HEAVY DUTY BASIN & 2 TAP (FOR LABS)

23: MEDIC BASIN & FITTINGS (SICK BAY)

SINKS:

X1: STAINLESS STEEL SINK

X2: STAINLESS STEEL SINK

X3: CERAMIC SINK

X4: SINGLE WASH TROUGH (Inset) & 2 no. TAPS

X5: DOUBLE WASH TROUGH (Inset) & 2 no. TAPS

SANITARY ACCESSORIES

K1: SS TOILET ROLL HOLDER - 2 ROLL

K2: GLASS MIRROR

K3: WASTE BIN

K4: SANITARY BIN (PLASTIC)

K5: SOAP HOLDER

K6: WALL GRAB RAILS-PARAPLEGIC

K7: GRAB RAILS (RIGHT HAND)-PARAPLEGIC

K8: PAPER TOWEL DISPENSER

K9: SOAP DISPENSER (ISH)-WALL MOUNTED

K10: ALUMINIUM COAT HOOKS (Multitrack)

K11: HAND DRYER (Hands free)

K12: TOWEL RAIL

K13: SHOWER CURTAIN RAIL (alright)

GENERAL FIXTURES

G1: DOOR PROTECTOR

G2: PROTECTOR SCREEN

G3: FINBOARD 1500W X 1000H

G4: FINBOARD 300W X 1500H

G5: WINDOW NORMAL BUNDS (vertical fabric)

G6: FLOOR DRAIN

G7: 36 FLOOR EXPANSION JOINT COVER

G8: CHALKBOARDS - GREEN SURFACE COLOUR

G9: CHALKBOARDS - GREEN SURFACE COLOUR

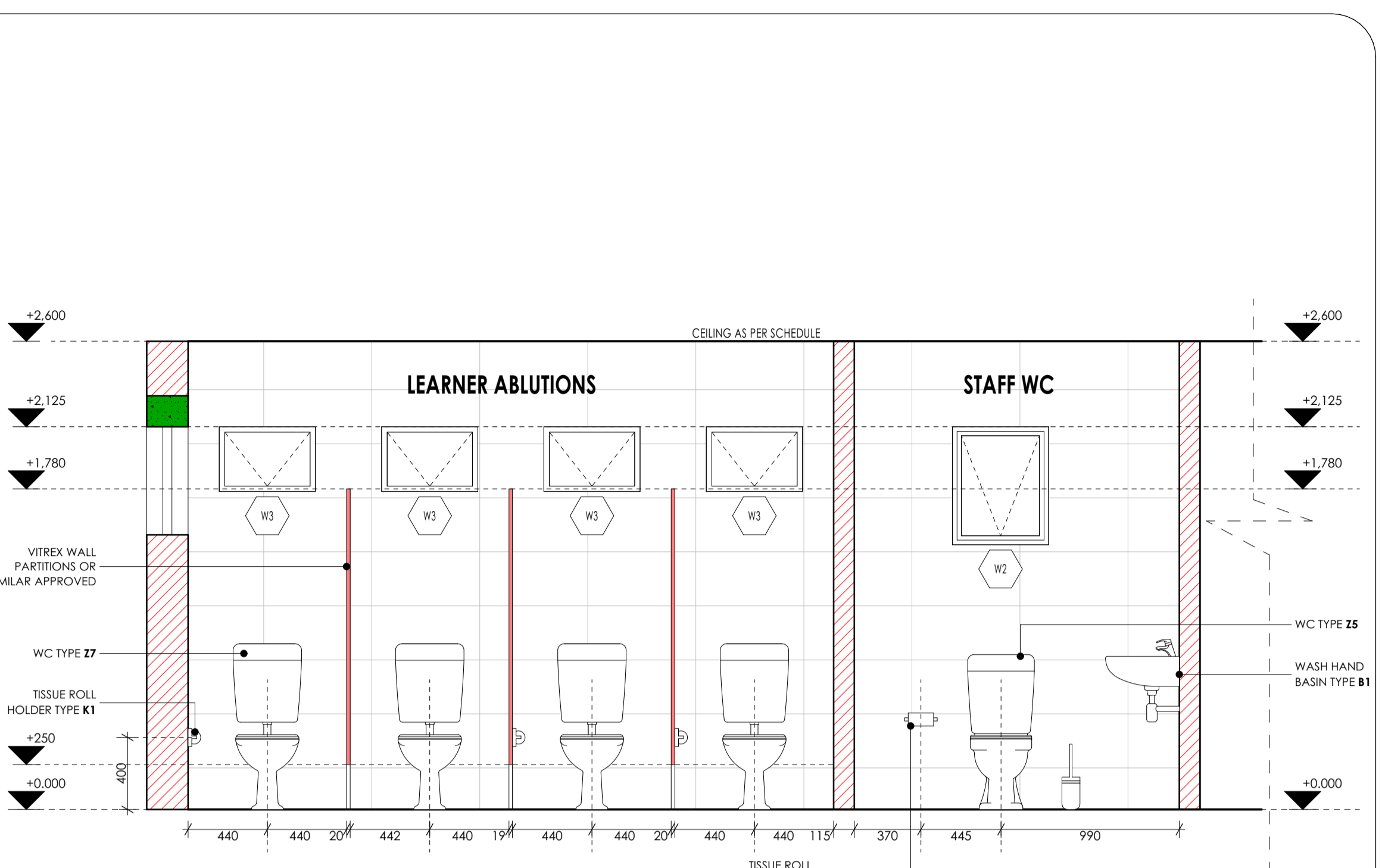
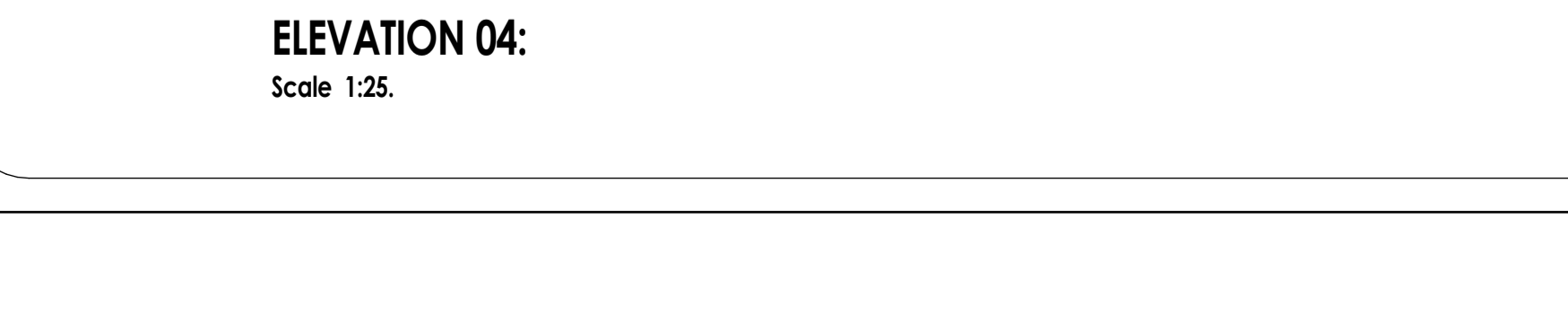
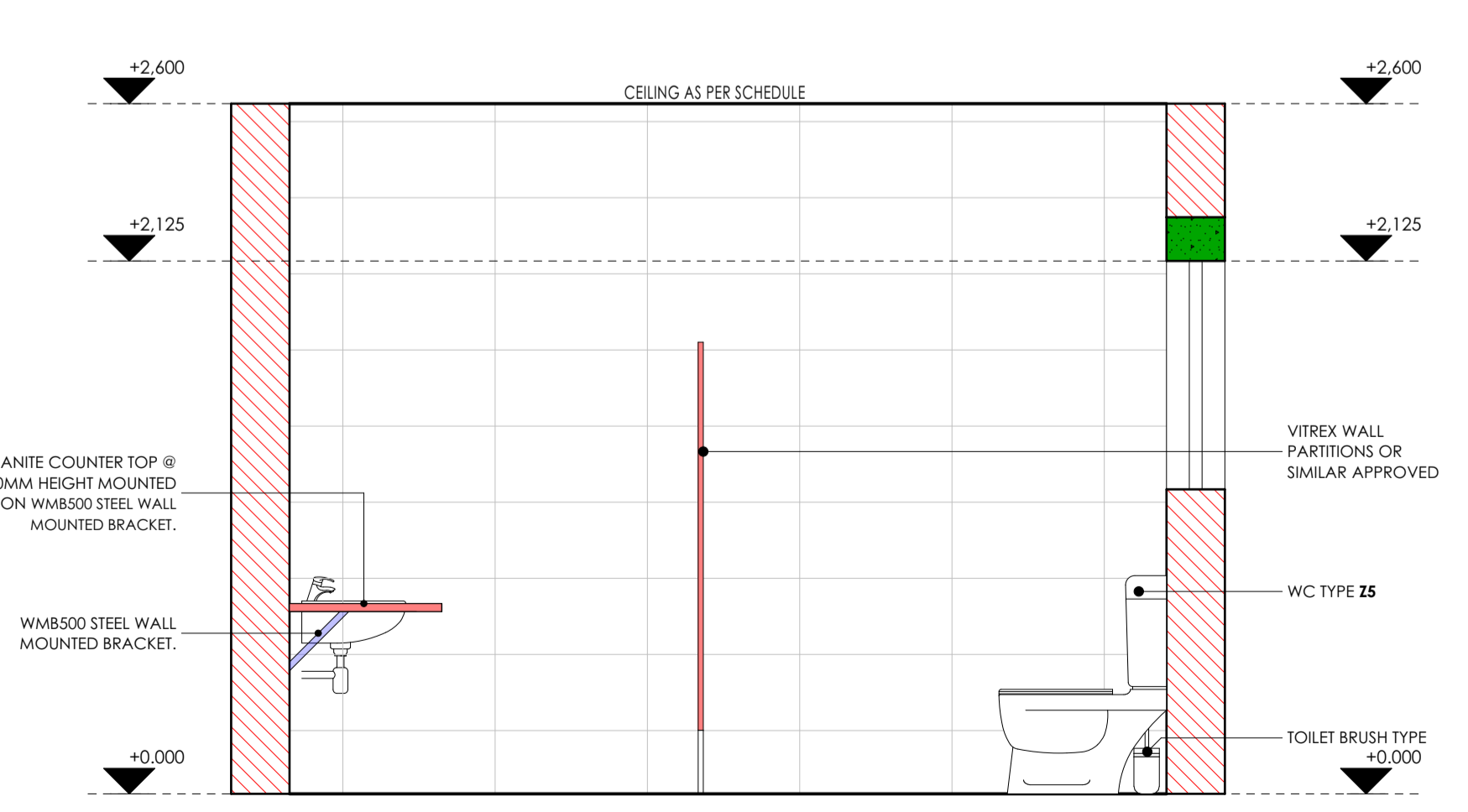
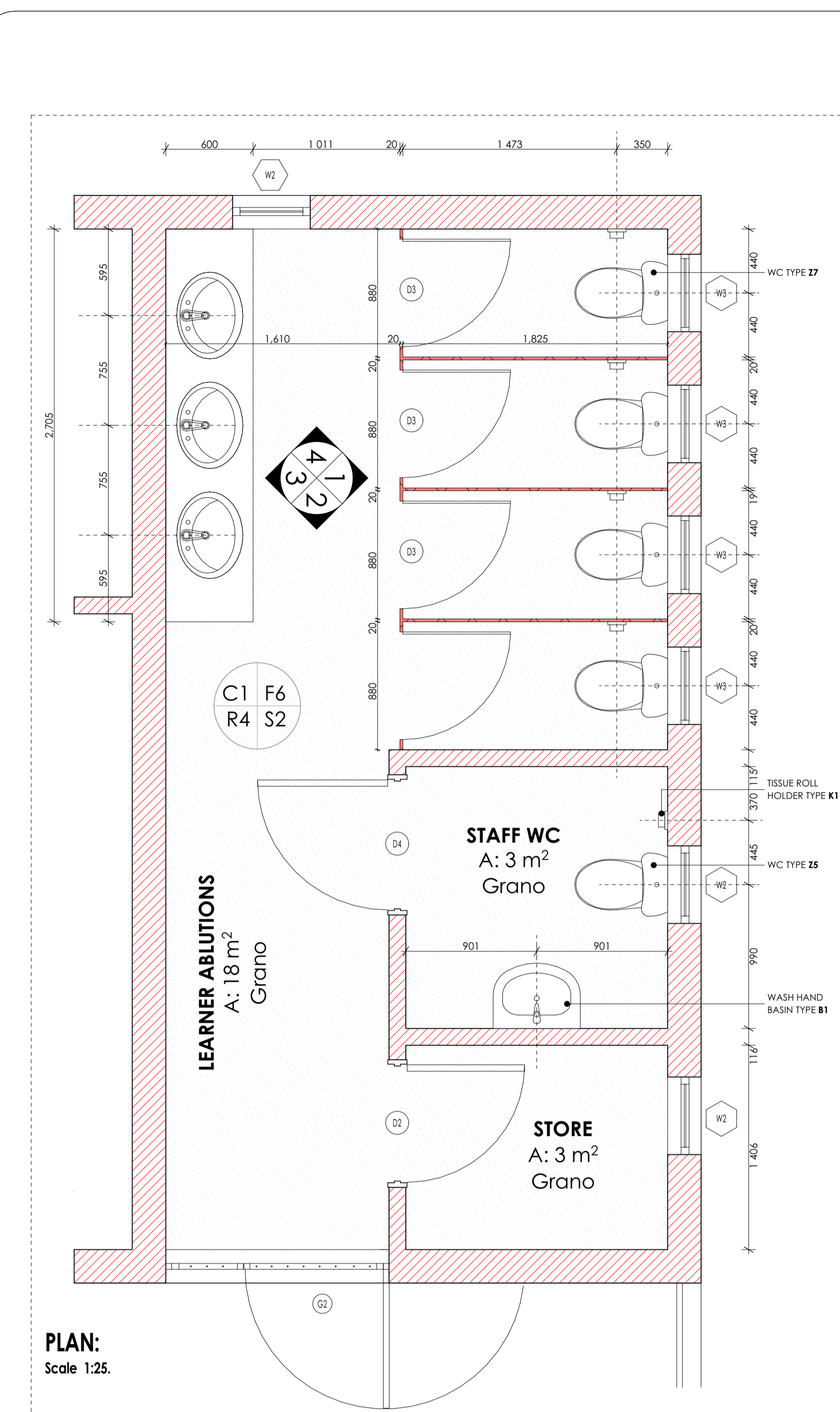
G10: CHALKBOARDS - GREEN SURFACE COLOUR

G11: CHALKBOARDS - GREEN SURFACE COLOUR

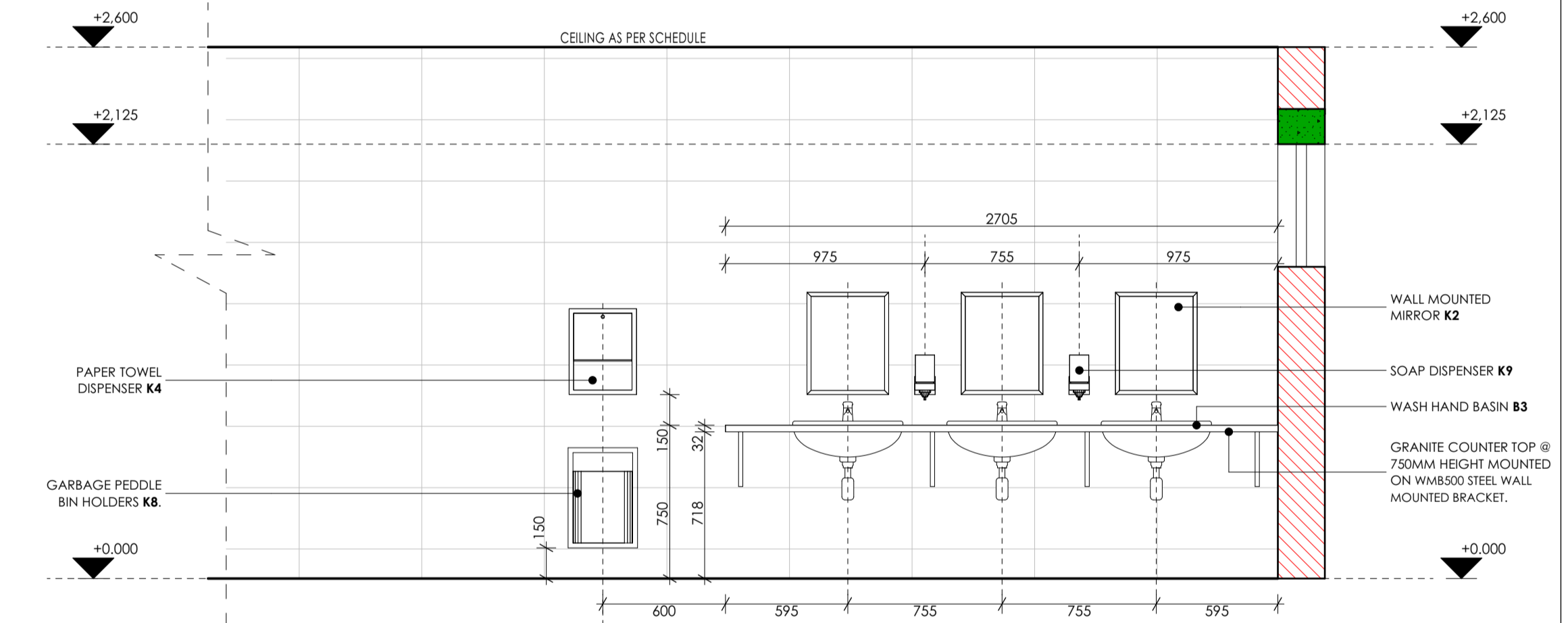
G12: CHALKBOARDS - GREEN SURFACE COLOUR

G13: CHALKBOARDS - GREEN SURFACE COLOUR

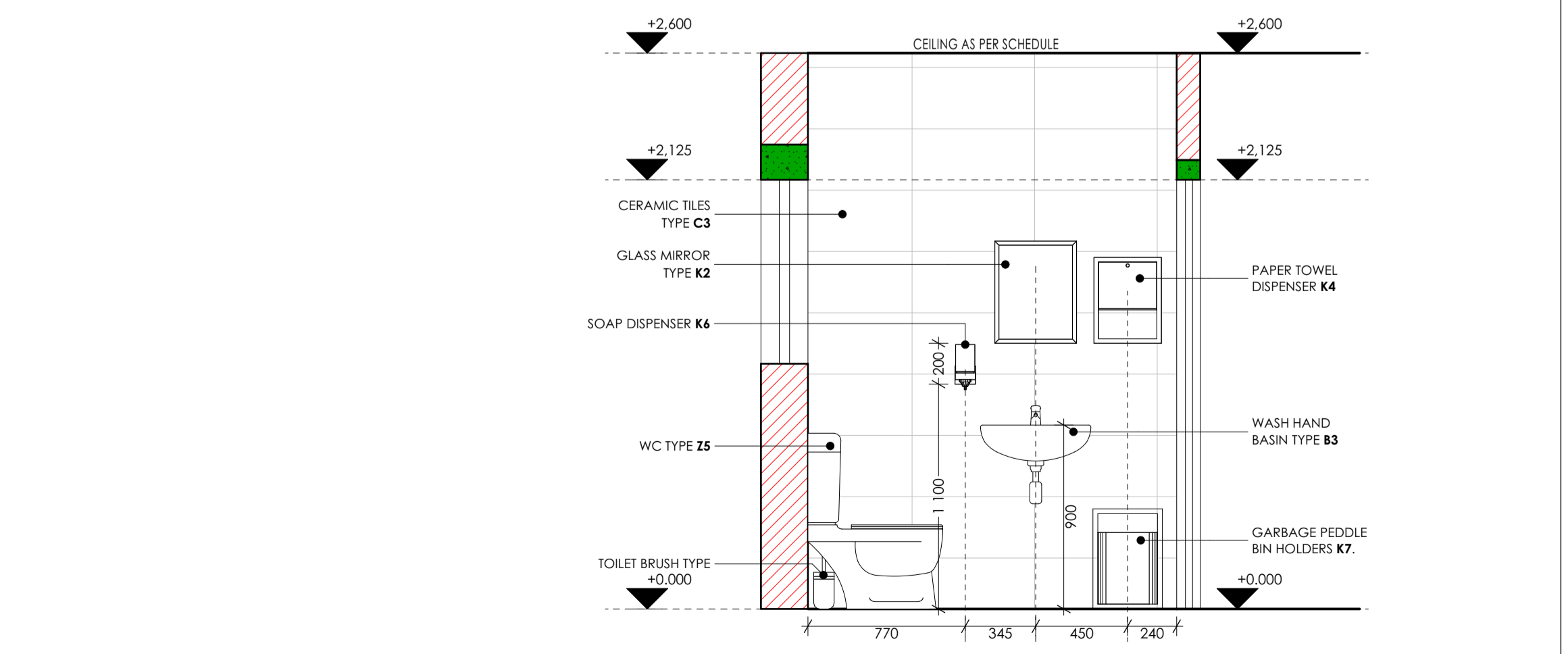
G14: CHALKBOARDS - GREEN SURFACE COLOUR



ELEVATION 01:
Scale 1:25.



ELEVATION 03:
Scale 1:25.



ELEVATION 02: STAFF WC
Scale 1:25.

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LEGEND

- NEW WALLS
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WALL FINISH	WALL SKIRTING FINISH

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RESTORATIVES, REPAIRS & ADDITIONS
CONTRACT - SECTION
DOCUMENTATION & PROCUREMENT

DISCIPLINE	QUANTITY
ARCHITECTURAL	4

ABLUTION WET AREA DETAILS

DRG No.	301-06	06/08	ITEM No.
DESIGN	NA	KSN	DRAWN
SCALE	A5 - SHOWN	ES	CHECK
DATE	NOV 2019	A. SINKALA	PR. NUMBER 24750409

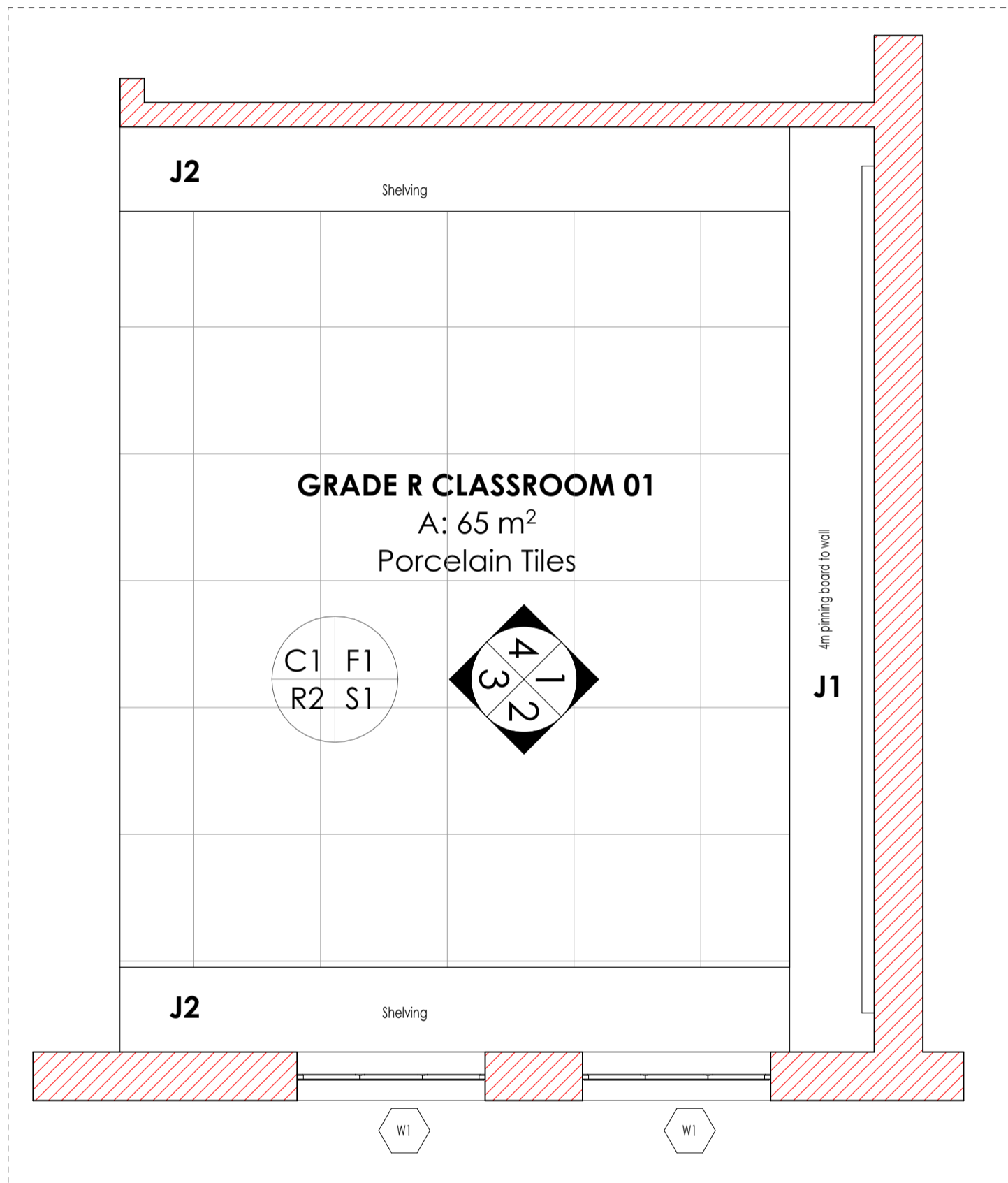
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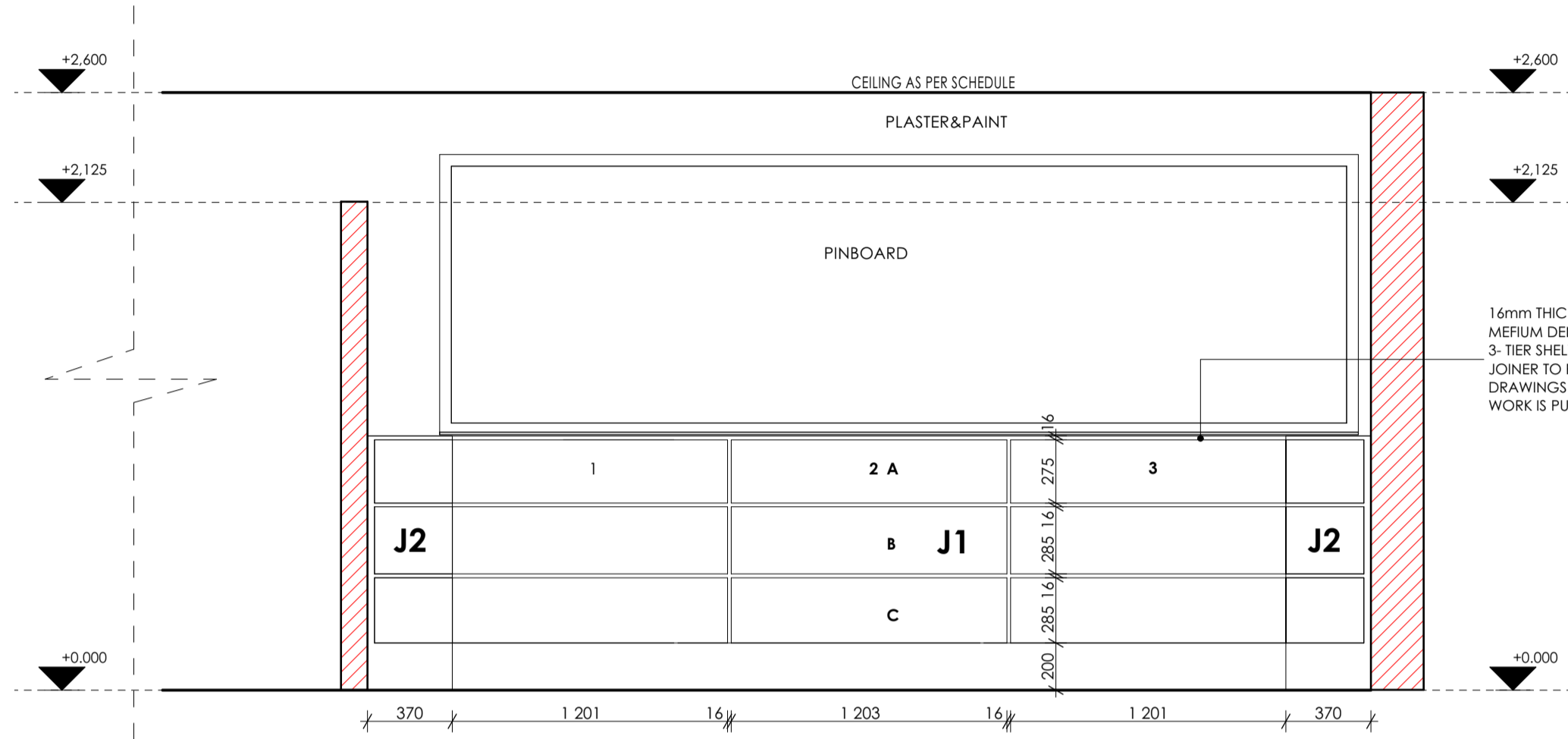
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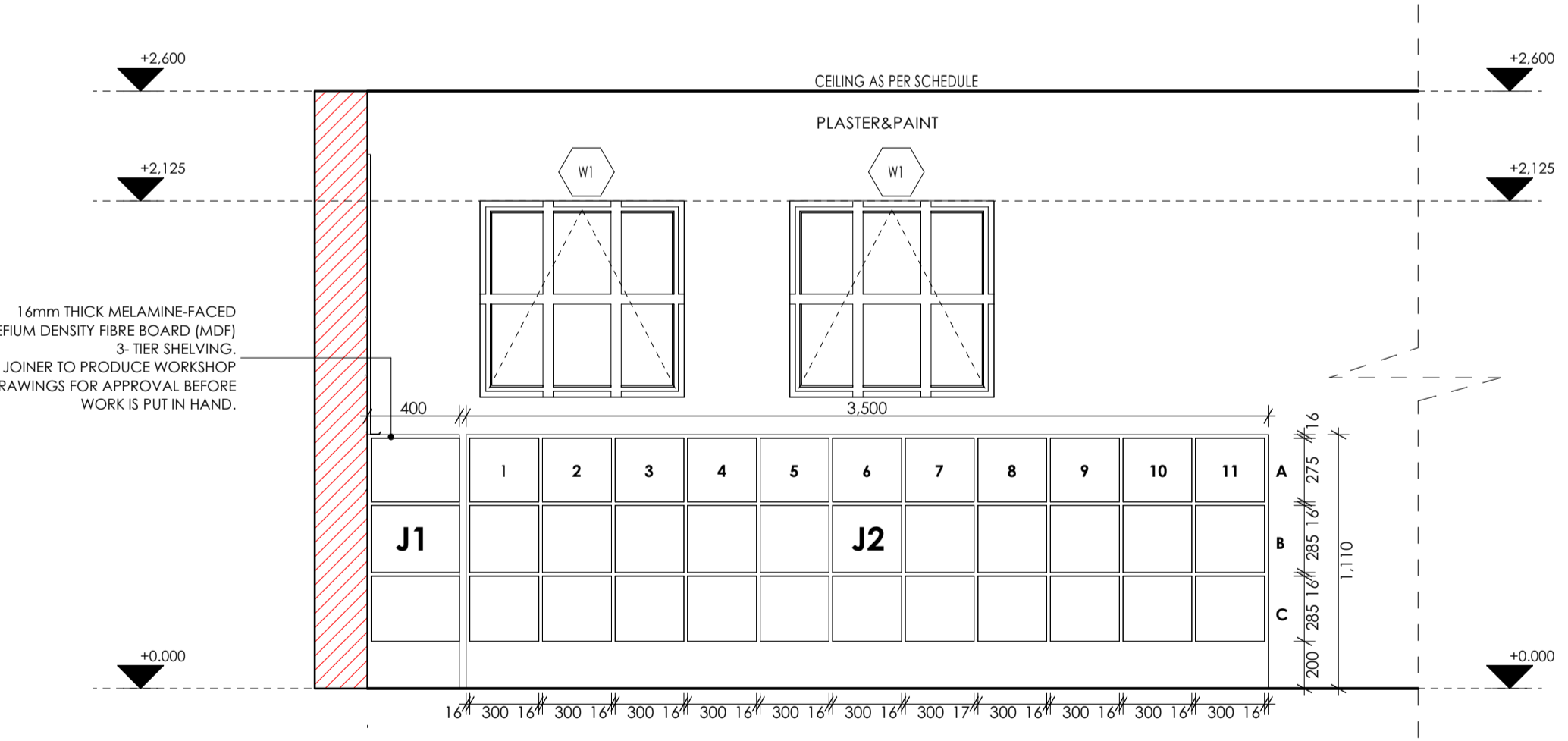
SANITARY SCHEDULE	
WC'S URINALS & SHOWER	
11: CERAMIC STANDARD WC (CC) CONCEALED CISTERN	
Vitreous china 90° outlet WC or equal and approved top inlet closed rim back-to-wall pan. Floor Mounted to comply with SABS 497 & Fitted with "Jazz Thermostat Plastic Seat". Fitted with Concealed Flushing Cistern 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 blank flush plate.	
12: CERAMIC PARAPLEGIC WC	
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.	
13: 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 Thermostat 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.	
14: 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.	
15: 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 thermostat 6L seat and complete with all necessary fittings as per manufacturer's specifications and applicable SABS standards.	
16: CERAMIC WALL HUNG URINAL	
Vitreous china size 415x13x75 mm wall hung urinal to comply with SABS 497. Supplied with suitable 38mm CP 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 standards.	
17: CERAMIC PARAPLEGIC WC (JUNIOR LOW LEVEL SUITE)	
Vitreous china 90° outlet or equal and approved, top inlet closed rim back-to-wall pan to comply with SABS 497. Fitted with 6 litre Cistern installed complete with all necessary fittings to manufacturer's specification and applicable SABS standards. Flush valve to be fitted with suitable extension lever.	
WASH-HAND BASIN	
R1: WHB & MIXER TAP	
Road Sanitaryware Vitreous china size 560 x 415mm rounded "Tuscany", OR EQUAL AND APPROVE basin to comply with SABS 497 with single tap hole configuration supplied with integrated overflow and chairstay hole through the centre semi-punched supplied with a "Tuscany" pedestal and fitted with No. "Cobra WaterTech" 15mm chrome pushbutton demand pillar tap with flanged backnut (code KMZ102) meeting tap. 30V-32 CP anti-fret plug with spindle. 308 basin wash-in CP bottle trap, mounting kit and angle valves.	
R2: 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 1/2 turn ceramic disc head and blue & Red indicators water applications and flanged backnut. chrome plated 32 mm standing overflow tube, chrome plated bottle trap supplied with all necessary pipe connections. Fied with concealed wall bracket in accordance to the manufacturer's specifications.	
R3: WHITE GLAZED PORCELAIN WHB (VANITY)	
Ceramic freecry size 450x350mm oval self-rimming vanity basin to comply with SABS 497 in one tap hole configuration supplied without overflow and fitted with: No. chrome plated tap with flanged backnut (code KMZ102) meeting 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 manufacturer's specifications.	
R4: SMALL BASIN & 2 TAPSTRAY & SHOWER SET (FOR WORKSHOPS)	
Vitreous china size 455x290mm wash basin to comply with SABS 497 in 2-top hole configuration supplied with integrated overflow and chairstay hole with: 2No. pillar taps, chrome plated anti-fret 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.	
R6: HEAVY DUTY BASIN & No. TAP (FOR LABS)	
Ceramic fire clay 560x350mm rectangular heavy duty basin in one tap hole configuration to comply with SABS 497 and R4H hole plugged and fitted with: No. pillar tap. Chrome Plated anti-fret 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 specifications.	
R6: 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 1/2 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. Fied with concealed wall bracket in accordance to the manufacturer's specifications. Combination of sanitaryware, accessories and general fittings comprising of: • Mirror type K2 • Paper towel dispenser K8 and bin type K3 • Soap dispenser type K9 • Splashback comprising 2no. rows of wall tile finish type R5 as per finishes schedule and grout in compliance to manufacturer's specifications and government standard specifications. Installation heights as indicated in the drawings.	
SINKS:	
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 gaskets in accordance to manufacturer's specifications. Sink installation height = 900mm AFFL.	
X2: STAINLESS STEEL SINK	
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 type, with chrome plated overrim swivel Outlet, adjustable wall flanges and supplied with suitable accessories in accordance to manufacturer's specifications. Sink installation height = 900mm AFFL.	
X3: CERAMIC SINK	
Ceramic freecry 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	
820mm x 530mm inset wash trough 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	
1200 x 530 x 200mm Double bowl wall hung wash trough 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 of height of 915mm AFFL.	
SANITARY ACCESSORIES	
K1: SS TOILET ROLL HOLDER - 2 ROLL	
Standard stainless steel toilet roll holder (2 roll) 150mm 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 floor glass silver-backed mirror, size 450x900mm height with polished bevelled edges 4 times holes for and fixed, with chromium plated dome-headed mirror screws	
K3: SS WASTE BIN	
320W x 520H x 200D 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)	
180mm x 200mm x 600mm Plastic Sanitary Pedal Bin with capacity of 100 Liters 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 30mm 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 914 x 914 x 25mm diameter handrail grab rail with 450mm high centre flange, in satin polished finish complete with SS fixing screws and plastic wall plugs, as per manufacturer's instructions.	
K8: PAPER TOWEL DISPENSER	
330mmWx355mmHx230mmD 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 (ISH)-WALL MOUNTED	
115W x 270H x 110D Stainless 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 (Multi-track)	
800mm Wide x 220mm High x 90mm High Aluminium Multi-track Hat and Coat Hook in multi-track two hooks Configuration With Anodised Silver Finish Complete with Screws.	
K11: HAND DRYER (Hands free)	
As per Electrical Engineers specification	
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 architect's drawing.	
K13: SHOWER CURTAIN RAIL (aluminium)	
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	
G1: DOOR PROTECTOR	
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 FF, or as specified.	
G2: PROJECTION SCREEN	
Full-down PVC screen 282, 340 x 1855mm (viewing area 2340 x 1755mm) with wall-mounted code SCM40 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 milled at the corners. To be fitted complete with fixing brackets, screws and wall plugs at 900mm above floor level.	
G4: PINBOARD 300W X 1500H	
Pinboard size 1500mm H x 300mm W comprising of laminated soft board core pinning material beaded all round with anodised aluminium channel surround milled at the corners. To be fitted complete with fixing brackets, screws and wall plugs at 900mm above floor level.	
G5: WINDOW NORMAL BUNDS (vertical fabric)	
127 mm vertical deco blinds with anodised aluminium headrail fitted with colour coordinated insert. All runners to be wheeled and fitted with individual clutch mechanism. All runners to be connected by stainless steel links. Till mechanism to be operated by a nylon ball chain with a reduction gear inside a fully enclosed cap. Blinds to be face fixed (fied over the window opening) by means of concealed type fixing brackets.	
G6: FLOOR DRAIN	
Cast iron flat type 150 floor outlets size 110 mm diameter with centre ball, including connections to downpipes.	
G7: SS FLOOR EXPANSION JOINT COVER	
Concealed 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	
Vitreous system 1000 standard WHITEBOARD OR EQUAL & APPROVED vitreous enamelled steel utility school chalkboards wall-mounted size 800mm x 1140mm high manufactured in accordance with SABS Standards CSZ 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 (Vitreous Colour Reference - Chalk Board Green LM197/2), applied 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.	



PLAN:
Scale 1:25.



ELEVATION 01:
Scale 1:25.



ELEVATION 02:
Scale 1:25.

ISSUED FOR TENDER

LEGEND	
	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

NOTES
ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE STATED
DIMENSIONS TO BE READ, NOT TO SCALED FROM THIS DRAWING
CONTRACTORS TO CONFIRM ALL DIMENSIONS ON SITE BEFORE CONSTRUCTION COMMENCES & ANY DISCREPANCY TO BE REPORTED TO THE PROJECT ARCHITECT

FINISHES LEGEND	
CEILING FINISH	FLOOR FINISH
WALL FINISH	WALL SKIRTING FINISH

SIGNATURE TABLE		
DISCIPLINE	SIGN	DATE
CLIENT		
PLAN EXAMINER		
FIRE CONTROL		
ENVIRONMENTAL		
ROADS STORMWATER		
WATER & SANITATION		

REV. NO.	DATE	FIRST ISSUE FOR TENDER	DESCRIPTION
0	JUL 21		

REVISIONS	

LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF
PUBLIC WORKS, ROADS & INFRASTRUCTURE
INSTITUTION
VUTVI PRIMARY - 933 303 101

RESTORATIVES, REPAIRS & ADDITIONS
CONTRACT - SECTION
DOCUMENTATION & PROCUREMENT

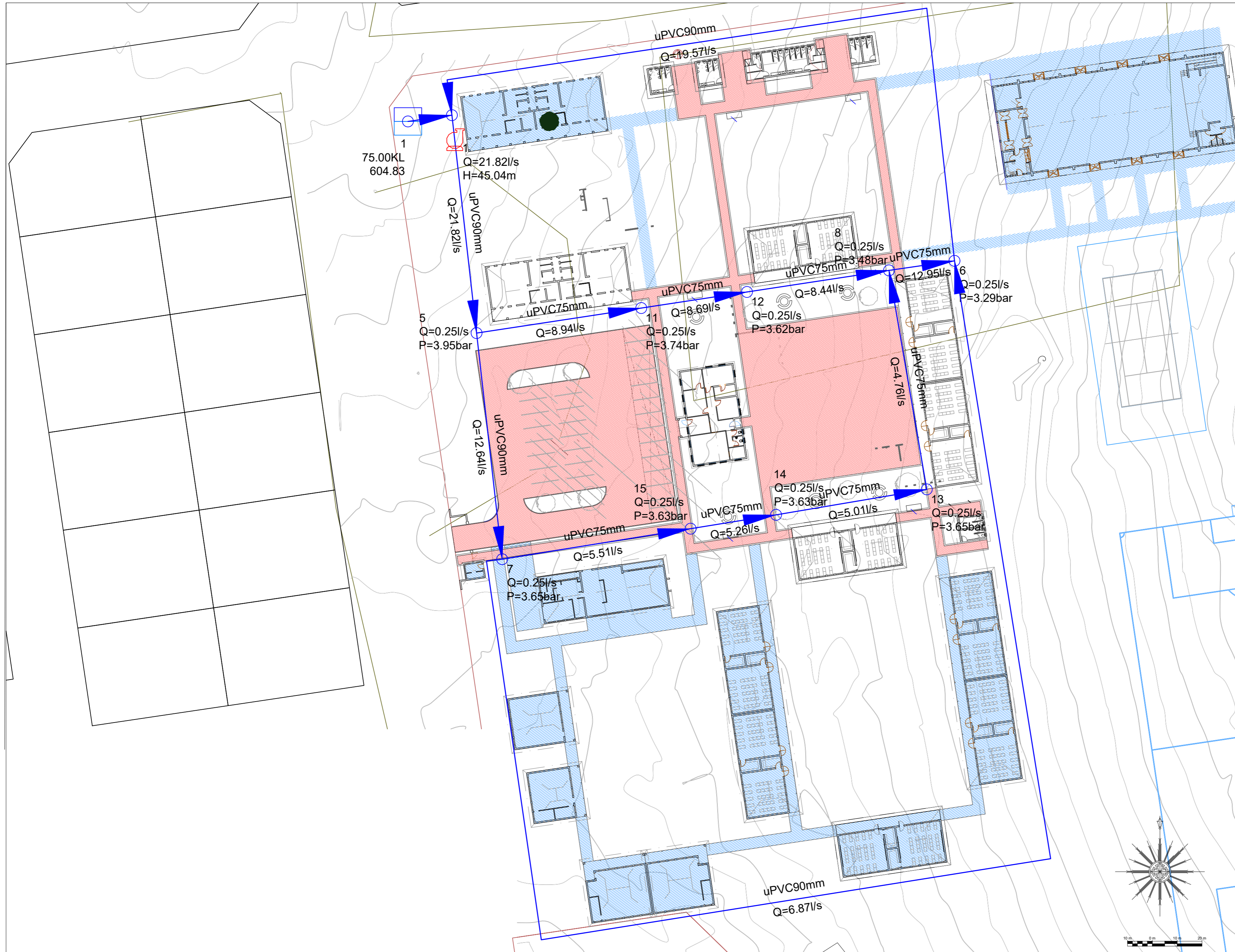
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WORK DESCRIPTION - SUB DIVISION	
GRADE R 2 CLASSROOM BLOCK G2	
DRAWING DESCRIPTION	
CLASSROOM JOINERY DETAILS	

DRG No.	301-08	08/08	ITEM No.
DESIGN	NA	KSN	DRAWN
SCALE	AS SHOWN	ES	CHECK
DATE	RESPONSIBLE PROFESSIONAL NAME	SIGN	PR. NUMBER
NOV 2019	A. SINKALA		Pr/Arch 24750409
DRAWING CO-ORDINATED			

CONSULTANT
TECTURA PROJECTS

CONTRACTOR		
CAD SYSTEM	AUTOCAD	FILE NAME
SIZE	PROJECT NUMBER	REV
A1	LDPW - PROF/16002/F18	0

CIVIL DRAWINGS



CLIENT DEPARTMENT SIGNATURE _____

FACILITY STAMP _____

FACILITY MANAGER _____

INFRASTRUCTURE MANAGER _____

GENERAL MANAGER _____

Checked by Professional Consultant
Name _____

Signature _____ Date _____

LOWFLOW CONSTRUCTION & ENGINEERING
 26 Peace Street
 Tzaneen
 0850
 Tel: 060 311 2170
 Fax: 086 541 0992
 E-mail: lowflowsa@gmail.com

LIMPOPO
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 DEPARTMENT OF PUBLIC WORKS
ROADS & INFRASTRUCTURE
 43 Church Street
 Polokwane
 0700
 TEL: 015 284 7000/1

PROJECT
INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH ACUTE INFRASTRUCTURE CHALLENGES, INCLUDING STORM DAMAGED SCHOOLS IN THE LIMPOPO PROVINCE

DRAWING DESCRIPTION
VUTIVI PRIMARY SCHOOL WATER PLAN

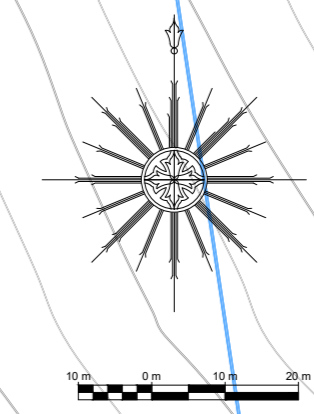
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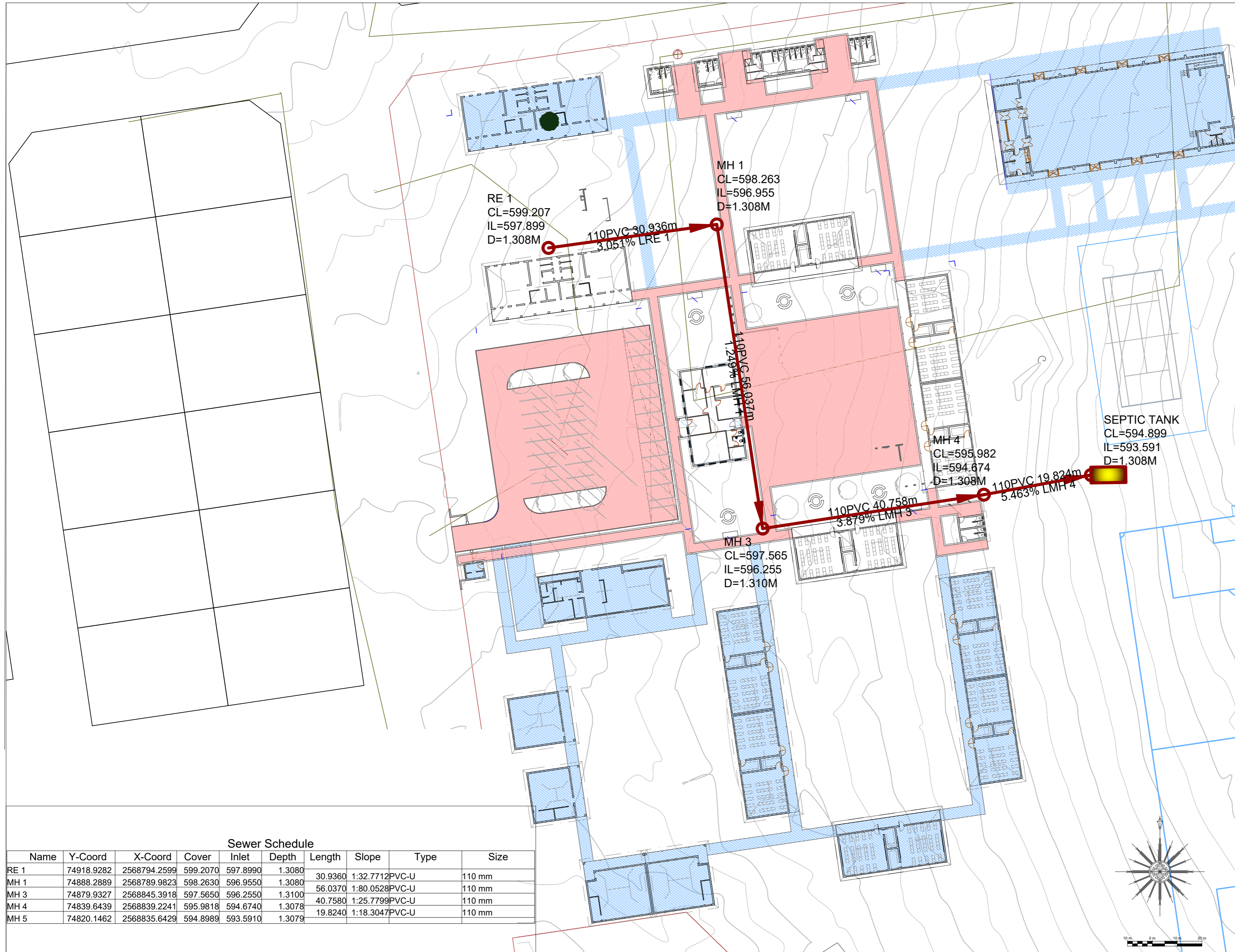
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Consultant Drawing number	Revision
B-500-03-1	01

Drawing number	Revision
WAT 080819/1	02

Stamped by plans Approval Committee





RE 1
CL=599.207
IL=597.899
D=1.308M

110PVC 30.936m
3.051% LRE 1

MH 1
CL=598.263
IL=596.955
D=1.308M

110PVC 56.037m
1.249% LMH 1

MH 4
CL=595.982
IL=594.674
D=1.308M

SEPTIC TANK
CL=594.899
IL=593.591
D=1.308M

110PVC 40.758m
3.879% LMH 3

110PVC 19.824m
5.463% LMH 4

MH 3
CL=597.565
IL=596.255
D=1.310M

Sewer Schedule										
Name	Y-Coord	X-Coord	Cover	Inlet	Depth	Length	Slope	Type	Size	
RE 1	74918.9282	2568794.2599	599.2070	597.8990	1.3080	30.9360	1:32.7712	PVC-U	110 mm	
MH 1	74888.2889	2568789.9823	598.2630	596.9550	1.3080	56.0370	1:80.0528	PVC-U	110 mm	
MH 3	74879.9327	2568845.3918	597.5650	596.2550	1.3100	40.7580	1:25.7799	PVC-U	110 mm	
MH 4	74839.6439	2568839.2241	595.9818	594.6740	1.3078	19.8240	1:18.3047	PVC-U	110 mm	
MH 5	74820.1462	2568835.6429	594.8989	593.5910	1.3079					

CLIENT DEPARTMENT SIGNATURE _____

FACILITY STAMP _____

FACILITY MANAGER _____

INFRASTRUCTURE MANAGER _____

GENERAL MANAGER _____

Checked by Professional Consultant
Name _____

Signature _____ Date _____

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LIMPOPO
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DEPARTMENT OF PUBLIC WORKS
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TEL: 015 284 7000/1

PROJECT
INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH ACUTE INFRASTRUCTURE CHALLENGES, INCLUDING STORM DAMAGED SCHOOLS IN THE LIMPOPO PROVINCE

DRAWING DESCRIPTION
VUTIVI PRIMARY SCHOOL SEWER LAYOUT PLAN

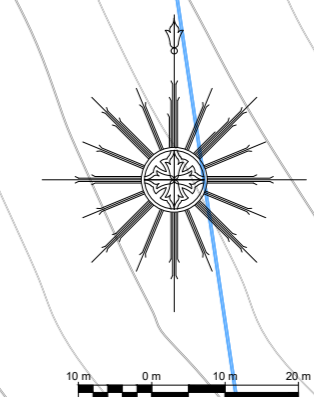
Drawn: TM Date: 04/02/20

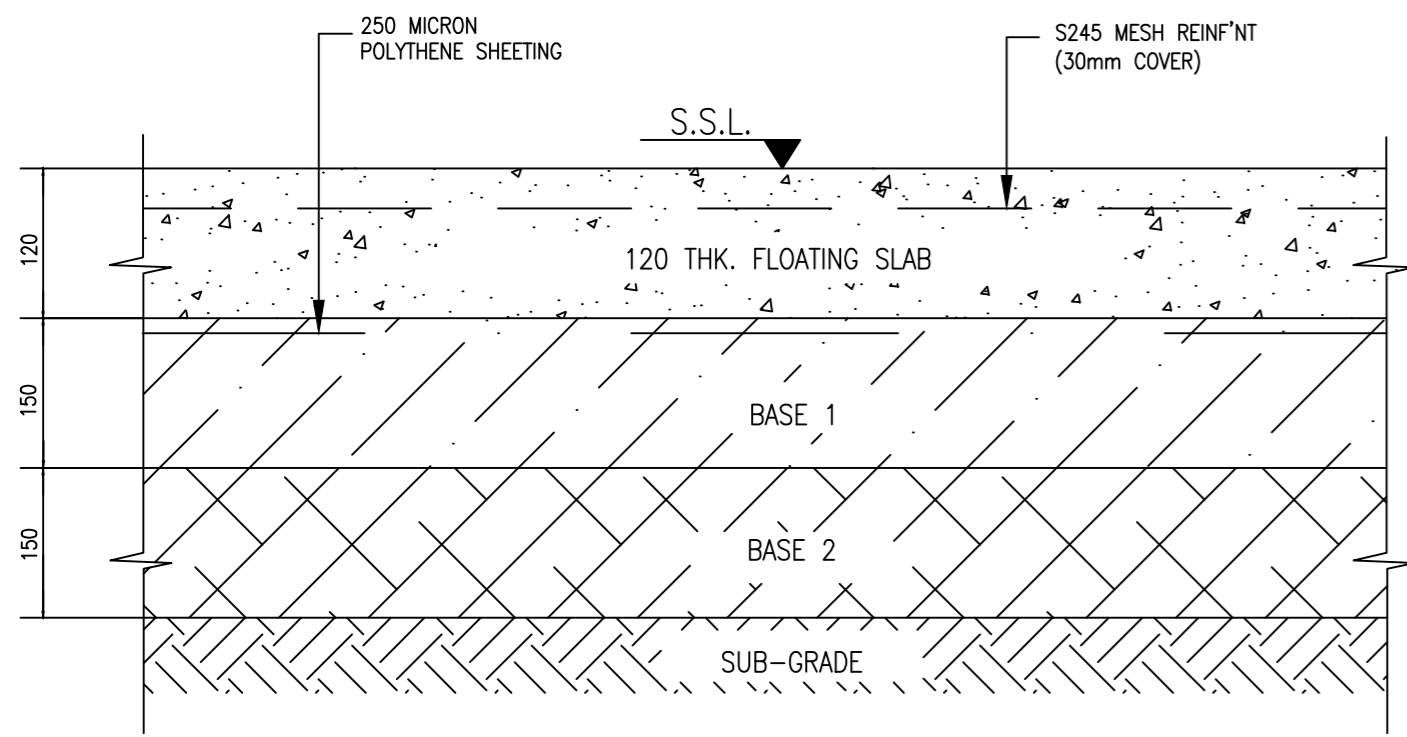
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Consultant Drawing number	Revision
B-500-03-1	01

Drawing number	Revision
SEW 080819/1	02

Stamped by plans Approval Committee

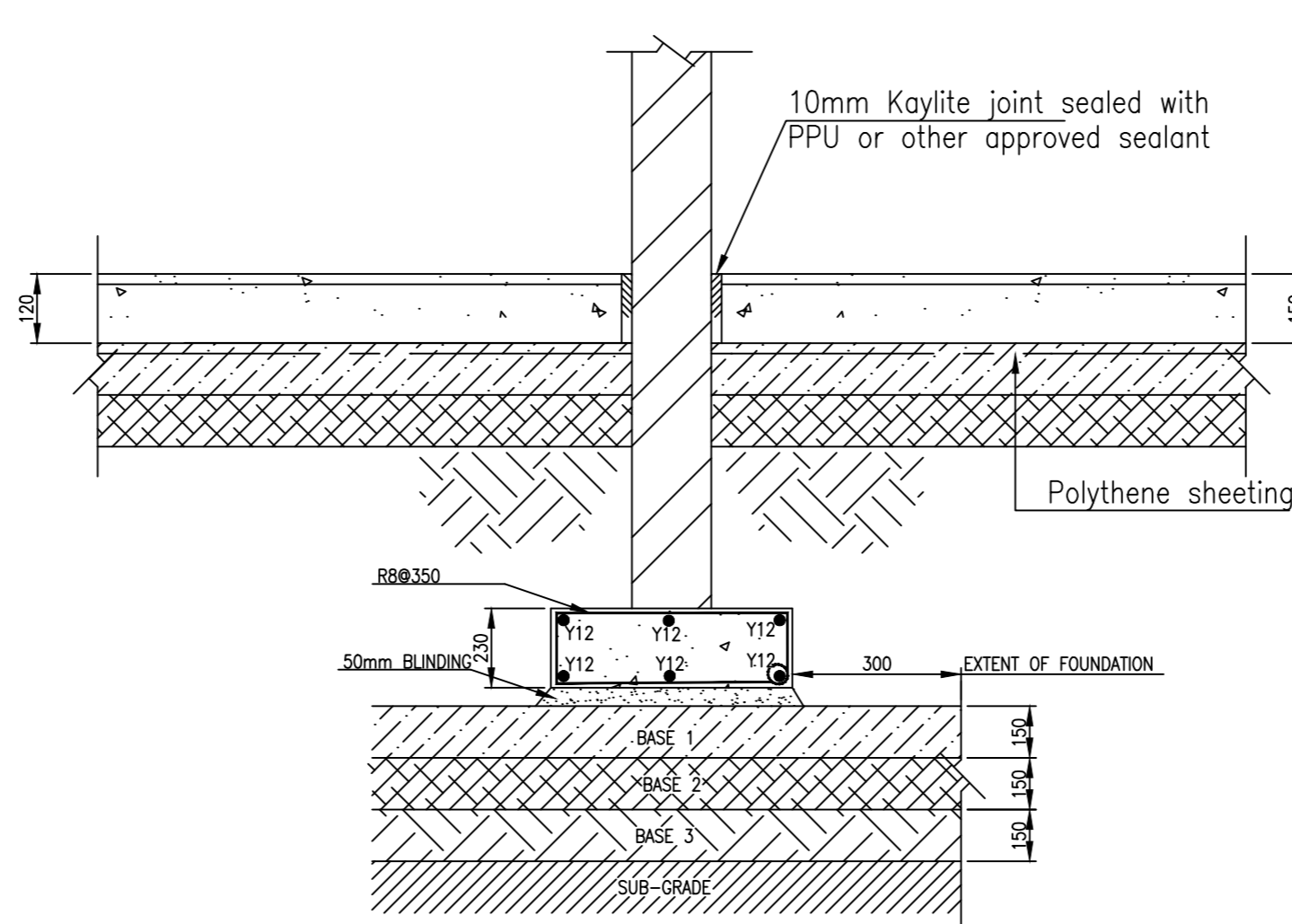




TYPICAL DETAIL OF FILL UNDER FLOATING GROUND FLOOR SLABS

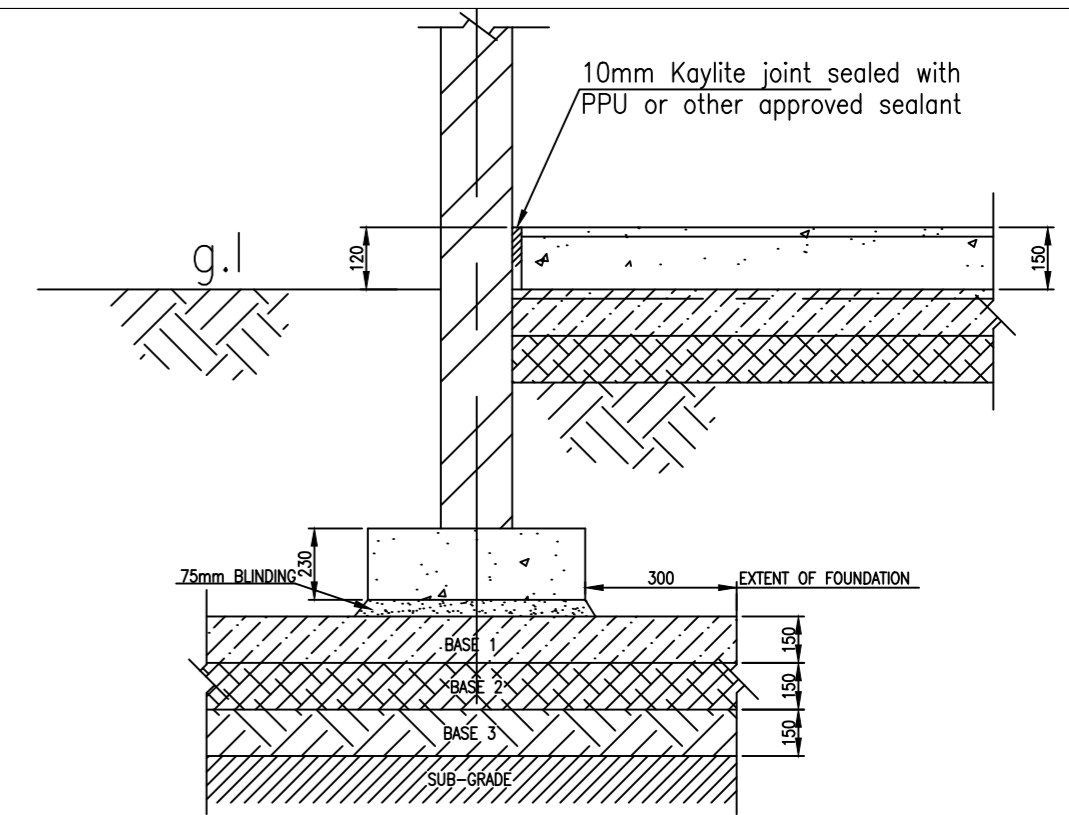
UNDER FLOOR TREATMENT

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)



SECTION B - B
TYPICAL SECTION THROUGH AN INTERNAL WALL

Scale 1:25

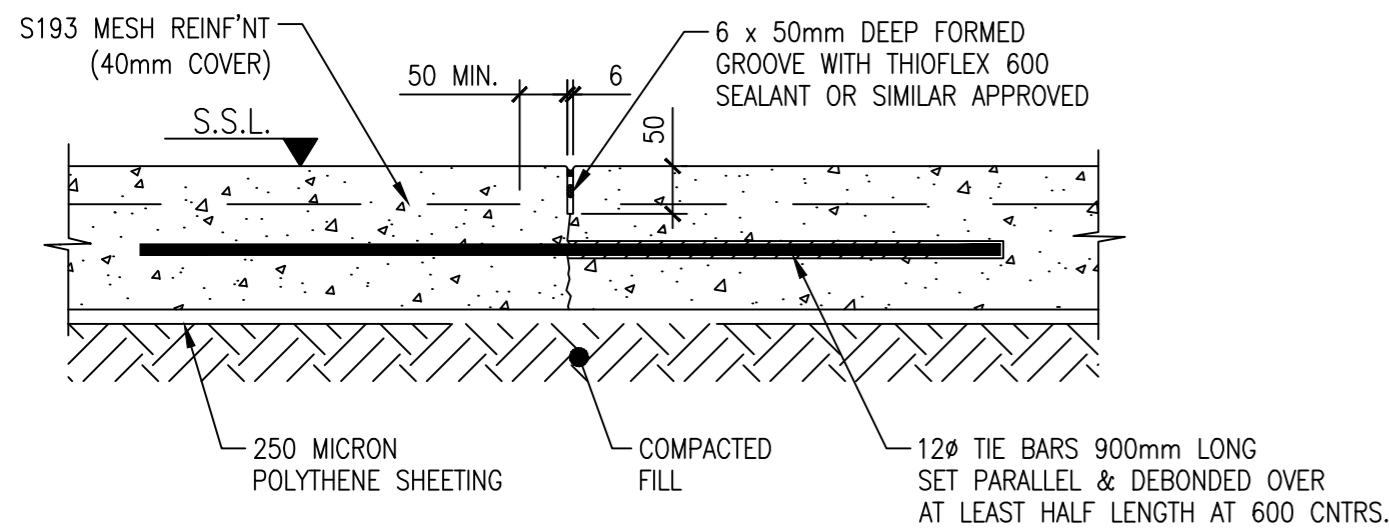


SECTION A - A
TYPICAL SECTION THROUGH AN EXTERNAL WALL

Scale 1:25

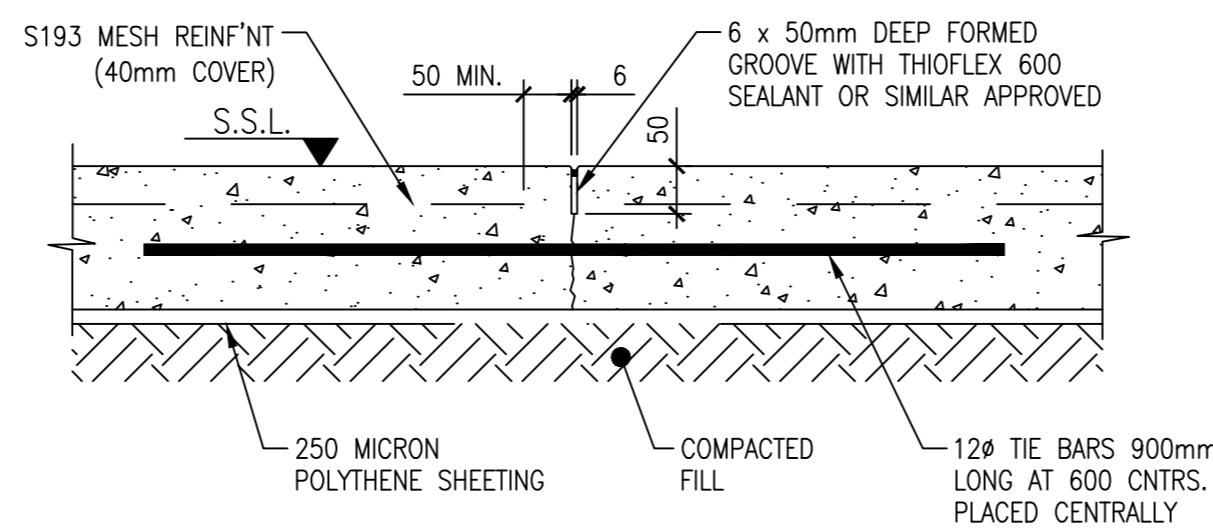
FOUNDATION TREATMENT

1. SCARIFY TOP OF FOUNDATION 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)



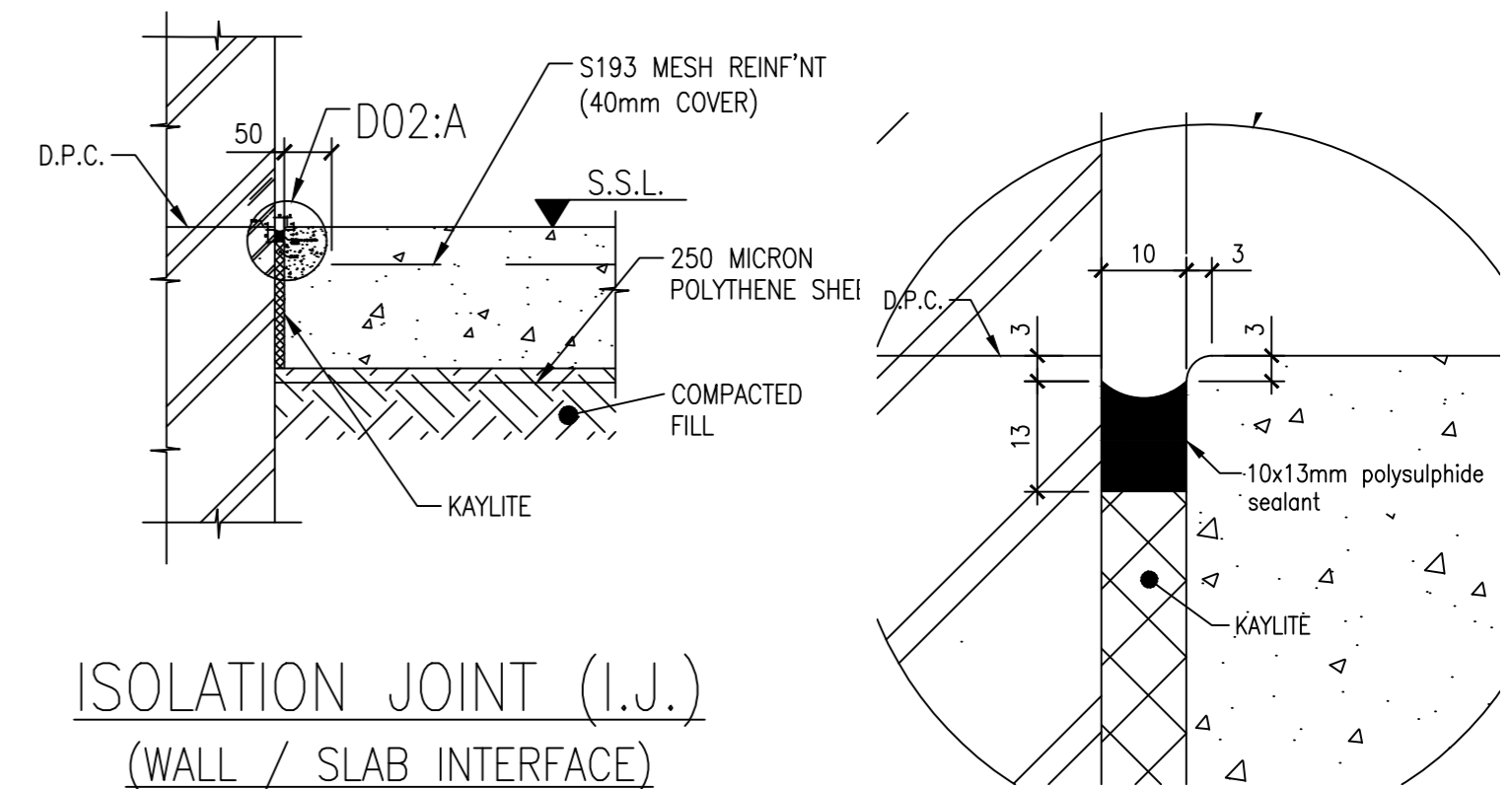
FORMED DEBONDED
CONTRACTION JOINT DETAIL

SCALE 1 : 10



FORMED TIED
CONSTRUCTION JOINT DETAIL

SCALE 1 : 10



ISOLATION JOINT (I.J.)
(WALL / SLAB INTERFACE)

SCALE 1 : 10

No	DATE	REVISION	CONSULT	DIR

DESIGNED BY	NTB
CHECKED BY	TM
DRAWN BY	NTB
CHECKED BY	TM
APPROVED & ADOPTED BY	NTB



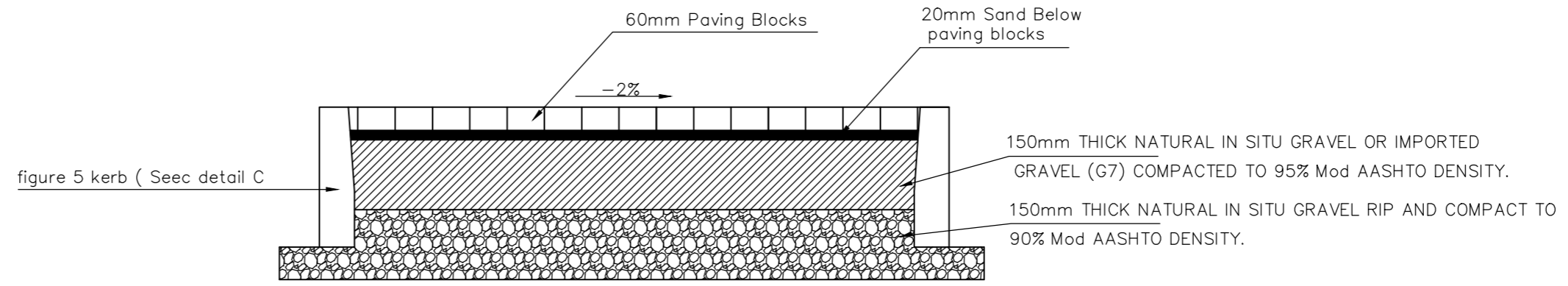
CHIEF ENGINEER-LPG-DPW&E	DATE
CONSULTING ENGINEER	DATE

CONTRACT NO.: LDPW.PROF/11026
VUTIVI PRIMARY SCHOOL
FOUNDATION TREATMENT DETAIL

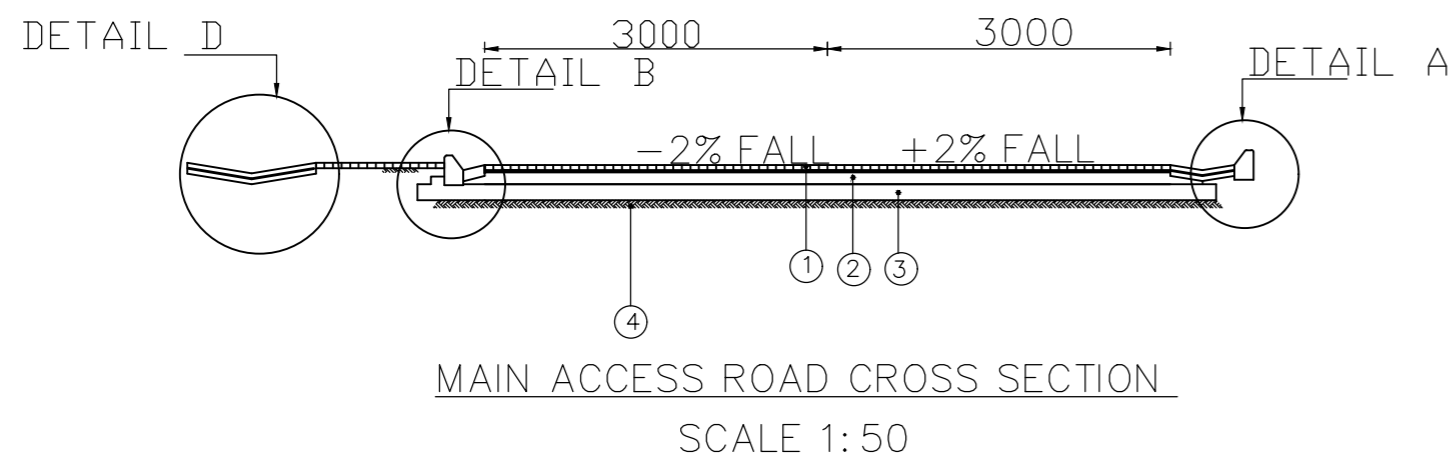
ISSUED FOR TENDER (Full Agreement)	SHEET 1 OF 1
For: Department of Public Works	SCALE: AS SHOWN
For: Consultant	DRAWING NUMBER: LFCM-005-BOS-201/1
CONSULTANT DRAWING NUMBER: LFCM-005-BOS-201/1	DRAWING NUMBER: LFCM-005-BOS-201/1

PAVEMENT LAYERS DETAILS (PARKING AREAS)

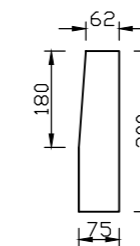
1. SURFACING: 80mm PAVING BLOCKS WITH 20mm SAND
2. BASE: 150mm THICK STABILISED NATURAL GRAVEL LAYER (C4) COMAPCTED TO 96% Mod AASHTO DENSITY.
3. SUB-BASE: 150mm THICK NATURAL IN SITU GRAVEL OR IMPORTED GRAVEL (G7) COMPACTED TO 95% Mod AASHTO DENSITY.
4. IN-SITU 150mm THICK NATURAL IN SITU GRAVEL RIP AND COMPACT TO 90% Mod AASHTO DENSITY.



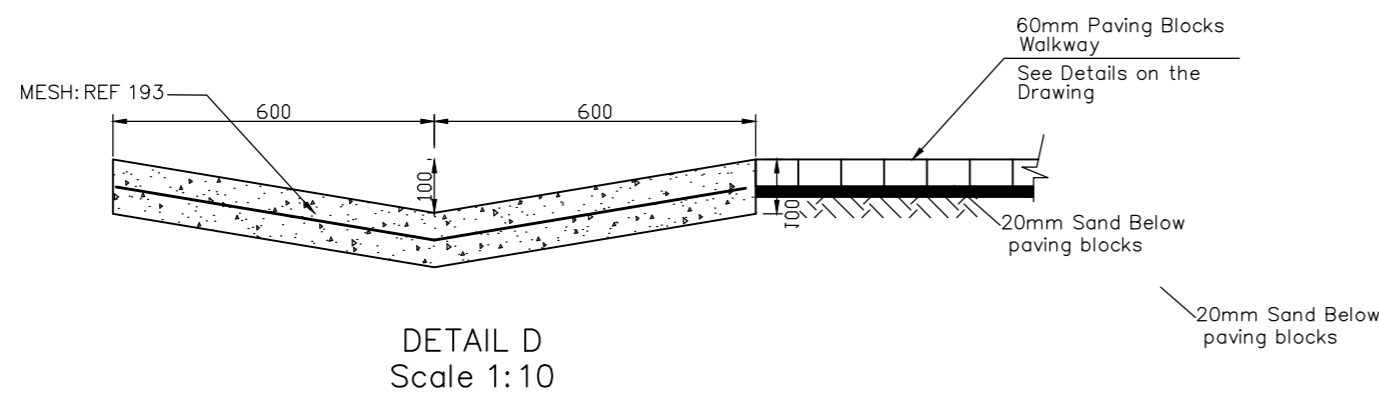
Walkway Cross Section
SCALE 1:10



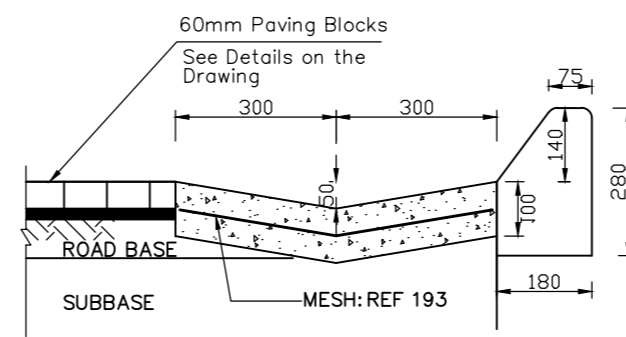
MAIN ACCESS ROAD CROSS SECTION
SCALE 1:50



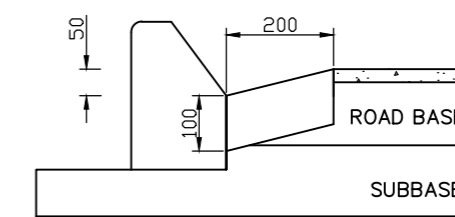
DETAIL C (Figure 5 Kerb)
Scale 1:10



DETAIL D
Scale 1:10



DETAIL A (Figure 7 Kerb)
Scale 1:10



DETAIL B (Figure 7 Kerb)
Scale 1:10

CLIENT DEPARTMENT SIGNATURE

FACILITY STAMP

FACILITY MANAGER

INFRASTRUCTURE MANAGER

GENERAL MANAGER

Checked by Professional Consultant

Name

Signature

Date

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E-mail: lowflowsa@gmail.com



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PROJECT
INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH ACUTE INFRASTRUCTURE CHALLENGES, INCLUDING STORM DAMAGED SCHOOLS IN THE LIMPOPO PROVINCE

DRAWING DESCRIPTION
VUTIVI PRIMARY SCHOOL TYPICAL ROAD DETAIL

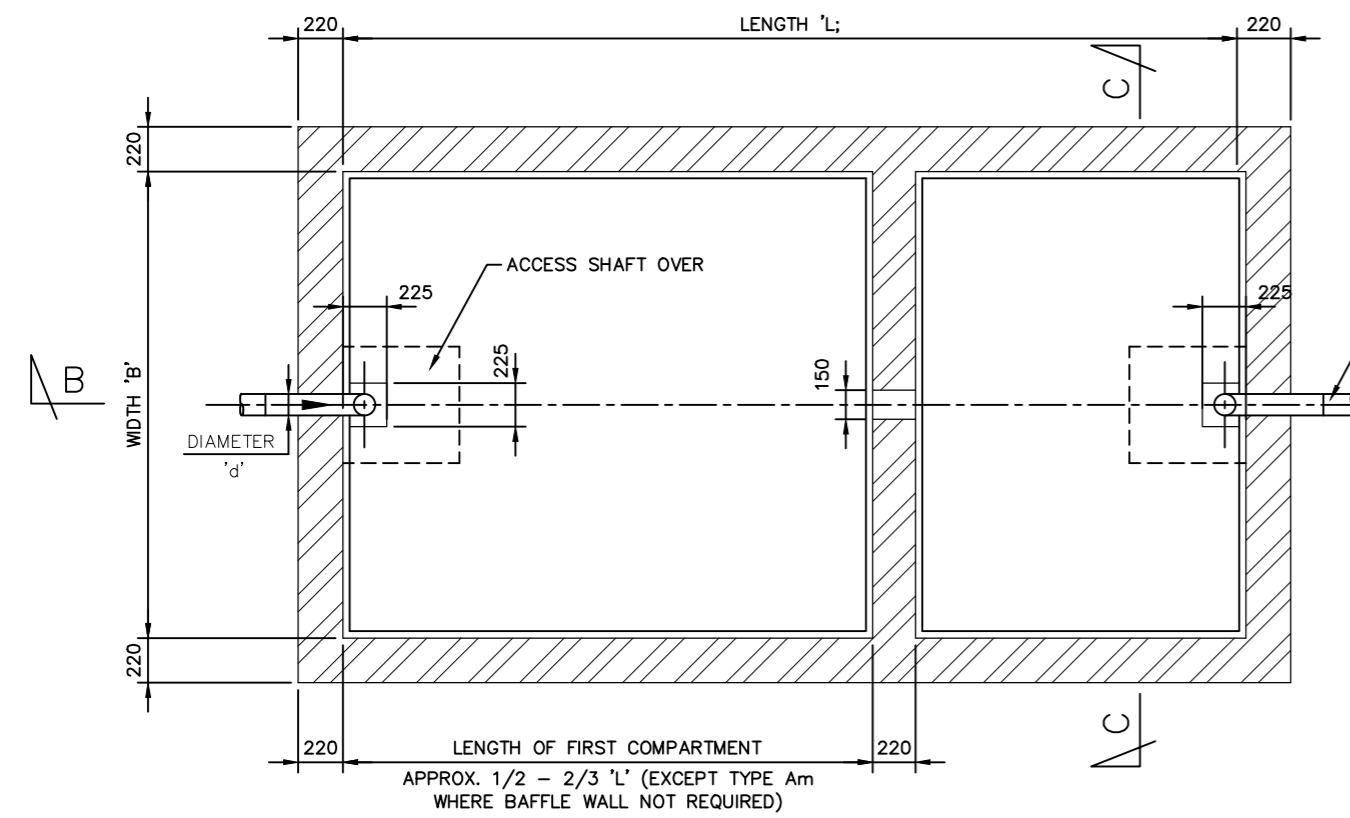
Drawn: TM Date: 04/02/20

Scale/s: 1:1000

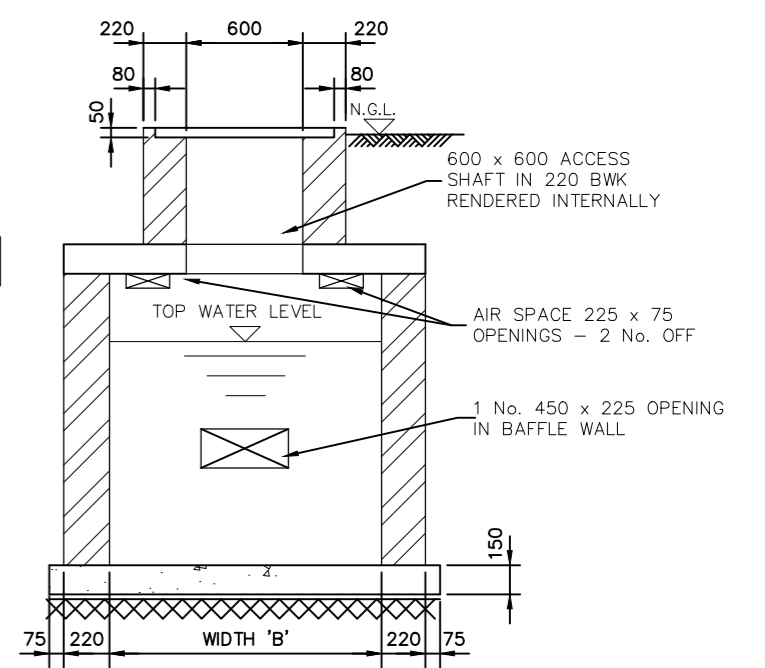
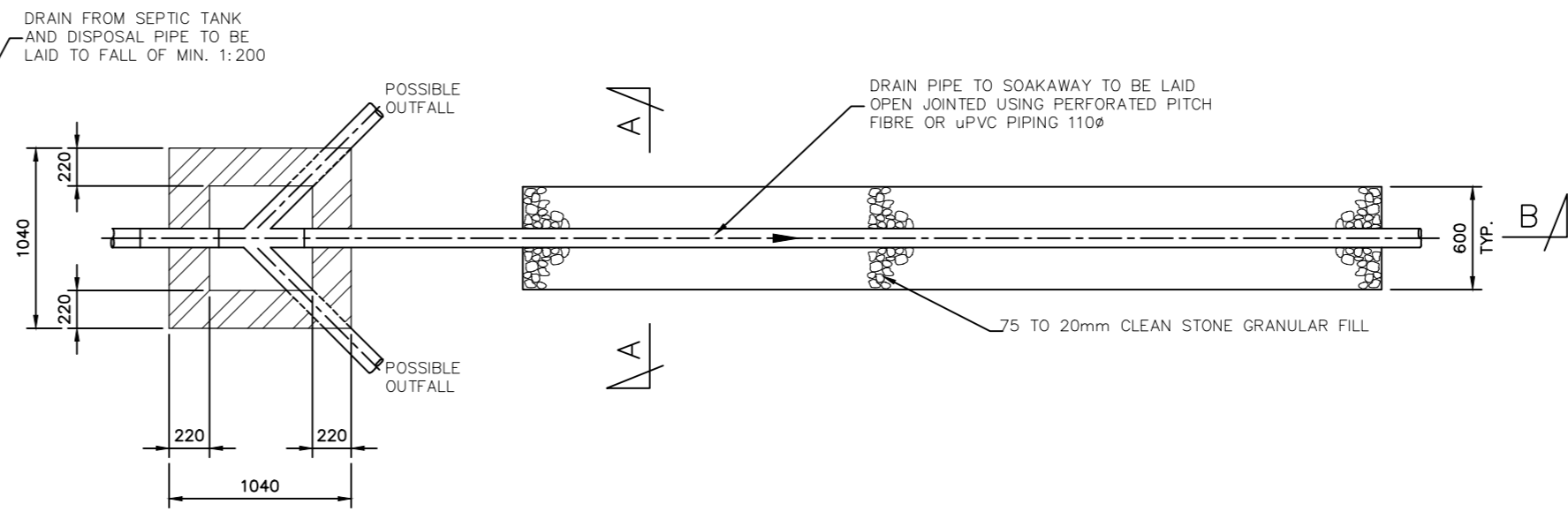
Consultant Drawing number	Revision
B-500-03-1	01

Drawing number	Revision
ETH 080819/1	02

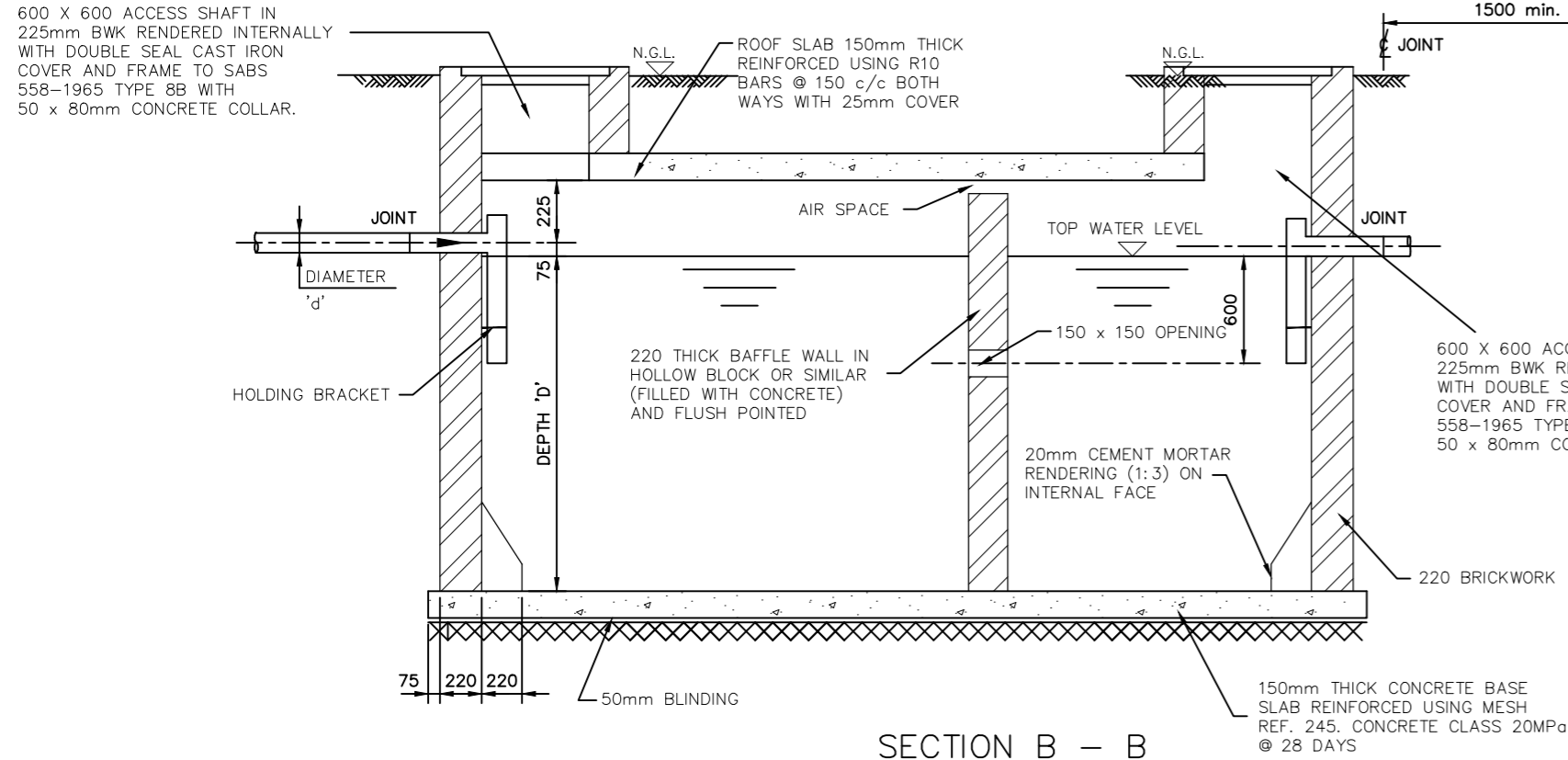
Stamped by plans Approval Committee



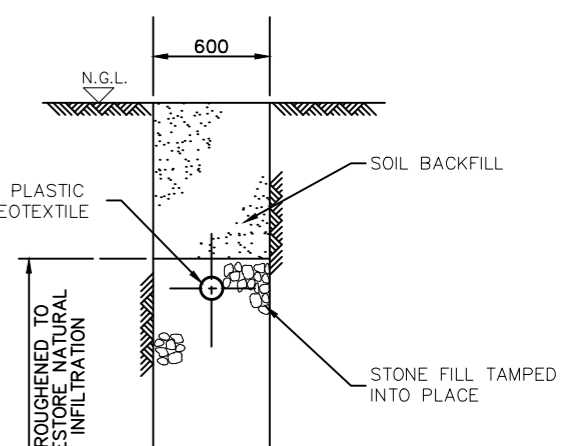
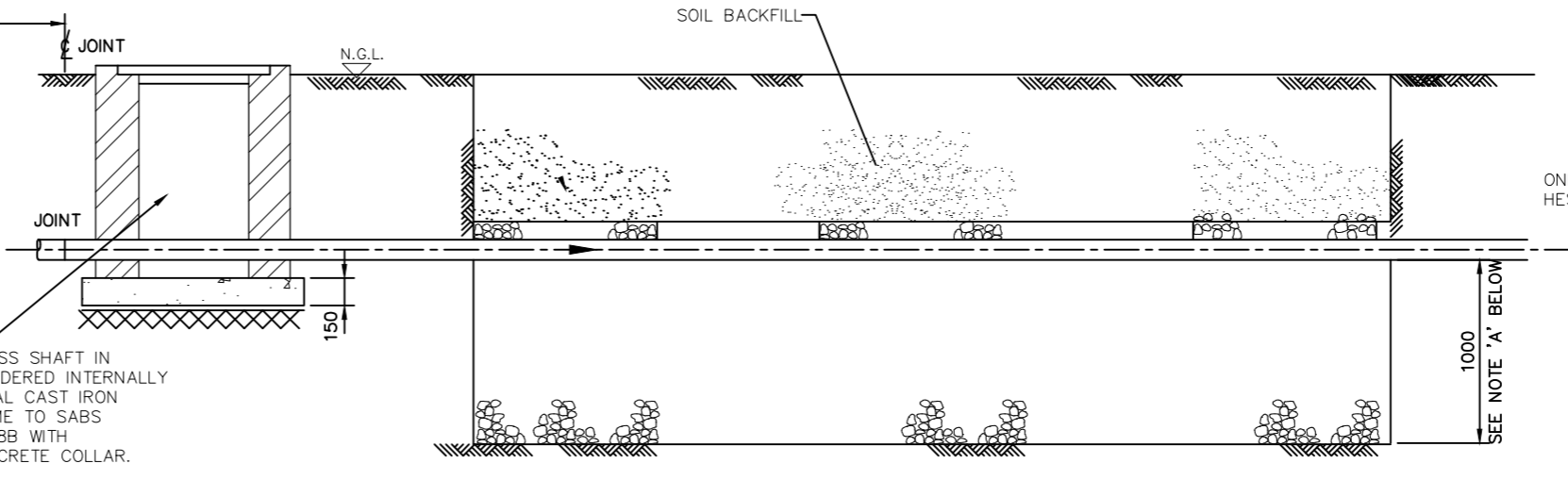
SECTIONAL PLAN
1 : 25



SECTION C - C
1 : 25



SECTION B - B
1 : 25



SECTION A - A
1 : 25

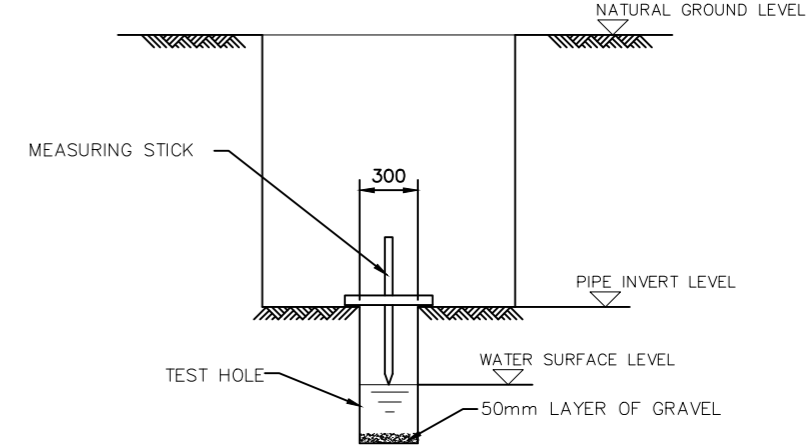
NOTE A:
LENGTH OF SOAKAWAY TRENCH BASED ON 1m DEPTH BELOW INVERT LEVEL OF PIPE. IF THIS DEPTH IS NOT POSSIBLE DUE TO LOCAL CONDITIONS, THE LENGTH OF TRENCH SHOULD BE VARIED ACCORDINGLY TO GIVE THE EQUIVALENT TRENCH SIDE WALL AREA.

SEPTIC TANK DETAILS						LENGTH OF SOAK AWAY (m)					
TYPE	NO. OF PERSONS	DEPTH 'D' _m	WIDTH 'B' _m	LENGTH 'L' _m	CAPACITY m ³	PERCOLATION RATE - MINUTES PER 25mm					
						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	1.29	1.41	6.64	12.30	10.00	40.00	50.00	75.00	100.00	150.00
Lm	61-70	1.72	1.41	6.11	13.65	15.00	52.50	70.00	105.00	140.00	210.00

NB: TYPE Km TO BE USED FOR THE SCHOOL

PERCOLATION RATE TEST TO DETERMINE THE ABSORPTION RATE OF THE SOIL

- 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 WATER.
- 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.
- 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.
- THE AVERAGE TIME FOR THE WATER TO DROP 25mm IS CALCULATED AND REPRESENTS THE PERCOLATION RATE EXPRESSED IN MINUTES PER 25mm.



ABSORPTION METHOD
1 : 25

No	DATE	REVISION	CONSULT	DIR

DESIGNED BY	NTB
CHECKED BY	TM
DRAWN BY	NTB
CHECKED BY	TM
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

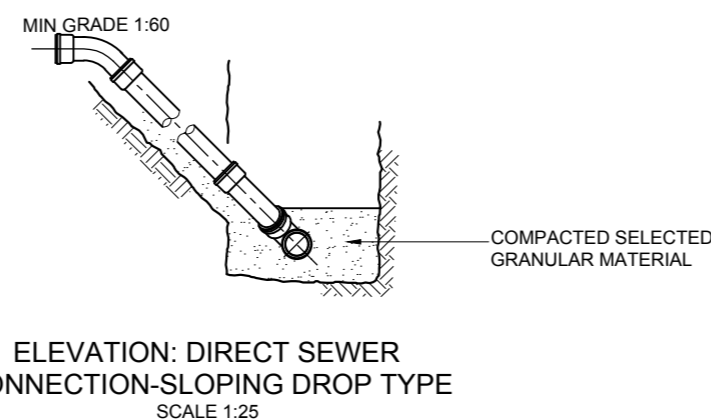
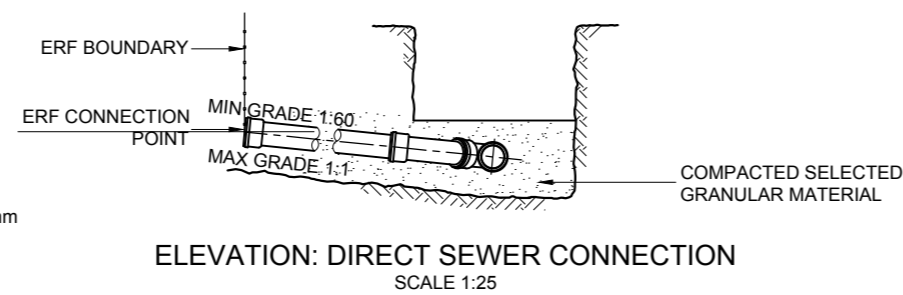
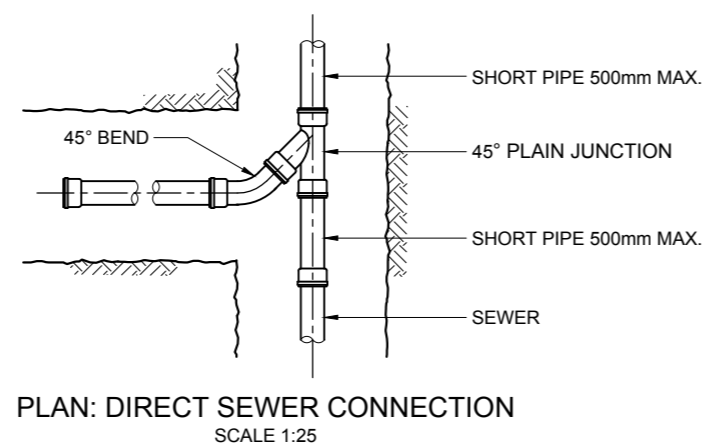
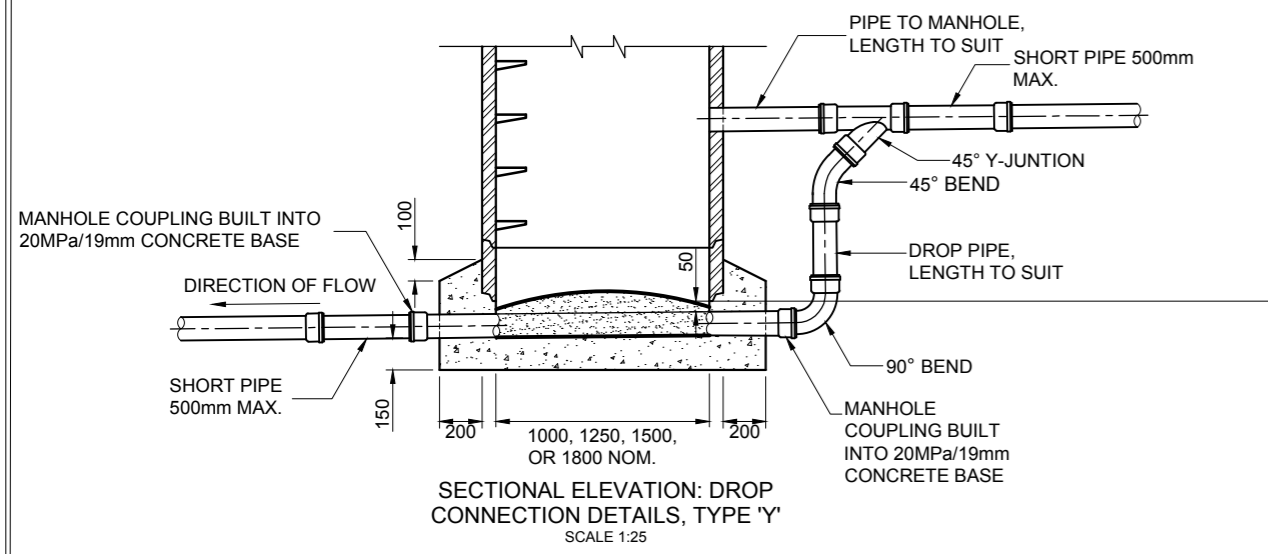
Head Office
LOWFLOW CONSTRUCTION & ENGINEERING
26 Peace Street
Tzaneen
0850

Tel: 060 311 2170
Fax: 086 541 9992
E-mail: lowflows@gmail.com

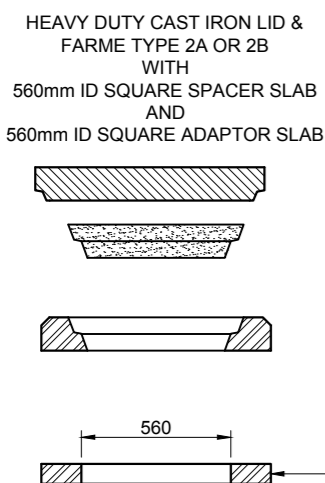
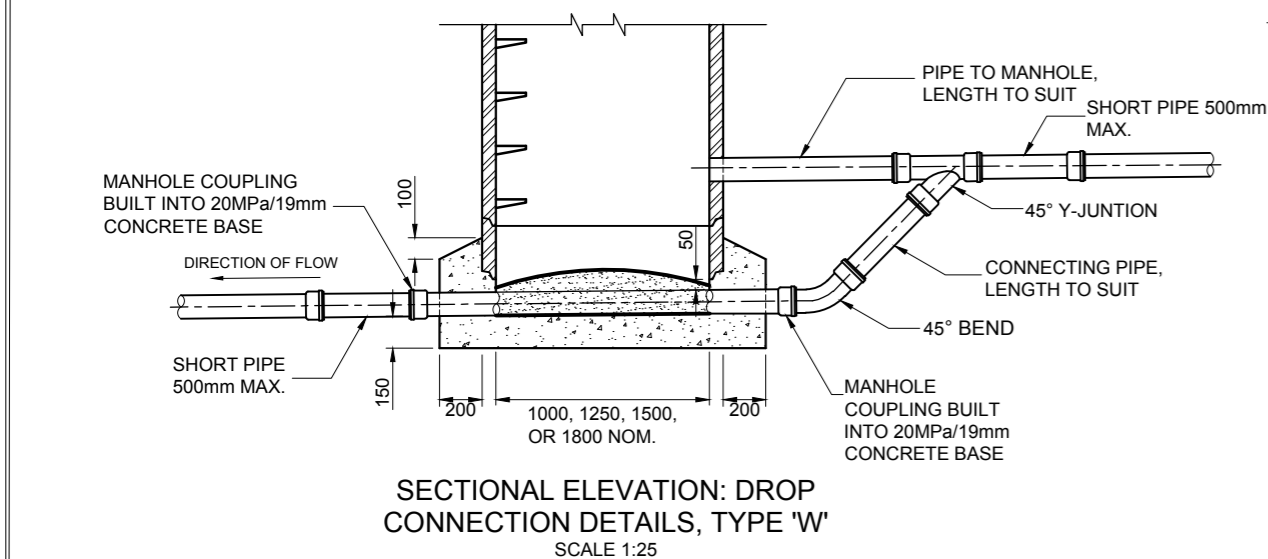
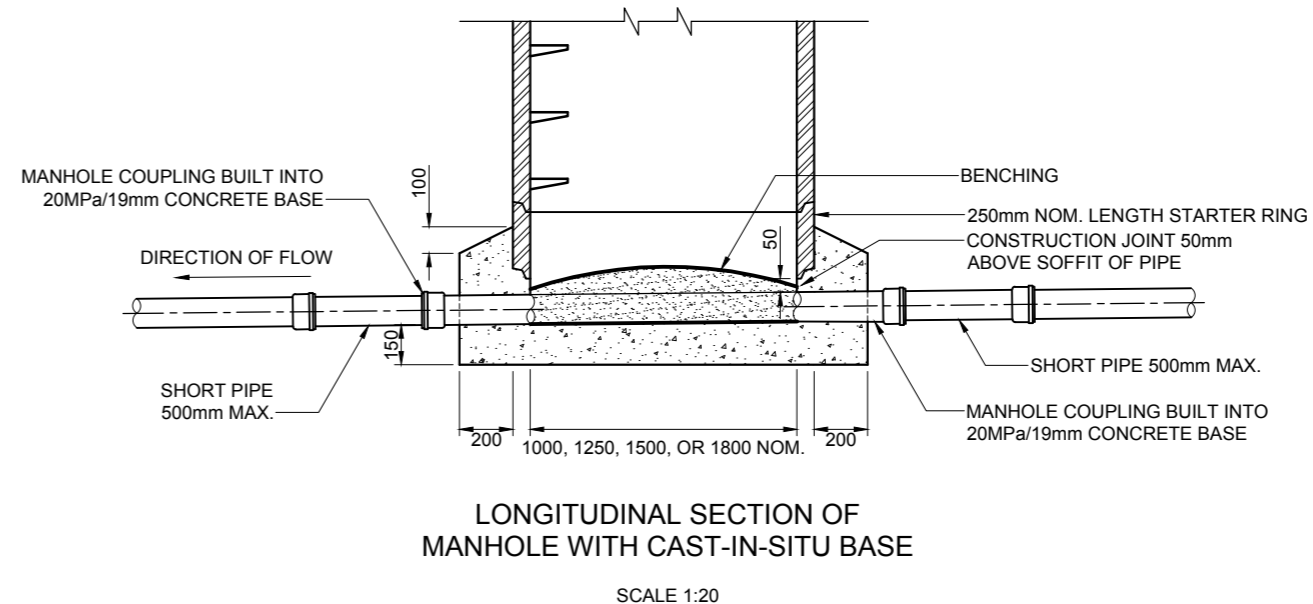
CHEF ENGINEER-LPG-DPW&L	DATE
CONSULTING ENGINEER	DATE

CONTRACT NO.: LDPW.PROF/11026	ISSUED FOR TENDER
VUTIVI PRIMARY SCHOOL	(Full Signature)
SEPTIC TANK DETAIL	2016 / /
	2016 / /

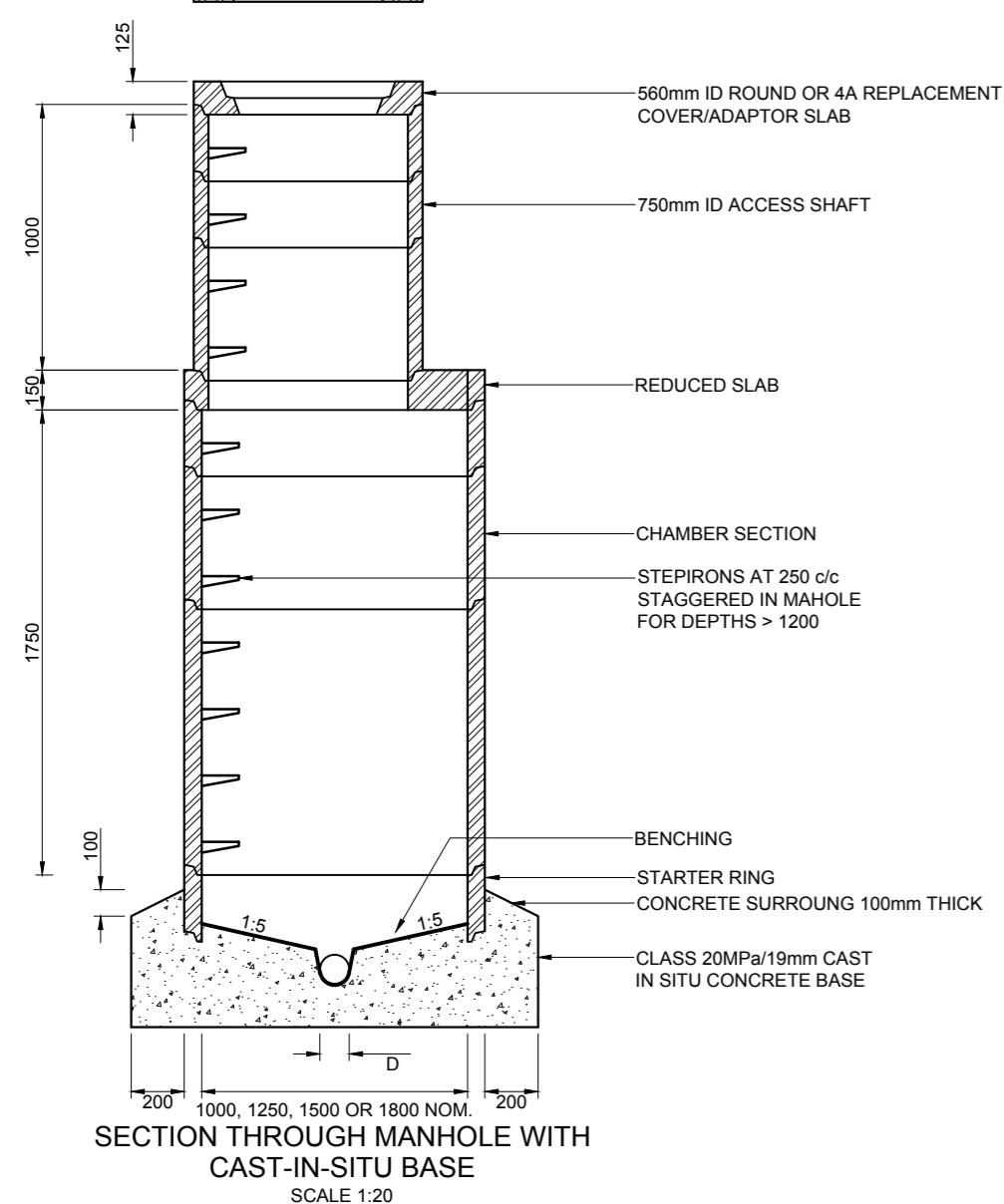
SHEET 1 OF 1	SCALE: AS SHOWN
DRAWING NUMBER: LFCM-005-BOS-201/1	DRAWING NUMBER: LFCM-005-BOS-201/1



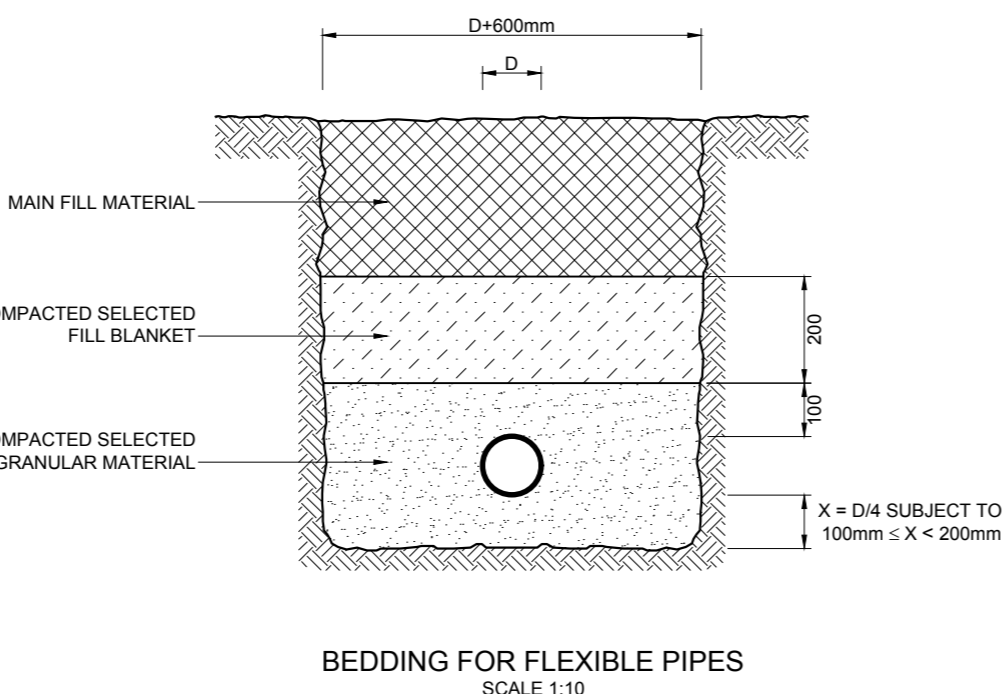
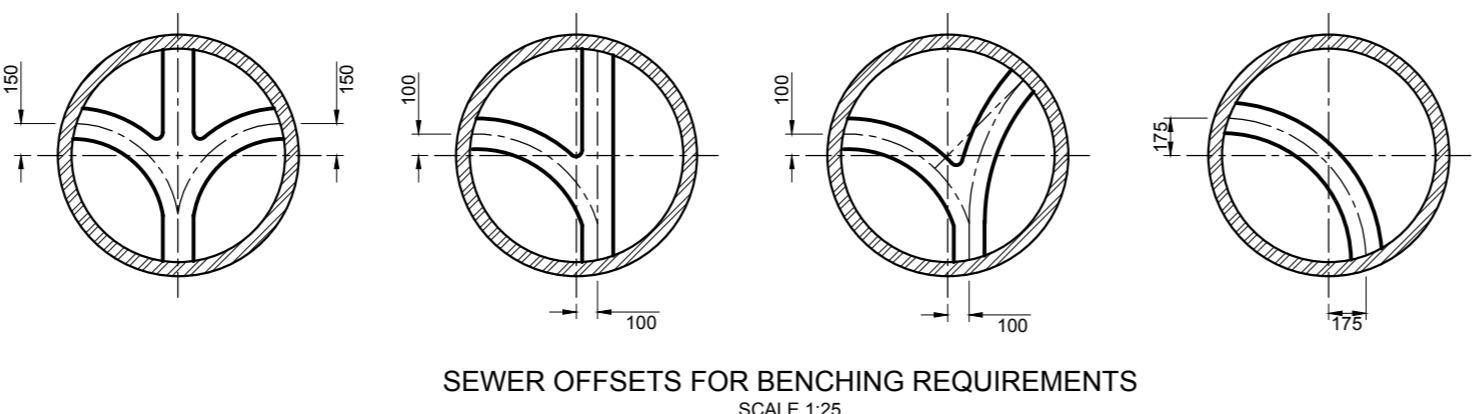
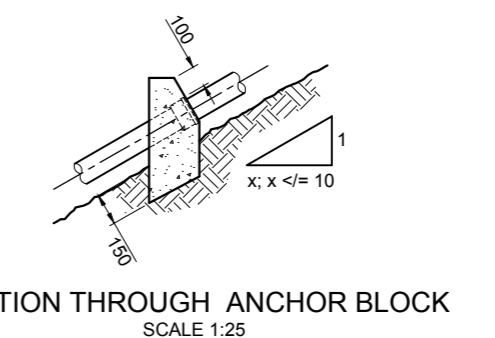
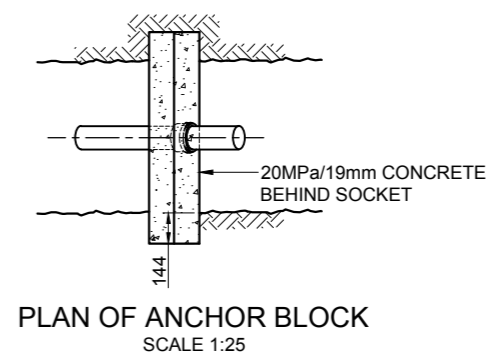
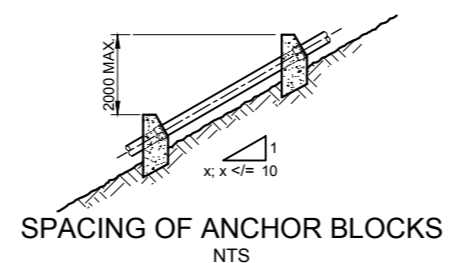
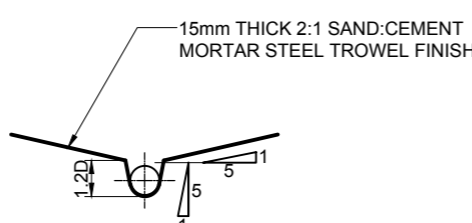
- NOTES**
1. ALL MANHOLE COVERS AND FRAMES TO COMPLY WITH SABS 558.
 2. ALL PRECAST MANHOLE RINGS TO COMPLY WITH SABS 1294.
 3. MINIMUM OF TWO SPACER SLABS MUST BE USED TO FACILITATE MINOR ADJUSTMENTS TO FINAL REQUIRED LEVEL.
 4. THE CHAMBER SECTION OF THE MANHOLE TO BE A MAXIMUM OF 2.0m IN HEIGHT.
 5. ACCESS SHAFTS TO BE USED FOR MANHOLES DEEPER THAN 2.0m
 6. TYPE 1 AND TYPE 2A TO BE USED FOR SIDEWALKS AND ROADWAYS RESPECTIVELY.
 7. JOINTS FOR MANHOLE CHAMBERS TO BE SEALED WITH EPOXY 3mm MAXIMUM THICK. INTERNAL FINISH SMOOTHENED BEFORE EPOXY HARDENS.
 8. ALL PIPES AND FITTINGS WITH CONCRETE SURROUNDS SHALL BE MADE WATERTIGHT.
 9. FLEXIBLE JOINTS SHALL BE CLEAR OF ALL CONCRETE.



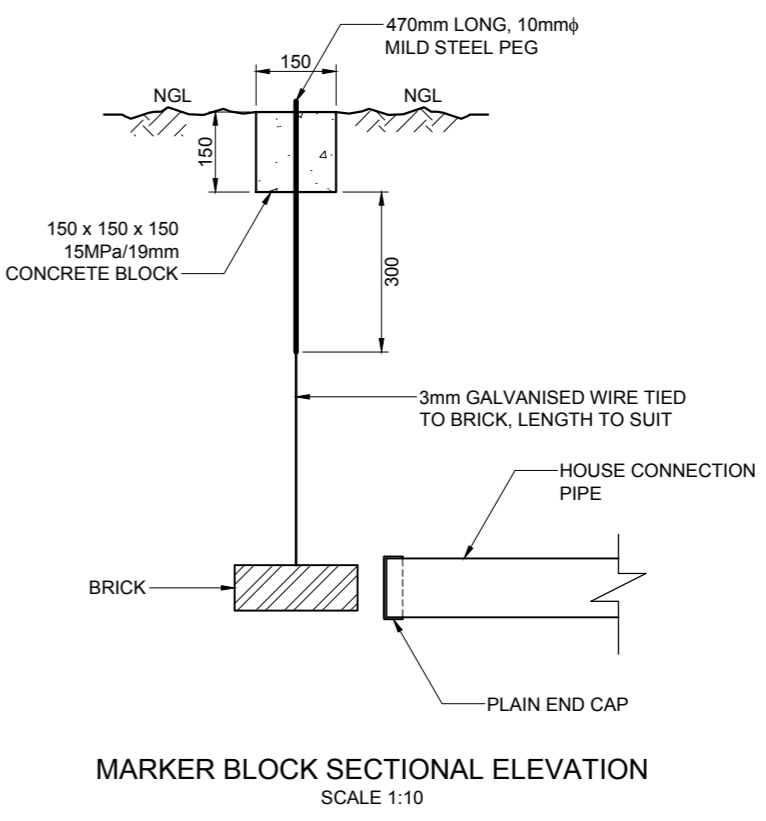
- CONCRETE LID & FRAME MEDIUM OR HEAVY DUTY TO SABS 558-1973 (3.5) OR 4A CONCRETE REPLACEMENT LID OR CAST IRON LID & FRAME TYPE 4 OR 4A



BENCHING DETAILS
SCALE 1:20



- NOTES**
1. SELECTED FILL MATERIAL SHALL BE MATERIAL THAT HAS A PI NOT EXCEEDING 6 AND THAT IS FREE FROM VEGETATION, CLAY LUMPS AND STONES OF DIAMETER EXCEEDING 30mm.
 2. SELECTED GRANULAR MATERIAL SHALL BE MATERIAL OF A GRANULAR NON-COHESIVE NATURE THAT IS SEPARATELY GRADED BETWEEN 0.6mm AND 19mm, IS FREE FROM DRAINING AND HAS A COMPACTIBILITY FACTOR NOT EXCEEDING 0.4 AS DETERMINED BY TESTS SPECIFIED IN SABS 0120 PART 3, SECTION LB 4.2.
 3. SELECTED FILL AND GRANULAR MATERIAL TO BE COMPACTED IN LAYERS NOT EXCEEDING 100mm.
 4. ONLY CLASS S GRANULAR SURROUND WITH OR WITHOUT CEMENT STABILISATION OR CLASS X CONCRETE SURROUND MAY BE USED FOR FLEXIBLE PIPES, WHERE CEMENT STABILISATION IS SPECIFIED, CEMENT ADDED TO BE 5% BY VOLUME AT OPTIMUM MOISTURE CONTENT AND COMPACTION TO 90% Mod AASHTO.



CLIENT DEPARTMENT SIGNATURE _____

FACILITY STAMP _____

FACILITY MANAGER _____

INFRASTRUCTURE MANAGER _____

GENERAL MANAGER _____

Checked by Professional Consultant _____

Name _____

Signature _____ Date _____

LOWFLOW CONSTRUCTION & ENGINEERING
26 Peace Street
Tzaneen
0850
Tel: 060 311 2170
Fax: 086 541 0992
E-mail: lowflowsa@gmail.com

LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF
PUBLIC WORKS, ROADS & INFRASTRUCTURE
DEPARTMENT OF PUBLIC WORKS
ROADS & INFRASTRUCTURE
43 Church Street
Polokwane
0700
TEL: 015 284 7000/1

PROJECT
INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH ACUTE INFRASTRUCTURE CHALLENGES, INCLUDING STORM DAMAGED SCHOOLS IN THE LIMPOPO PROVINCE

DRAWING DESCRIPTION
VUTVI PRIMARY SCHOOL SEWER TYPICAL DETAIL

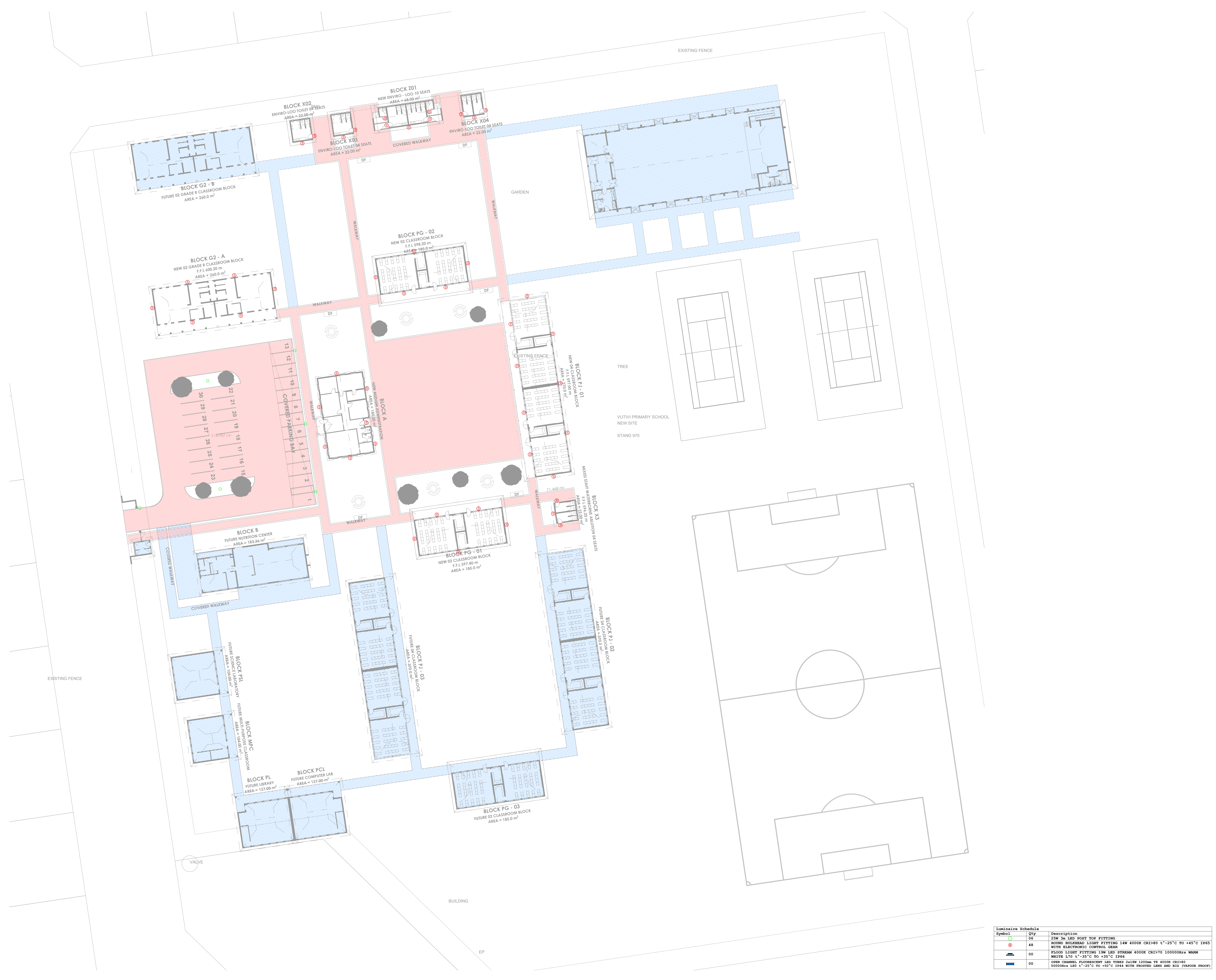
Drawn: TM Date: 04/02/20

Scale/s: 1:1000

Consultant Drawing number	Revision
B-500-03-1	01
Drawing number	Revision
SEW 080819/1	02

Stamped by plans Approval Committee _____

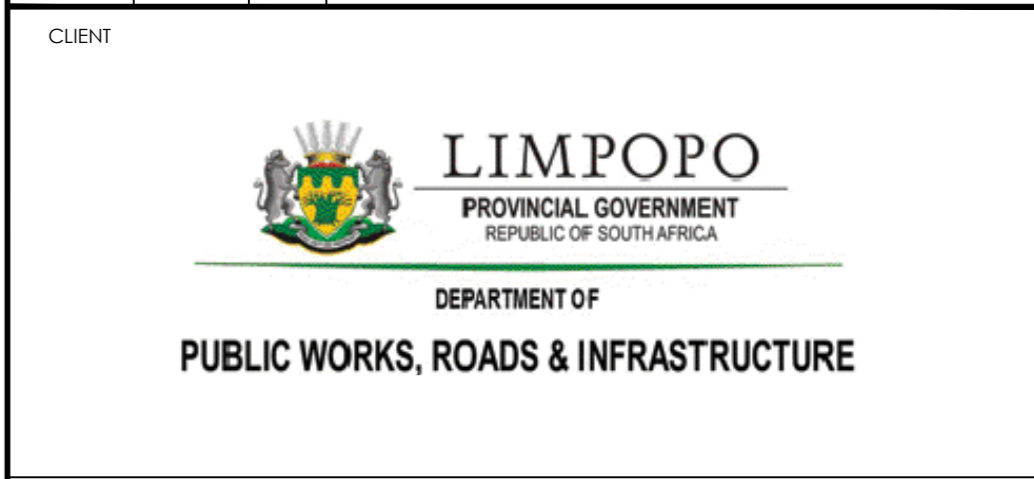
ELECTRICAL DRAWINGS



STATUS CODE	Group Codes BUILDINGS
0 - Feasibility study	BP - Building IT
1 - Feasibility study	SP - Building Public Address
A - Preliminary Design	BS - Building Service
B - Design Review	BA - Building Architectural
C - Tender Design	BE - Building Electrical
D - Detailed Design	BF - Building Fire Service
E - For Construction	BM - Building Mechanical
F - As-Built	BT - Building Public Telecommunications
G - For Information Only	BU - Building Public Utilities

DRAWING STATUS: FOR TENDER

PROJECT NUMBER: LDPWRI-B/20113					
Drawn By	Designed By	Reviewed/Approved By			
M CHABALALA	K SECHABO	E MBEJAH	20100414		
Name	S.A.I.D Number	Name	Pr Number	Name	Pr Number
No	Date	Chkd	Details		
A	17.08.2021	EM	FOR TENDER		



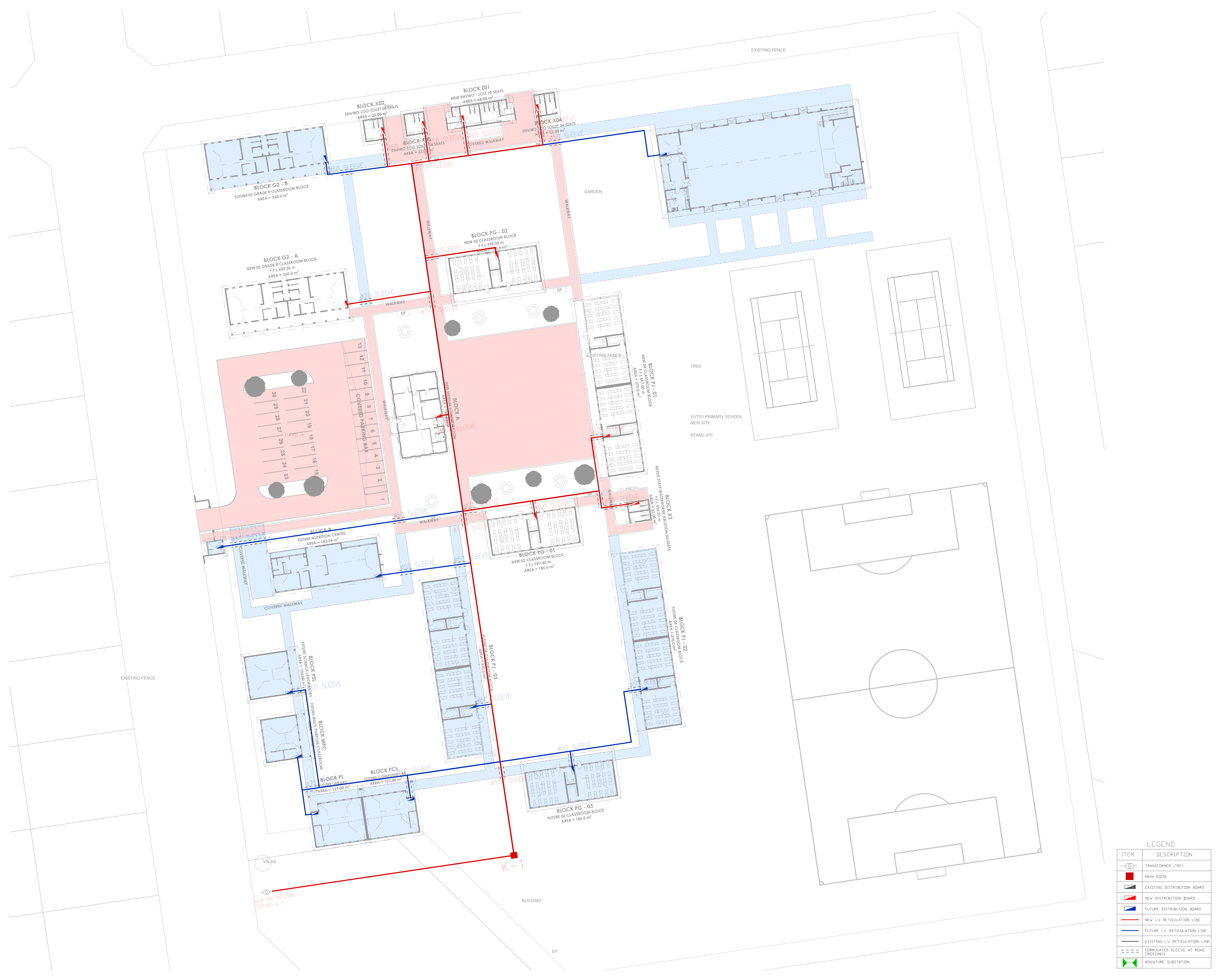
CONSULTANT: **TAKUSA CONSULTING SERVICES**
 FOURWAYS OFFICE PARK, BLOCK 5, GROUND FLOOR, Cnr. CEDAR ROAD AND FOURWAYS BOULEVARD, FOURWAYS, 2191
 Tel: 010 110 8724 Fax: 086 659 2099

PROJECT: INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH ACUTE INFRASTRUCTURE CHALLENGES, INCLUDING STORM DAMAGED SCHOOLS IN THE LIMPOPO PROVINCE 'CLUSTER F' VUTIVI PRIMARY SCHOOL

DRAWING TITLE: SITE PLAN AREA LIGHTING LAYOUT

Symbol	Qty	Description
○	06	25W 3m LED POST TOP FITTING
⊙	48	ROUND BULBROAD LIGHT FITTING 14W 4000K CRI>80 e-25°C TO +45°C IP65 WITH ELECTRONIC CONTROL GEAR
■	00	FLUORO LIGHT FITTING 19W LED STRIPBAM 4000K CRI>70 1000000hrs WARM WHITE L70 e-35°C TO +35°C IP66
■	00	OPEN CHANNEL FLUORESCENT LED TUBES 2x1W 3200mm TR 4000K CRI>80 500000hrs LED e-25°C TO +55°C 1144 METRE PROTECTED LENS AND BICE (VAPOR PROOF)

Paper Size	Copyright Reserved	Project code	Drawn	Group	Consultant	Doc. Type	Sec. No.	Rev.
A0		VPS - C - BE - TCS - TDW - 005 - A						
		SCALE				1:250		
		CHECKED						A
		REV. No						
		DATE						17.08.2021



NOTES
 1. For Existing Blocks/Facilities, DB positions and their reticulations to be confirmed.

STATUS CODE	Group Codes
0 - Feasibility study	BP - Building IT
1 - Preliminary Design	BS - Building Public Address
2 - Design Review	BT - Building Telecom
3 - Tender Design	BE - Building Electrical
4 - For Construction	BF - Building Fire Service
5 - As Built	BM - Building Mechanical
6 - For Information Only	BT - Building Public Telecom
	BU - Building Public Utilities

FOR TENDER

PROJECT NUMBER: LDPWRI-B/20113

Drawn By	Designed By	Reviewed/Approved By
M CHABALALA	K SECHABO	E MBEASH

Name	S.A.I.D Number	Name	Pr Number	Name	Pr Number	Signature

No.	Date	Chg'd	Details
A	17.08.2021	EW	FOR TENDER

CLIENT

LIMPOPO
 PROVINCIAL GOVERNMENT
 REPUBLIC OF SOUTH AFRICA
 DEPARTMENT OF
PUBLIC WORKS, ROADS & INFRASTRUCTURE

CONSULTANT

TAKUSA
 CONSULTING SERVICES

FOURWAYS OFFICE PARK,
 BLOCK 5, GROUND FLOOR
 Cnr. CEDAR ROAD AND
 FOURWAYS BOULEVARD,
 FOURWAYS,
 2191
 Tel: 010 110 8724
 Fax: 086 659 2099

PROJECT: INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH ACUTE INFRASTRUCTURE CHALLENGES, INCLUDING STORM DAMAGED SCHOOLS IN THE LIMPOPO PROVINCE 'CLUSTER F' VUTIVI PRIMARY SCHOOL

DRAWING TITLE: **SITE PLAN
 SITE POWER RETICULATION LAYOUT**

Paper Size	Copyright Reserved	Project code	Drawn	Group	Consultant	Doc. Type	Rev. No.	Rev
A0		VPS - C - BE - TCS - TDW - 000 - A					A	

SCALE: 1:250

CHECKED: _____

REV. No: _____

DATE: 17.08.2021

LEGEND

ITEM	DESCRIPTION
	TRANSFORMER (TRF)
	MAIN KIOSK
	EXISTING DISTRIBUTION BOARD
	NEW DISTRIBUTION BOARD
	FUTURE DISTRIBUTION BOARD
	NEW LV RETICULATION LINE
	FUTURE LV RETICULATION LINE
	EXISTING LV RETICULATION LINE
	CORRUGATED SLEEVE AT ROAD CROSSINGS
	MINIATURE SUBSTATION

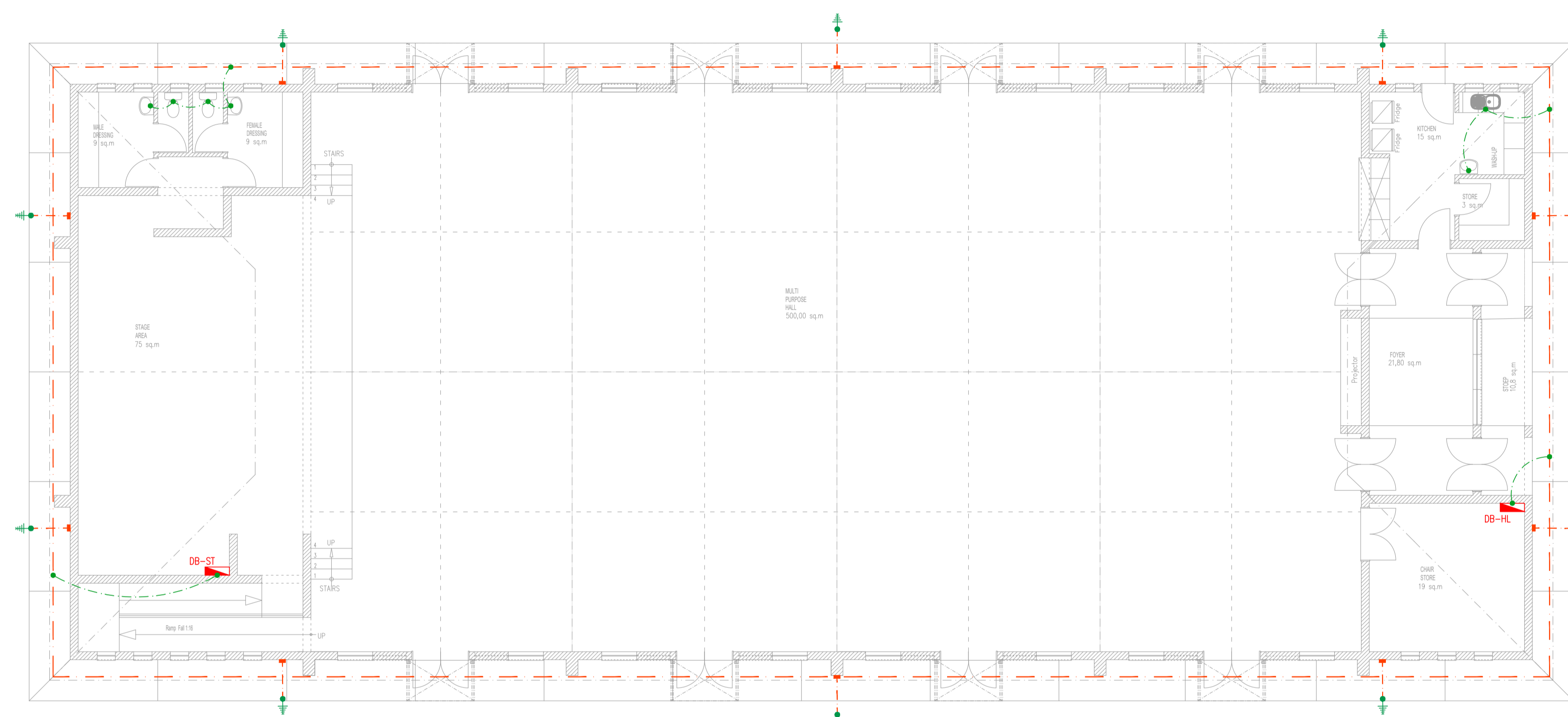
- GENERAL NOTES:
1. EARTH TERMINATION CONDUCTOR TO BE 50mm² BGEW.
 2. BONDING CONDUCTOR TO BE 16mm² BGEW.
 3. EARTH ELECTRODE (SPIKE) TO BE #15mm x 1.5m LONG COPPER SOLID ROUND BAR AND MUST BE 0.5m BURIED BELOW GROUND LEVEL.
 4. EARTH CONDUCTOR TO BE 0.5m BURIED BELOW GROUND LEVEL.
 5. ALL WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH:
 - OP/E6/1 REV.1 - STANDARD QUALITY SPECIFICATION FOR GENERAL INSTALLATIONS (SCHOOLS)
 - OP/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 POLYETHYLENE.
 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.



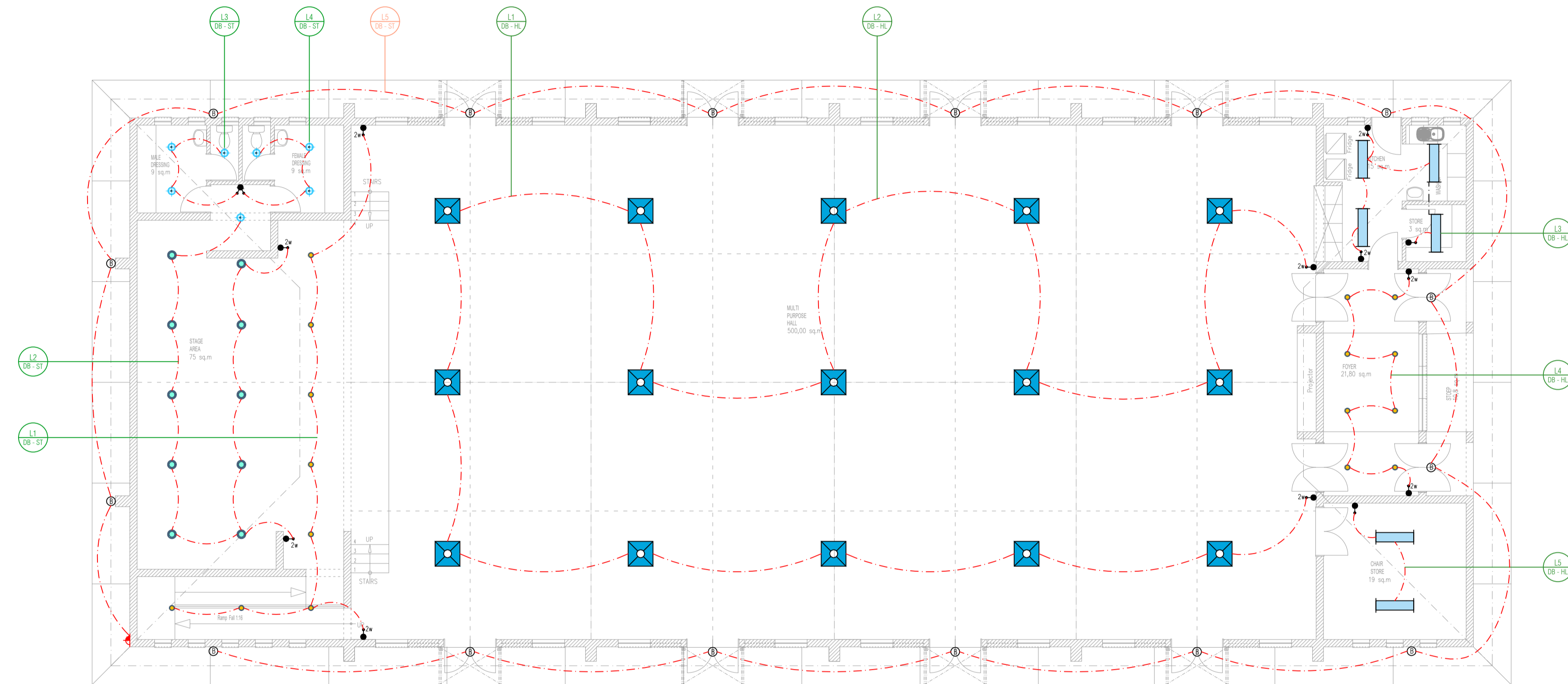
SYMBOL	DESCRIPTION
---	EARTH CONDUCTOR
---	DOWN CONDUCTOR
⊕	EARTH ELECTRODE (SPIKE)
●	BONDING TERMINATION
■	EARTHING TEST POINT

STATUS CODE	Group Codes BUILDINGS	DRAWING STATUS	No	Date	chkd	Details
0 - Pre - Feasibility study	BP - Building IT	FOR TENDER	A	17.08.2021	EM	FOR TENDER
1 - Feasibility study	BP - Building Public Address	PROJECT NUMBER				
A - Preliminary Design	BS - Building Service	LDPWRI-B/20113				
B - Design Review	BA - Building Architectural	Drawn By				
C - Tender Design	BE - Building Electrical	Designed By				
D - Detailed Design	BF - Building Fire Service	Reviewed/Approved By				
E - For Construction	BM - Building Mechanical	M CHABALALA				
F - As Built	BT - Building Public Telecoms	K SECHOARO				
G - For Information Only	BU - Building Public Utilities	E MENSAH 20100414				
		Name S.A.I.D Number Name Pr Number Name Pr Number Signature				

CLIENT	CONSULTANT
<p>DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE</p>	<p>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</p>

PROJECT	DRAWING TITLE
INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH ACUTE INFRASTRUCTURE CHALLENGES, INCLUDING STORM DAMAGED SCHOOLS IN THE LIMPOPO PROVINCE CLUSTER E VUTIVI PRIMARY SCHOOL	HALL FLOOR PLAN EARTHING & LIGHTNING PROTECTION LAYOUT

Project code	Subs	Doc Type	Seq No	Rev
VPS - C - BE - TCS - TDW - 004/1 - A				
SCALE	1:100			
CHECKED	A			
REV. No				
DATE	17.08.2021			



LIGHTING LEGEND		
ITEM	DESCRIPTION	QTY
⬇	16A SINGLE LEVER LIGHT SWITCH	02
⬇	2WAY 16A SINGLE LEVER LIGHT SWITCH	10
⬇	16A DOUBLE LEVER LIGHT SWITCH	01
⬇	90 DEG. MOTION SENSOR	00
⬇	180 DEG. MOTION SENSOR	00
⬇	360 DEG. MOTION SENSOR	00
⬇	DAY/NIGHT SWITCH	01
⬇	8 INCH 15W LED DOWNLIGHT	16
⬇	TYPE B 8 INCH 15W LED DOWNLIGHT WITH DALI MODIFICATION	10
⬇	10W LED ROUND DOWNLIGHT WITH DALI MODIFICATION	07
⬇	15W LED ROUND BULKHEAD WITH DALI MODIFICATION	16
⬇	VISUAL LED IP40 - 18W 120x60mm WITH DALI MODIFICATION	00
⬇	VISUAL LED IP40 - 18W 100x60mm WITH DALI MODIFICATION	00
⬇	1200mm 30W LED IP65 CORROSION PROOF LIGHT FITTING WITH DALI MODIFICATION - EMERGENCY	00
⬇	1200mm 30W LED IP65 CORROSION PROOF LIGHT FITTING WITH DALI MODIFICATION	08
⬇	1200mm x 14W LED OPEN CHANNEL FLUORESCENT LUMINAIRE	00
⬇	140W 90° IP65 SURFACE MOUNT LED LOW BAY WITH DALI MODIFICATION	15
⬇	60W EMERGENCY 120x60mm LED PANEL RECESSED LIGHT FITTING WITH DALI MODIFICATION	00
⬇	60W 120x60mm LED PANEL RECESSED LIGHT FITTING WITH DALI MODIFICATION	00

STATUS CODE	Group Codes BUILDINGS
0 - Pre - Feasibility study	BP - Building IT
1 - Feasibility study	BP - Building Public Address
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G - For Information Only	BU - Building Public Utilities

DRAWING STATUS	
FOR TENDER	
PROJECT NUMBER	
LDPWRI-B/20113	
Drawn By	Designed By
M CHABALALA	K SECHOARO
Reviewed/Approved By	
E MENSAH	20100414
Name	S.A.I.D Number
Name	Pr Number
Name	Pr Number
Signature	

No	Date	chkd	Details
A	17.08.2021	EM	FOR TENDER


CLIENT



LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF
PUBLIC WORKS, ROADS & INFRASTRUCTURE

CONSULTANT



TAKUSA
CONSULTING SERVICES

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Cnr. CEDAR ROAD AND
FOURWAYS BOULEVARD,
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2191
Tel: (+27) 10 110 8724
Fax: (+27) 86 659 2099

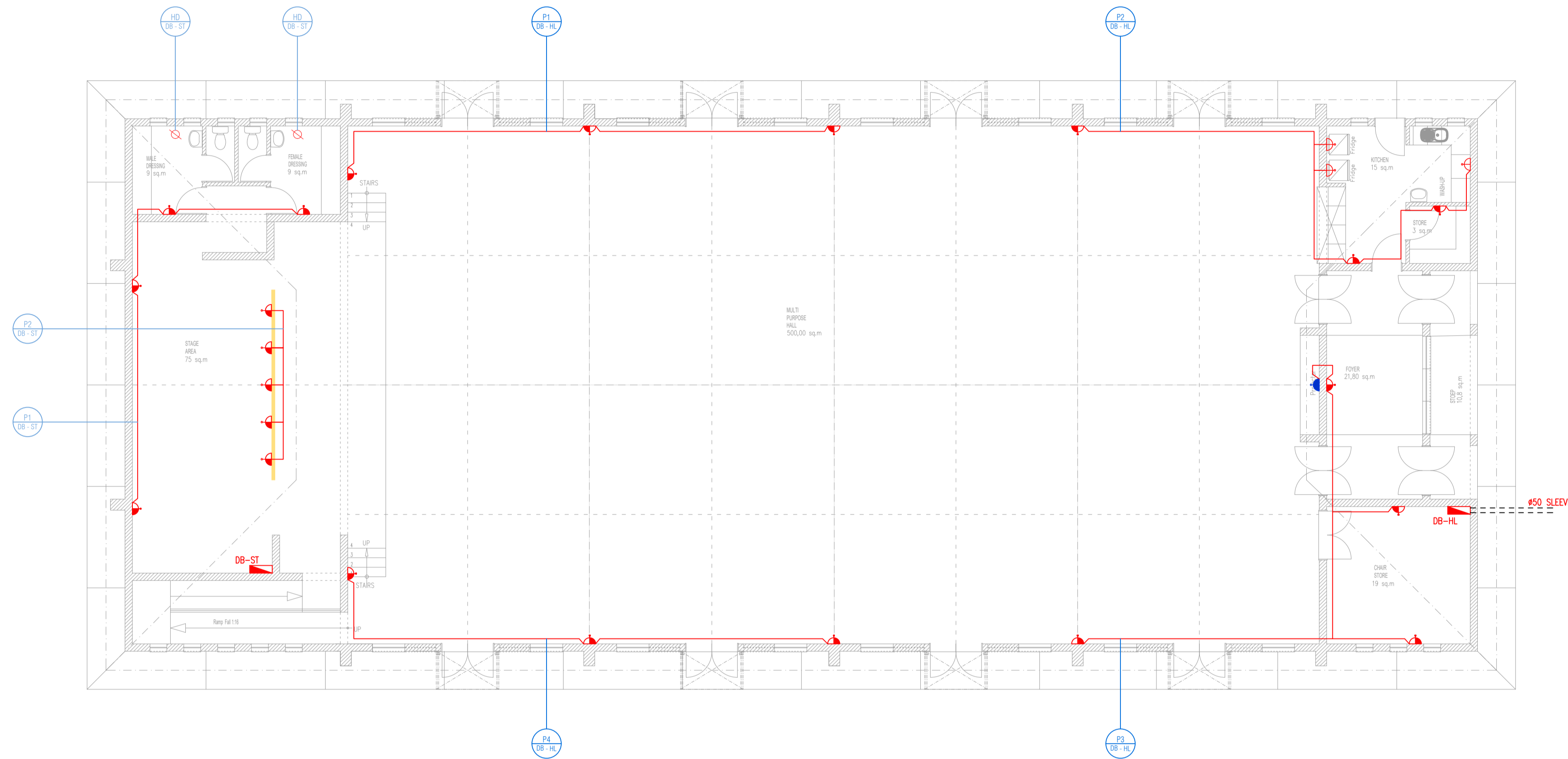
PROJECT

INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH ACUTE INFRASTRUCTURE CHALLENGES, INCLUDING STORM DAMAGED SCHOOLS IN THE LIMPOPO PROVINCE CLUSTER E
VUTIVI PRIMARY SCHOOL

DRAWING TITLE

**HALL FLOOR PLAN
LIGHTING LAYOUT**

Project code	STATUS	Consultant	Doc Type	Seq No	Rev
VPS - C - BE - TCS - TDW - 002/1 - A					
SCALE	1:100				
CHECKED					
REV. No	A				
DATE	17.08.2021				



POWER LEGEND	
ITEM	DESCRIPTION
	TV POINT
	TELEPHONE POINT
	DATA POINT
	SINGLE PHASE ISOLATOR
	SINGLE 16A NORMAL SWITCHED SOCKET OUTLET @1000 A.F.F.L
	2A PLUG 16A SOCKET OUTLET @1200 A.F.F.L
	2A 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
	P8000 ELECTRICAL TRUNKING @CEILING LEVEL
	PEDESTAL FOR MEETING/PRESENTER'S TABLE CONSISTING OF THE FOLLOWING: - 16A NORMAL SOCKET UN-SWITCHED - 16A DEDICATED SOCKET UN-SWITCHED - SA 2 PIN SOCKET UN-SWITCHED - DATA & TELEPHONE POINTS
	ONE METER CLUSTER WALL BOX CONSISTING OF THE FOLLOWING: - 16A NORMAL SOCKET UN-SWITCHED - 16A DEDICATED SOCKET UN-SWITCHED - SA 2 PIN SOCKET UN-SWITCHED - 2x R45 DATA & TELEPHONE POINTS
	ELECTRICAL DISTRIBUTION BOARD

STATUS CODE	Group Codes BUILDINGS	DRAWING STATUS	
		FOR TENDER	PROJECT NUMBER
0 - Pre - Feasibility study	BP - Building IT		LDPWRI-B/20113
1 - Feasibility study	BP - Building Public Address		
A - Preliminary Design	BS - Building Service		
B - Design Review	BA - Building Architectural		
C - Tender Design	BE - Building Electrical		
D - Detailed Design	BF - Building Fire Service		
E - For Construction	BM - Building Mechanical		
F - As Built	BT - Building Public Telecoms		
G - For Information Only	BU - Building Public Utilities		

No	Date	chkd	Details
A	17.08.2021	EM	FOR TENDER

CLIENT

DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE

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

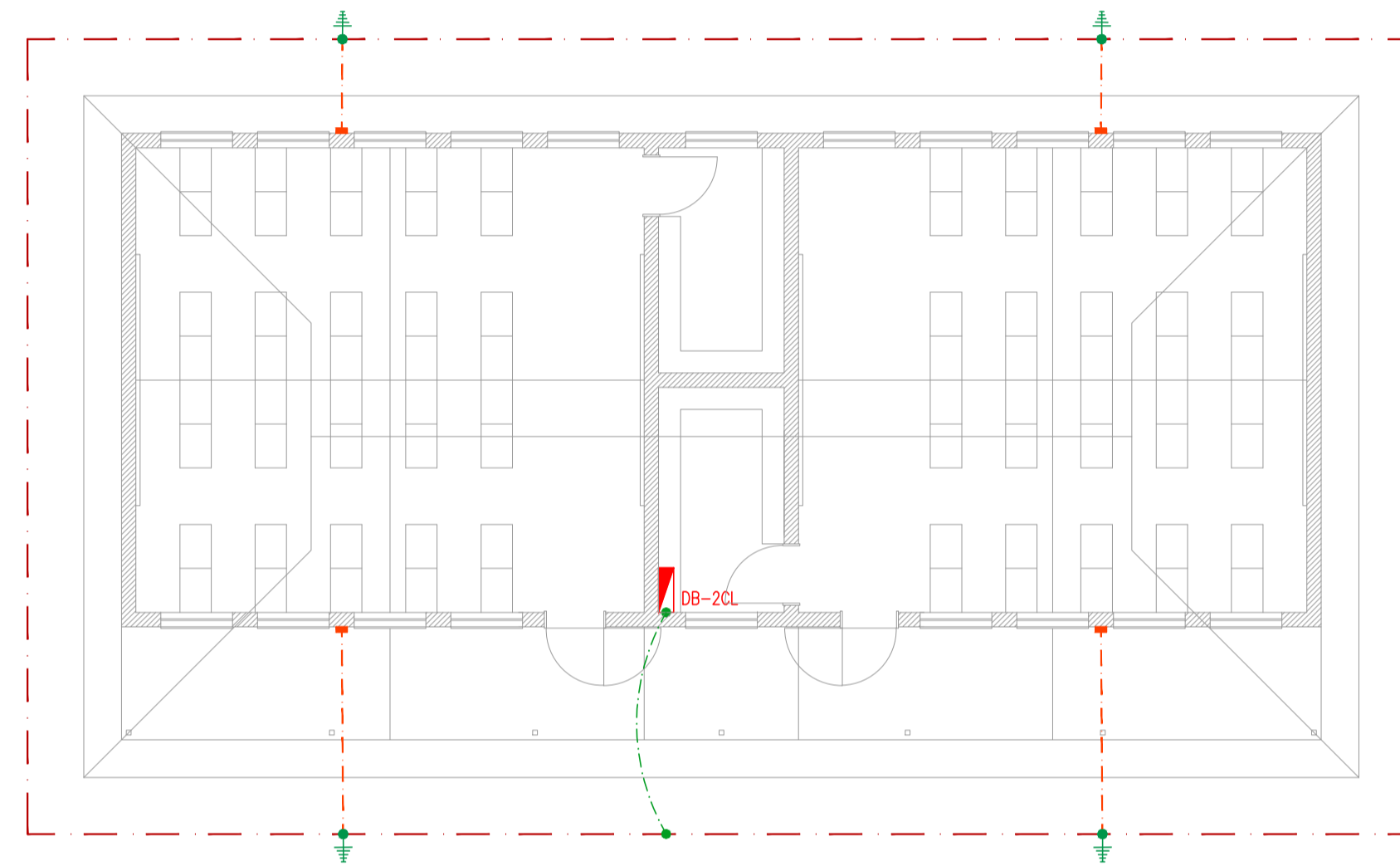
PROJECT

INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH ACUTE INFRASTRUCTURE CHALLENGES, INCLUDING STORM DAMAGED SCHOOLS IN THE LIMPOPO PROVINCE CLUSTER E
VUTIVI PRIMARY SCHOOL

DRAWING TITLE

HALL FLOOR PLAN POWER LAYOUT

Project code	Subs	Doc Type	Seq No	Rev
VPS - C - BE - TCS - TDW - 001/1 - A				
SCALE	1:100			
CHECKED	A			
REV. No				
DATE	17.08.2021			



SYMBOL	DESCRIPTION
---	EARTH CONDUCTOR
---	EARTH RING MAIN
---	DOWN CONDUCTOR
---	EARTHING ROD
●	EARTH ELECTRODE (SPIKE)
■	BONDING TERMINATION
■	EARTHING TEST POINT

GENERAL NOTES:

- EARTH TERMINATION CONDUCTOR TO BE 50mm² BGEW.
- BONDING CONDUCTOR TO BE 16mm² BGEW.
- EARTH ELECTRODE (SPIKE) TO BE Ø15mm x 1.5m LONG COPPER SOLID ROUND BAR, AND MUST BE 0.5m BURIED BELOW GROUND LEVEL.
- EARTH CONDUCTOR TO BE 0.5m BURIED BELOW GROUND LEVEL.

EARTH TERMINATION NOTES:

EARTH TERMINATION SYSTEM GENERAL REQUIREMENTS:

- 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.

- THE CALCULATION OF AN EARTH TERMINATION SYSTEM SHALL BE DONE IN ACCORDANCE WITH THE FORMULAE IN SANS 10199.

DOWN CONDUCTORS:

- DOWN CONDUCTORS MUST BE INSULATED BY AT LEAST 3mm CROSS LINKED POLYETHYLENE.
- WARNING NOTICES TO BE INSTALLED TO MINIMISE THE PROBABILITY OF DOWN CONDUCTORS BEING TOUCHED.

EARTHING TEST POINT:

- 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 TERMINATION SYSTEM.
- 10313: THE PROTECTION OF STRUCTURES AGAINST LIGHTNING.
- SANS 1063: EARTHING SYSTEMS GENERAL PROVISIONS.

STATUS CODE	Group Codes BUILDINGS
0 - Pre - Feasibility study	BP - Building IT
1 - Feasibility study	BP - Building Public Address
A - Preliminary Design	BS - Building Service
B - Design Review	BA - Building Architectural
C - Tender Design	BE - Building Electrical
D - Detailed Design	BF - Building Fire Service
E - For Construction	BM - Building Mechanical
F - As Built	BT - Building Public Telecoms
G - For Information Only	BU - Building Public Utilities

DRAWING STATUS			
FOR TENDER			
PROJECT NUMBER			
LDPWRI-B/20113			
Drawn By	Designed By	Reviewed/Approved By	
M. CHABALALA	K. SECHOARO	E. MENSAB 20100414 <i>M.C.</i>	
Name	S.A.I.D Number	Name	Pr Number
		Name	Pr Number
		Signature	

No	Date	chkd	Details
A	17.08.2021	EM	FOR TENDER

LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF
PUBLIC WORKS, ROADS & INFRASTRUCTURE

CONSULTANT

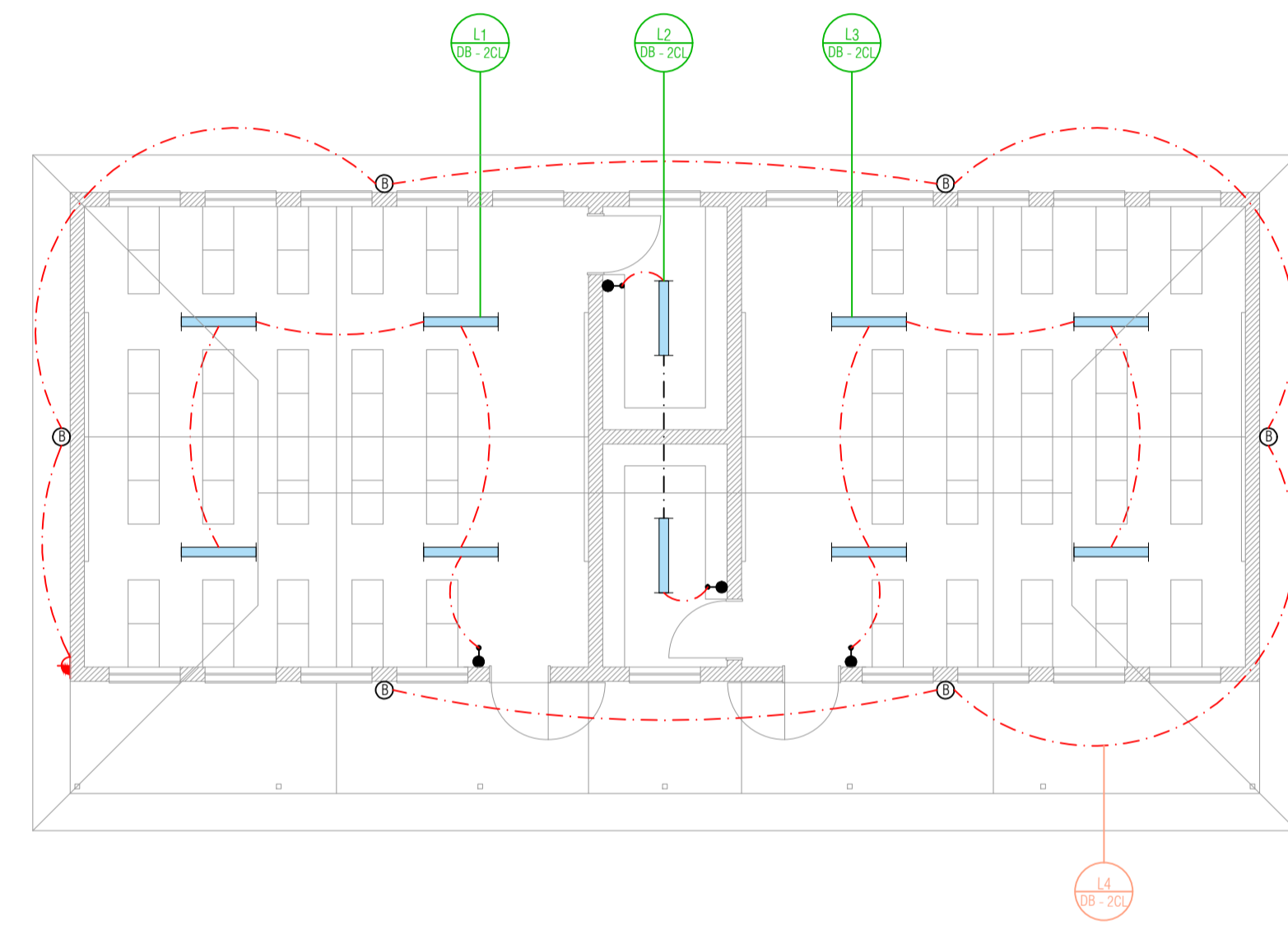
TAKUSA
CONSULTING SERVICES

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

PROJECT
INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH
ACUTE INFRASTRUCTURE CHALLENGES,
INCLUDING STORM DAMAGED SCHOOLS IN
THE LIMPOPO PROVINCE CLUSTER E
VUTIVI PRIMARY SCHOOL

DRAWING TITLE
**2x CLASSROOM FLOOR PLAN
EARTHING & LIGHTNING PROTECTION LAYOUT**

Project code	Status	Group	Consultant	Doc. Type	Seq. No	Rev
VPS - C - BE - TCS - TDW - 004/2 - A						
SCALE						1:100
CHECKED						A
REV. No						
DATE						17.08.2021



LIGHTING LEGEND

ITEM	DESCRIPTION	QTY
1	16A SINGLE LEVER LIGHT SWITCH	04
2	ZWAY 16A SINGLE LEVER LIGHT SWITCH	00
3	ZWAY 16A DOUBLE LEVER LIGHT SWITCH	00
4	90 DEG. MOTION SENSOR	00
5	180 DEG. MOTION SENSOR	00
6	360 DEG. MOTION SENSOR	00
7	DAYNIGHT SWITCH	01
8	8 INCH 15W LED DOWNLIGHT	00
9	TYPE B 8 INCH 15W LED DOWNLIGHT WITH DALI MODIFICATION	00
10	15W LED RONDO DOWNLIGHT WITH DALI MODIFICATION	00
11	15W LED ROUND BULKHEAD WITH DALI MODIFICATION	00
12	VISUAL LED IP40 - 18W 1200x50mm WITH DALI MODIFICATION	00
13	VISUAL LED IP40 - 18W 1500x50mm WITH DALI MODIFICATION	00
14	1200mm 34W LED IP66 CORROSION PROOF LIGHT FITTING WITH DALI MODIFICATION - EMERGENCY	00
15	1200mm 34W LED IP66 CORROSION PROOF LIGHT FITTING WITH DALI MODIFICATION	10
16	1200mm 2x 14W LED OPEN CHANNEL FLUORESCENT LUMINAIRE	00
17	140W 90° IP65 SURFACE MOUNT LED LOW BAY WITH DALI MODIFICATION	00
18	60W EMERGENCY 1000x600mm LED PANEL RECESSED LIGHT FITTING WITH DALI MODIFICATION	00
19	60W 1200x600mm LED PANEL RECESSED LIGHT FITTING WITH DALI MODIFICATION	00

STATUS CODE	Group Codes BUILDINGS
0 - Pre - Feasibility study	BP - Building IT
1 - Feasibility study	BP - Building Public Address
A - Preliminary Design	BS - Building Service
B - Design Review	BA - Building Architectural
C - Tender Design	BE - Building Electrical
D - Detailed Design	BF - Building Fire Service
E - For Construction	BM - Building Mechanical
F - As Built	BT - Building Public Telecoms
G - For Information Only	BU - Building Public Utilities

DRAWING STATUS	
FOR TENDER	
PROJECT NUMBER	
LDPWRI-B/20113	
Drawn By	Designed By
M CHABALALA	K SECHOARO
Reviewed/Approved By	
E MENSAH	20100414
Name	S.A.I.D Number
Name	Pr Number
Name	Pr Number
Signature	

No	Date	chkd	Details
A	17.08.2021	EM	FOR TENDER

CLIENT

LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF
PUBLIC WORKS, ROADS & INFRASTRUCTURE

CONSULTANT

TAKUSA
CONSULTING SERVICES

FOURWAYS OFFICE PARK,
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Cnr. CEDAR ROAD AND
FOURWAYS BOULEVARD,
FOURWAYS,
2191
Tel: (+27) 10 110 8724
Fax: (+27) 86 659 2099

PROJECT

INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH ACUTE INFRASTRUCTURE CHALLENGES, INCLUDING STORM DAMAGED SCHOOLS IN THE LIMPOPO PROVINCE CLUSTER E
VUTIVI PRIMARY SCHOOL

DRAWING TITLE

2x CLASSROOM FLOOR PLAN LIGHTING LAYOUT

Project code	Status	Drawn	Consultant	Doc Type	Seq No	Rev
VPS - C - BE - TCS - TDW - 002/2 - A						

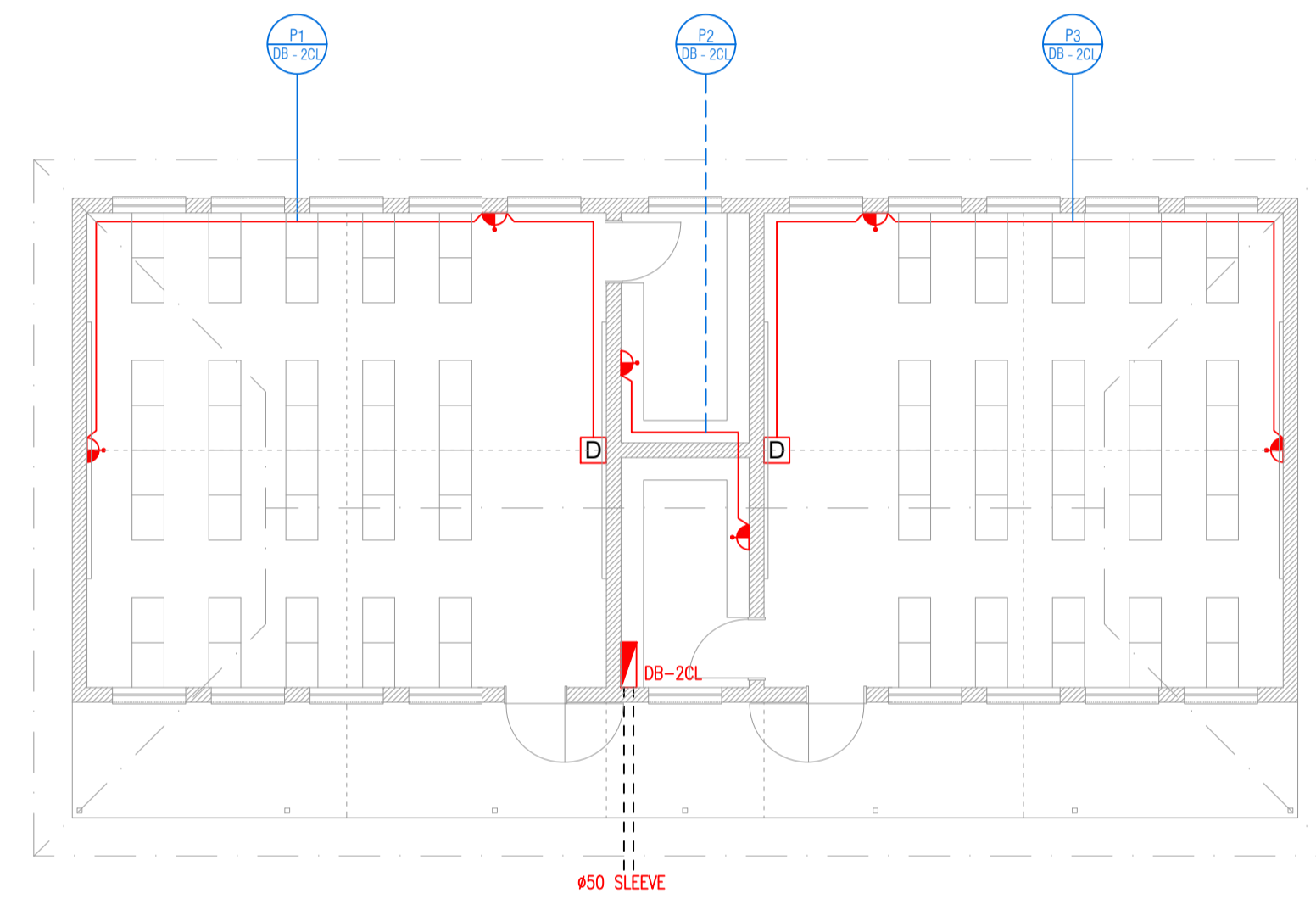
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SCALE 1:100

CHECKED _____

REV. No _____ **A**

DATE 17.08.2021



POWER LEGEND

ITEM	DESCRIPTION
	TV POINT
	TELEPHONE POINT
	DATA 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
	PRECAST FOR MEETING PRESENTERS TABLE CONSISTING OF THE FF: - 16A NORMAL SOCKET UN-SWITCHED - 16A DEDICATED SOCKET UN-SWITCHED - SA 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 - SA 2 PIN SOCKET UN-SWITCHED - ZA RASD DATA & TELEPHONE POINTS
	ELECTRICAL DISTRIBUTION BOARD

STATUS CODE	Group Codes BUILDINGS
0 - Pre - Feasibility study	BP - Building IT
1 - Feasibility study	BP - Building Public Address
A - Preliminary Design	BS - Building Service
B - Design Review	BA - Building Architectural
C - Tender Design	BE - Building Electrical
D - Detailed Design	BF - Building Fire Service
E - For Construction	BM - Building Mechanical
F - As Built	BT - Building Public Telecoms
G - For Information Only	BU - Building Public Utilities

DRAWING STATUS	
FOR TENDER	
PROJECT NUMBER	
LDPWRI-B/20113	
Drawn By	Designed By
M CHABALALA	K SECHOARO
Name	Reviewed/Approved By
S.A.I.D Number	E MENSAH 20100414
Name	Pr Number
Name	Pr Number
Name	Signature

No	Date	chkd	Details
A	17.08.2021	EM	FOR TENDER

CLIENT

PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF
PUBLIC WORKS, ROADS & INFRASTRUCTURE

CONSULTANT

FOURWAYS OFFICE PARK,
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Cnr. CEDAR ROAD AND
FOURWAYS BOULEVARD,
FOURWAYS,
2191
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Fax: (+27) 86 659 2099

PROJECT

INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH ACUTE INFRASTRUCTURE CHALLENGES, INCLUDING STORM DAMAGED SCHOOLS IN THE LIMPOPO PROVINCE CLUSTER E
VUTIVI PRIMARY SCHOOL

DRAWING TITLE

**2x CLASSROOM FLOOR PLAN
POWER LAYOUT**

Project code	Status	Group	Consultant	Doc. Type	Seq. No	Rev
VPS - C - BE - TCS - TDW - 001/2 - A						

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SCALE 1:100

CHECKED _____

REV. No _____

DATE 17.08.2021

460

GENERAL NOTES:

1. EARTH TERMINATION CONDUCTOR TO BE 50mm² BCEW.
2. BONDING CONDUCTOR TO BE 16mm² BCEW.
3. EARTH ELECTRODE (SPIKE) TO BE #15mm 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.

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:

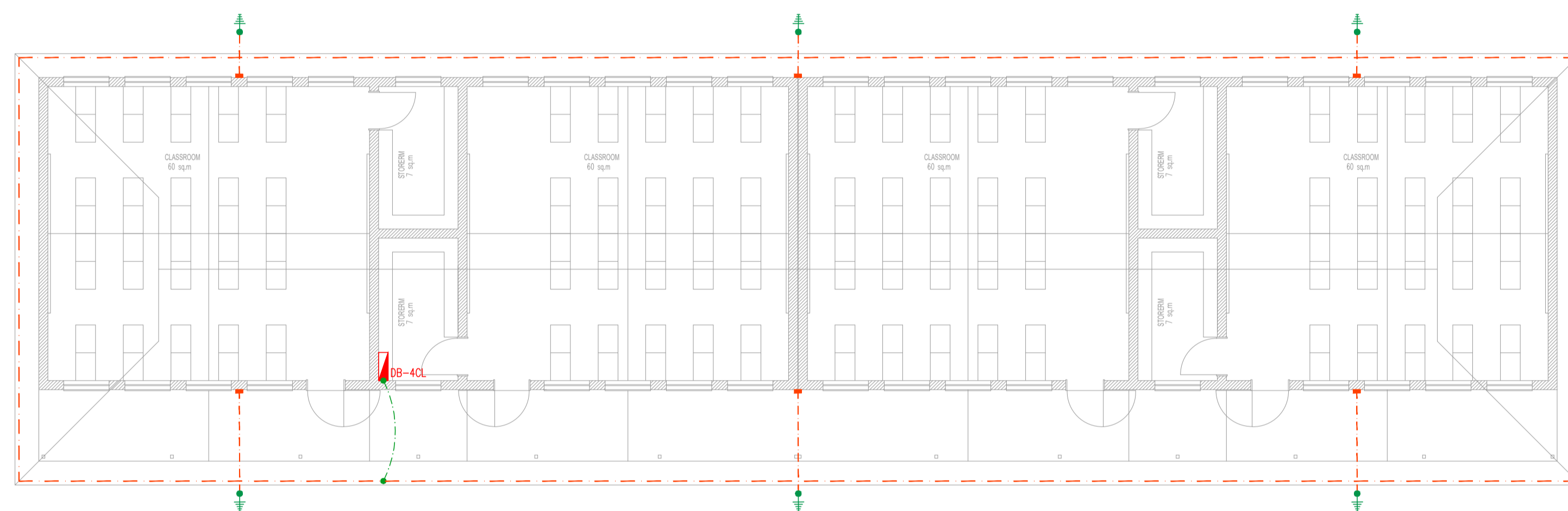
1. DOWN CONDUCTORS MUST BE INSULATED BY AT LEAST 3mm CROSS LINKED POLYETHYLENE.
2. WARNING NOTICES TO BE INSTALLED TO MINIMISE THE PROBABILITY OF DOWN CONDUCTORS BEING TOUCHED.

EARTHING TEST POINT:

1. EARTHING TEST POINT SHOULD BE CAPABLE OF BEING OPENED WITH THE AID OF TOOL.

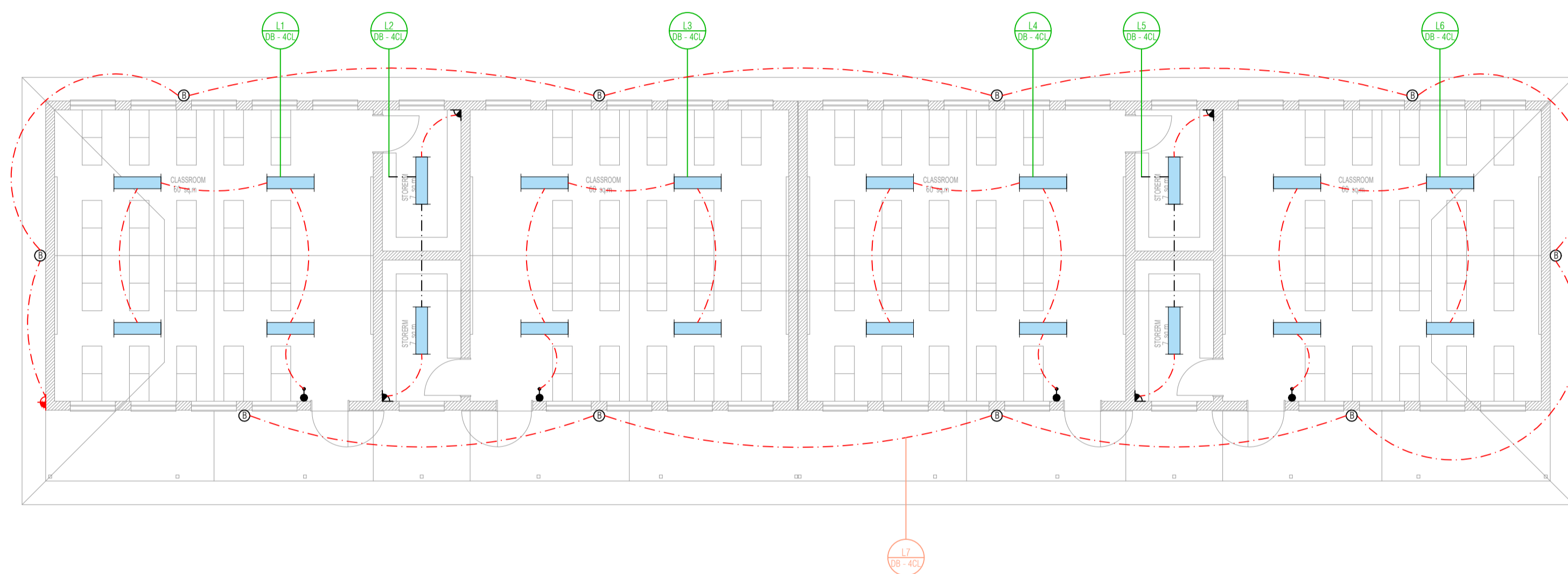
THE COMPLETE INSTALLATION MUST COMPLY TO THE FOLLOWING SANS SPECIFICATION:

- 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
⊕	EARTH ELECTRODE (SPIKE)
●	BONDING TERMINATION
■	EARTHING TEST POINT

STATUS CODE 0 - Pre - Feasibility study 1 - Feasibility study A - Preliminary Design B - Design Review C - Tender Design D - Detailed Design E - For Construction F - As Built G - For Information Only	Group Codes BUILDINGS BP - Building IT BP - Building Public Address BS - Building Service BA - Building Architectural BE - Building Electrical BF - Building Fire Service BM - Building Mechanical BT - Building Public Telecoms BU - Building Public Utilities	DRAWING STATUS FOR TENDER	No A	Date 17.08.2021	chkd EM	Details FOR TENDER	CLIENT DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE	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	PROJECT INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH ACUTE INFRASTRUCTURE CHALLENGES, INCLUDING STORM DAMAGED SCHOOLS IN THE LIMPOPO PROVINCE CLUSTER E VUTIVI PRIMARY SCHOOL	Project code VPS - C - BE - TCS - TDW - 004/4 - A	Status O	Consultant TCS	Doc Type TDW	Seq No 4	Rev A
		PROJECT NUMBER LDPWRI-B/20113	Drawn By N NGCEMU A13204	Designed By N NTUTA	Reviewed/Approved By E MENSAH 20100414 	Name S.A.J.D Number	Name Pr Number	Name Pr Number	Signature	DRAWING TITLE 4x CLASSROOM & STORES FLOOR PLAN EARTHING & LIGHTNING PROTECTION LAYOUT	SCALE 1:100	CHECKED REV: No DATE 17.08.2021			



LIGHTING LEGEND		
ITEM	DESCRIPTION	QTY
1	16A SINGLE LEVER LIGHT SWITCH	04
2	2WAY 16A SINGLE LEVER LIGHT SWITCH	00
3	2WAY 16A DOUBLE LEVER LIGHT SWITCH	00
4	90 DEG. MOTION SENSOR	04
5	180 DEG. MOTION SENSOR	00
6	360 DEG. MOTION SENSOR	00
7	DAY/NIGHT SWITCH	01
8	8 INCH 15W LED DOWNLIGHT	00
9	TYPE B: 8 INCH 15W LED DOWNLIGHT WITH DALI MODIFICATION	00
10	10W LED RONDO DOWNLIGHT WITH DALI MODIFICATION	00
11	15W LED ROUND BULKHEAD WITH DALI MODIFICATION	10
12	VISUAL LED IP40 - 15W 120x50mm WITH DALI MODIFICATION	00
13	VISUAL LED IP40 - 15W 150x50mm WITH DALI MODIFICATION	00
14	1200mm 3W LED IP66 CORROSION PROOF LIGHT FITTING WITH DALI MODIFICATION - EMERGENCY	00
15	1200mm 3W LED IP66 CORROSION PROOF LIGHT FITTING WITH DALI MODIFICATION	20
16	1200mm 2x 14W LED OPEN CHANNEL FLUORESCENT LUMINAIRE	00
17	140W 8P IP65 SURFACE MOUNT LED LOW BAY WITH DALI MODIFICATION	00
18	60W EMERGENCY 150x60mm LED PANEL RECESSED LIGHT FITTING WITH DALI MODIFICATION	00
19	60W 120x60mm LED PANEL RECESSED LIGHT FITTING WITH DALI MODIFICATION	00

STATUS CODE	Group Codes BUILDINGS
0 - Pre - Feasibility study	BP - Building IT
1 - Feasibility study	BP - Building Public Address
A - Preliminary Design	BS - Building Service
B - Design Review	BA - Building Architectural
C - Tender Design	BE - Building Electrical
D - Detailed Design	BF - Building Fire Service
E - For Construction	BM - Building Mechanical
F - As Built	BT - Building Public Telecoms
G - For Information Only	BU - Building Public Utilities

DRAWING STATUS		
FOR TENDER		
PROJECT NUMBER LDPWRI-B/20113		
Drawn By N NGCEMU A13204	Designed By N NTUTA	Reviewed/Approved By E MENSAH 20100414
Name	S.A.I.D Number	Pr Number
Name	Pr Number	Signature

No	Date	chkd	Details
A	17.08.2021	EM	FOR TENDER

CLIENT

DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE

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

PROJECT

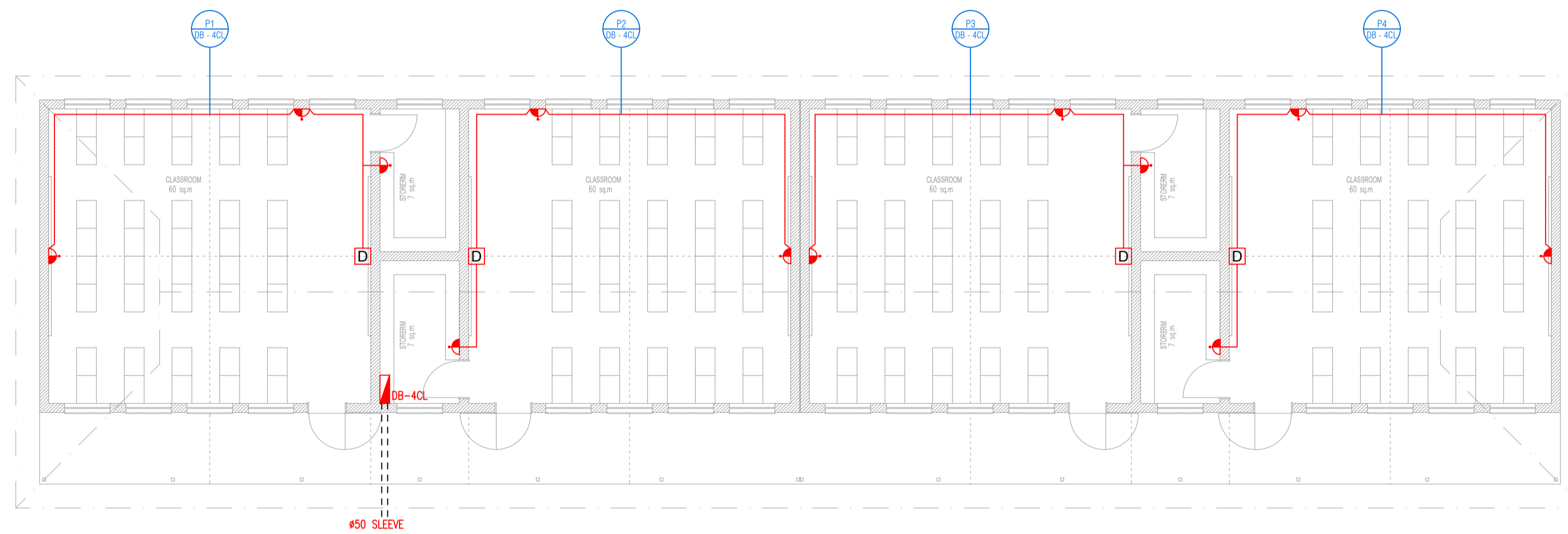
INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH ACUTE INFRASTRUCTURE CHALLENGES, INCLUDING STORM DAMAGED SCHOOLS IN THE LIMPOPO PROVINCE CLUSTER E

VUTIVI PRIMARY SCHOOL

DRAWING TITLE

4x CLASSROOM & STORES FLOOR PLAN LIGHTING LAYOUT

Project code	Studio	Client	Consultant	Doc Type	Seq No	Rev
VPS - C - BE - TCS - TDW - 002/4 - A						
SCALE						1:100
CHECKED						A
REV. No						
DATE						17.08.2021



POWER LEGEND	
ITEM	DESCRIPTION
	TV POINT
	TELEPHONE POINT
	DATA POINT
	SINGLE PHASE ISOLATOR
	SINGLE 15A NORMAL SWITCHED SOCKET OUTLET @1000 A.F.F.L
	2x 15A NORMAL SOCKET OUTLET @1000 A.F.F.L
	2x 15A NORMAL SOCKET OUTLET IN CEILING VOID @1000 A.F.F.L
	DOUBLE 15A NORMAL SWITCHED SOCKET OUTLET @1000 A.F.F.L
	DOUBLE 15A NORMAL SWITCHED SOCKET OUTLET IN CEILING VOID @1000 A.F.F.L
	POWER SKIRTING
	PEDESTAL FOR MEETING/PRESENTER'S TABLE CONSISTING OF THE FOLLOWING: - 15A NORMAL SOCKET UN-SWITCHED - 15A DEDICATED SOCKET UN-SWITCHED - SA 2 PIN SOCKET UN-SWITCHED - DATA & TELEPHONE POINTS
	ONE METER CLUSTER WALL BOX CONSISTING OF THE FOLLOWING: - 15A NORMAL SOCKET UN-SWITCHED - 15A DEDICATED SOCKET UN-SWITCHED - SA 2 PIN SOCKET UN-SWITCHED - SA 2 PIN SOCKET UN-SWITCHED - SA 2 PINS DATA & TELEPHONE POINTS
	ELECTRICAL DISTRIBUTION BOARD

STATUS CODE	Group Codes BUILDINGS	DRAWING STATUS	No	Date	chkd	Details
0 - Pre - Feasibility study	BP - Building IT	FOR TENDER	A	17.08.2021	EM	FOR TENDER
1 - Feasibility study	BP - Building Public Address	PROJECT NUMBER				
A - Preliminary Design	BS - Building Service	LDPWRI-B/20113				
B - Design Review	BA - Building Architectural	Drawn By				
C - Tender Design	BE - Building Electrical	Designed By				
D - Detailed Design	BF - Building Fire Service	Reviewed/Approved By				
E - For Construction	BM - Building Mechanical	N NGCEMU A13204				
F - As Built	BT - Building Public Telecoms	N NTUTA				
G - For Information Only	BU - Building Public Utilities	Name S.A.I.D Number Name Pr Number Name Pr Number Signature				

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, 2191 Tel: (+27) 10 110 8724 Fax: (+27) 86 659 2099		PROJECT INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH ACUTE INFRASTRUCTURE CHALLENGES, INCLUDING STORM DAMAGED SCHOOLS IN THE LIMPOPO PROVINCE CLUSTER E VUTIVI PRIMARY SCHOOL	

Project code	Subs	Doc Type	Seq No	Rev
VPS - C - BE - TCS - TDW - 001/4 - A				
SCALE		1:100		
CHECKED		A		
REV. No				
DATE		17.08.2021		

DRAWING TITLE	
4x CLASSROOM & STORES FLOOR PLAN POWER LAYOUT	

Project code	Subs	Doc Type	Seq No	Rev
VPS - C - BE - TCS - TDW - 001/4 - A				
SCALE		1:100		
CHECKED		A		
REV. No				
DATE		17.08.2021		

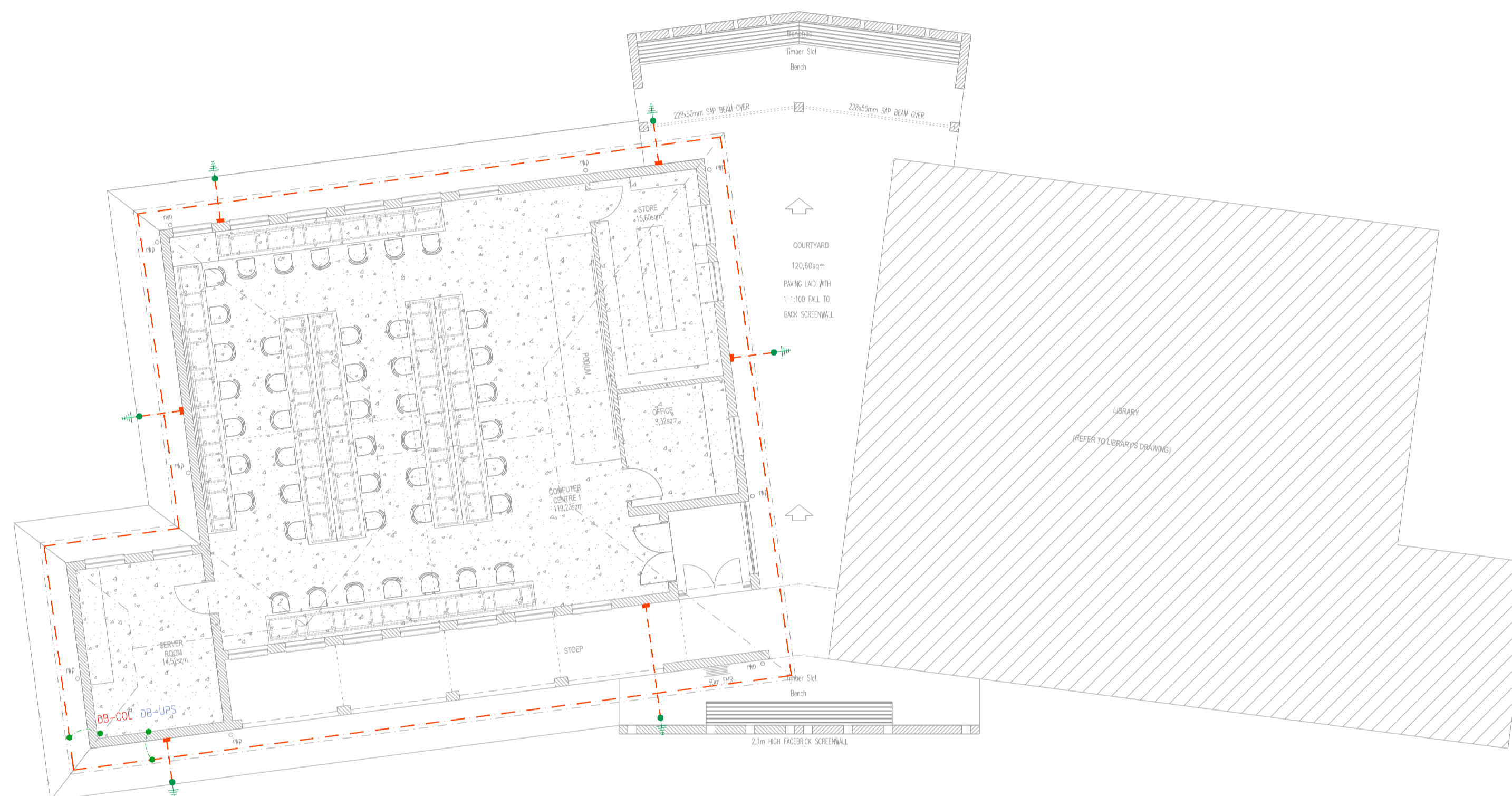
- GENERAL NOTES:
1. EARTH TERMINATION CONDUCTOR TO BE 50mm² BCEE.
 2. BONDING CONDUCTOR TO BE 16mm² BCEE.
 3. EARTH ELECTRODE (SPIKE) TO BE #15mm x 1.5m LONG COPPER SOLID ROUND BAR, AND MUST BE 0.5m BURIED BELOW GROUND LEVEL.
 4. EARTH CONDUCTOR TO BE 0.5m BURIED BELOW GROUND LEVEL.
 5. ALL WORKS SHALL 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 POLYETHYLENE.
 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
	EARTH ELECTRODE (SPIKE)
	BONDING TERMINATION
	EARTHING TEST POINT

STATUS CODE	Group Codes BUILDINGS	DRAWING STATUS	
0 - Pre - Feasibility study	BP - Building IT	FOR TENDER	
1 - Feasibility study	BP - Building Public Address	PROJECT NUMBER	
A - Preliminary Design	BS - Building Service	LDPWRI-B/20113	
B - Design Review	BA - Building Architectural	Drawn By	Designed By
C - Tender Design	BE - Building Electrical	N NGCEMU A13204	N NTUTA
D - Detailed Design	BF - Building Fire Service	Reviewed/Approved By	
E - For Construction	BM - Building Mechanical	Name	Pr Number
F - As Built	BT - Building Public Telecoms	Name	Pr Number
G - For Information Only	BU - Building Public Utilities	Name	Pr Number

No	Date	chkd	Details
A	17.08.2021	EM	FOR TENDER

CLIENT

DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE

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

PROJECT

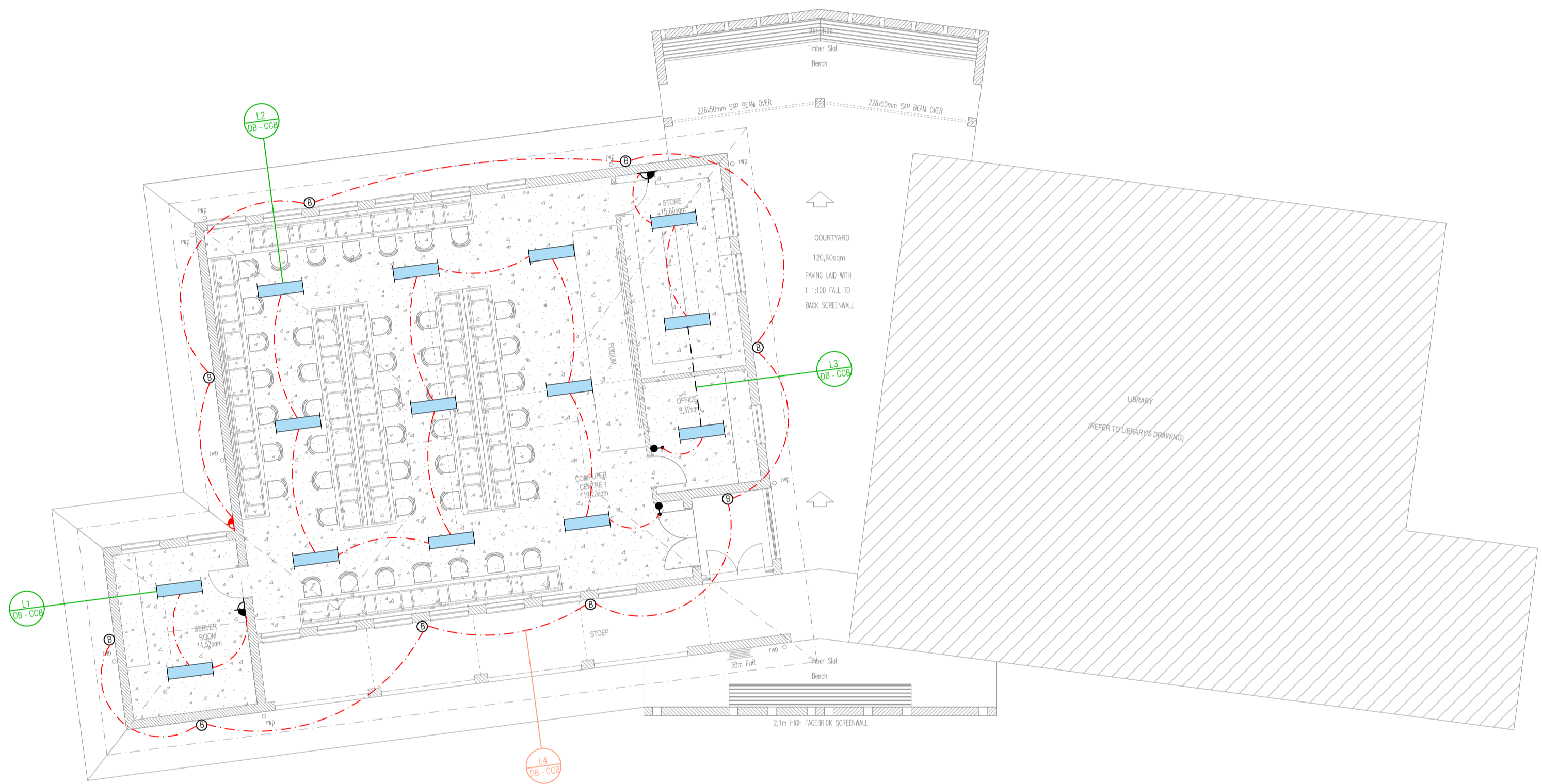
INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH ACUTE INFRASTRUCTURE CHALLENGES, INCLUDING STORM DAMAGED SCHOOLS IN THE LIMPOPO PROVINCE CLUSTER E

VUTIVI PRIMARY SCHOOL

DRAWING TITLE

COMPUTER CENTRE FLOOR PLAN EARTHING & LIGHTNING PROTECTION LAYOUT

Project code	Status	Doc Type	Seq No	Rev
VPS - C - BE - TCS - TDW - 004/5 - A				
SCALE	1:100			
CHECKED				
REV. No	A			
DATE	17.08.2021			



LIGHTING LEGEND

ITEM	DESCRIPTION	QTY
1	16A SINGLE LEVER LIGHT SWITCH	02
2	2WAY 16A SINGLE LEVER LIGHT SWITCH	00
3	2WAY 16A DOUBLE LEVER LIGHT SWITCH	00
4	90 DEG. MOTION SENSOR	00
5	180 DEG. MOTION SENSOR	02
6	360 DEG. MOTION SENSOR	00
7	DAYNIGHT SWITCH	01
8	8 INCH 15W LED DOWNLIGHT	00
9	TYPE B 8 INCH 15W LED DOWNLIGHT WITH DALI MODIFICATION	00
10	10W LED RONDO DOWNLIGHT WITH DALI MODIFICATION	00
11	15W LED ROUND BULKHEAD WITH DALI MODIFICATION	09
12	VISUAL LED IP40 - 18W 1200x50mm WITH DALI MODIFICATION	00
13	VISUAL LED IP40 - 18W 1500x50mm WITH DALI MODIFICATION	00
14	1200mm 3W LED IP66 CORROSION PROOF LIGHT FITTING WITH DALI MODIFICATION - EMERGENCY	00
15	1200mm 3W LED IP66 CORROSION PROOF LIGHT FITTING WITH DALI MODIFICATION	14
16	1200mm 2x 14W LED OPEN CHANNEL FLUORESCENT LUMINAIRE	00
17	40W IP67 IP65 SURFACE MOUNT LED LOW BAY WITH DALI MODIFICATION	00
18	60W EMERGENCY 1500x600mm LED PANEL RECESSED LIGHT FITTING WITH DALI MODIFICATION	00
19	60W 1200x600mm LED PANEL RECESSED LIGHT FITTING WITH DALI MODIFICATION	00

STATUS CODE	Group Codes BUILDINGS
0 - Pre - Feasibility study	BP - Building IT
1 - Feasibility study	BP - Building Public Address
A - Preliminary Design	BS - Building Service
B - Design Review	BA - Building Architectural
C - Tender Design	BE - Building Electrical
D - Detailed Design	BF - Building Fire Service
E - For Construction	BM - Building Mechanical
F - As Built	BT - Building Public Telecoms
G - For Information Only	BU - Building Public Utilities

DRAWING STATUS	
FOR TENDER	
PROJECT NUMBER	
LDPWRI-B/20113	
Drawn By	Designed By
N NGCEMU A13204	N NTUTA
Reviewed/Approved By	
E MENSAH 20100414	
Name	Pr Number
S.A.J.D Number	Pr Number
Name	Pr Number
Name	Pr Number
Name	Pr Number
Signature	

No	Date	chkd	Details
A	17.08.2021	EM	FOR TENDER

CLIENT

DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE

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

PROJECT

INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH ACUTE INFRASTRUCTURE CHALLENGES, INCLUDING STORM DAMAGED SCHOOLS IN THE LIMPOPO PROVINCE CLUSTER E

VUTIVI PRIMARY SCHOOL

DRAWING TITLE

COMPUTER CENTRE FLOOR PLAN LIGHTING LAYOUT

Project code	STATUS	Consultant	Doc Type	Seq No	Rev
VPS - C - BE - TCS - TDW - 002/5 - A	Copyright Reserved				
SCALE					1:100
CHECKED					A
REV. No					
DATE					17.08.2021

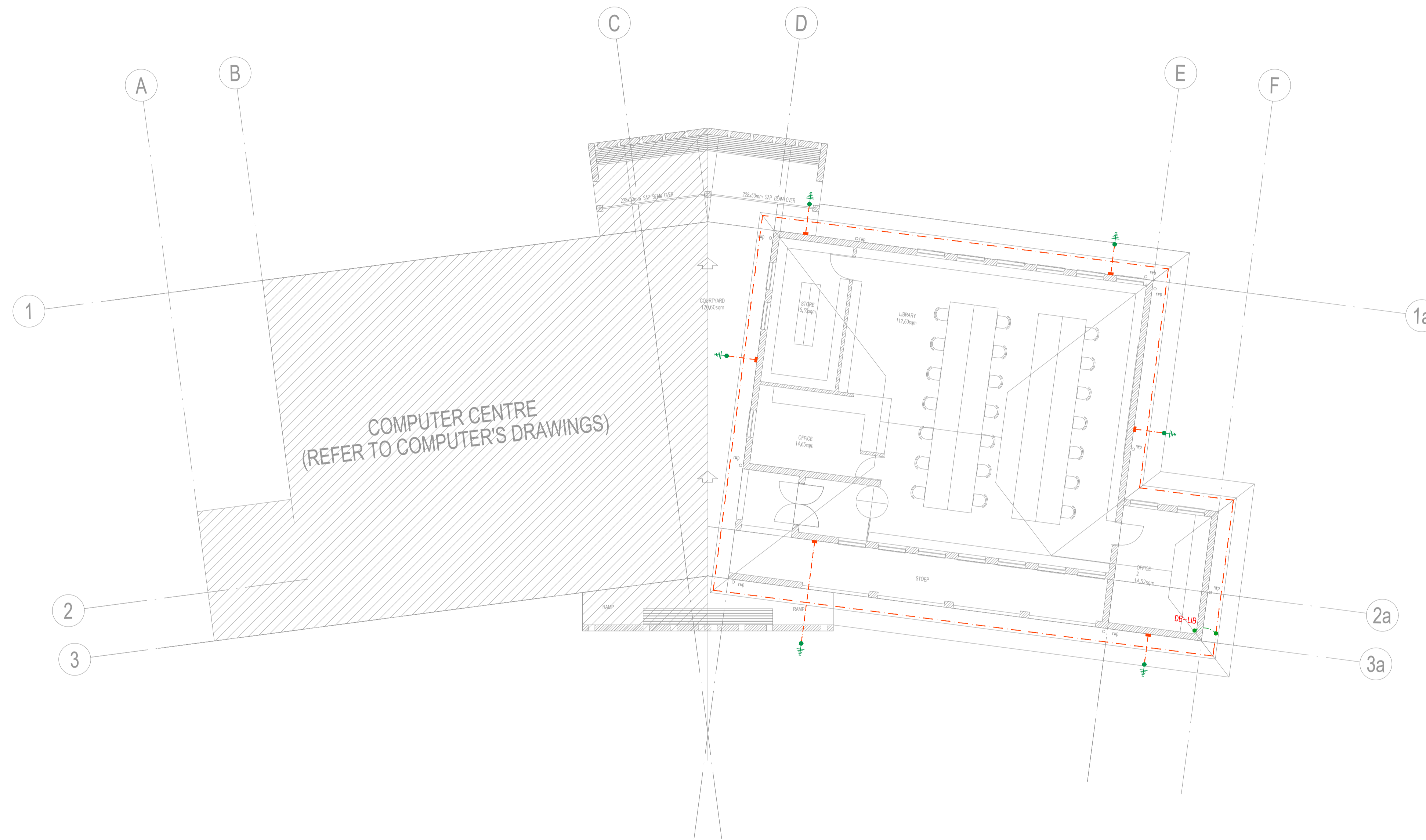
- GENERAL NOTES:
1. EARTH TERMINATION CONDUCTOR TO BE 50mm² BGEW.
 2. BONDING CONDUCTOR TO BE 16mm² BGEW.
 3. EARTH ELECTRODE (SPIKE) TO BE #15mm x 1.5m LONG COPPER SOLID ROUND BAR, AND MUST BE 0.5m BURIED BELOW GROUND LEVEL.
 4. EARTH CONDUCTOR TO BE 0.5m BURIED BELOW GROUND LEVEL.
 5. ALL WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH:
 - GP/EE/1 REV.1 - STANDARD QUALITY SPECIFICATION FOR GENERAL INSTALLATIONS (SCHOOLS)
 - GP/EE/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 POLYETHYLENE.
 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
	EARTH ELECTRODE (SPIKE)
	BONDING TERMINATION
	EARTHING TEST POINT

STATUS CODE	Group Codes BUILDINGS
0 - Pre - Feasibility study	BP - Building IT
1 - Feasibility study	BP - Building Public Address
A - Preliminary Design	BS - Building Service
B - Design Review	BA - Building Architectural
C - Tender Design	BE - Building Electrical
D - Detailed Design	BF - Building Fire Service
E - For Construction	BM - Building Mechanical
F - As Built	BT - Building Public Telecoms
G - For Information Only	BU - Building Public Utilities

DRAWING STATUS	
FOR TENDER	
PROJECT NUMBER LDPWRI-B/20113	
Drawn By N NGCEMU A13204	Designed By N NTUTA
Reviewed/Approved By E MENSAH 20100414	
Name	S.A.I.D Number
Name	Pr Number
Name	Pr Number
Name	Signature

No	Date	chkd	Details
A	17.08.2021	EM	FOR TENDER

CLIENT

DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE

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

PROJECT

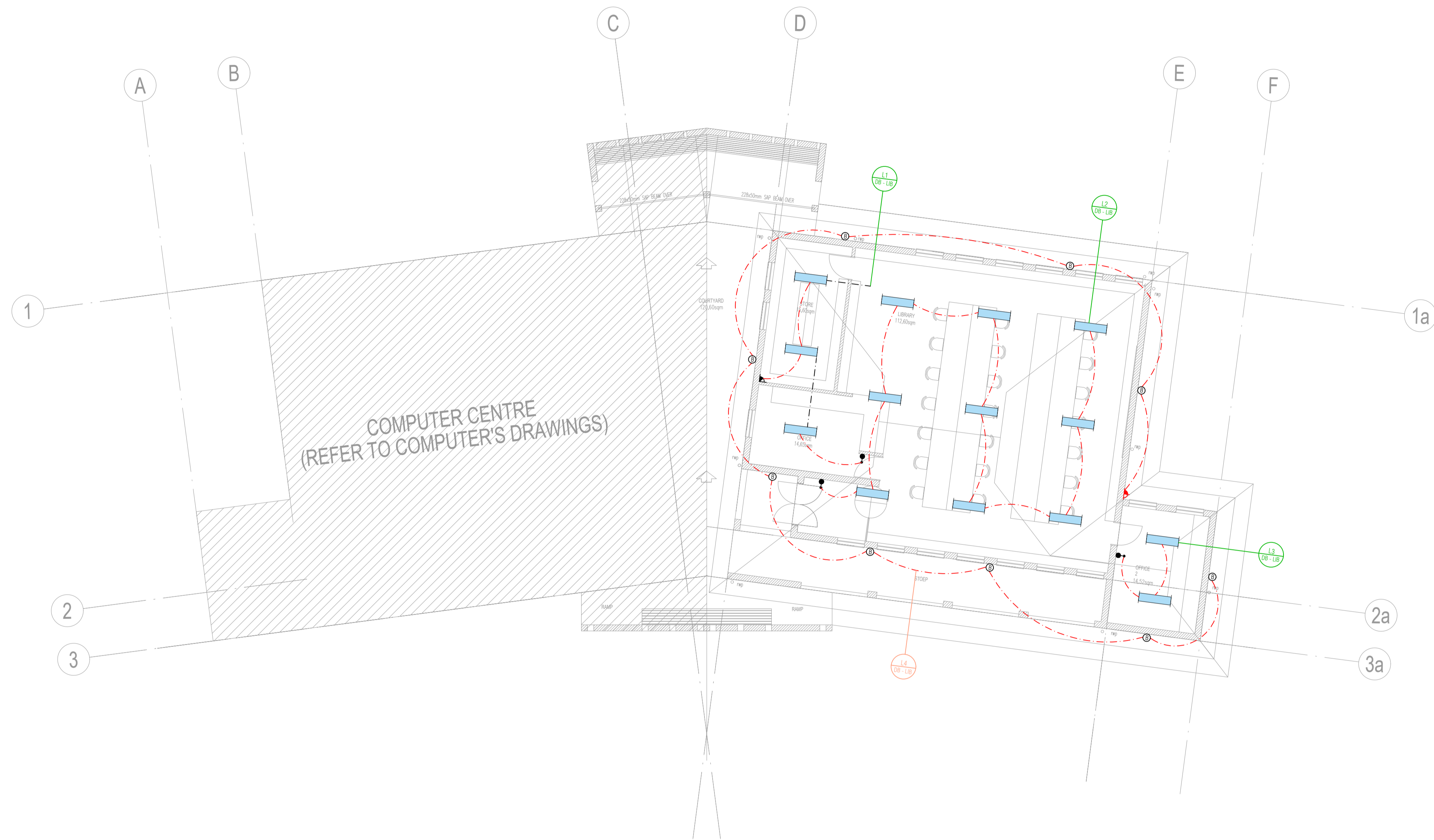
INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH ACUTE INFRASTRUCTURE CHALLENGES, INCLUDING STORM DAMAGED SCHOOLS IN THE LIMPOPO PROVINCE CLUSTER E

VUTIVI PRIMARY SCHOOL

DRAWING TITLE

LIBRARY BLOCK FLOOR PLAN EARTHING & LIGHTNING PROTECTION LAYOUT

Project code	Status	Group	Consultant	Doc Type	Seq No	Rev
Copyright Reserved						
VPS - C - BE - TCS - TDW - 004/6 - A						
SCALE						1:100
CHECKED						A
REV: No						
DATE						17.08.2021



LIGHTING LEGEND		
ITEM	DESCRIPTION	QTY
⊙	16A SINGLE LEVER LIGHT SWITCH	03
⊙	2WAY 16A SINGLE LEVER LIGHT SWITCH	00
⊙	2WAY 16A DOUBLE LEVER LIGHT SWITCH	00
⊙	90 DEG. MOTION SENSOR	01
⊙	180 DEG. MOTION SENSOR	00
⊙	360 DEG. MOTION SENSOR	00
⊙	DAYNIGHT SWITCH	01
⊙	8 INCH 15W LED DOWNLIGHT	00
⊙	TYPE B 8 INCH 15W LED DOWNLIGHT WITH DALI MODIFICATION	00
⊙	10W LED ROUND DOWNLIGHT WITH DALI MODIFICATION	00
⊙	15W LED ROUND BULKHEAD WITH DALI MODIFICATION	09
⊙	VISUAL LED IP40 - 18W 1200x50mm WITH DALI MODIFICATION	00
⊙	VISUAL LED IP40 - 18W 1000x50mm WITH DALI MODIFICATION	00
⊙	1200mm 30W LED IP65 CORROSION PROOF LIGHT FITTING WITH DALI MODIFICATION - EMERGENCY	00
⊙	1200mm 30W LED IP65 CORROSION PROOF LIGHT FITTING WITH DALI MODIFICATION	14
⊙	1200mm 2x 14W LED OPEN CHANNEL FLUORESCENT LUMINAIRE	00
⊙	140W 80' IP65 SURFACE MOUNT LED LOW BAY WITH DALI MODIFICATION	00
⊙	60W EMERGENCY 1200x400mm LED PANEL RECESSED LIGHT FITTING WITH DALI MODIFICATION	00
⊙	60W 1200x600mm LED PANEL RECESSED LIGHT FITTING WITH DALI MODIFICATION	00

STATUS CODE	Group Codes BUILDINGS
0 - Pre - Feasibility study	BP - Building IT
1 - Feasibility study	BP - Building Public Address
A - Preliminary Design	BS - Building Service
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C - Tender Design	BE - Building Electrical
D - Detailed Design	BF - Building Fire Service
E - For Construction	BM - Building Mechanical
F - As Built	BT - Building Public Telecoms
G - For Information Only	BU - Building Public Utilities

DRAWING STATUS	
FOR TENDER	
PROJECT NUMBER	
LDPWRI-B/20113	
Drawn By	Designed By
N NGCEMU A13204	N NTUTA
Reviewed/Approved By	
E MENSAH 20100414	
Name	S.A.J.D Number
Name	Pr Number
Name	Pr Number
Signature	

No	Date	chkd	Details
A	17.08.2021	EM	FOR TENDER

CLIENT

DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE

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

PROJECT

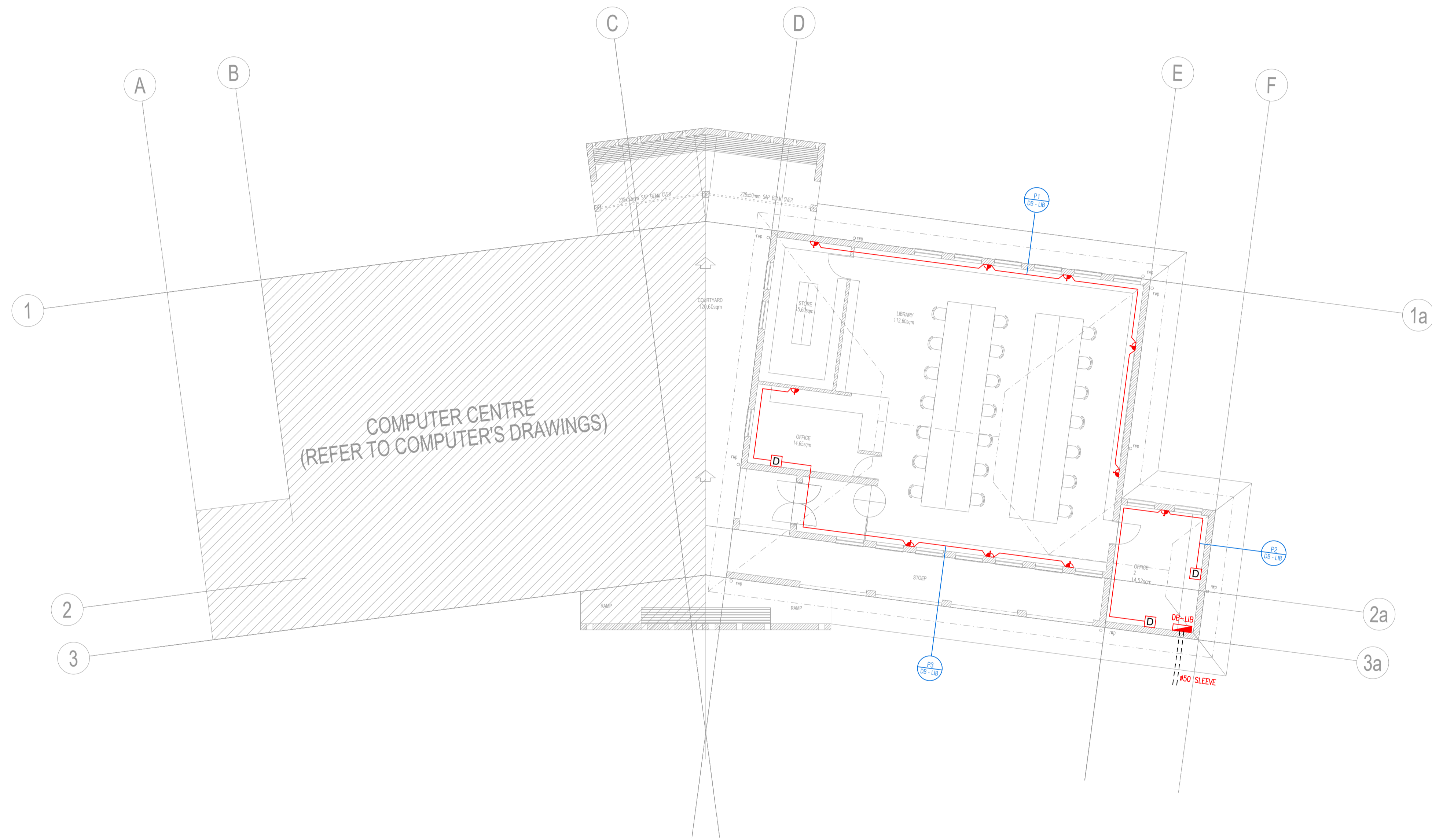
INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH ACUTE INFRASTRUCTURE CHALLENGES, INCLUDING STORM DAMAGED SCHOOLS IN THE LIMPOPO PROVINCE CLUSTER E

VUTVI PRIMARY SCHOOL

DRAWING TITLE

LIBRARY BLOCK FLOOR PLAN LIGHTING LAYOUT

Project code	STATUS	Consultant	Doc Type	Seq No	Rev
VPS - C - BE - TCS - TDW - 002/6 - A					
SCALE	1:100				
CHECKED					
REV. No	A				
DATE	17.08.2021				



POWER LEGEND	
ITEM	DESCRIPTION
	TV POINT
	TELEPHONE POINT
	DATA POINT
	SINGLE PHASE ISOLATOR
	SINGLE PHASE ISOLATOR
	SINGLE 15A NORMAL SWITCHED SOCKET OUTLET @1000 A.F.F.L
	2A PLUG 15A SOCKET OUTLET @1300 A.F.F.L
	2A PLUG 15A SOCKET OUTLET @300 A.F.F.L
	SINGLE 15A NORMAL SWITCHED SOCKET OUTLET IN CEILING VOID
	DOUBLE 15A NORMAL SWITCHED SOCKET OUTLET @1000 A.F.F.L
	DOUBLE 15A NORMAL SWITCHED SOCKET OUTLET @1200 A.F.F.L
	POWER SKIRTING
	PEDESTAL FOR MEETING/PRESENTER'S TABLE CONSISTING OF THE FOLLOWING: - 15A NORMAL SOCKET UN-SWITCHED - 15A DEDICATED SOCKET UN-SWITCHED - SA 2 PIN SOCKET UN-SWITCHED - DATA & TELEPHONE POINTS
	ONE TIER CLUSTER WALL BOX CONSISTING OF THE FOLLOWING: - 15A NORMAL SOCKET UN-SWITCHED - 15A DEDICATED SOCKET UN-SWITCHED - SA 2 PIN SOCKET UN-SWITCHED - DATA & TELEPHONE POINTS
	ELECTRICAL DISTRIBUTION BOARD

STATUS CODE	Group Codes BUILDINGS
0 - Pre - Feasibility study	BP - Building IT
1 - Feasibility study	BP - Building Public Address
A - Preliminary Design	BS - Building Service
B - Design Review	BA - Building Architectural
C - Tender Design	BE - Building Electrical
D - Detailed Design	BF - Building Fire Service
E - For Construction	BM - Building Mechanical
F - As Built	BT - Building Public Telecoms
G - For Information Only	BU - Building Public Utilities

DRAWING STATUS					
FOR TENDER					
PROJECT NUMBER LDPWRI-B/20113					
Drawn By	Designed By	Reviewed/Approved By			
N NGCEMU A13204	N NTUTA	E MENSAH 20100414			
Name	S.A.J.D Number	Name	Pr Number	Name	Pr Number

No	Date	chkd	Details
A	17.08.2021	EM	FOR TENDER

CLIENT

DEPARTMENT OF
PUBLIC WORKS, ROADS & INFRASTRUCTURE

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

PROJECT
INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH
ACUTE INFRASTRUCTURE CHALLENGES,
INCLUDING STORM DAMAGED SCHOOLS IN
THE LIMPOPO PROVINCE CLUSTER E
VUTIVI PRIMARY SCHOOL

DRAWING TITLE
**LIBRARY BLOCK FLOOR PLAN
POWER LAYOUT**

Project code	SHD/S	CP/ID	Consultant	Doc Type	Seq No	Rev
Copyright Reserved						
VPS - C - BE - TCS - TDW - 001/6 - A						
SCALE						1:100
CHECKED						A
REV: No						
DATE						17.08.2021

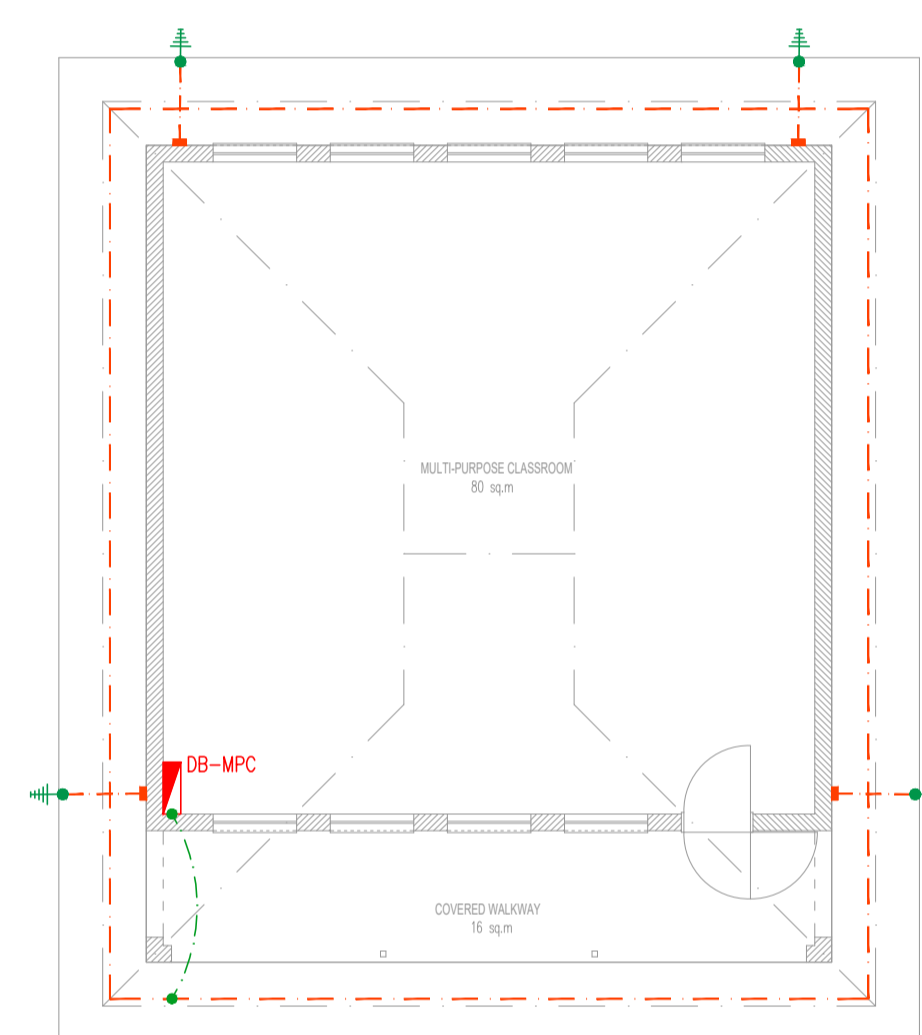
- GENERAL NOTES:
1. EARTH TERMINATION CONDUCTOR TO BE 50mm² BCEW.
 2. BONDING CONDUCTOR TO BE 16mm² BCEW.
 3. EARTH ELECTRODE (SPIKE) TO BE #15mm x 1.5m LONG COPPER SOLID ROUND BAR, AND MUST BE 0.5m BURIED BELOW GROUND LEVEL.
 4. EARTH CONDUCTOR TO BE 0.5m BURIED BELOW GROUND LEVEL.
 5. ALL WORKS SHALL 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.
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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 POLYETHYLENE.
 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
●	EARTH ELECTRODE (SPIKE)
●	BONDING TERMINATION
■	EARTHING TEST POINT

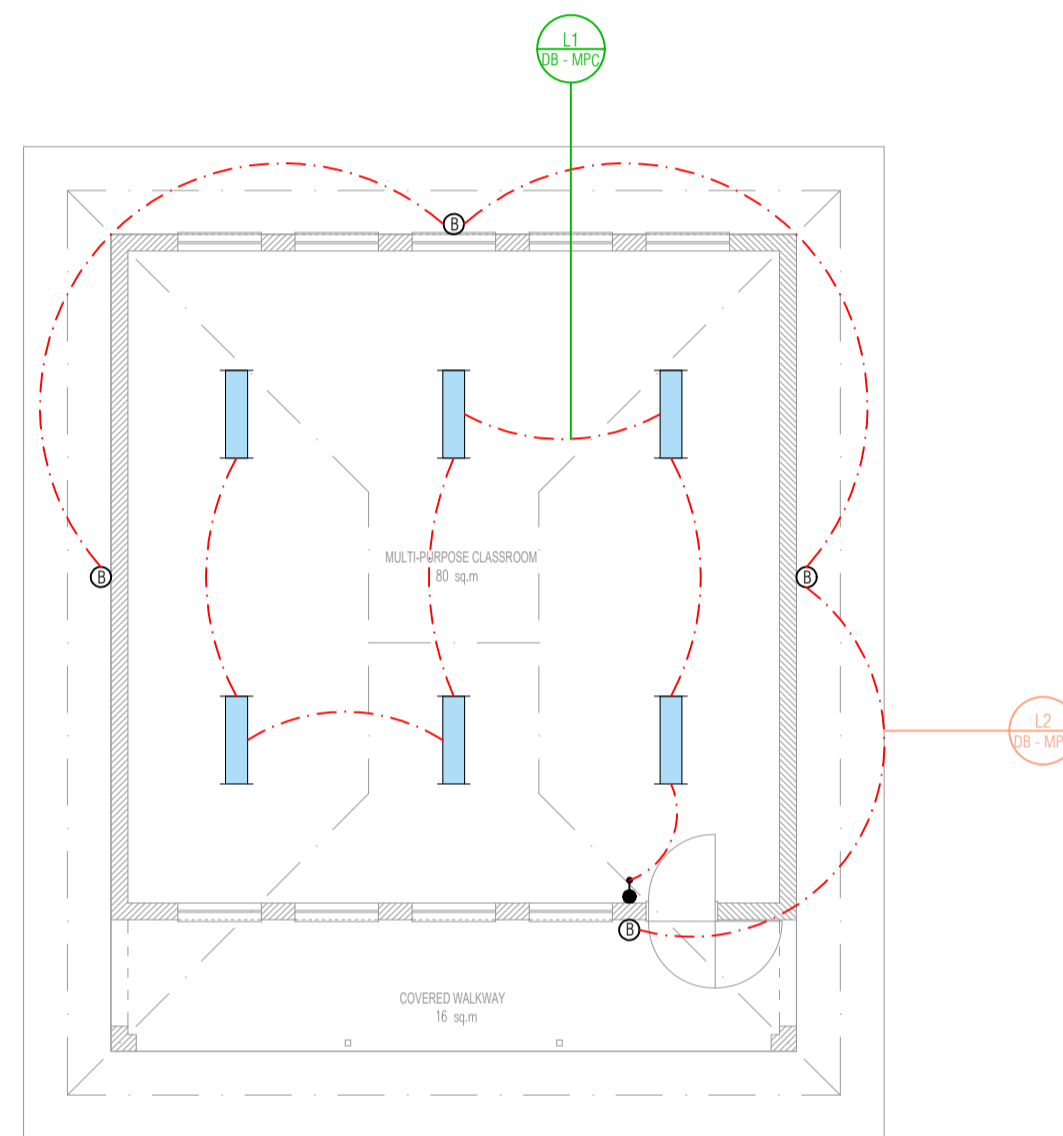
STATUS CODE	Group Codes BUILDINGS	DRAWING STATUS	No	Date	chkd	Details		
0 - Pre - Feasibility study	BP - Building IT	FOR TENDER	A	17.08.2021	EM	FOR TENDER		
1 - Feasibility study	BP - Building Public Address		PROJECT NUMBER LDPWRI-B/20113					
A - Preliminary Design	BS - Building Service	Drawn By	Reviewed/Approved By <i>df.c</i>					
B - Design Review	BA - Building Architectural	Designed By	N NGCEMU A13204 N NTUTA E MENSAH 20100414					
C - Tender Design	BE - Building Electrical	Name	S.A.I.D Number	Name	Pr Number	Name	Pr Number	Signature
D - Detailed Design	BF - Building Fire Service							
E - For Construction	BM - Building Mechanical							
F - As Built	BT - Building Public Telecoms							
G - For Information Only	BU - Building Public Utilities							

CLIENT	CONSULTANT	PROJECT
 LIMPOPO PROVINCIAL GOVERNMENT REPUBLIC OF SOUTH AFRICA DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE	 UTAKUSA CONSULTING SERVICES	INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH ACUTE INFRASTRUCTURE CHALLENGES, INCLUDING STORM DAMAGED SCHOOLS IN THE LIMPOPO PROVINCE CLUSTER E VUTIVI PRIMARY SCHOOL

CLIENT ADDRESS	CONSULTANT ADDRESS	PROJECT ADDRESS
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	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 VUTIVI PRIMARY SCHOOL

DRAWING TITLE	SCALE	CHECKED	REV. No	DATE
MULTI-PURPOSE CLASSROOM FLOOR PLAN EARTHING & LIGHTNING PROTECTION LAYOUT	1:100		A	17.08.2021

Project code	Subs	Group	Consultant	Doc Type	Seq No	Rev
VPS - C - BE - TCS - TDW - 004/7 - A						



LIGHTING LEGEND

ITEM	DESCRIPTION	QTY
1	16A SINGLE LEVER LIGHT SWITCH	01
2	2WAY 16A SINGLE LEVER LIGHT SWITCH	00
3	2WAY 16A DOUBLE LEVER LIGHT SWITCH	00
4	90 DEG. MOTION SENSOR	00
5	180 DEG. MOTION SENSOR	00
6	300 DEG. MOTION SENSOR	00
7	DAY/NIGHT SWITCH	01
8	8 INCH 15W LED DOWNLIGHT	00
9	TYPE B 8 INCH 15W LED DOWNLIGHT WITH DALI MODIFICATION	00
10	10W LED RONDOD DOWNLIGHT WITH DALI MODIFICATION	00
11	15W LED ROUND BULKHEAD WITH DALI MODIFICATION	04
12	VISUAL LED IP40 - 18W 1200x50mm WITH DALI MODIFICATION	00
13	VISUAL LED IP40 - 18W 1500x50mm WITH DALI MODIFICATION	00
14	1200mm 3W LED IP66 CORROSION PROOF LIGHT FITTING WITH DALI MODIFICATION - EMERGENCY	00
15	1200mm 3W LED IP66 CORROSION PROOF LIGHT FITTING WITH DALI MODIFICATION	06
16	1200mm 3x 14W LED OPEN CHANNEL FLUORESCENT LUMINAIRE	00
17	400W 40" IP65 SURFACE MOUNT LED LOW BAY WITH DALI MODIFICATION	00
18	60W EMERGENCY 1200x600mm LED PANEL RECESSED LIGHT FITTING WITH DALI MODIFICATION	00
19	80W 1200x600mm LED PANEL RECESSED LIGHT FITTING WITH DALI MODIFICATION	00

STATUS CODE	Group Codes BUILDINGS
0 - Pre - Feasibility study	BP - Building IT
1 - Feasibility study	BP - Building Public Address
A - Preliminary Design	BS - Building Service
B - Design Review	BA - Building Architectural
C - Tender Design	BE - Building Electrical
D - Detailed Design	BF - Building Fire Service
E - For Construction	BM - Building Mechanical
F - As Built	BT - Building Public Telecoms
G - For Information Only	BU - Building Public Utilities

DRAWING STATUS	
FOR TENDER	
PROJECT NUMBER	
LDPWRI-B/20113	
Drawn By	Designed By
N NGCEMU A13204	N NTUTA
Reviewed/Approved By	
E MENSAH 20100414	
Name	S.A.J.D Number
Name	Pr Number
Name	Pr Number
Signature	


No	Date	chkd	Details
A	17.08.2021	EM	FOR TENDER

CLIENT



DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE

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

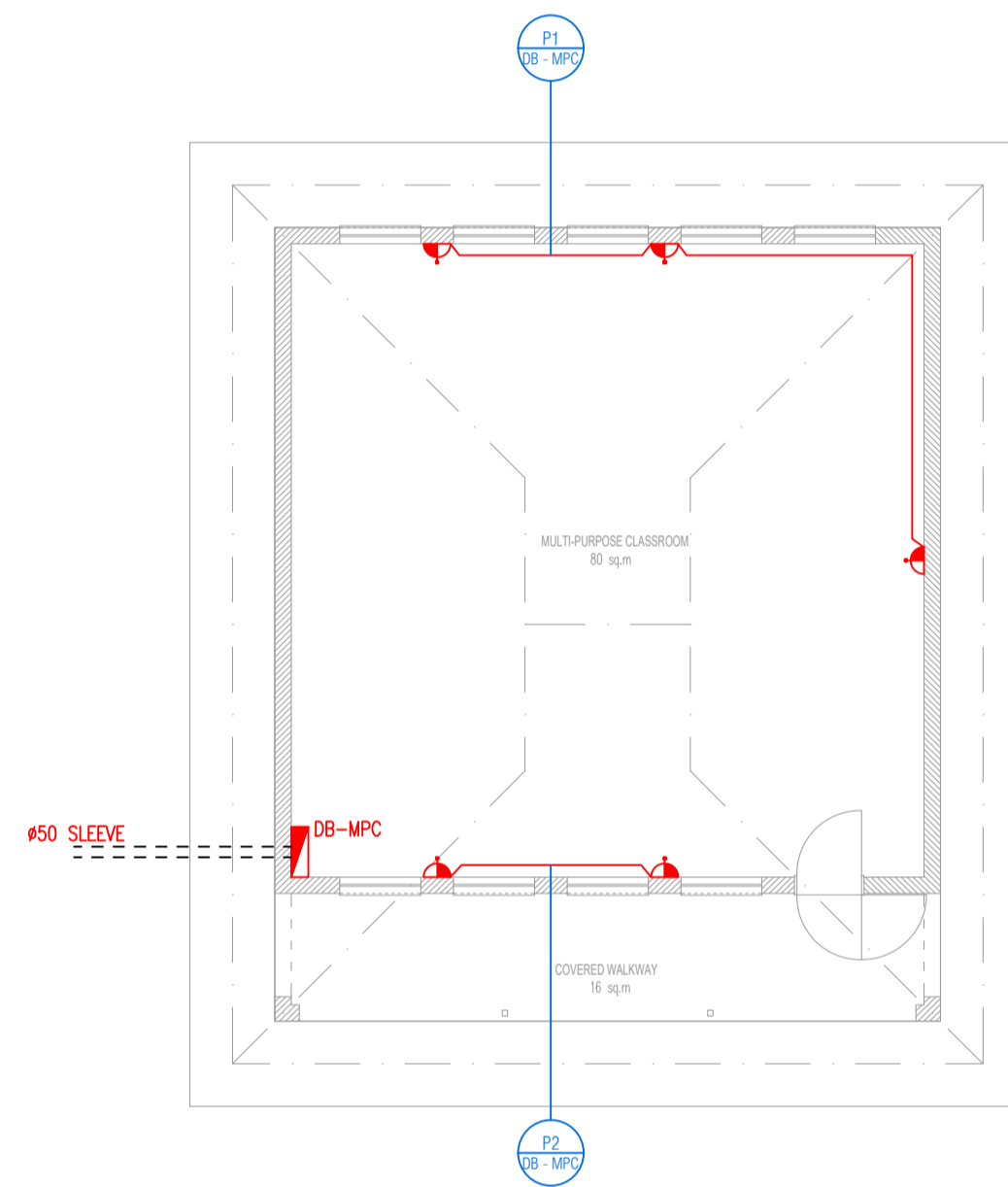
PROJECT

INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH ACUTE INFRASTRUCTURE CHALLENGES, INCLUDING STORM DAMAGED SCHOOLS IN THE LIMPOPO PROVINCE CLUSTER E
VUTIVI PRIMARY SCHOOL

DRAWING TITLE

MULTI-PURPOSE CLASSROOM FLOOR PLAN LIGHTING LAYOUT

Project code	Subs	Doc Type	Seq No	Rev
VPS - C - BE - TCS - TDW - 002/7 - A				
SCALE	1:100			
CHECKED				
REV. No	A			
DATE	17.08.2021			



POWER LEGEND	
ITEM	DESCRIPTION
	TV POINT
	TELEPHONE POINT
	DATA POINT
	SINGLE PHASE ISOLATOR
	SINGLE PHASE ISOLATOR
	SINGLE 16A NORMAL SWITCHED SOCKET OUTLET @1000 A.F.F.L
	2A PLUG 16A SOCKET OUTLET @1200 A.F.F.L
	2A 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 - SA 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 - SA 2 PIN SOCKET UN-SWITCHED - 2x R45 DATA & TELEPHONE POINTS
	ELECTRICAL DISTRIBUTION BOARD

STATUS CODE 0 - Pre - Feasibility study 1 - Feasibility study A - Preliminary Design B - Design Review C - Tender Design D - Detailed Design E - For Construction F - As Built G - For Information Only	Group Codes BUILDINGS BP - Building IT BP - Building Public Address BS - Building Service BA - Building Architectural BE - Building Electrical BF - Building Fire Service BM - Building Mechanical BT - Building Public Telecoms BU - Building Public Utilities	DRAWING STATUS			No	Date	chkd	Details	CLIENT	CONSULTANT	PROJECT	Project code	Subs	C	POID	Consultant	Doc Type	Seq No	Rev
		FOR TENDER PROJECT NUMBER LDPWRI-B/20113																	
Drawn By N NGCEMU A13204		Designed By N NTUTA		Reviewed/Approved By E MENSAH 20100414 								VPS - C - BE - TCS - TDW - 001/7 - A							

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.

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:

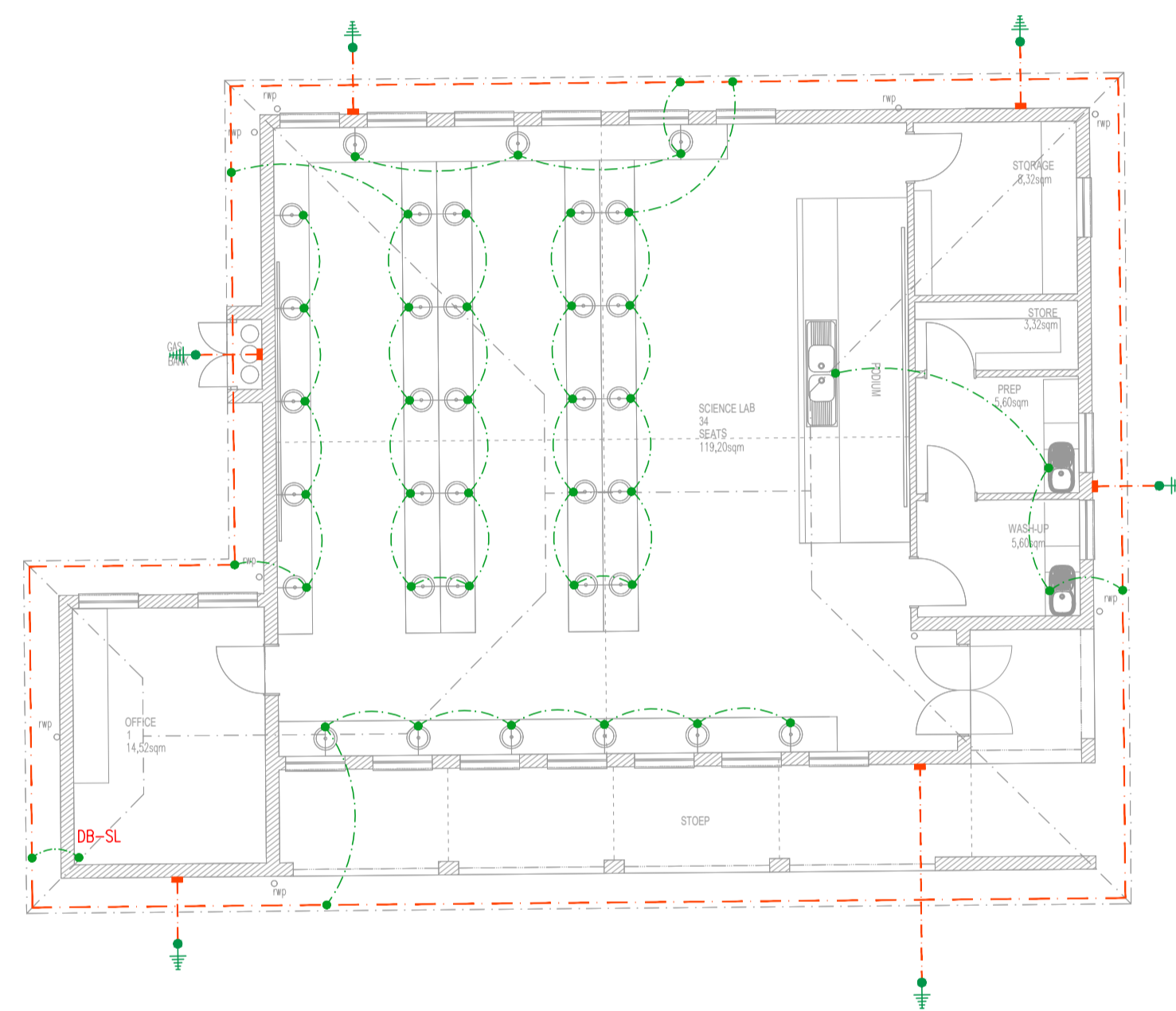
1. DOWN CONDUCTORS MUST BE INSULATED BY AT LEAST 3mm CROSS LINKED POLYETHYLENE.
2. WARNING NOTICES TO BE INSTALLED TO MINIMISE THE PROBABILITY OF DOWN CONDUCTORS BEING TOUCHED.

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
●	EARTH ELECTRODE (SPIKE)
●	BONDING TERMINATION
■	EARTHING TEST POINT

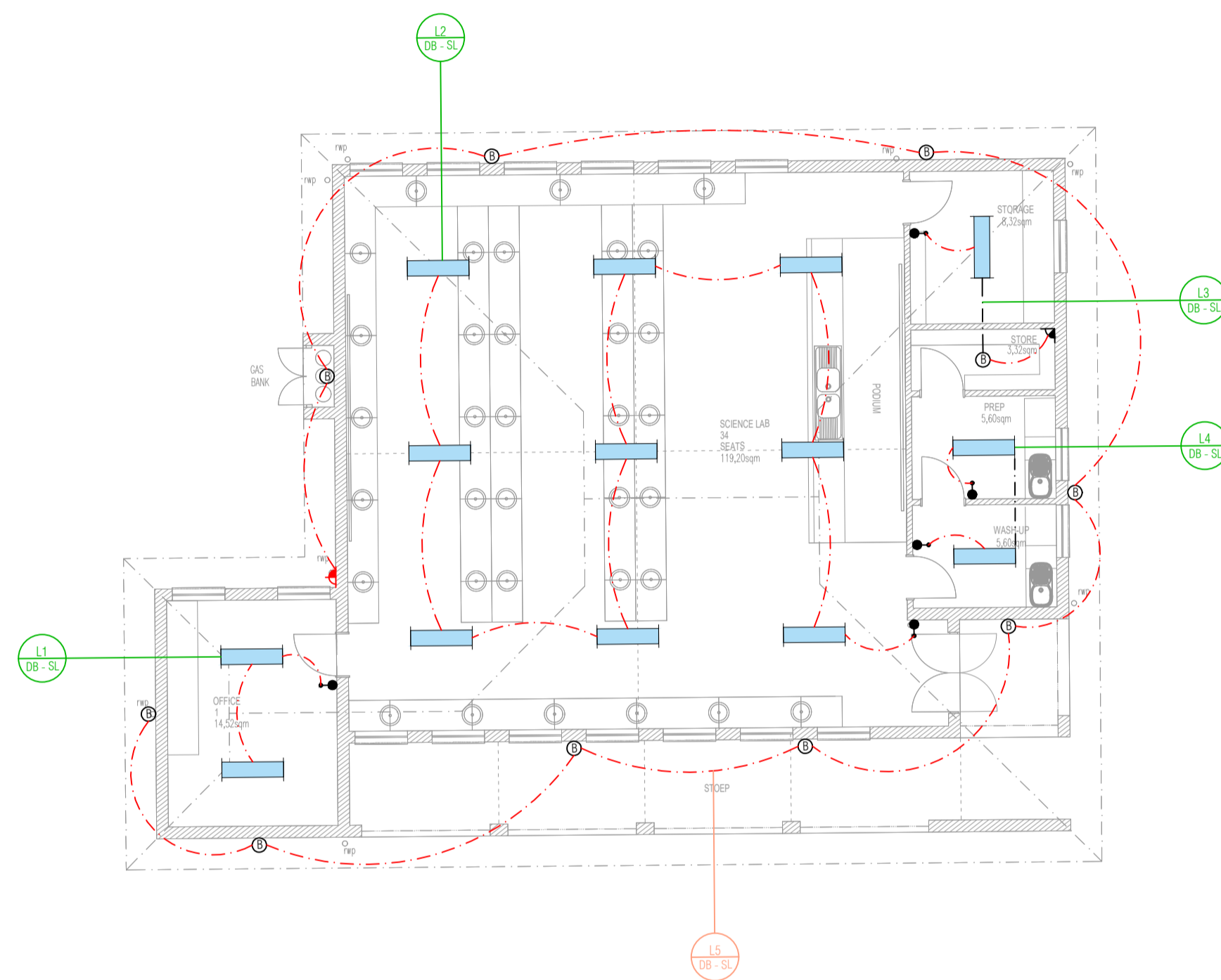
STATUS CODE	Group Codes BUILDINGS	DRAWING STATUS	No	Date	chkd	Details
0 - Pre - Feasibility study	BP - Building IT	FOR TENDER	A	16.08.2021	EM	FOR TENDER
1 - Feasibility study	BP - Building Public Address	PROJECT NUMBER				
A - Preliminary Design	BS - Building Service	LDPWRI-B/20113				
B - Design Review	BA - Building Architectural	Drawn By				
C - Tender Design	BE - Building Electrical	Designed By				
D - Detailed Design	BF - Building Fire Service	Reviewed/Approved By				
E - For Construction	BM - Building Mechanical	N NGCEMU A13204				
F - As Built	BT - Building Public Telecoms	N NTUTA				
G - For Information Only	BU - Building Public Utilities	E MENSAH 20100414				
		Name S.A.J.D Number Name Pr Number Name Pr Number Signature				

CLIENT	CONSULTANT	PROJECT
<p>LIMPOPO PROVINCIAL GOVERNMENT REPUBLIC OF SOUTH AFRICA</p> <p>DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE</p>	<p>UTAKUSA CONSULTING SERVICES</p> <p>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</p>	<p>INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH ACUTE INFRASTRUCTURE CHALLENGES, INCLUDING STORM DAMAGED SCHOOLS IN THE LIMPOPO PROVINCE CLUSTER E VUTVI PRIMARY SCHOOL</p> <p>DRAWING TITLE</p> <p>SCIENCE LABORATORY FLOOR PLAN EARTHING & LIGHTNING PROTECTION LAYOUT</p>

Project code	Status	Group	Consultant	Doc Type	Seq No	Rev
VPS - C - BE - TCS - TDW - 004/8 - A						

SCALE	1:100
CHECKED	
REV. No	A
DATE	16.08.2021

SYMBOL	DESCRIPTION
---	EARTH CONDUCTOR
---	DOWN CONDUCTOR
●	EARTH ELECTRODE (SPIKE)
●	BONDING TERMINATION
■	EARTHING TEST POINT



LIGHTING LEGEND		
ITEM	DESCRIPTION	QTY
⬇	16A SINGLE LEVER LIGHT SWITCH	05
⬇ ^{2w}	2WAY 16A SINGLE LEVER LIGHT SWITCH	00
⬇ ^{2w}	2WAY 16A DOUBLE LEVER LIGHT SWITCH	00
⬆	90 DEG. MOTION SENSOR	01
⬆	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
⬆	15W LED ROUND BULKHEAD WITH DALI MODIFICATION	10
⬆	VISUAL LED IP40 - 18W 120x50mm WITH DALI MODIFICATION	00
⬆	VISUAL LED IP40 - 18W 150x50mm WITH DALI MODIFICATION	00
⬆	1200mm 3W LED IP66 CORROSION PROOF LIGHT FITTING WITH DALI MODIFICATION - EMERGENCY	00
⬆	1200mm 3W LED IP66 CORROSION PROOF LIGHT FITTING WITH DALI MODIFICATION	14
⬆	1200mm 3W 14W LED OPEN CHANNEL FLUORESCENT LUMINAIRE	00
⬆	140W 8F IP66 SURFACE MOUNT LED LOW BAY WITH DALI MODIFICATION	00
⬆	60W EMERGENCY 120x60mm LED PANEL RECESSED LIGHT FITTING WITH DALI MODIFICATION	00
⬆	60W 120x60mm LED PANEL RECESSED LIGHT FITTING WITH DALI MODIFICATION	00

STATUS CODE	Group Codes BUILDINGS
0 - Pre - Feasibility study	BP - Building IT
1 - Feasibility study	BP - Building Public Address
A - Preliminary Design	BS - Building Service
B - Design Review	BA - Building Architectural
C - Tender Design	BE - Building Electrical
D - Detailed Design	BF - Building Fire Service
E - For Construction	BM - Building Mechanical
F - As Built	BT - Building Public Telecoms
G - For Information Only	BU - Building Public Utilities

DRAWING STATUS	
FOR TENDER	
PROJECT NUMBER LDPWRI-B/20113	
Drawn By N NGCEMU A13204	Designed By N NTUTA
Reviewed/Approved By E MENSAB 20100414	
Name S.A.J.D Number	Pr Number Pr Number Signature

No	Date	chkd	Details
A	16.08.2021	EM	FOR TENDER

CLIENT

DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE

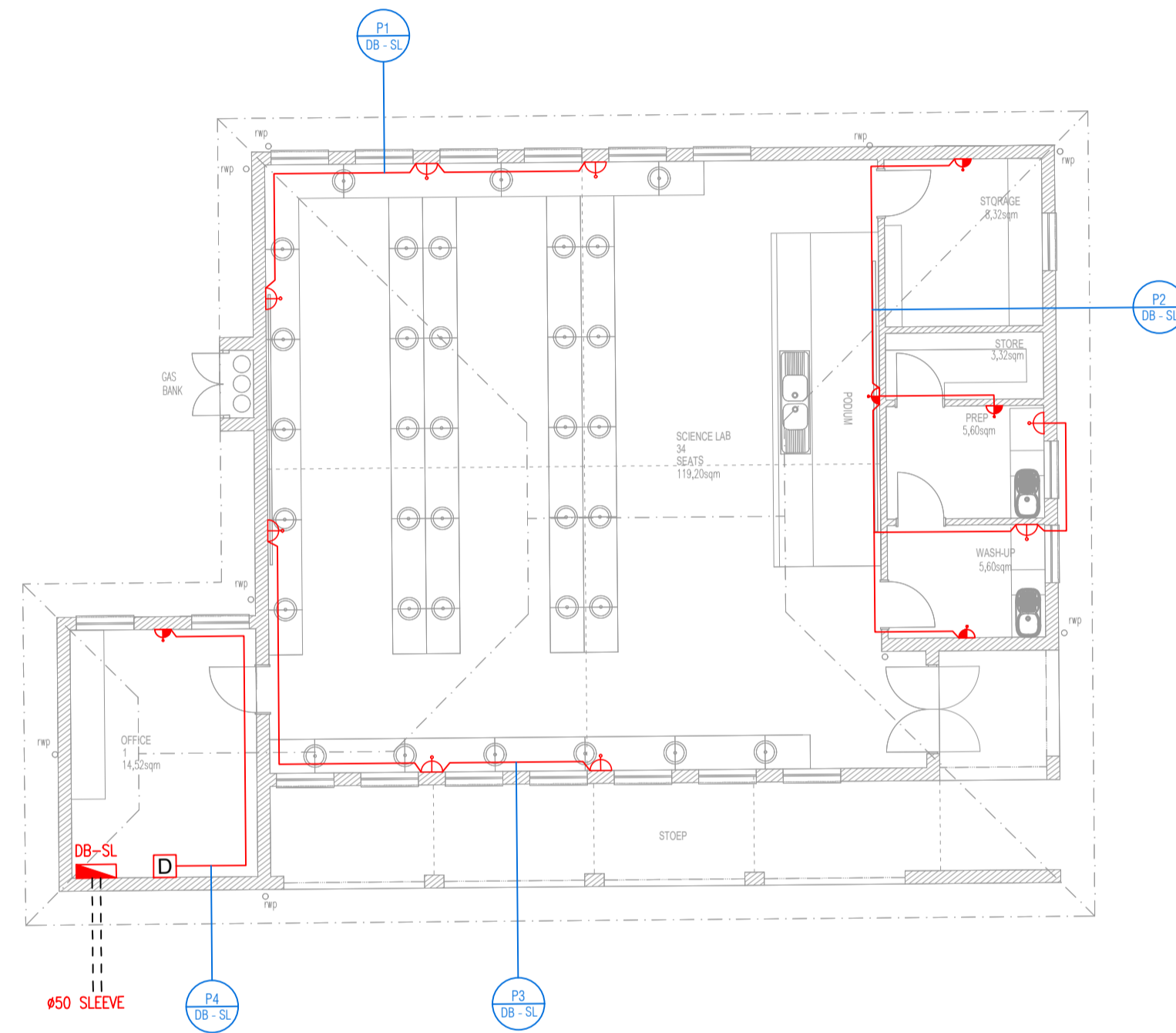
CONSULTANT

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

PROJECT
INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH ACUTE INFRASTRUCTURE CHALLENGES, INCLUDING STORM DAMAGED SCHOOLS IN THE LIMPOPO PROVINCE CLUSTER E
VUTVI PRIMARY SCHOOL

DRAWING TITLE
SCIENCE LABORATORY FLOOR PLAN LIGHTING LAYOUT

Project code	STUDIOS	CLIENT	Consultant	Doc Type	Seq No	Rev
Copyright Reserved						
VPS - C - BE - TCS - TDW - 002/8 - A						
SCALE						1:100
CHECKED						A
REV. No						
DATE						16.08.2021



POWER LEGEND

ITEM	DESCRIPTION
	TV POINT
	TELEPHONE POINT
	DATA POINT
	SINGLE PHASE ISOLATOR
	SINGLE PHASE ISOLATOR
	SINGLE 15A NORMAL SWITCHED SOCKET OUTLET @1000 A.F.F.L
	2A PLUG 15A SOCKET OUTLET @1200 A.F.F.L
	2A PLUG 15A SOCKET OUTLET @300 A.F.F.L
	SINGLE 15A NORMAL SWITCHED SOCKET OUTLET IN CEILING VOID
	DOUBLE 15A NORMAL SWITCHED SOCKET OUTLET @300 A.F.F.L
	DOUBLE 15A NORMAL SWITCHED SOCKET OUTLET @1200 A.F.F.L
	POWER SKIRTING
	PEDestal FOR MEETING/PRESENTER'S TABLE CONSISTING OF THE FOLLOWING: - 15A NORMAL SOCKET UN-SWITCHED - 15A DEDICATED SOCKET UN-SWITCHED - SA 2-PIN SOCKET UN-SWITCHED - DATA & TELEPHONE POINTS
	ONE-PIN CLUSTER WALL BOX CONSISTING OF THE FOLLOWING: - 15A NORMAL SOCKET UN-SWITCHED - 15A DEDICATED SOCKET UN-SWITCHED - SA 2-PIN SOCKET UN-SWITCHED - SA 2-PIN DATA & TELEPHONE POINTS
	ELECTRICAL DISTRIBUTION BOARD

STATUS CODE	Group Codes BUILDINGS
0 - Pre - Feasibility study	BP - Building IT
1 - Feasibility study	BP - Building Public Address
A - Preliminary Design	BS - Building Service
B - Design Review	BA - Building Architectural
C - Tender Design	BE - Building Electrical
D - Detailed Design	BF - Building Fire Service
E - For Construction	BM - Building Mechanical
F - As Built	BT - Building Public Telecoms
G - For Information Only	BU - Building Public Utilities

DRAWING STATUS	
FOR TENDER	
PROJECT NUMBER LDPWRI-B/20113	
Drawn By N NGCEMU A13204	Designed By N NTUTA
Reviewed/Approved By E MENSAH 20100414	
Name S.A.J.D Number	Name Pr Number Signature

No	Date	chkd	Details
A	16.08.2021	EM	FOR TENDER

CLIENT

DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE

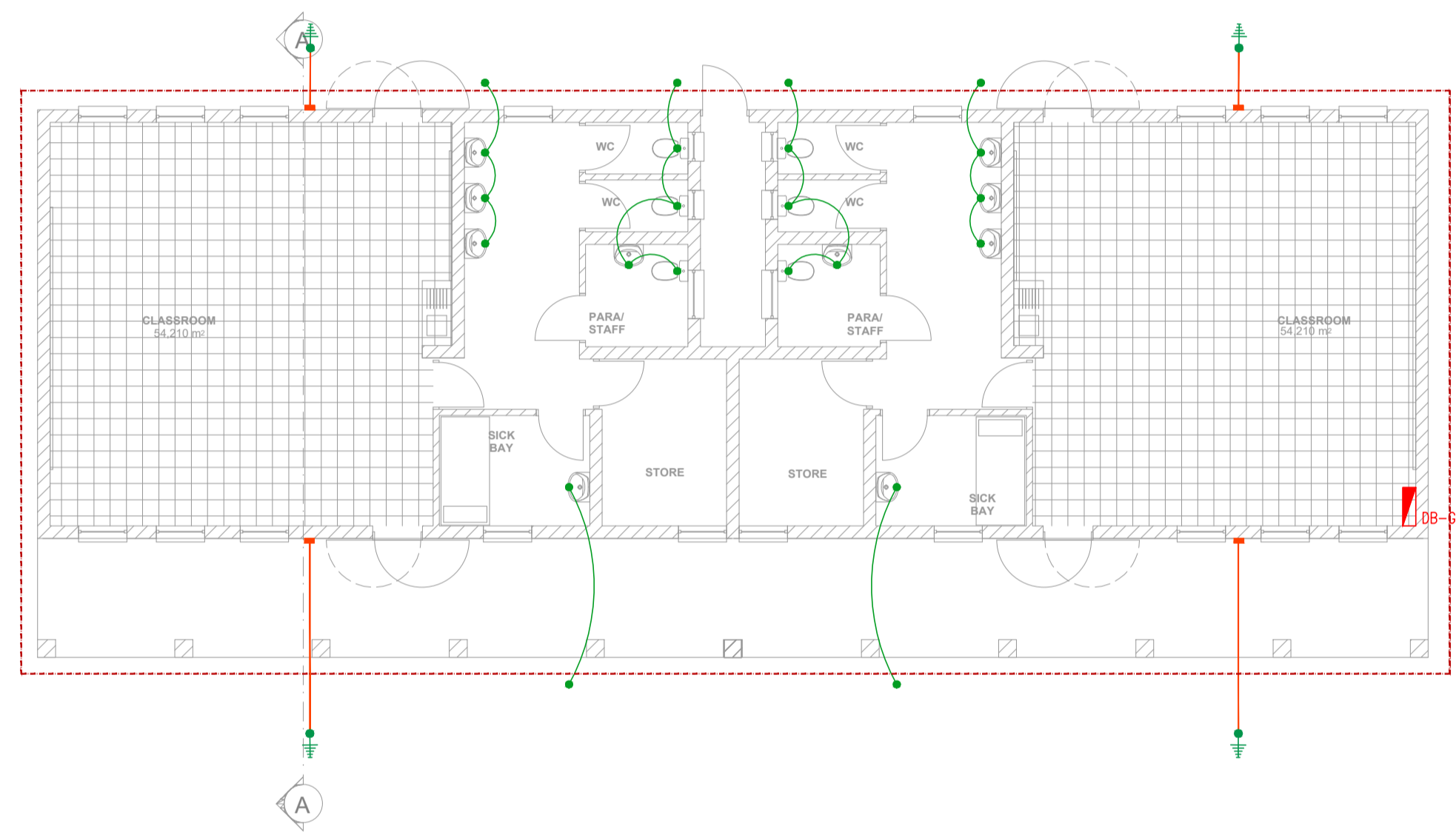
CONSULTANT

FOURWAYS OFFICE PARK,
BLOCK 5, GROUND FLOOR
Cnr. CEDAR ROAD AND
FOURWAYS BOULEVARD,
FOURWAYS,
2191
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Fax: (+27) 86 659 2099

PROJECT
INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH ACUTE INFRASTRUCTURE CHALLENGES, INCLUDING STORM DAMAGED SCHOOLS IN THE LIMPOPO PROVINCE CLUSTER E
VUTIVI PRIMARY SCHOOL

DRAWING TITLE
**SCIENCE LABORATORY FLOOR PLAN
POWER LAYOUT**

Project code	Subs	Doc Type	Seq No	Rev
VPS - C - BE - TCS - TDW - 001/8 - A				
SCALE	1:100			
CHECKED	A			
REV. No				
DATE	16.08.2021			



GENERAL NOTES:

- EARTH TERMINATION CONDUCTOR TO BE 50mm² BCEEW.
- BONDING CONDUCTOR TO BE 16mm² BCEEW.
- EARTH ELECTRODE (SPIKE) TO BE #15mm x 1.5m LONG COPPER SOLID ROUND BAR, AND MUST BE 0.5m BURIED BELOW GROUND LEVEL.
- EARTH CONDUCTOR TO BE 0.5m BURIED BELOW GROUND LEVEL.

EARTH TERMINATION NOTES:

EARTH TERMINATION SYSTEM GENERAL REQUIREMENTS:

- 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.
- THE CALCULATION OF AN EARTH TERMINATION SYSTEM SHALL BE DONE IN ACCORDANCE WITH THE FORMULAE IN SANS 10199.

DOWN CONDUCTORS:

- DOWN CONDUCTORS MUST BE INSULATED BY AT LEAST 3mm CROSS LINKED POLYETHYLENE.
- WARNING NOTICES TO BE INSTALLED TO MINIMISE THE PROBABILITY OF DOWN CONDUCTORS BEING TOUCHED.

EARTHING TEST POINT:

- 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
	EARTH RING MAIN
	DOWN CONDUCTOR
	EARTHING ROD
	EARTH ELECTRODE (SPIKE)
	BONDING TERMINATION
	EARTHING TEST POINT

STATUS CODE	Group Codes BUILDINGS
0 - Pre - Feasibility study	BP - Building IT
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G - For Information Only	BU - Building Public Utilities

DRAWING STATUS	
FOR TENDER	
PROJECT NUMBER	
LDPWRI-B/20113	
Drawn By	Designed By
N NGCEMU A13204	K SECHOARO
Reviewed/Approved By	
E MENSAH 20100414	
Name	S.A.I.D Number
Name	Pr Number
Name	Pr Number
Signature	

No	Date	chkd	Details
A	16.08.2021	EM	FOR TENDER

CLIENT

DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE

CONSULTANT

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BLOCK 5, GROUND FLOOR
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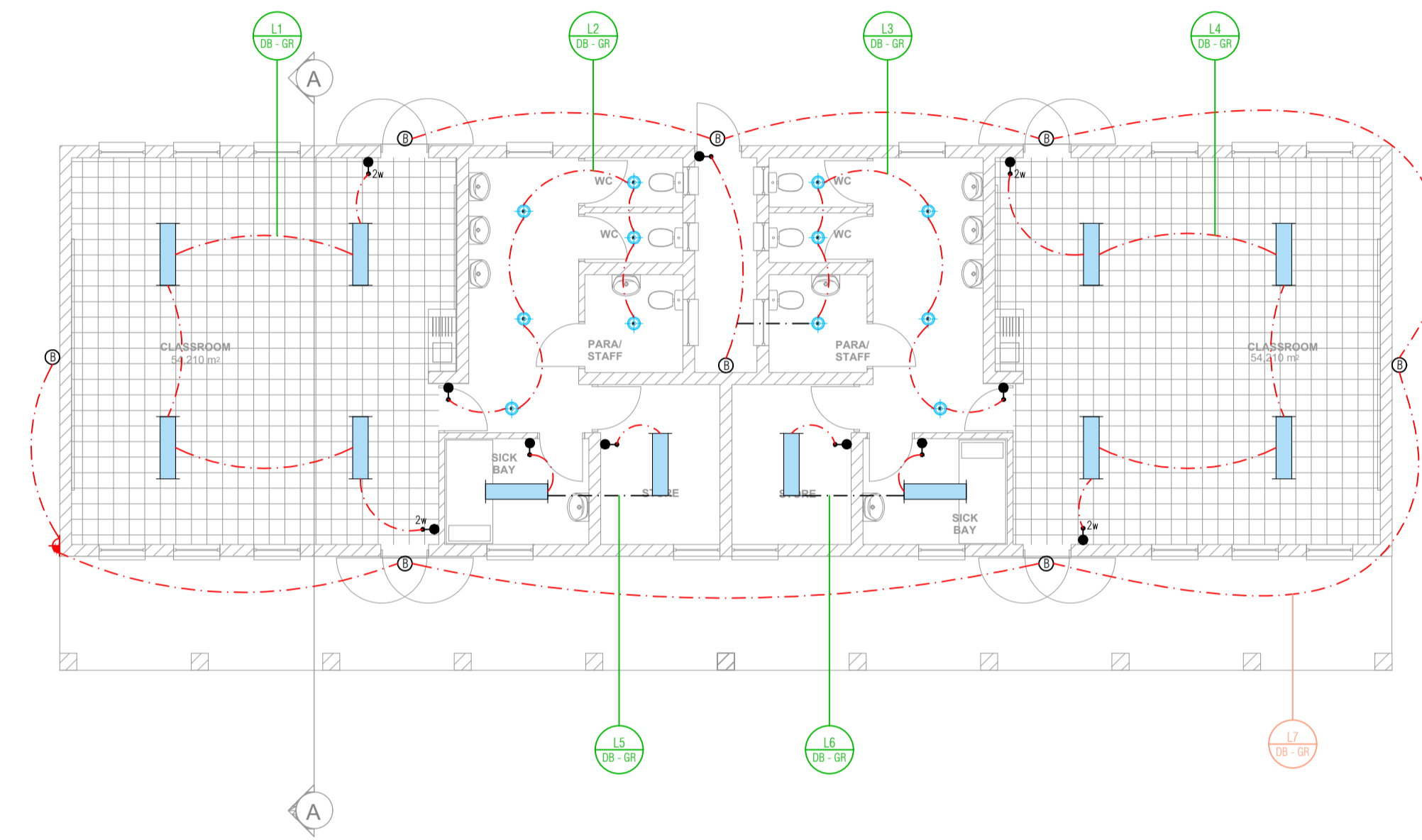
PROJECT

INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH ACUTE INFRASTRUCTURE CHALLENGES, INCLUDING STORM DAMAGED SCHOOLS IN THE LIMPOPO PROVINCE CLUSTER E
VUTIVI PRIMARY SCHOOL

DRAWING TITLE

GRADE-R FLOOR PLAN
EARTHING & LIGHTNING PROTECTION LAYOUT

Project code	Status	Group	Consultant	Doc Type	Seq No	Rev
Copyright Reserved						
VPS - C - BE - TCS - DDW - 004/9 - A						
SCALE						1:100
CHECKED						A
REV. No						
DATE						16.08.2021



LIGHTING LEGEND		
ITEM	DESCRIPTION	QTY
1	16A SINGLE LEVER LIGHT SWITCH	07
2	2WAY 16A SINGLE LEVER LIGHT SWITCH	04
3	2WAY 16A DOUBLE LEVER LIGHT SWITCH	00
4	90 DEG. MOTION SENSOR	00
5	180 DEG. MOTION SENSOR	00
6	360 DEG. MOTION SENSOR	00
7	DAY/NIGHT SWITCH	01
8	8 INCH 15W LED DOWNLIGHT	00
9	TYPE B: 8 INCH 15W LED DOWNLIGHT WITH DALI MODIFICATION	00
10	10W LED ROUNDO DOWNLIGHT WITH DALI MODIFICATION	12
11	15W LED ROUND BULKHEAD WITH DALI MODIFICATION	08
12	VISUAL LED IP40 - 18W 120x50mm WITH DALI MODIFICATION	00
13	VISUAL LED IP40 - 18W 150x50mm WITH DALI MODIFICATION	00
14	1200mm 3W LED IP66 CORROSION PROOF LIGHT FITTING WITH DALI MODIFICATION - EMERGENCY	00
15	1200mm 3W LED IP66 CORROSION PROOF LIGHT FITTING WITH DALI MODIFICATION	12
16	1200mm 2x 14W LED OPEN CHANNEL FLUORESCENT LUMINAIRE	00
17	140W 80' IP65 SURFACE MOUNT LED LOW BAY WITH DALI MODIFICATION	00
18	60W EMERGENCY 120x60mm LED PANEL RECESSED LIGHT FITTING WITH DALI MODIFICATION	00
19	60W 120x60mm LED PANEL RECESSED LIGHT FITTING WITH DALI MODIFICATION	00

STATUS CODE	Group Codes BUILDINGS
0 - Pre - Feasibility study	BP - Building IT
1 - Feasibility study	BP - Building Public Address
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D - Detailed Design	BF - Building Fire Service
E - For Construction	BM - Building Mechanical
F - As Built	BT - Building Public Telecoms
G - For Information Only	BU - Building Public Utilities

DRAWING STATUS			
FOR TENDER			
PROJECT NUMBER			
LDPWRI-B/20113			
Drawn By	Designed By	Reviewed/Approved By	
N NGCEMU A13204	K SECHOARO	E MENSAB 20100414	
Name	S.A.J.D Number	Name	Pr Number

No	Date	chkd	Details
A	16.08.2021	EM	FOR TENDER

CLIENT

DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE

CONSULTANT

FOURWAYS OFFICE PARK, BLOCK S, GROUND FLOOR, Cnr. CEDAR ROAD AND FOURWAYS BOULEVARD, FOURWAYS, 2191
Tel: (+27) 10 110 8724 Fax: (+27) 86 659 2099

PROJECT

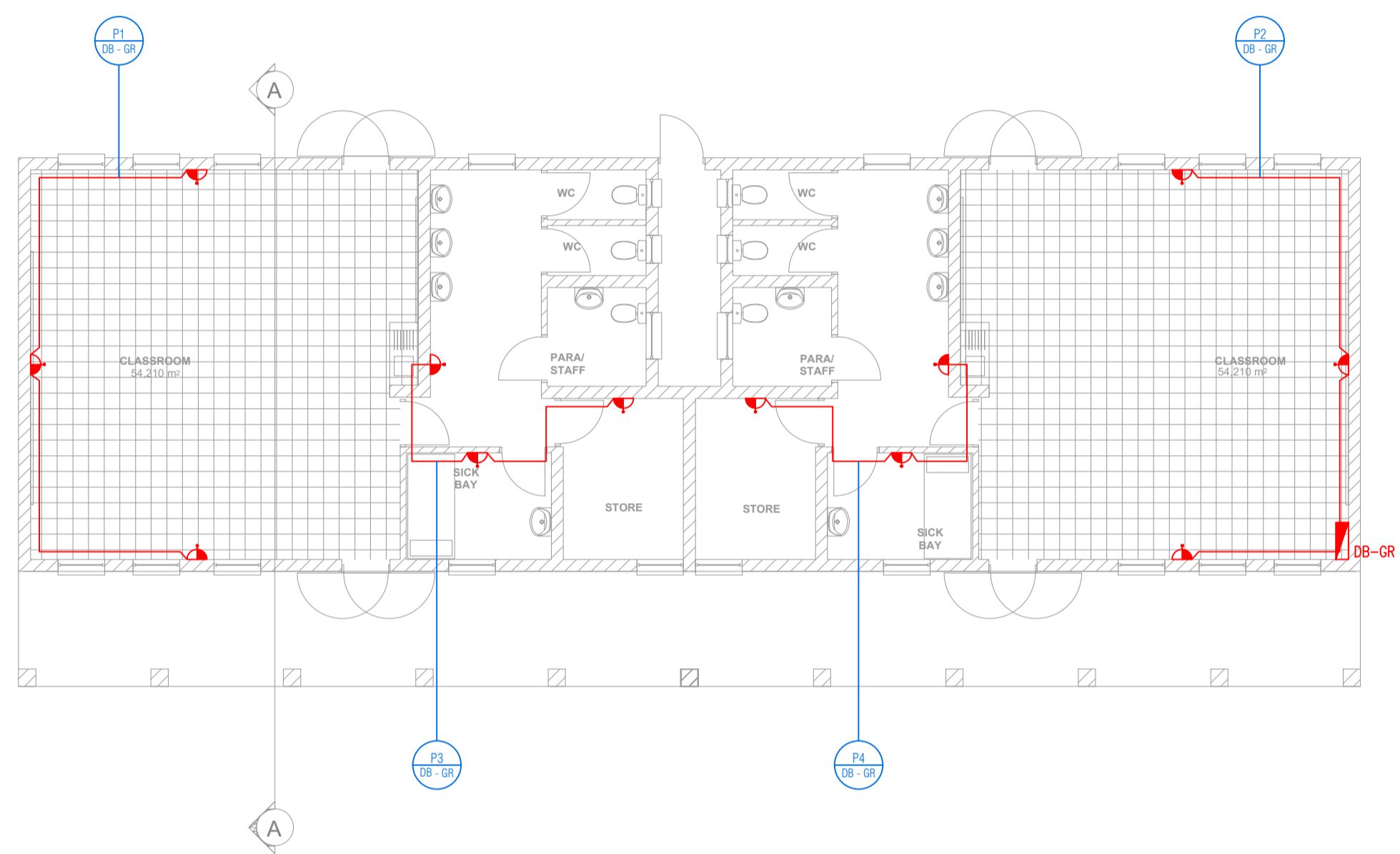
INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH ACUTE INFRASTRUCTURE CHALLENGES, INCLUDING STORM DAMAGED SCHOOLS IN THE LIMPOPO PROVINCE CLUSTER E

VUTIVI PRIMARY SCHOOL

DRAWING TITLE

GRADE-R FLOOR PLAN LIGHTING LAYOUT

Project code	STUDIOS	CONSULTANT	Doc Type	Seq No	Rev
VPS - C - BE - TCS - TDW - 002/9 - A					
SCALE	1:100				
CHECKED	A				
REV. No					
DATE	16.08.2021				



POWER LEGEND	
ITEM	DESCRIPTION
	TV POINT
	TELEPHONE POINT
	DATA POINT
	SINGLE PHASE ISOLATOR
	SINGLE PHASE ISOLATOR
	SINGLE 15A NORMAL SWITCHED SOCKET OUTLET @1500 A.F.F.L
	2A PLUG 15A SOCKET OUTLET @1200 A.F.F.L
	2A PLUG 15A SOCKET OUTLET @300 A.F.F.L
	SINGLE 15A NORMAL SWITCHED SOCKET OUTLET IN CEILING VOID
	DOUBLE 15A NORMAL SWITCHED SOCKET OUTLET @300 A.F.F.L
	DOUBLE 15A NORMAL SWITCHED SOCKET OUTLET @1200 A.F.F.L
	POWER SKIRTING
	PEDESTAL FOR MEETING/PRESENTER'S TABLE CONSISTING OF THE FF: - 15A NORMAL SOCKET UN-SWITCHED - 15A DEDICATED SOCKET UN-SWITCHED - SA 2 PIN SOCKET UN-SWITCHED - DATA & TELEPHONE POINTS
	ONE 15A CLUSTER WALL BOX CONSISTING OF THE FOLLOWING: - 15A NORMAL SOCKET UN-SWITCHED - 15A DEDICATED SOCKET UN-SWITCHED - SA 2 PIN SOCKET UN-SWITCHED - 2x RAS DATA & TELEPHONE POINTS
	ELECTRICAL DISTRIBUTION BOARD

STATUS CODE	Group Codes BUILDINGS
0 - Pre - Feasibility study	BP - Building IT
1 - Feasibility study	BP - Building Public Address
A - Preliminary Design	BS - Building Service
B - Design Review	BA - Building Architectural
C - Tender Design	BE - Building Electrical
D - Detailed Design	BF - Building Fire Service
E - For Construction	BM - Building Mechanical
F - As Built	BT - Building Public Telecoms
G - For Information Only	BU - Building Public Utilities

DRAWING STATUS	
FOR TENDER	
PROJECT NUMBER LDPWRI-B/20113	
Drawn By N NGCEMU A13204	Designed By K SECHOARO
Reviewed/Approved By E MENSAH 20100414	
Name S.A.J.D Number	Name Pr Number Name Pr Number Signature

No	Date	chkd	Details
A	16.08.2021	EM	FOR TENDER

CLIENT

DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE

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

PROJECT
INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH ACUTE INFRASTRUCTURE CHALLENGES, INCLUDING STORM DAMAGED SCHOOLS IN THE LIMPOPO PROVINCE CLUSTER E
VUTIVI PRIMARY SCHOOL

DRAWING TITLE
**GRADE-R FLOOR PLAN
POWER LAYOUT**

Project code	Subs	Doc Type	Seq No	Rev
VPS - C - BE - TCS - DDW - 001/9 - A				
SCALE	1:100			
CHECKED	A			
REV: No				
DATE	16.08.2021			

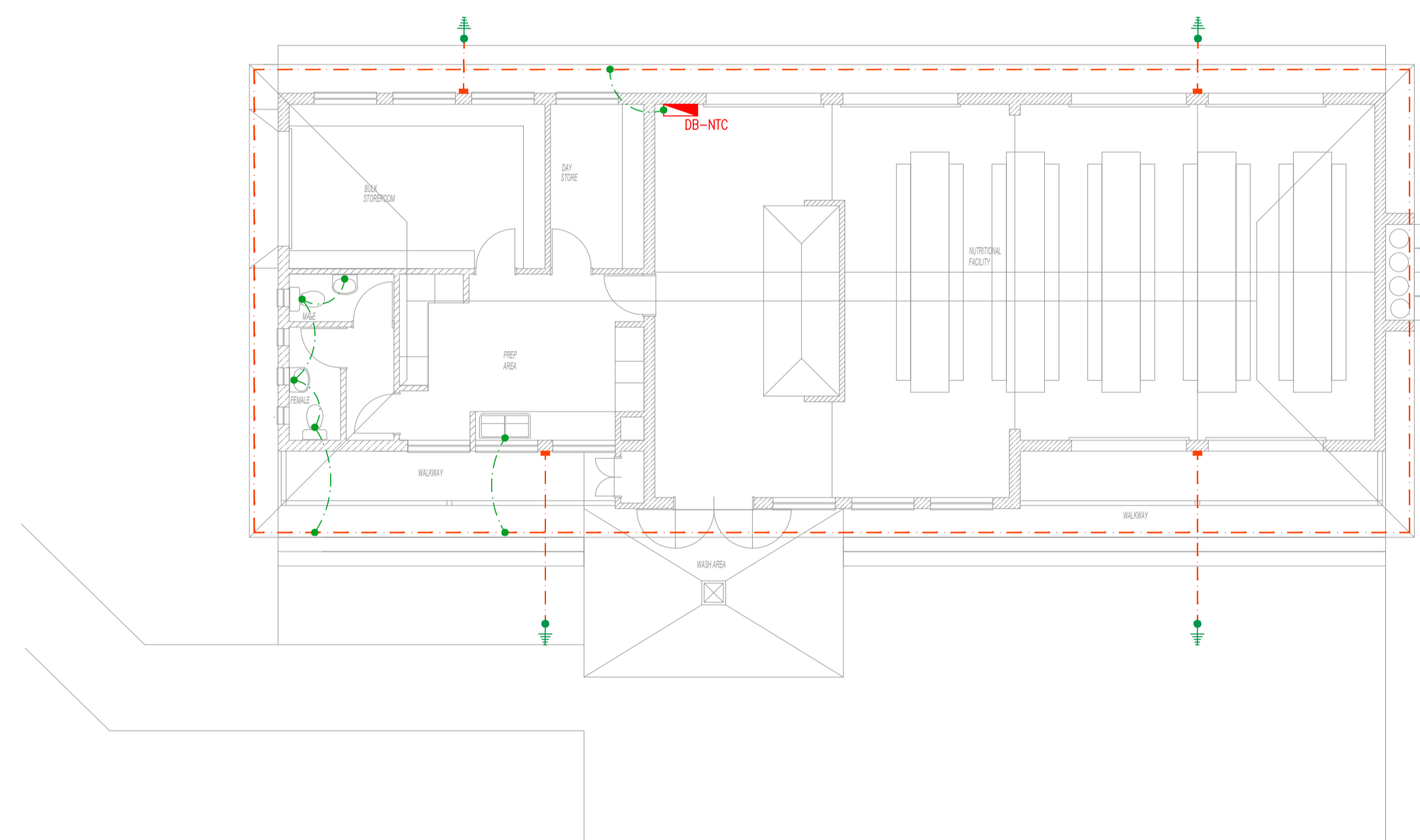
GENERAL NOTES:
 1. EARTH TERMINATION CONDUCTOR TO BE 50mm² BGEW.
 2. BONDING CONDUCTOR TO BE 16mm² BGEW.
 3. EARTH ELECTRODE (SPIKE) TO BE Ø15mm x 1.5m LONG COPPER SOLID ROUND BAR, AND MUST BE 0.5m BURIED BELOW GROUND LEVEL.
 4. EARTH CONDUCTOR TO BE 0.5m BURIED BELOW GROUND LEVEL.

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 POLYETHYLENE.
 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
●	EARTH ELECTRODE (SPIKE)
●	BONDING TERMINATION
■	EARTHING TEST POINT

STATUS CODE	Group Codes BUILDINGS	DRAWING STATUS	No	Date	chkd	Details
0 - Pre - Feasibility study	BP - Building IT	FOR TENDER	A	16.08.2021	EM	FOR TENDER
1 - Feasibility study	BP - Building Public Address	PROJECT NUMBER				
A - Preliminary Design	BS - Building Service	LDPWRI-B/20113				
B - Design Review	BA - Building Architectural	Drawn By				
C - Tender Design	BE - Building Electrical	Designed By				
D - Detailed Design	BF - Building Fire Service	Reviewed/Approved By				
E - For Construction	BM - Building Mechanical	N NGCEMU A13204				
F - As Built	BT - Building Public Telecoms	N NTUTA				
G - For Information Only	BU - Building Public Utilities	E MENSAH 20100414				
		Name S.A.I.D Number Name Pr Number Name Pr Number Signature				

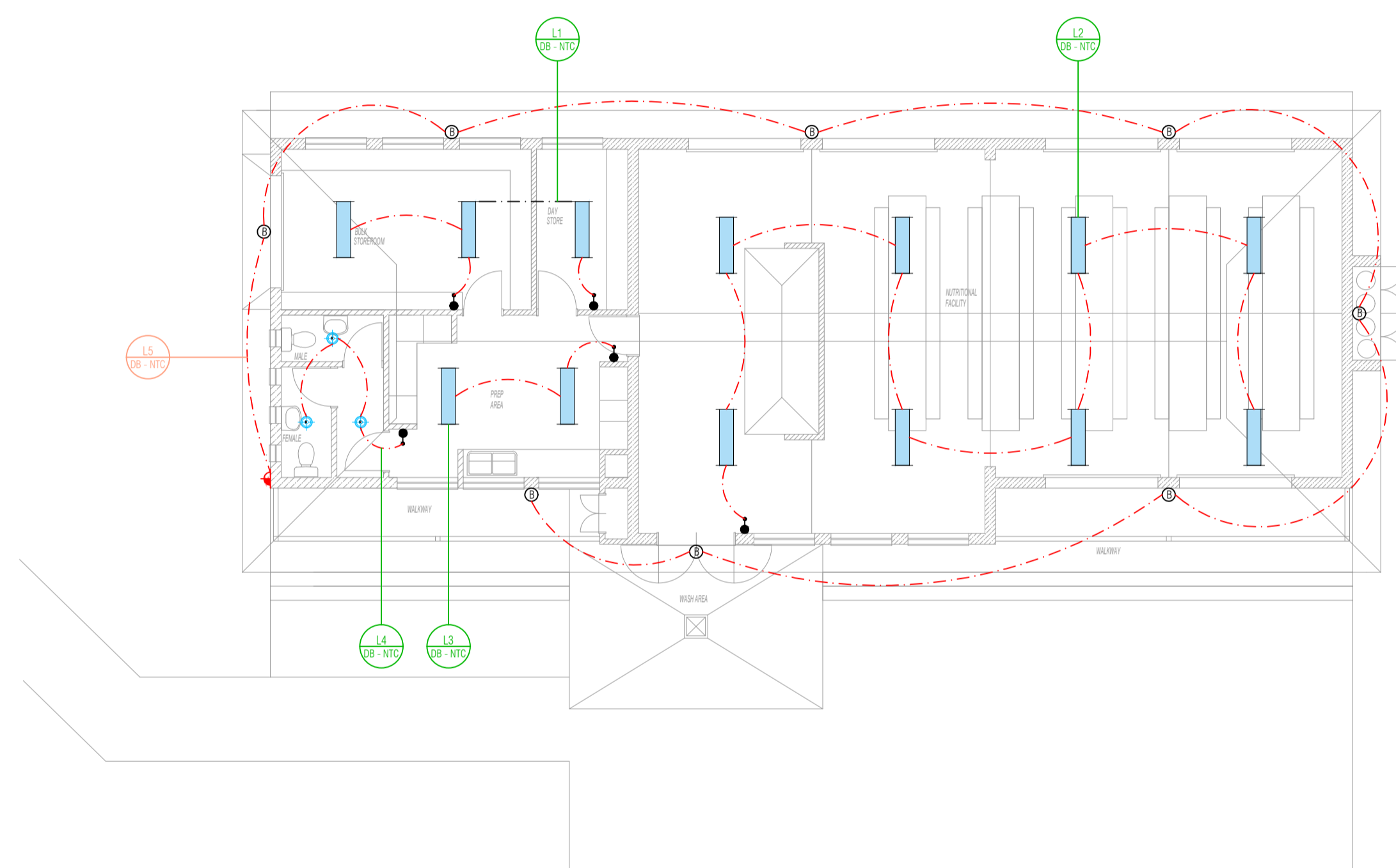
CLIENT	CONSULTANT	PROJECT
 LIMPOPO PROVINCIAL GOVERNMENT REPUBLIC OF SOUTH AFRICA DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE	 UTAKUSA CONSULTING SERVICES FOURWAYS OFFICE PARK, BLOCK 5, GROUND FLOOR Cnr. CEDAR ROAD AND FOURWAYS BOULEVARD, FOURWAYS, FOURWAYS, 2191 Tel: (+27) 10 110 8724 Fax: (+27) 86 659 2099	INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH ACUTE INFRASTRUCTURE CHALLENGES, INCLUDING STORM DAMAGED SCHOOLS IN THE LIMPOPO PROVINCE CLUSTER E VUTIVI PRIMARY SCHOOL DRAWING TITLE NUTRITION CENTRE FLOOR PLAN EARTHING & LIGHTNING PROTECTION LAYOUT

PROJECT	SCALE	DATE
INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH ACUTE INFRASTRUCTURE CHALLENGES, INCLUDING STORM DAMAGED SCHOOLS IN THE LIMPOPO PROVINCE CLUSTER E VUTIVI PRIMARY SCHOOL DRAWING TITLE NUTRITION CENTRE FLOOR PLAN EARTHING & LIGHTNING PROTECTION LAYOUT	SCALE 1:100	DATE 16.08.2021

Project code	Status	Doc Type	Seq No	Rev
VPS - C - BE - TCS - TDW - 004/10 - A				

Project code	Status	Doc Type	Seq No	Rev
VPS - C - BE - TCS - TDW - 004/10 - A				

Project code	Status	Doc Type	Seq No	Rev
VPS - C - BE - TCS - TDW - 004/10 - A				



LIGHTING LEGEND

ITEM	DESCRIPTION	QTY
1	16A SINGLE LEVER LIGHT SWITCH	05
2	2WAY 16A SINGLE LEVER LIGHT SWITCH	00
3	2WAY 16A DOUBLE LEVER LIGHT SWITCH	00
4	90 DEG. MOTION SENSOR	00
5	180 DEG. MOTION SENSOR	00
6	360 DEG. MOTION SENSOR	00
7	DAY/NIGHT SWITCH	01
8	8 INCH 15W LED DOWNLIGHT	00
9	TYPE B 8 INCH 15W LED DOWNLIGHT WITH DALI MODIFICATION	00
10	10W LED RONDO DOWNLIGHT WITH DALI MODIFICATION	03
11	15W LED ROUND BULKHEAD WITH DALI MODIFICATION	08
12	VISUAL LED IP40 - 15W 120x50mm WITH DALI MODIFICATION	00
13	VISUAL LED IP40 - 15W 150x50mm WITH DALI MODIFICATION	00
14	1200mm 3W LED IP66 CORROSION PROOF LIGHT FITTING WITH DALI MODIFICATION - EMERGENCY	00
15	1200mm 3W LED IP66 CORROSION PROOF LIGHT FITTING WITH DALI MODIFICATION	13
16	1200mm 3W 14W LED OPEN CHANNEL FLUORESCENT LUMINAIRE	00
17	140W 8F IP65 SURFACE MOUNT LED LOW BAY WITH DALI MODIFICATION	00
18	60W EMERGENCY 120x60mm LED PANEL RECESSED LIGHT FITTING WITH DALI MODIFICATION	00
19	60W 120x60mm LED PANEL RECESSED LIGHT FITTING WITH DALI MODIFICATION	00

STATUS CODE	Group Codes BUILDINGS	DRAWING STATUS	No	Date	chkd	Details
0 - Pre - Feasibility study	BP - Building IT	FOR TENDER	A	16.08.2021	EM	FOR TENDER
1 - Feasibility study	BP - Building Public Address	PROJECT NUMBER				
A - Preliminary Design	BS - Building Service	LDPWRI-B/20113				
B - Design Review	BA - Building Architectural	Drawn By				
C - Tender Design	BE - Building Electrical	Designed By				
D - Detailed Design	BF - Building Fire Service	Reviewed/Approved By				
E - For Construction	BM - Building Mechanical	N NGCEMU A13204				
F - As Built	BT - Building Public Telecoms	N NTUTA				
G - For Information Only	BU - Building Public Utilities	E MENSAH 20100414				
		Name S.A.I.D Number Name Pr Number Name Pr Number Signature				

CLIENT	CONSULTANT	PROJECT
<p>LIMPOPO PROVINCIAL GOVERNMENT REPUBLIC OF SOUTH AFRICA</p> <p>DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE</p>	<p>TAKUSA CONSULTING SERVICES</p> <p>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</p>	<p>INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH ACUTE INFRASTRUCTURE CHALLENGES, INCLUDING STORM DAMAGED SCHOOLS IN THE LIMPOPO PROVINCE CLUSTER E VUTIVI PRIMARY SCHOOL</p> <p>DRAWING TITLE NUTRITION CENTRE FLOOR PLAN LIGHTING LAYOUT</p>

Project code	STATUS	Consultant	Doc Type	Seq No	Rev
VPS - C - BE - TCS - TDW - 002/10 - A					
SCALE	1:100				
CHECKED	A				
REV. No					
DATE	16.08.2021				

Project code	STATUS	Consultant	Doc Type	Seq No	Rev
VPS - C - BE - TCS - TDW - 002/10 - A					
SCALE	1:100				
CHECKED	A				
REV. No					
DATE	16.08.2021				

Project code	STATUS	Consultant	Doc Type	Seq No	Rev
VPS - C - BE - TCS - TDW - 002/10 - A					
SCALE	1:100				
CHECKED	A				
REV. No					
DATE	16.08.2021				

Project code	STATUS	Consultant	Doc Type	Seq No	Rev
VPS - C - BE - TCS - TDW - 002/10 - A					
SCALE	1:100				
CHECKED	A				
REV. No					
DATE	16.08.2021				

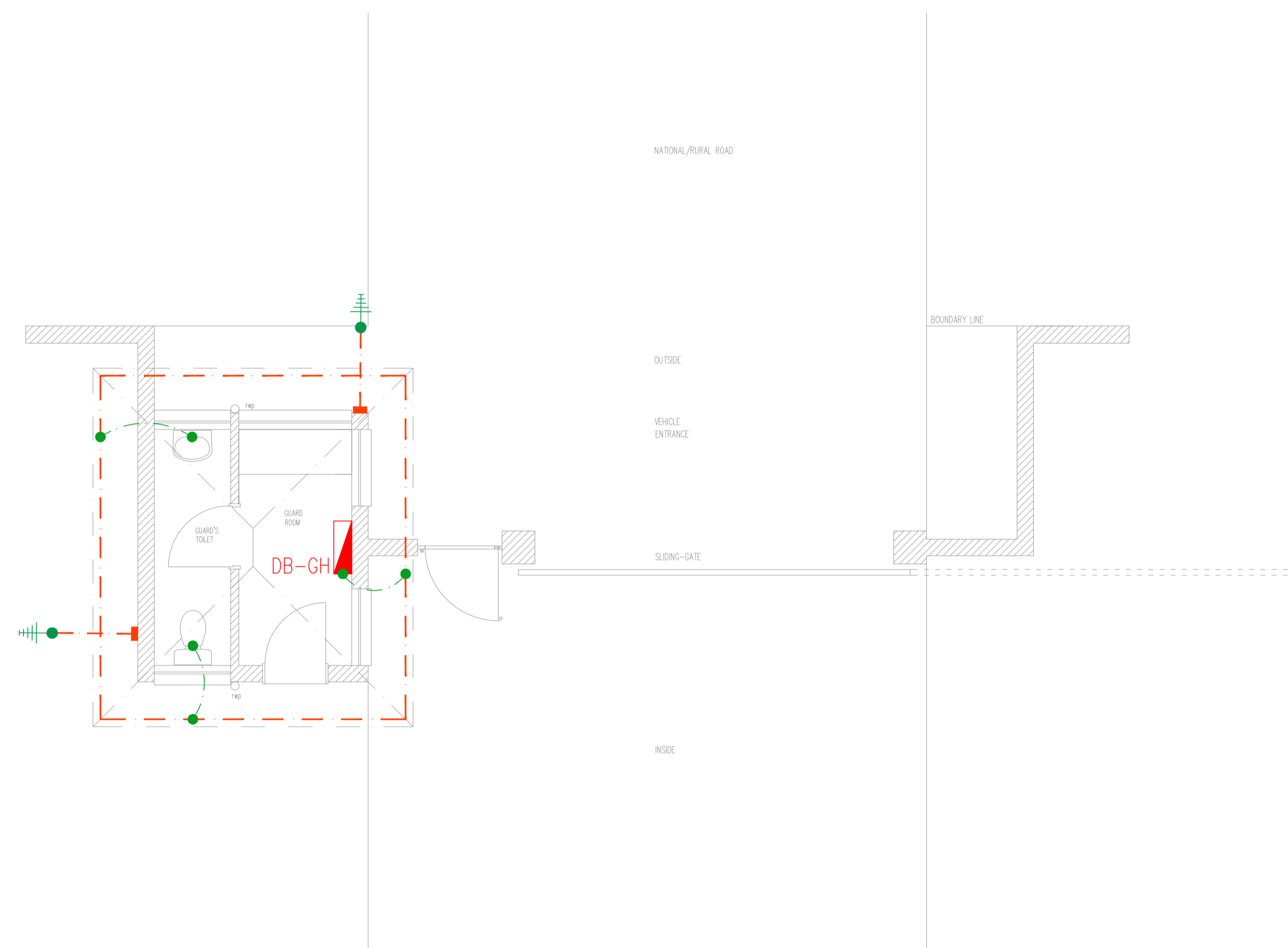
- GENERAL NOTES:
1. EARTH TERMINATION CONDUCTOR TO BE 50mm² BCEW.
 2. BONDING CONDUCTOR TO BE 16mm² BCEW.
 3. EARTH ELECTRODE (SPIKE) TO BE Ø15mm x 1.5m LONG COPPER SOLID ROUND BAR AND MUST BE 0.5m BURIED BELOW GROUND LEVEL.
 4. EARTH CONDUCTOR TO BE 0.5m BURIED BELOW GROUND LEVEL.

- 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 POLYETHYLENE.
 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.



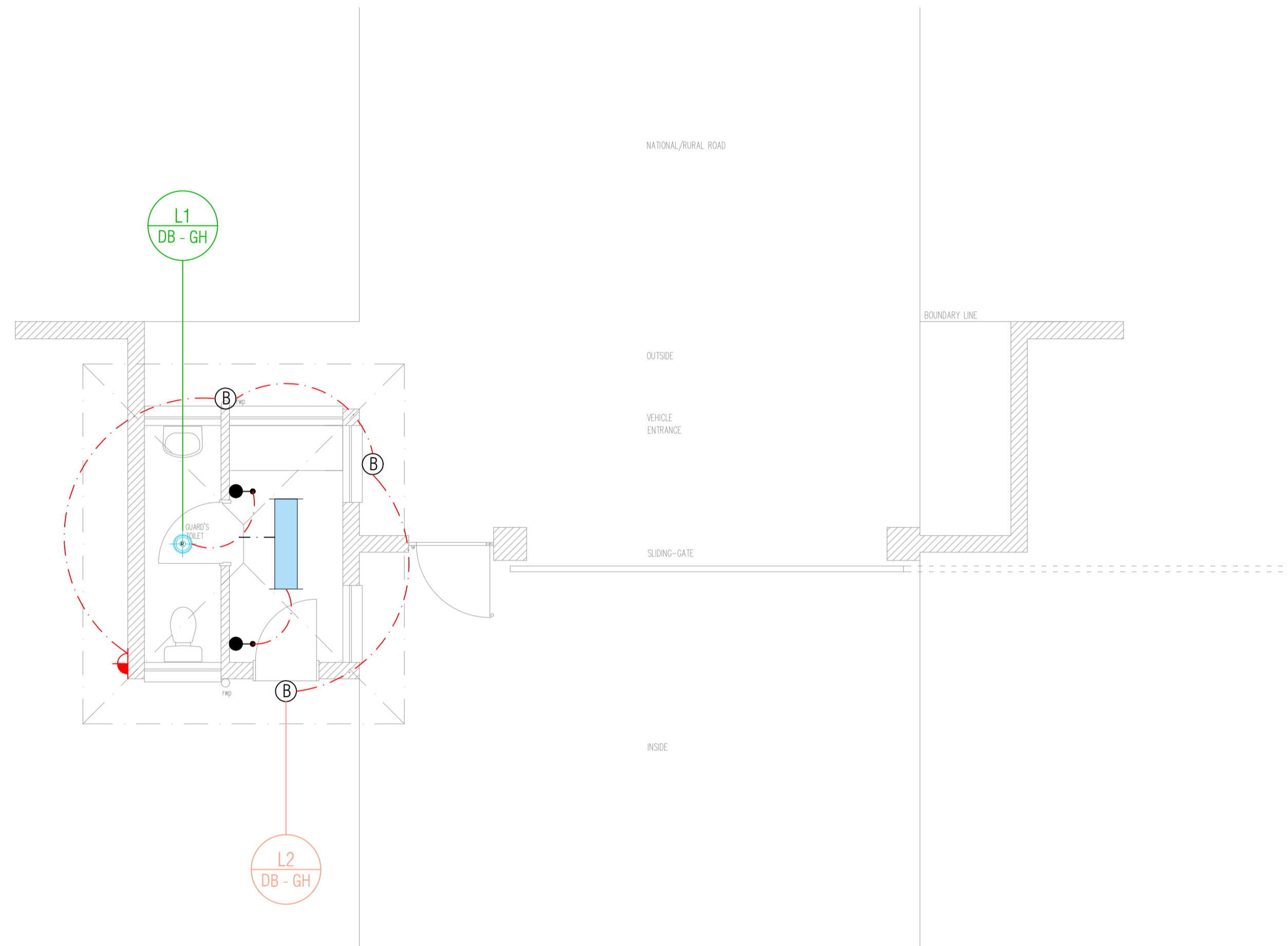
SYMBOL	DESCRIPTION
---	EARTH CONDUCTOR
---	DOWN CONDUCTOR
●	EARTH ELECTRODE (SPIKE)
●	BONDING TERMINATION
■	EARTHING TEST POINT

STATUS CODE	Group Codes BUILDINGS	DRAWING STATUS	No	Date	chkd	Details
0 - Pre - Feasibility study	BP - Building IT	FOR TENDER	A	16.08.2021	EM	FOR TENDER
1 - Feasibility study	BP - Building Public Address	PROJECT NUMBER				
A - Preliminary Design	BS - Building Service	LDPWRI-B/20113				
B - Design Review	BA - Building Architectural	Drawn By				
C - Tender Design	BE - Building Electrical	Designed By				
D - Detailed Design	BF - Building Fire Service	Reviewed/Approved By				
E - For Construction	BM - Building Mechanical	N NGCEMU A13204				
F - As Built	BT - Building Public Telecoms	N NTUTA				
G - For Information Only	BU - Building Public Utilities	E MENSAH 20100414				
		Name S.A.J.D Number Name Pr Number Name Pr Number Signature				

CLIENT	CONSULTANT	PROJECT
 DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE	 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 VUTIVI PRIMARY SCHOOL

PROJECT	DRAWING TITLE
INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH ACUTE INFRASTRUCTURE CHALLENGES, INCLUDING STORM DAMAGED SCHOOLS IN THE LIMPOPO PROVINCE CLUSTER E VUTIVI PRIMARY SCHOOL	GUARD HOUSE FLOOR PLAN EARTHING & LIGHTNING PROTECTION LAYOUT

Project code	Status	Group	Consultant	Doc Type	Seq No	Rev
VPS - C - BE - TCS - TDW - 004/11 - A						
SCALE	1:50					
CHECKED	A					
REV: No						
DATE	16.08.2021					



LIGHTING LEGEND		
ITEM	DESCRIPTION	QTY
1	16A SINGLE LEVER LIGHT SWITCH	02
2	2WAY 16A SINGLE LEVER LIGHT SWITCH	00
3	2WAY 16A DOUBLE LEVER LIGHT SWITCH	00
4	90 DEG. MOTION SENSOR	00
5	180 DEG. MOTION SENSOR	00
6	360 DEG. MOTION SENSOR	00
7	DAYNIGHT SWITCH	01
8	8 INCH 15W LED DOWNLIGHT	00
9	TYPE B 8 INCH 15W LED DOWNLIGHT WITH DALI MODIFICATION	00
10	15W LED ROUND DOWNLIGHT WITH DALI MODIFICATION	01
11	15W LED ROUND BULKHEAD WITH DALI MODIFICATION	03
12	VISUAL LED IP40 - 18W 120x65mm WITH DALI MODIFICATION	00
13	VISUAL LED IP40 - 18W 100x50mm WITH DALI MODIFICATION	00
14	1200mm 34W LED IP68 CORROSION PROOF LIGHT FITTING WITH DALI MODIFICATION - EMERGENCY	00
15	1200mm 34W LED IP68 CORROSION PROOF LIGHT FITTING WITH DALI MODIFICATION	01
16	1200mm 2x 14W LED OPEN CHANNEL FLUORESCENT LUMINAIRE	00
17	1400 80° IP68 SURFACE MOUNT LED LOW BAY WITH DALI MODIFICATION	00
18	60W EMERGENCY 1200x600mm LED PANEL RECESSED LIGHT FITTING WITH DALI MODIFICATION	00
19	60W 1200x600mm LED PANEL RECESSED LIGHT FITTING WITH DALI MODIFICATION	00

STATUS CODE	Group Codes BUILDINGS
0 - Pre - Feasibility study	BP - Building IT
1 - Feasibility study	BP - Building Public Address
A - Preliminary Design	BS - Building Service
B - Design Review	BA - Building Architectural
C - Tender Design	BE - Building Electrical
D - Detailed Design	BF - Building Fire Service
E - For Construction	BM - Building Mechanical
F - As Built	BT - Building Public Telecoms
G - For Information Only	BU - Building Public Utilities

DRAWING STATUS			
FOR TENDER			
PROJECT NUMBER			
LDPWRI-B/20113			
Drawn By	Designed By	Reviewed/Approved By	
N NGCEMU A13204	N NTUTA	E MENSAB 20100414	
Name	S.A.I.D Number	Name	Pr Number
		Name	Pr Number
		Signature	

No	Date	chkd	Details
A	16.08.2021	EM	FOR TENDER

CLIENT

DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE

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

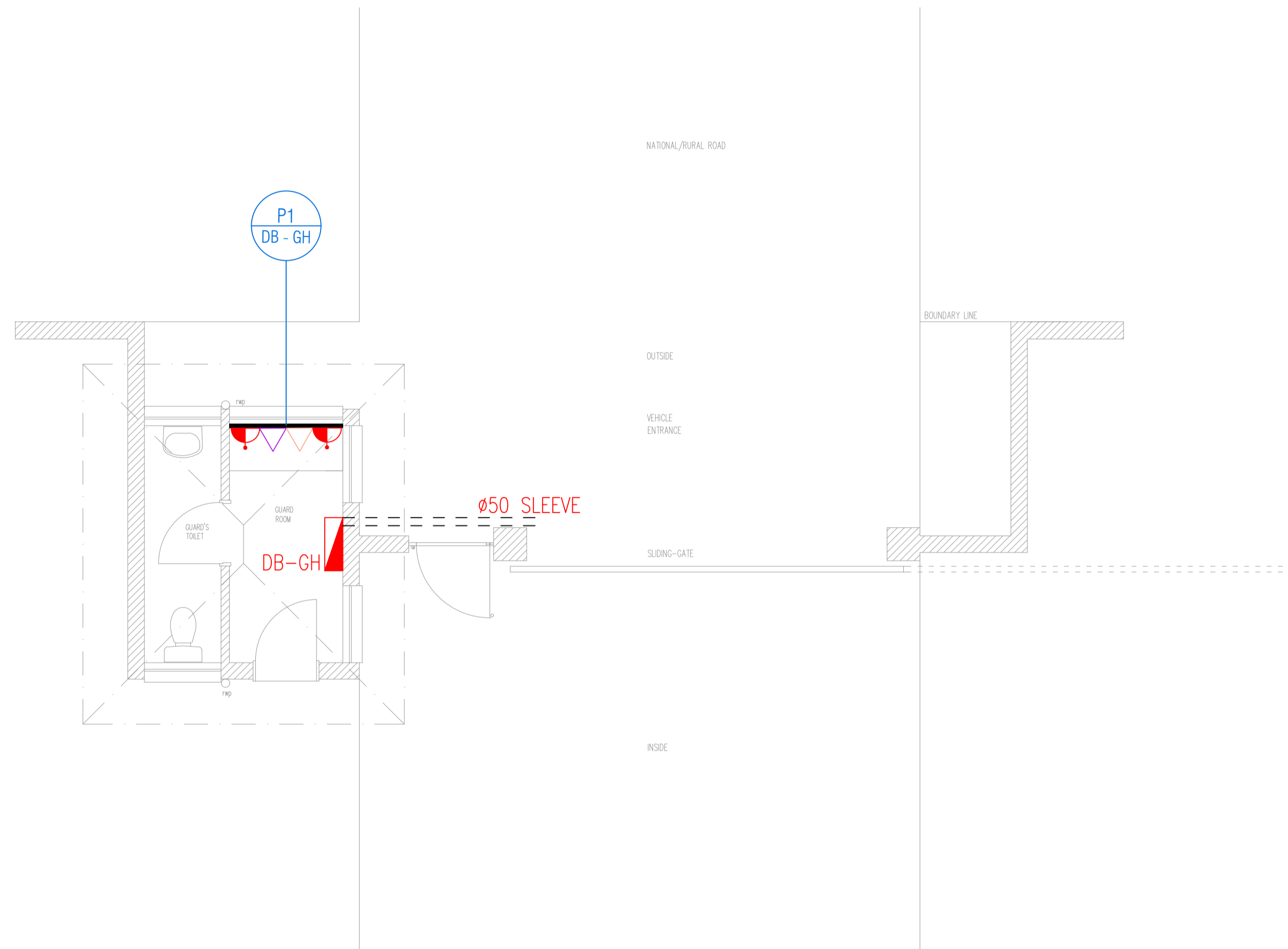
PROJECT

INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH ACUTE INFRASTRUCTURE CHALLENGES, INCLUDING STORM DAMAGED SCHOOLS IN THE LIMPOPO PROVINCE CLUSTER E
VUTVI PRIMARY SCHOOL

DRAWING TITLE

GUARD HOUSE FLOOR PLAN LIGHTING LAYOUT

Project code	Subs	Disc	Consultant	Doc Type	Seq No	Rev
Copyright Reserved						
VPS - C - BE - TCS - TDW - 002/11 - A						
SCALE						1:50
CHECKED						A
REV. No						
DATE						16.08.2021



POWER LEGEND

ITEM	DESCRIPTION
	TV POINT
	TELEPHONE POINT
	DATA POINT
	SINGLE PHASE ISOLATOR
	SINGLE PHASE ISOLATOR
	SINGLE 16A NORMAL SWITCHED SOCKET OUTLET @1000 A.F.F.L
	2A PLUG 16A SOCKET OUTLET @1000 A.F.F.L
	2A 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 @1000 A.F.F.L
	POWER SKIRTING
	PEDISTAL FOR MEETING/PRESENTER'S TABLE CONSISTING OF THE FF: - 16A NORMAL SOCKET UN-SWITCHED - 16A DEDICATED SOCKET UN-SWITCHED - SA 2 PIN SOCKET UN-SWITCHED - DATA & TELEPHONE POINTS
	ONE METER CLUSTER WALL BOX CONSISTING OF THE FOLLOWING: - 16A NORMAL SOCKET UN-SWITCHED - 16A DEDICATED SOCKET UN-SWITCHED - SA 2 PIN SOCKET UN-SWITCHED - 2x R45 DATA & TELEPHONE POINTS
	ELECTRICAL DISTRIBUTION BOARD

STATUS CODE	Group Codes BUILDINGS
0 - Pre - Feasibility study	BP - Building IT
1 - Feasibility study	BP - Building Public Address
A - Preliminary Design	BS - Building Service
B - Design Review	BA - Building Architectural
C - Tender Design	BE - Building Electrical
D - Detailed Design	BF - Building Fire Service
E - For Construction	BM - Building Mechanical
F - As Built	BT - Building Public Telecoms
G - For Information Only	BU - Building Public Utilities

DRAWING STATUS	
FOR TENDER	
PROJECT NUMBER	
LDPWR-B/20113	
Drawn By	Designed By
N NGCEMU A13204	N NTUTA
Name	Pr Number
S.A.J.D Number	Pr Number
Name	Signature
E MENSAH 20100414	

No	Date	chkd	Details
A	16.08.2021	EM	FOR TENDER

CLIENT

LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF
PUBLIC WORKS, ROADS & INFRASTRUCTURE

CONSULTANT

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

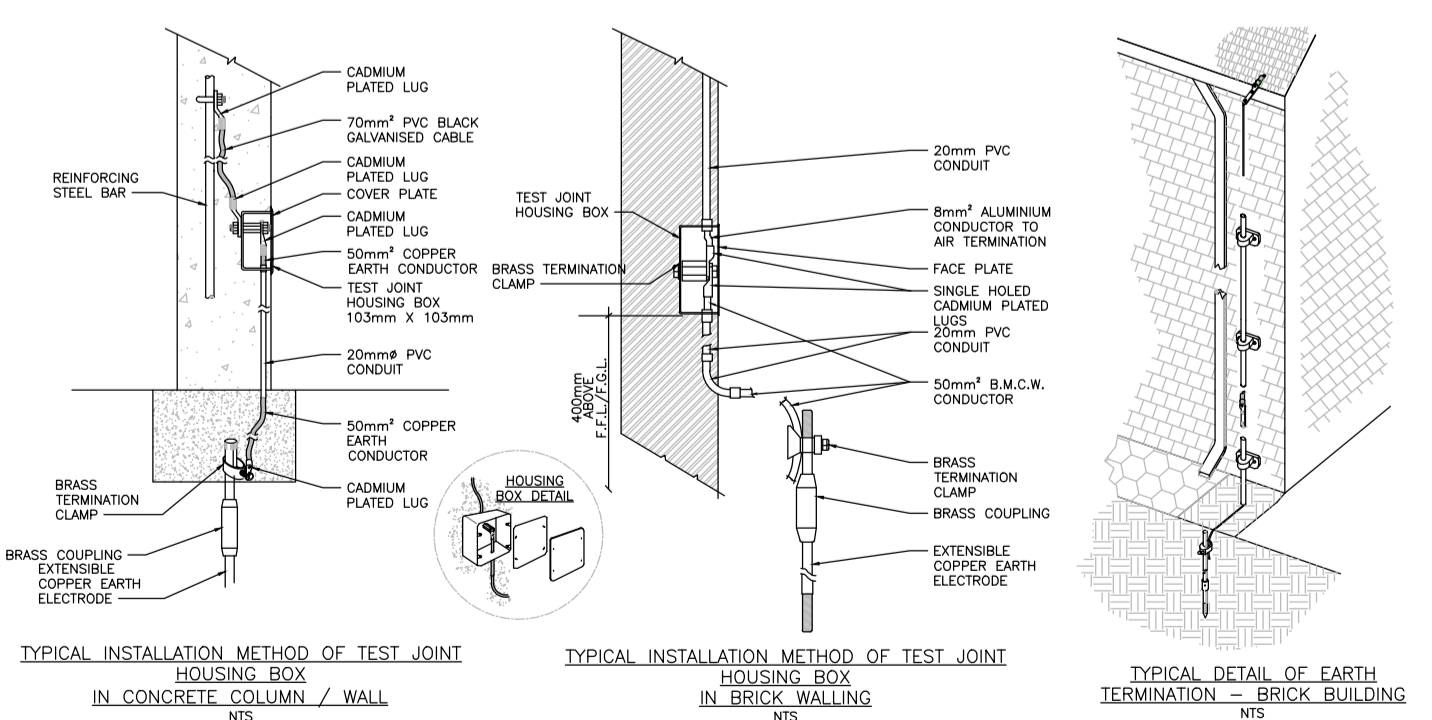
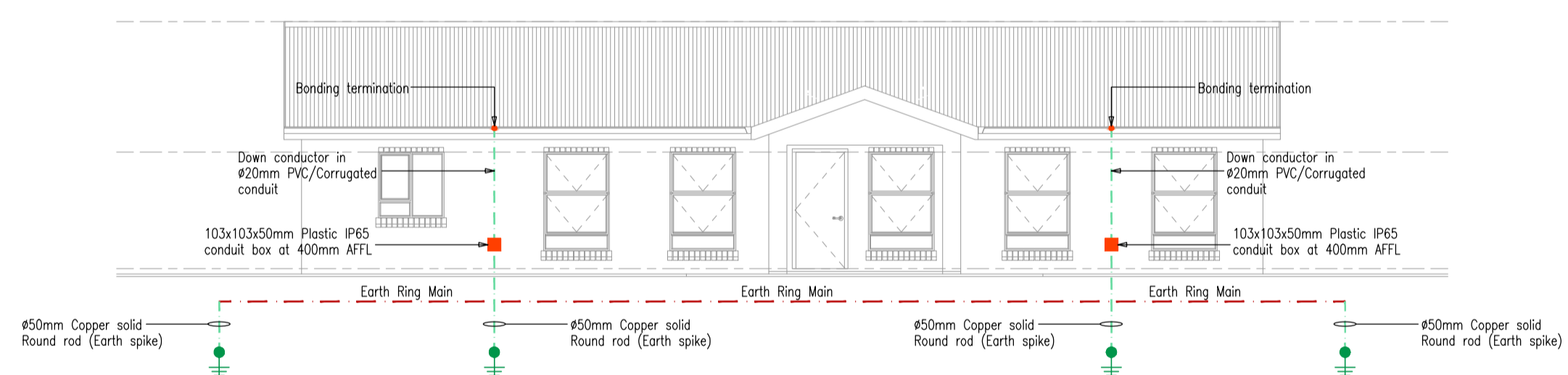
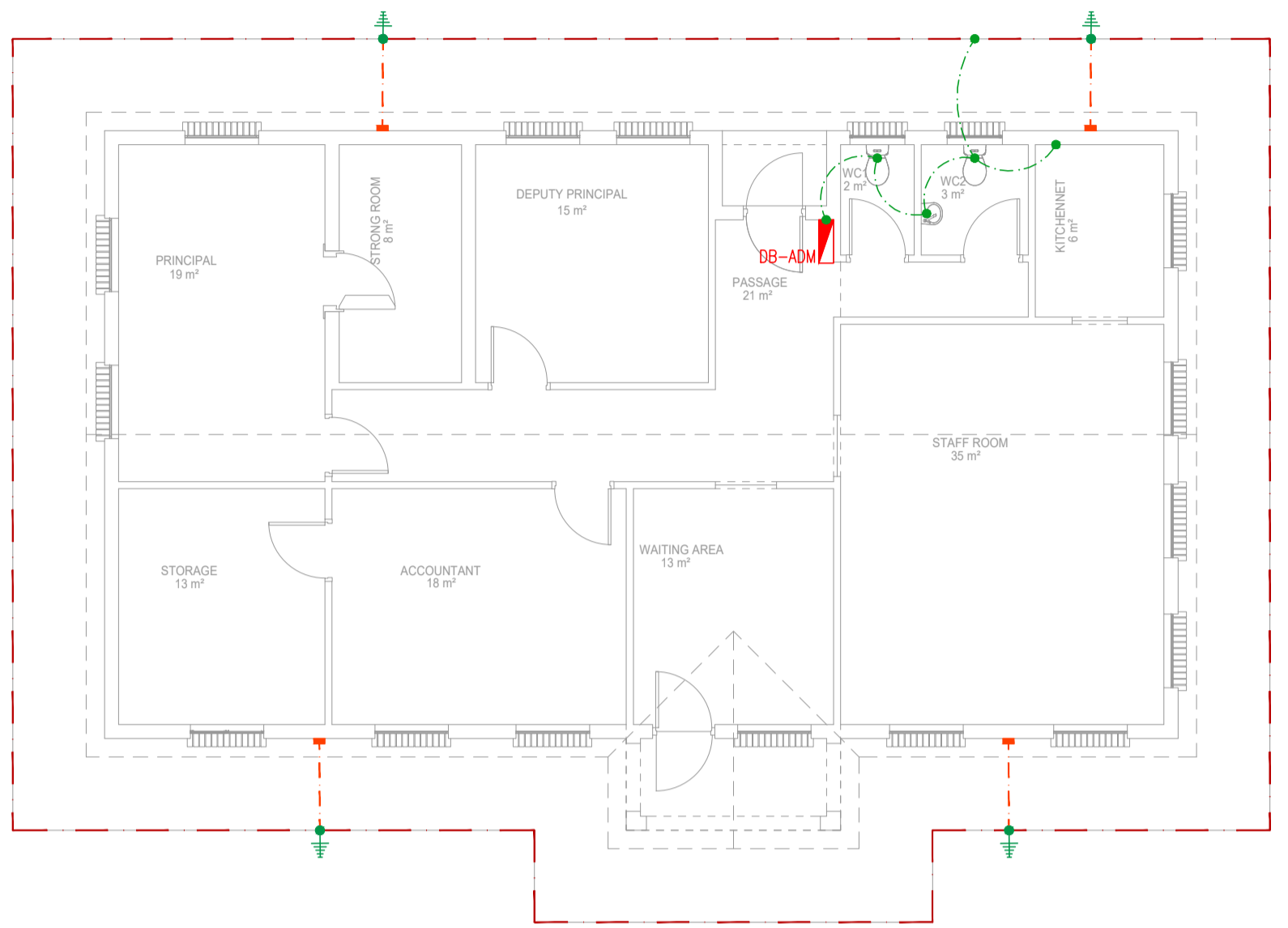
PROJECT

INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH ACUTE INFRASTRUCTURE CHALLENGES, INCLUDING STORM DAMAGED SCHOOLS IN THE LIMPOPO PROVINCE CLUSTER E
VUTIVI PRIMARY SCHOOL

DRAWING TITLE

**GUARD HOUSE FLOOR PLAN
POWER LAYOUT**

Project code	Scale	Doc Type	Seq No	Rev
VPS - C - BE - TCS - TDW - 001/11 - A	1:50			
CHECKED				A
REV: No				
DATE				16.08.2021



SYMBOL	DESCRIPTION
---	EARTH CONDUCTOR
---	EARTH RING MAIN
---	DOWN CONDUCTOR
---	EARTHING ROD
⊕	EARTH ELECTRODE (SPIKE)
●	BONDING TERMINATION
■	EARTHING TEST POINT

GENERAL NOTES:

- EARTH TERMINATION CONDUCTOR TO BE 50mm² BCCW.
- BONDING CONDUCTOR TO BE 16mm² BCCW.
- EARTH ELECTRODE (SPIKE) TO BE Ø15mm x 1.5m LONG COPPER SOLID ROUND BAR, AND MUST BE 0.5m BURIED BELOW GROUND LEVEL.
- EARTH CONDUCTOR TO BE 0.5m BURIED BELOW GROUND LEVEL.

EARTH TERMINATION NOTES:

EARTH TERMINATION SYSTEM GENERAL REQUIREMENTS:

- 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.
- THE CALCULATION OF AN EARTH TERMINATION SYSTEM SHALL BE DONE IN ACCORDANCE WITH THE FORMULAE IN SANS 10199.

DOWN CONDUCTORS:

- DOWN CONDUCTORS MUST BE INSULATED BY AT LEAST 3mm CROSS LINKED POLYETHYLENE.
- WARNING NOTICES TO BE INSTALLED TO MINIMISE THE PROBABILITY OF DOWN CONDUCTORS BEING TOUCHED.

EARTHING TEST POINT:

- 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.
- SANS 10199: THE DESIGN AND INSTALLATION OF AN EARTH ELECTRODE.
- 10313: THE PROTECTION OF STRUCTURES AGAINST LIGHTNING.
- SANS 1063: EARTHING SYSTEMS GENERAL PROVISIONS.

STATUS CODE	Group Codes BUILDINGS
0 - Pre - Feasibility study	BP - Building IT
1 - Feasibility study	BP - Building Public Address
A - Preliminary Design	BS - Building Service
B - Design Review	BA - Building Architectural
C - Tender Design	BE - Building Electrical
D - Detailed Design	BF - Building Fire Service
E - For Construction	BM - Building Mechanical
F - As Built	BT - Building Public Telecoms
G - For Information Only	BU - Building Public Utilities

DRAWING STATUS	
FOR TENDER	
PROJECT NUMBER	
LDPWRI-B/20113	
Drawn By	Designed By
Reviewed/Approved By	
NGCEMU A13204	K SECHOARO E.MENSAH 20100414
Name S.A.J.D Number	Name Pr Number Name Pr Number Signature

No	Date	chkd	Details
A	17.08.2021	EM	FOR TENDER

CLIENT

DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE

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

PROJECT

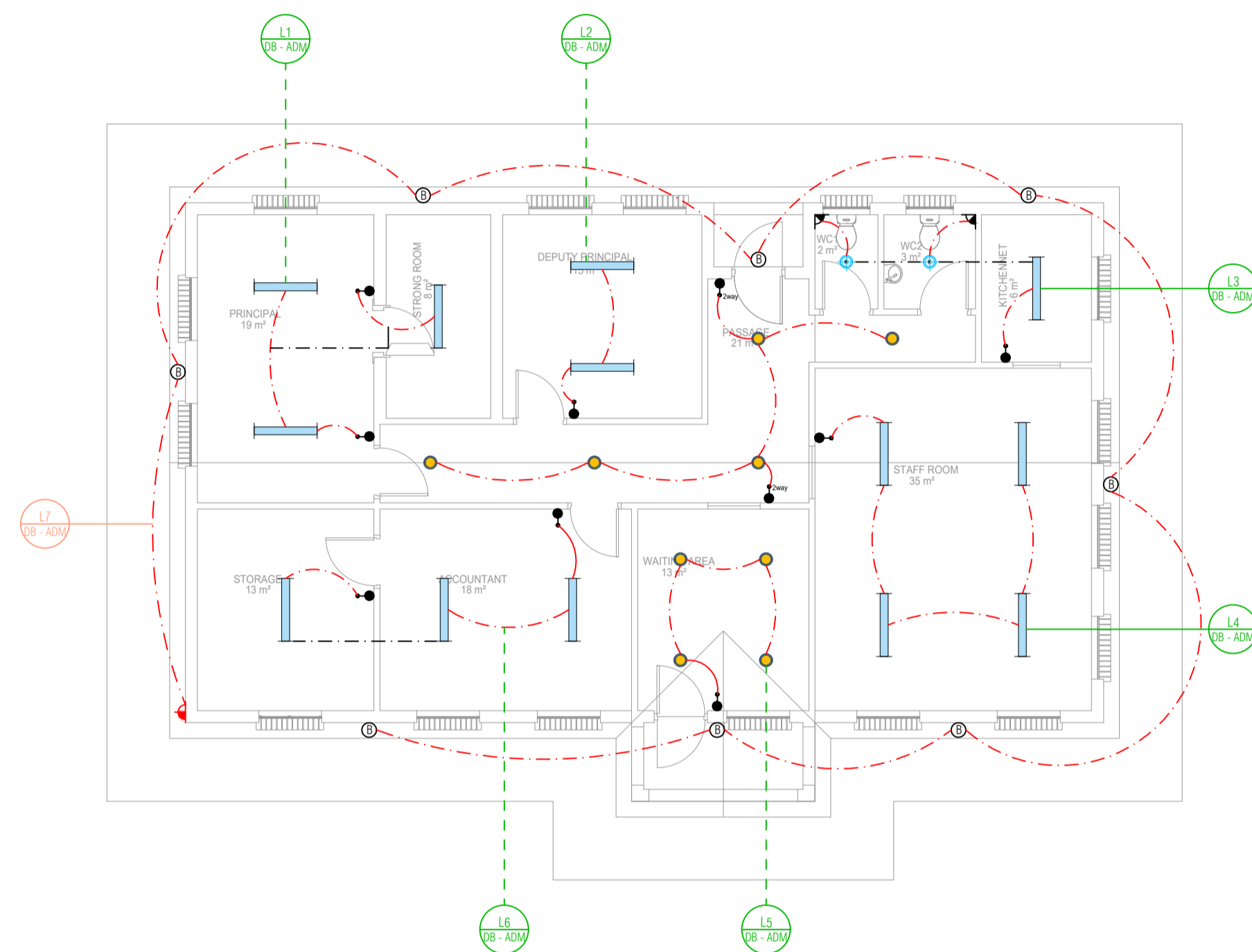
INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH ACUTE INFRASTRUCTURE CHALLENGES, INCLUDING STORM DAMAGED SCHOOLS IN THE LIMPOPO PROVINCE 'CLUSTER F'

VUTIVI PRIMARY SCHOOL

DRAWING TITLE

ADMINISTRATION FLOOR PLAN
EARTHING & LIGHTNING PROTECTION LAYOUT

Project code	Status	Group	Consultant	Doc Type	Seq No	Rev
VPS - C - BE - TCS - TDW - 004/12 - A						
SCALE						1:100
CHECKED						A
REV. No						
DATE						17.08.2021



LIGHTING LEGEND

ITEM	DESCRIPTION	QTY
1	16A SINGLE LEVER LIGHT SWITCH	08
2	ZWAY 16A SINGLE LEVER LIGHT SWITCH	02
3	ZWAY 16A DOUBLE LEVER LIGHT SWITCH	00
4	90 DEG. MOTION SENSOR	02
5	180 DEG. MOTION SENSOR	00
6	360 DEG. MOTION SENSOR	00
7	DAY/NIGHT SWITCH	01
8	8 INCH 15W LED DOWNLIGHT	09
9	TYPE B 8 INCH 15W LED DOWNLIGHT WITH DALI MODIFICATION	00
10	10W LED RONDO DOWNLIGHT WITH DALI MODIFICATION	02
11	15W LED ROUND BULKHEAD WITH DALI MODIFICATION	08
12	VISUAL LED IP40 - 18W 1200x50mm WITH DALI MODIFICATION	00
13	VISUAL LED IP40 - 18W 1500x50mm WITH DALI MODIFICATION	00
14	1200mm 34W LED IP68 CORROSION PROOF LIGHT FITTING WITH DALI MODIFICATION - EMERGENCY	00
15	1200mm 34W LED IP68 CORROSION PROOF LIGHT FITTING WITH DALI MODIFICATION	13
16	1200mm 2x 14W LED OPEN CHANNEL FLUORESCENT LUMINAIRE	00
17	140W 90° IP65 SURFACE MOUNT LED LOW BAY WITH DALI MODIFICATION	00
18	60W EMERGENCY 1200x60mm LED PANEL RECESSED LIGHT FITTING WITH DALI MODIFICATION	00
19	60W 1200x60mm LED PANEL RECESSED LIGHT FITTING WITH DALI MODIFICATION	00

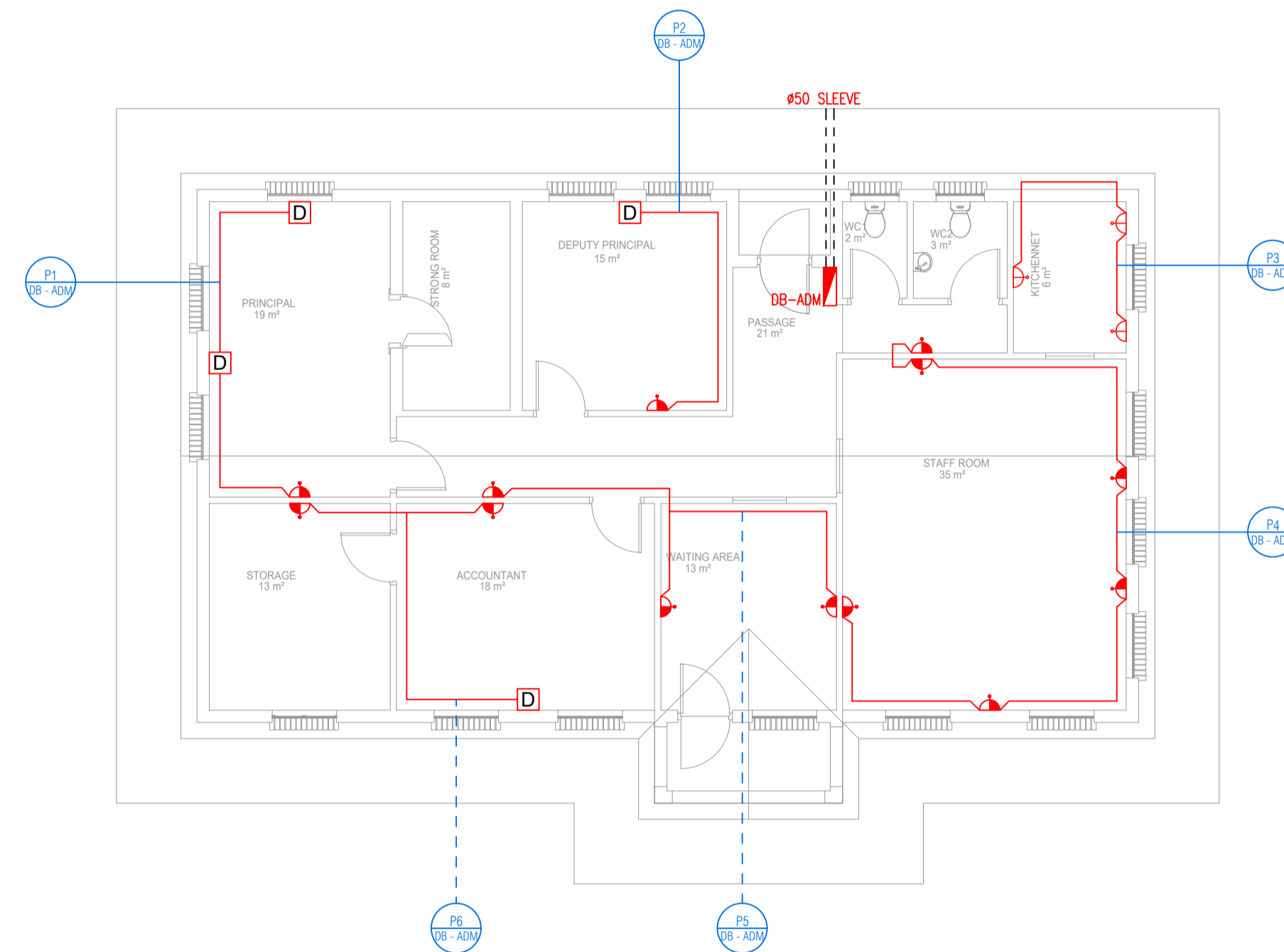
STATUS CODE	Group Codes BUILDINGS	DRAWING STATUS		No	Date	chkd	Details
0 - Pre - Feasibility study	BP - Building IT	FOR TENDER		A	17.08.2021	EM	FOR TENDER
1 - Feasibility study	BP - Building Public Address	PROJECT NUMBER					
A - Preliminary Design	BS - Building Service	LDPWRI-B/20113					
B - Design Review	BA - Building Architectural	Drawn By	Designed By				
C - Tender Design	BE - Building Electrical	Reviewed/Approved By					
D - Detailed Design	BF - Building Fire Service	N NGCEMU A13204	K SECHOARO				
E - For Construction	BM - Building Mechanical	E.MENSAH 20100414					
F - As Built	BT - Building Public Telecoms	Name	S.A.J.D Number	Name	Pr Number	Name	Pr Number
G - For Information Only	BU - Building Public Utilities						

CLIENT	CONSULTANT
 LIMPOPO PROVINCIAL GOVERNMENT REPUBLIC OF SOUTH AFRICA DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE	 TAKUSA CONSULTING SERVICES

PROJECT	DRAWING TITLE
INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH ACUTE INFRASTRUCTURE CHALLENGES, INCLUDING STORM DAMAGED SCHOOLS IN THE LIMPOPO PROVINCE 'CLUSTER F' VUTIVI PRIMARY SCHOOL	ADMINISTRATION FLOOR PLAN LIGHTING LAYOUT

Project code	Status	Consultant	Doc. Type	Seq. No	Rev
VPS - C - BE - TCS - TDW - 002/12 - A					

SCALE	1:100
CHECKED	A
REV. No	
DATE	17.08.2021



POWER LEGEND

ITEM	DESCRIPTION
	TV POINT
	TELEPHONE POINT
	DATA POINT
	SINGLE PHASE ISOLATOR
	SINGLE PHASE ISOLATOR
	SINGLE 16A NORMAL SWITCHED SOCKET OUTLET @1200 A.F.F.L.
	2A PLUG 16A SOCKET OUTLET @1200 A.F.F.L.
	2A 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 SHORTING
	PEDESTAL FOR MEETING/PRESENTER'S TABLE CONSISTING OF THE FOLLOWING: - 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 R45 DATA & TELEPHONE POINTS
	ELECTRICAL DISTRIBUTION BOARD

STATUS CODE	Group Codes BUILDINGS	DRAWING STATUS	No	Date	chkd	Details
0 - Pre - Feasibility study	BP - Building IT	FOR TENDER	A	17.08.2021	EM	FOR TENDER
1 - Feasibility study	BP - Building Public Address	PROJECT NUMBER				
A - Preliminary Design	BS - Building Service	LDPWRI-B/20113				
B - Design Review	BA - Building Architectural	Drawn By				
C - Tender Design	BE - Building Electrical	Designed By				
D - Detailed Design	BF - Building Fire Service	Reviewed/Approved By				
E - For Construction	BM - Building Mechanical	N NGCEMU A13204				
F - As Built	BT - Building Public Telecoms	K SECHOARO				
G - For Information Only	BU - Building Public Utilities	E MENSAH 20100414				
		Name S.A.I.D Number				
		Name Pr Number				
		Name Pr Number Signature				

CLIENT	CONSULTANT
 LIMPOPO PROVINCIAL GOVERNMENT REPUBLIC OF SOUTH AFRICA DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE	 UTAKUSA CONSULTING SERVICES

PROJECT	DRAWING TITLE
INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH ACUTE INFRASTRUCTURE CHALLENGES, INCLUDING STORM DAMAGED SCHOOLS IN THE LIMPOPO PROVINCE 'CLUSTER F' VUTIVI PRIMARY SCHOOL	ADMINISTRATION FLOOR PLAN POWER LAYOUT

Project code	Status	Group	Consultant	Doc Type	Seq No	Rev
VPS - C - BE - TCS - TDW - 001/12 - A						

SCALE	1:100
CHECKED	
REV. No	A
DATE	17.08.2021

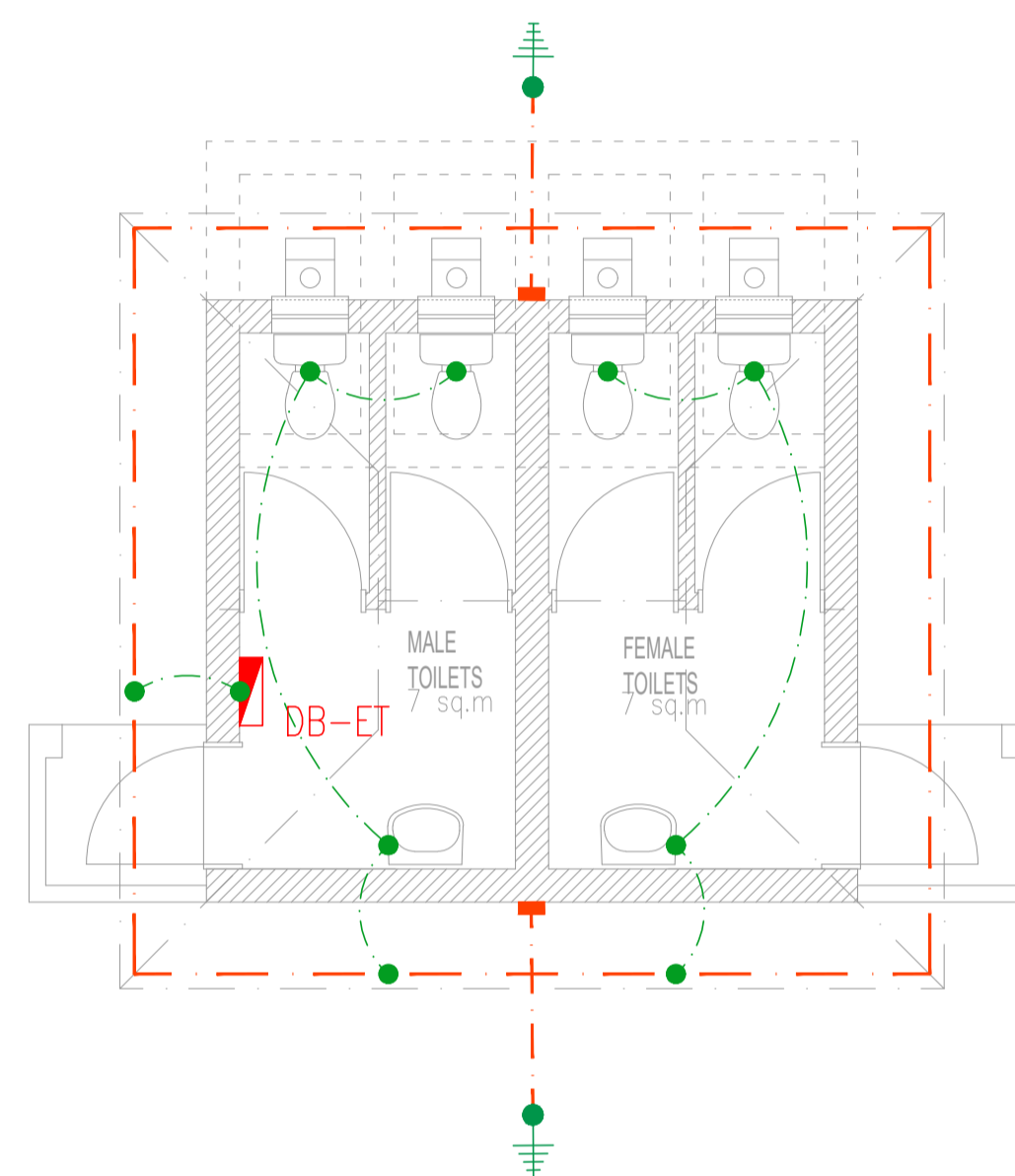
- GENERAL NOTES:
1. EARTH TERMINATION CONDUCTOR TO BE 50mm² BCEW.
 2. BONDING CONDUCTOR TO BE 16mm² BCEW.
 3. EARTH ELECTRODE (SPIKE) TO BE #15mm x 1.5m LONG COPPER SOLID ROUND BAR, AND MUST BE 0.5m BURIED BELOW GROUND LEVEL.
 4. EARTH CONDUCTOR TO BE 0.5m BURIED BELOW GROUND LEVEL.
 5. ALL WORKS SHALL 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 POLYETHYLENE.
 2. WARNING NOTICES TO BE INSTALLED TO MINIMISE THE PROBABILITY OF DOWN CONDUCTORS BEING TOUCHED.

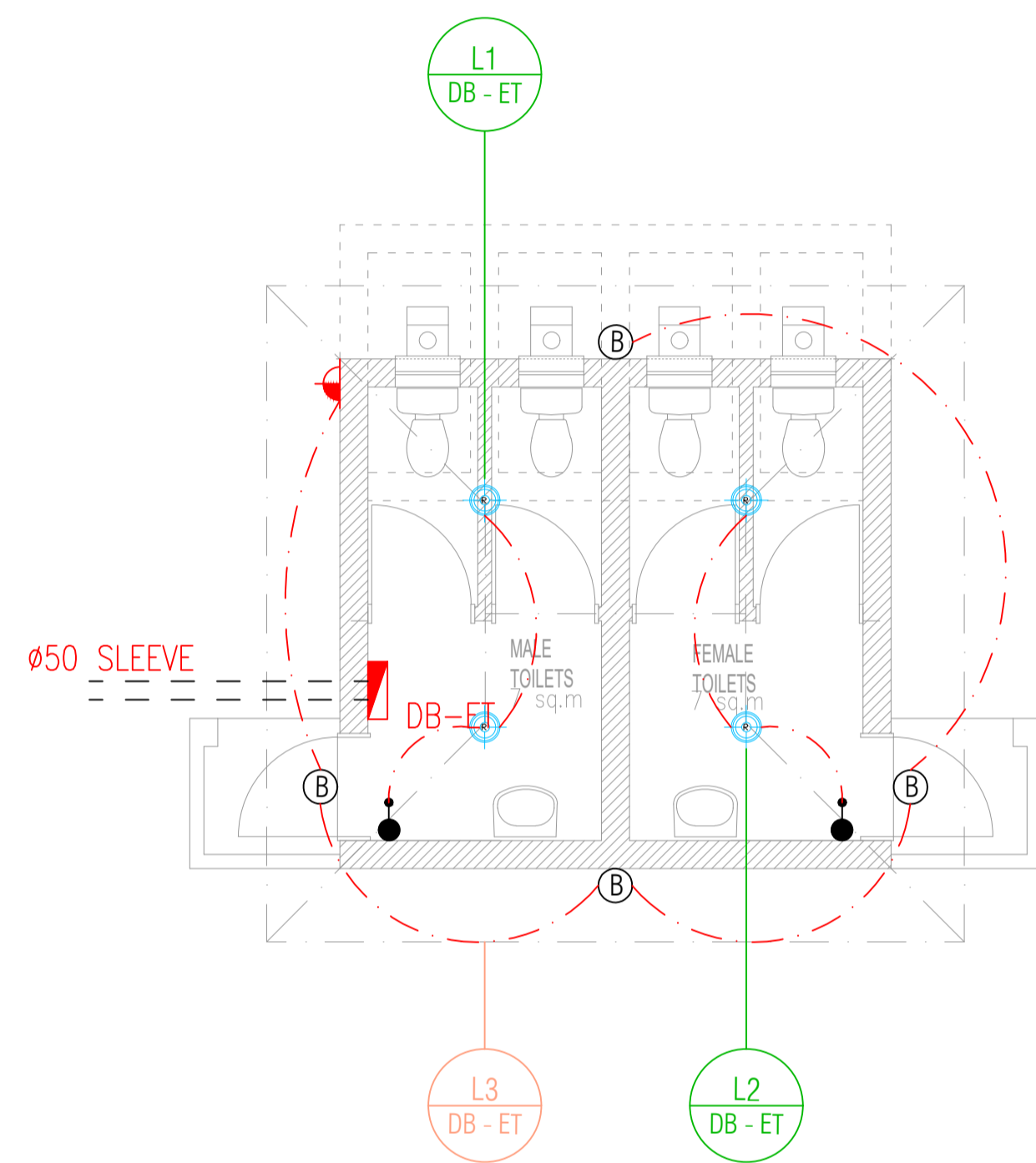
- EARTHING TEST POINT:
1. EARTHING TEST POINT SHOULD BE CAPABLE OF BEING OPENED WITH THE AID OF TOOL.

- 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 10199: 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 0 - Pre - Feasibility study 1 - Feasibility study A - Preliminary Design B - Design Review C - Tender Design D - Detailed Design E - For Construction F - As Built G - For Information Only	Group Codes BUILDINGS BP - Building IT BP - Building Public Address BS - Building Service BA - Building Architectural BE - Building Electrical BF - Building Fire Service BM - Building Mechanical BT - Building Public Telecoms BU - Building Public Utilities	DRAWING STATUS FOR TENDER	No	Date	chkd	Details	CLIENT LIMPOPO PROVINCIAL GOVERNMENT REPUBLIC OF SOUTH AFRICA DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE	CONSULTANT TAKUSA CONSULTING SERVICES 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	PROJECT INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH ACUTE INFRASTRUCTURE CHALLENGES, INCLUDING STORM DAMAGED SCHOOLS IN THE LIMPOPO PROVINCE CLUSTER E VUTIVI PRIMARY SCHOOL	Project code Status Group Consultant Doc Type Seq No Rev Copyright Reserved VPS - C - BE - TCS - TDW - 004/13 - A	SCALE 1:50
		PROJECT NUMBER LDPWRI-B/20113	A	17.08.2021	EM	FOR TENDER					DRAWING TITLE ENVIROLOO 4x SEAT A TOILETS FLOOR PLAN EARTHING & LIGHTNING PROTECTION LAYOUT
Drawn By N NGCEMU A13204		Designed By K SECHOARO	Reviewed/Approved By E MENSABH 20100414 						DATE 17.08.2021		
Name S.A.J.D Number		Name Pr Number	Name Pr Number Signature								



LIGHTING LEGEND

ITEM	DESCRIPTION	QTY
1	16A SINGLE LEVER LIGHT SWITCH	02
2	2WAY 16A SINGLE LEVER LIGHT SWITCH	00
3	2WAY 16A DOUBLE LEVER LIGHT SWITCH	00
4	90 DEG. MOTION SENSOR	00
5	180 DEG. MOTION SENSOR	00
6	360 DEG. MOTION SENSOR	00
7	DAY/NIGHT SWITCH	01
8	8 INCH 15W LED DOWNLIGHT	00
9	TYPE B 8 INCH 15W LED DOWNLIGHT WITH DALI MODIFICATION	00
10	10W LED RONDOL DOWNLIGHT WITH DALI MODIFICATION	04
11	15W LED ROUND BULKHEAD WITH DALI MODIFICATION	04
12	VISUAL LED IP40 - 18W 1200x50mm WITH DALI MODIFICATION	00
13	VISUAL LED IP40 - 18W 1500x50mm WITH DALI MODIFICATION	00
14	1200mm 34W LED IP66 CORROSION PROOF LIGHT FITTING WITH DALI MODIFICATION - EMERGENCY	00
15	1200mm 34W LED IP66 CORROSION PROOF LIGHT FITTING WITH DALI MODIFICATION	00
16	1200mm x 149 LED OPEN CHANNEL FLUORESCENT LUMINAIRE	00
17	ELECTRICAL DISTRIBUTION BOARD	01
18	60W EMERGENCY 1200x400mm LED PANEL RECESSED LIGHT FITTING WITH DALI MODIFICATION	00
19	60W 1200x600mm LED PANEL RECESSED LIGHT FITTING WITH DALI MODIFICATION	00

STATUS CODE	Group Codes BUILDINGS
0 - Pre - Feasibility study	BP - Building IT
1 - Feasibility study	BP* - Building Public Address
A - Preliminary Design	BS - Building Service
B - Design Review	BA - Building Architectural
C - Tender Design	BE - Building Electrical
D - Detailed Design	BF - Building Fire Service
E - For Construction	BM - Building Mechanical
F - As Built	BT - Building Public Telecoms
G - For Information Only	BU - Building Public Utilities

DRAWING STATUS	
FOR TENDER	
PROJECT NUMBER	
LDPWRI-B/20113	
Drawn By	Designed By
N NGCEMU A13204	K SECHOARO
Reviewed/Approved By	
E MNSAH 20100414	
Name	S.A.I.D Number
Name	Pr Number
Name	Pr Number
Signature	

No	Date	chkd	Details
A	17.08.2021	EM	FOR TENDER

CLIENT

DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE

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

PROJECT

INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH ACUTE INFRASTRUCTURE CHALLENGES, INCLUDING STORM DAMAGED SCHOOLS IN THE LIMPOPO PROVINCE CLUSTER E

VUTIVI PRIMARY SCHOOL

DRAWING TITLE

ENVIROLOO 4x SEAT A TOILETS FLOOR PLAN LIGHTING LAYOUT

Project code	Studio	Group	Consultant	Doc Type	Seq No	Rev
VPS - C - BE - TCS - TDW - 002/13 - A						
SCALE						1:50
CHECKED						A
REV. No						
DATE						17.08.2021

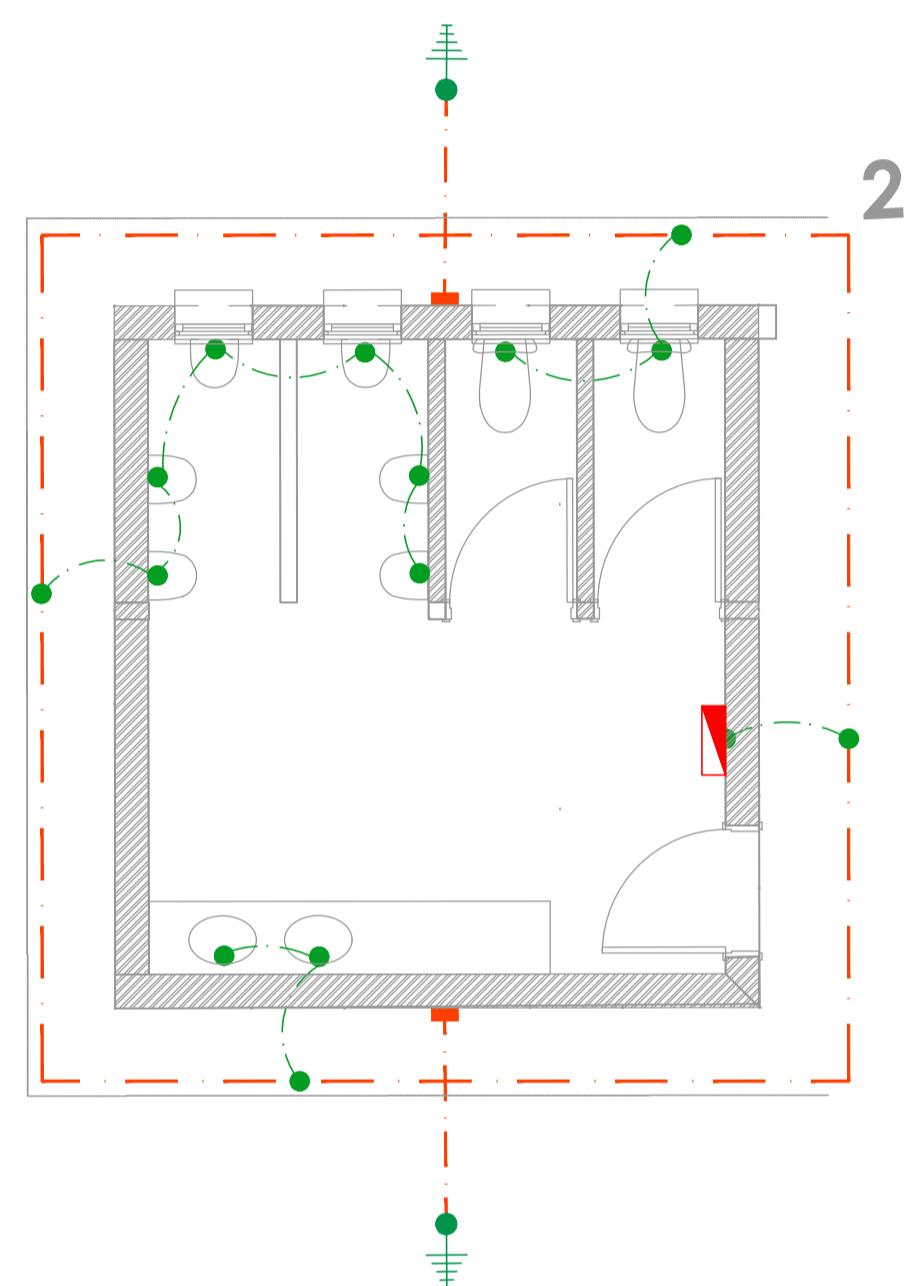
- GENERAL NOTES:
1. EARTH TERMINATION CONDUCTOR TO BE 50mm² BCEW.
 2. BONDING CONDUCTOR TO BE 16mm² BCEW.
 3. EARTH ELECTRODE (SPIKE) TO BE #15mm x 1.5m LONG COPPER SOLID ROUND BAR, AND MUST BE 0.5m BURIED BELOW GROUND LEVEL.
 4. EARTH CONDUCTOR TO BE 0.5m BURIED BELOW GROUND LEVEL.
 5. ALL WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH:
 - GF/E6/1 REV.1 - STANDARD QUALITY SPECIFICATION FOR GENERAL INSTALLATIONS (SCHOOLS)
 - GF/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 POLYETHYLENE.
 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 10199: 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.



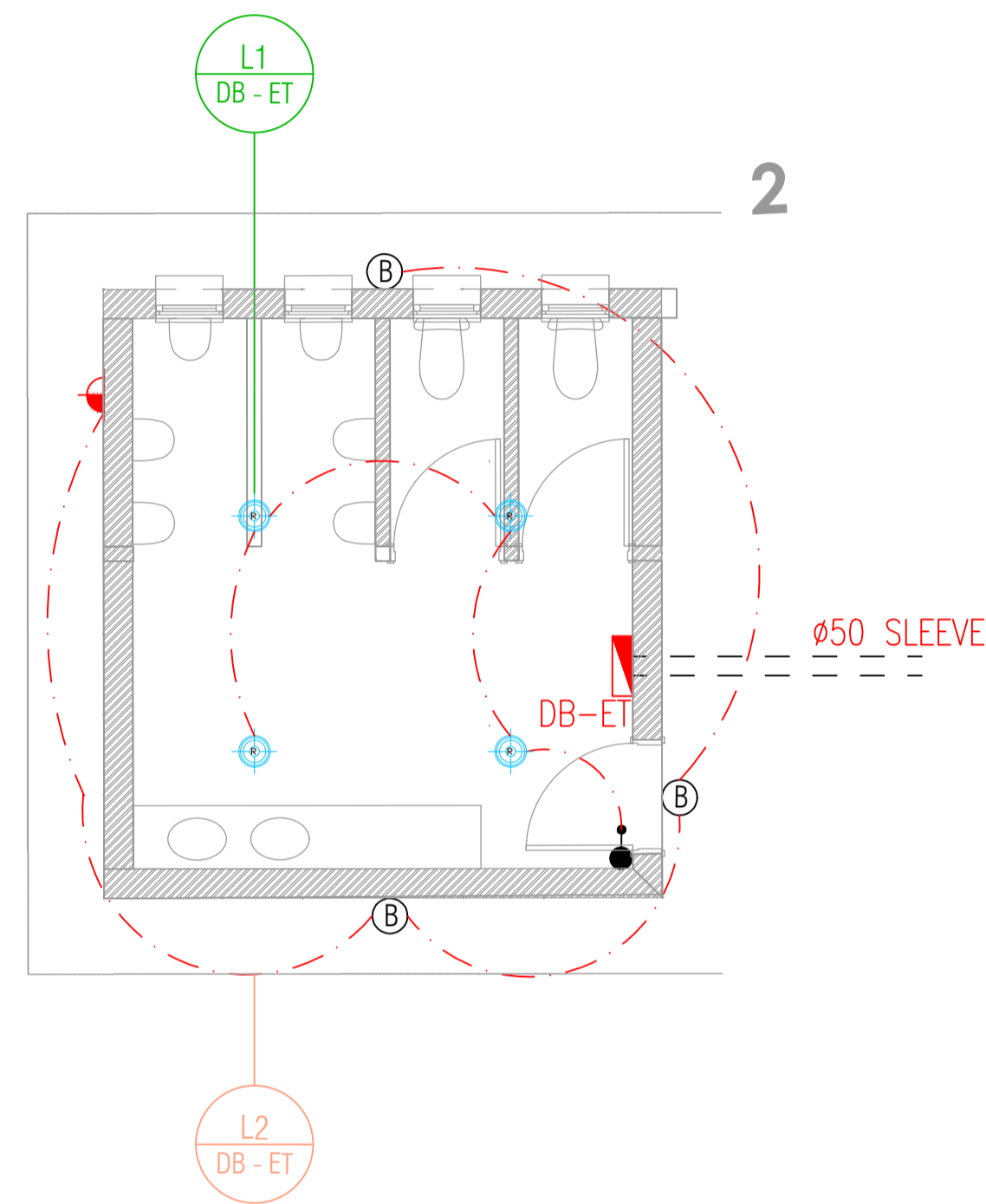
SYMBOL	DESCRIPTION
---	EARTH CONDUCTOR
---	DOWN CONDUCTOR
●	EARTH ELECTRODE (SPIKE)
●	BONDING TERMINATION
■	EARTHING TEST POINT

STATUS CODE	Group Codes BUILDINGS	DRAWING STATUS	No	Date	chkd	Details
0 - Pre - Feasibility study	BP - Building IT	FOR TENDER	A	16.08.2021	EM	FOR TENDER
1 - Feasibility study	BP - Building Public Address	PROJECT NUMBER				
A - Preliminary Design	BS - Building Service	LDPWRI-B/20113				
B - Design Review	BA - Building Architectural	Drawn By				
C - Tender Design	BE - Building Electrical	Designed By				
D - Detailed Design	BF - Building Fire Service	Reviewed/Approved By				
E - For Construction	BM - Building Mechanical	N NGCEMU A13204				
F - As Built	BT - Building Public Telecoms	K SECHOARO				
G - For Information Only	BU - Building Public Utilities	E MENSAB 20100414				
		Name S.A.J.D Number Name Pr Number Name Pr Number Signature				

CLIENT	CONSULTANT	PROJECT
<p>DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE</p>	<p>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</p>	<p>INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH ACUTE INFRASTRUCTURE CHALLENGES, INCLUDING STORM DAMAGED SCHOOLS IN THE LIMPOPO PROVINCE CLUSTER E VUTIVI PRIMARY SCHOOL</p>

PROJECT	DRAWING TITLE	Project code	Status	Group	Consultant	Doc Type	Seq No	Rev
<p>ENVIROLOO 2x SEAT - MALE TOILETS FLOOR PLAN EARTHING & LIGHTNING PROTECTION LAYOUT</p>	<p>VPS - C - BE - TCS - TDW - 004/14 - A</p>	SCALE						1:50
		CHECKED						A
		REV. No						
		DATE						16.08.2021

Project code	Status	Group	Consultant	Doc Type	Seq No	Rev
VPS - C - BE - TCS - TDW - 004/14 - A						



LIGHTING LEGEND		
ITEM	DESCRIPTION	QTY
1	16A SINGLE LEVER LIGHT SWITCH	01
2	2WAY 16A SINGLE LEVER LIGHT SWITCH	00
3	2WAY 16A DOUBLE LEVER LIGHT SWITCH	00
4	90 DEG. MOTION SENSOR	00
5	180 DEG. MOTION SENSOR	00
6	360 DEG. MOTION SENSOR	00
7	DAY/NIGHT SWITCH	01
8	8 INCH 15W LED DOWNLIGHT	00
9	TYPE B 8 INCH 15W LED DOWNLIGHT WITH DALI MODIFICATION	00
10	10W LED RONDO DOWNLIGHT WITH DALI MODIFICATION	04
11	15W LED ROUND BULKHEAD WITH DALI MODIFICATION	03
12	VISUAL LED IP40 - 18W 1200x50mm WITH DALI MODIFICATION	00
13	VISUAL LED IP40 - 18W 1500x50mm WITH DALI MODIFICATION	00
14	1200mm 34W LED IP66 CORROSION PROOF LIGHT FITTING WITH DALI MODIFICATION - EMERGENCY	00
15	1200mm 34W LED IP66 CORROSION PROOF LIGHT FITTING WITH DALI MODIFICATION	00
16	1200mm x 149 LED OPEN CHANNEL FLUORESCENT LUMINAIRE	00
17	ELECTRICAL DISTRIBUTION BOARD	01
18	60W EMERGENCY 1200x400mm LED PANEL RECESSED LIGHT FITTING WITH DALI MODIFICATION	00
19	60W 1200x600mm LED PANEL RECESSED LIGHT FITTING WITH DALI MODIFICATION	00

STATUS CODE	Group Codes BUILDINGS	DRAWING STATUS		No	Date	chkd	Details
0 - Pre - Feasibility study	BP - Building IT	FOR TENDER		A	16.08.2021	EM	FOR TENDER
1 - Feasibility study	BP - Building Public Address	PROJECT NUMBER					
A - Preliminary Design	BS - Building Service	LDPWRI-B/20113					
B - Design Review	BA - Building Architectural	Drawn By	Designed By				
C - Tender Design	BE - Building Electrical	N NGCEMU A13204	K SECHOARO				
D - Detailed Design	BF - Building Fire Service						
E - For Construction	BM - Building Mechanical						
F - As Built	BT - Building Public Telecoms						
G - For Information Only	BU - Building Public Utilities						

CLIENT	CONSULTANT	PROJECT
 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, 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 VUTIVI PRIMARY SCHOOL DRAWING TITLE ENVIROLOO 2x SEAT - MALE TOILETS FLOOR PLAN LIGHTING LAYOUT

PROJECT	Project code	Scale	Doc Type	Seq No	Rev
Copyright Reserved VPS - C - BE - TCS - TDW - 002/14 - A		1:50			

Project code	Scale	Doc Type	Seq No	Rev
	1:50			

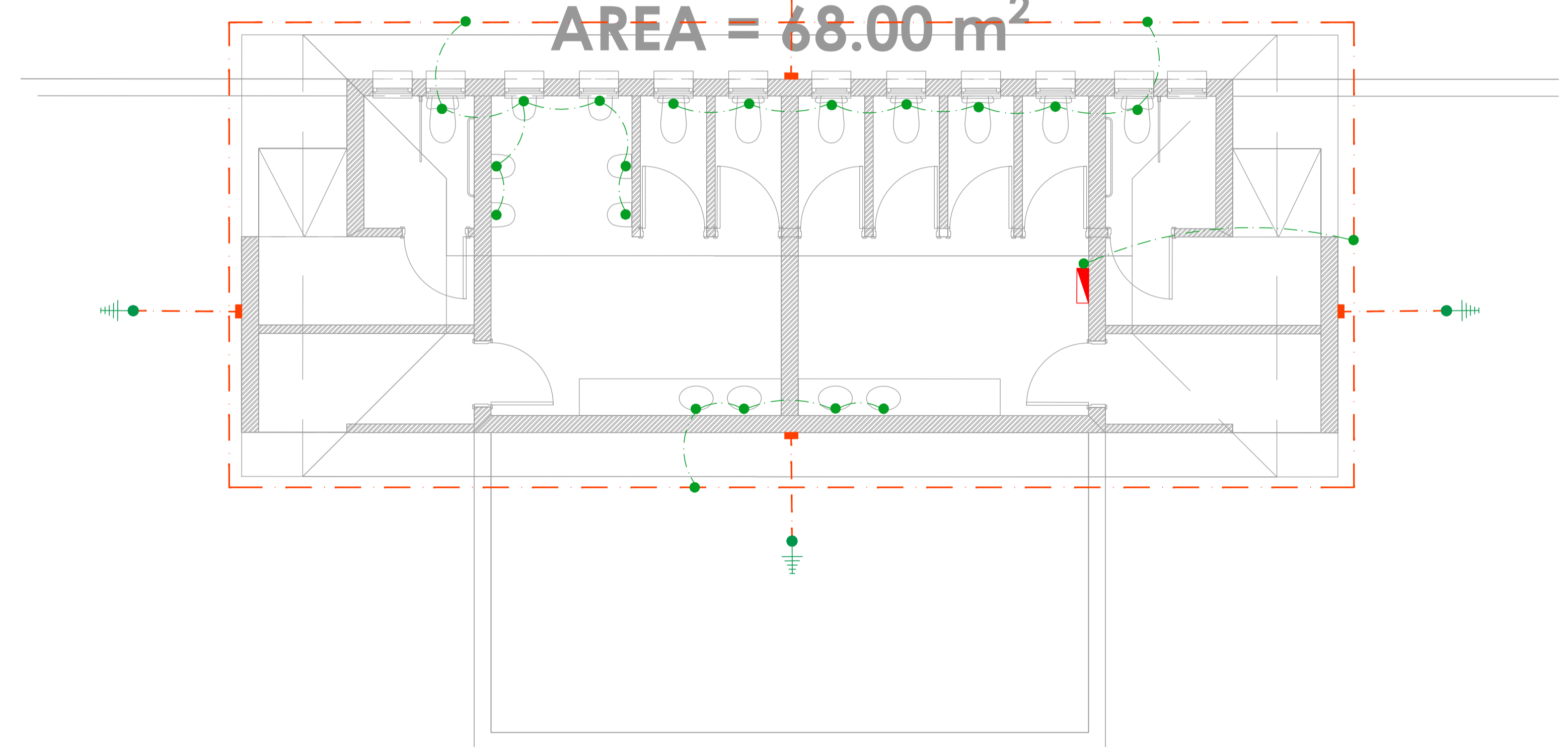
Project code	Scale	Doc Type	Seq No	Rev
	1:50			

Project code	Scale	Doc Type	Seq No	Rev
	1:50			

- GENERAL NOTES:
1. EARTH TERMINATION CONDUCTOR TO BE 50mm² BCEW.
 2. BONDING CONDUCTOR TO BE 16mm² BCEW.
 3. EARTH ELECTRODE (SPIKE) TO BE #15mm 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)
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- DOWN CONDUCTORS:
1. DOWN CONDUCTORS MUST BE INSULATED BY AT LEAST 3mm CROSS LINKED POLYETHYLENE.
 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 10199: 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.

NEW MIXED ABLUTION 10 SEATS

AREA = 68.00 m²



SYMBOL	DESCRIPTION
---	EARTH CONDUCTOR
---	DOWN CONDUCTOR
●	EARTH ELECTRODE (SPIKE)
●	BONDING TERMINATION
■	EARTHING TEST POINT

STATUS CODE	Group Codes BUILDINGS	DRAWING STATUS	No	Date	chkd	Details
0 - Pre - Feasibility study	BP - Building IT	FOR TENDER	A	18.08.2021	EM	FOR TENDER
1 - Feasibility study	BP - Building Public Address	PROJECT NUMBER				
A - Preliminary Design	BS - Building Service	LDPWRI-B/20113				
B - Design Review	BA - Building Architectural	Drawn By				
C - Tender Design	BE - Building Electrical	Designed By				
D - Detailed Design	BF - Building Fire Service	Reviewed/Approved By				
E - For Construction	BM - Building Mechanical	N NGCEMU A13204				
F - As Built	BT - Building Public Telecoms	K SECHOARO				
G - For Information Only	BU - Building Public Utilities	E MENSAB 20100414				
		Name S.A.J.D Number Name Pr Number Name Pr Number Signature				

<p>DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE</p>		<p>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</p>	
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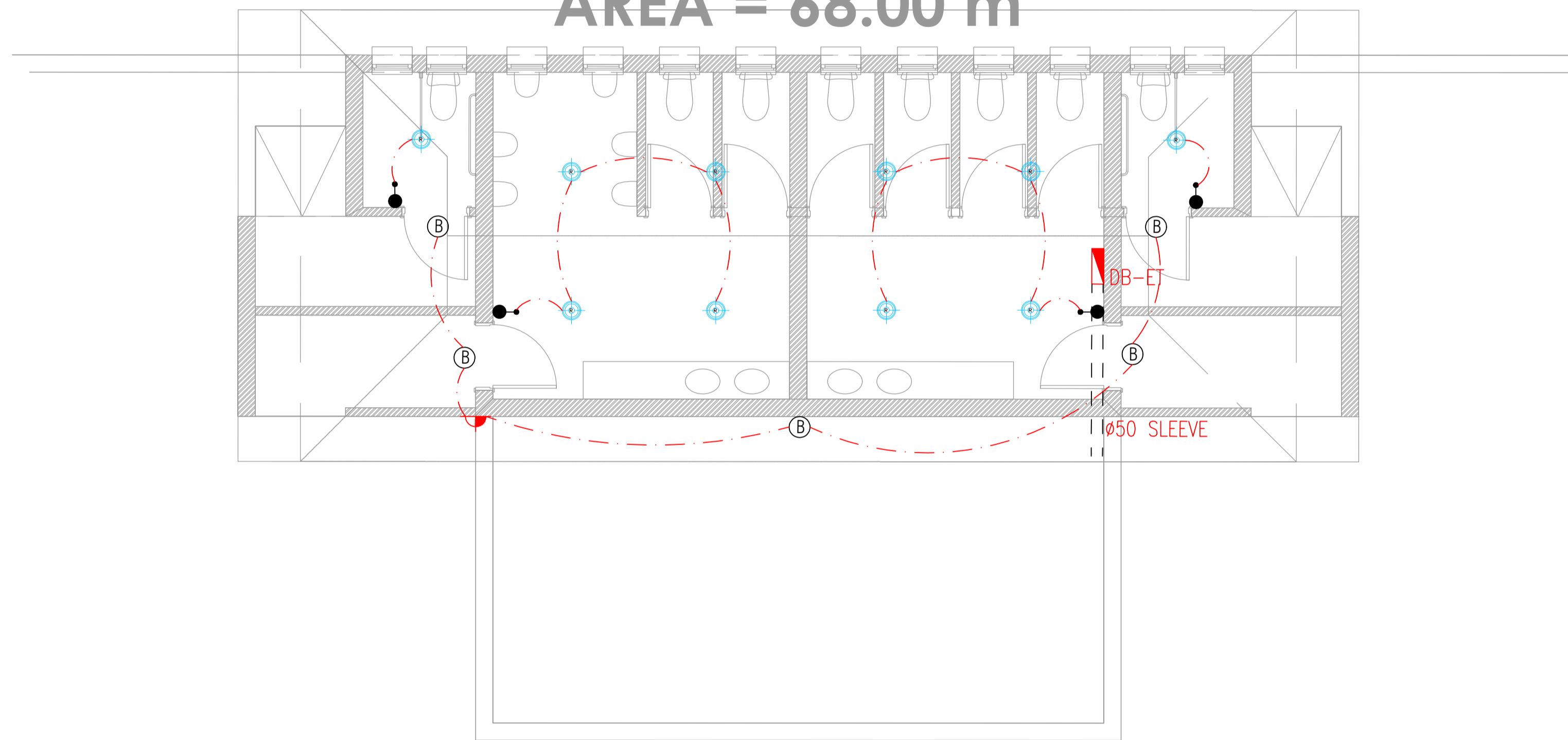
<p>CLIENT</p> <p>DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE</p>	<p>CONSULTANT</p> <p>FOURWAYS OFFICE PARK, BLOCK 5, GROUND FLOOR, Cnr. CEDAR ROAD AND FOURWAYS BOULEVARD, FOURWAYS, FOURWAYS, 2191 Tel: (+27) 10 110 8724 Fax: (+27) 86 659 2099</p>	<p>PROJECT</p> <p>INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH ACUTE INFRASTRUCTURE CHALLENGES, INCLUDING STORM DAMAGED SCHOOLS IN THE LIMPOPO PROVINCE CLUSTER E</p> <p>VUTIVI PRIMARY SCHOOL</p>
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<p>DRAWING TITLE</p> <p>ENVIROLOO 10x SEAT - MIXED TOILETS FLOOR PLAN EARTHING & LIGHTNING PROTECTION LAYOUT</p>	<p>Project code</p> <p>VPS - C - BE - TCS - TDW - 004/15 - A</p>
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<p>Project code</p> <p>VPS - C - BE - TCS - TDW - 004/15 - A</p>	<p>Seq No</p> <p>A</p>
<p>SCALE</p> <p>1:50</p>	<p>DATE</p> <p>18.08.2021</p>

NEW MIXED ABLUTION 10 SEATS

AREA = 68.00 m²



VE

LIGHTING LEGEND

ITEM	DESCRIPTION	QTY
1	16A SINGLE LEVER LIGHT SWITCH	04
2	2WAY 16A SINGLE LEVER LIGHT SWITCH	00
3	2WAY 16A DOUBLE LEVER LIGHT SWITCH	00
4	90 DEG. MOTION SENSOR	00
5	180 DEG. MOTION SENSOR	00
6	360 DEG. MOTION SENSOR	00
7	DAY/NIGHT SWITCH	01
8	8 INCH 15W LED DOWNLIGHT	00
9	TYPE B 8 INCH 15W LED DOWNLIGHT WITH DALI MODIFICATION	00
10	10W LED RINGO DOWNLIGHT WITH DALI MODIFICATION	10
11	15W LED ROUND BULKHEAD WITH DALI MODIFICATION	05
12	VISUAL LED IP40 - 18W 120x50mm WITH DALI MODIFICATION	00
13	VISUAL LED IP40 - 18W 150x50mm WITH DALI MODIFICATION	00
14	1200mm 34W LED IP66 CORROSION PROOF LIGHT FITTING WITH DALI MODIFICATION - EMERGENCY	00
15	1200mm 34W LED IP66 CORROSION PROOF LIGHT FITTING WITH DALI MODIFICATION	00
16	1200mm x 149 LED OPEN CHANNEL FLUORESCENT LUMINAIRE	00
17	ELECTRICAL DISTRIBUTION BOARD	01
18	60W EMERGENCY 1200x400mm LED PANEL RECESSED LIGHT FITTING WITH DALI MODIFICATION	00
19	60W 1200x600mm LED PANEL RECESSED LIGHT FITTING WITH DALI MODIFICATION	00

STATUS CODE	Group Codes BUILDINGS	DRAWING STATUS	No	Date	chkd	Details
0 - Pre - Feasibility study	BP - Building IT	FOR TENDER	A	18.08.2021	EM	FOR TENDER
1 - Feasibility study	BP - Building Public Address	PROJECT NUMBER				
A - Preliminary Design	BS - Building Service	LDPWRI-B/20113				
B - Design Review	BA - Building Architectural	Drawn By				
C - Tender Design	BE - Building Electrical	Designed By				
D - Detailed Design	BF - Building Fire Service	Reviewed/Approved By				
E - For Construction	BM - Building Mechanical	N NGCEMU A13204				
F - As Built	BT - Building Public Telecoms	K SECHOARO				
G - For Information Only	BU - Building Public Utilities	E MENSAB 20100414				
		Name S.A.J.D Number Name Pr Number Name Pr Number Signature				


CLIENT



LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF
PUBLIC WORKS, ROADS & INFRASTRUCTURE

CONSULTANT



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

PROJECT

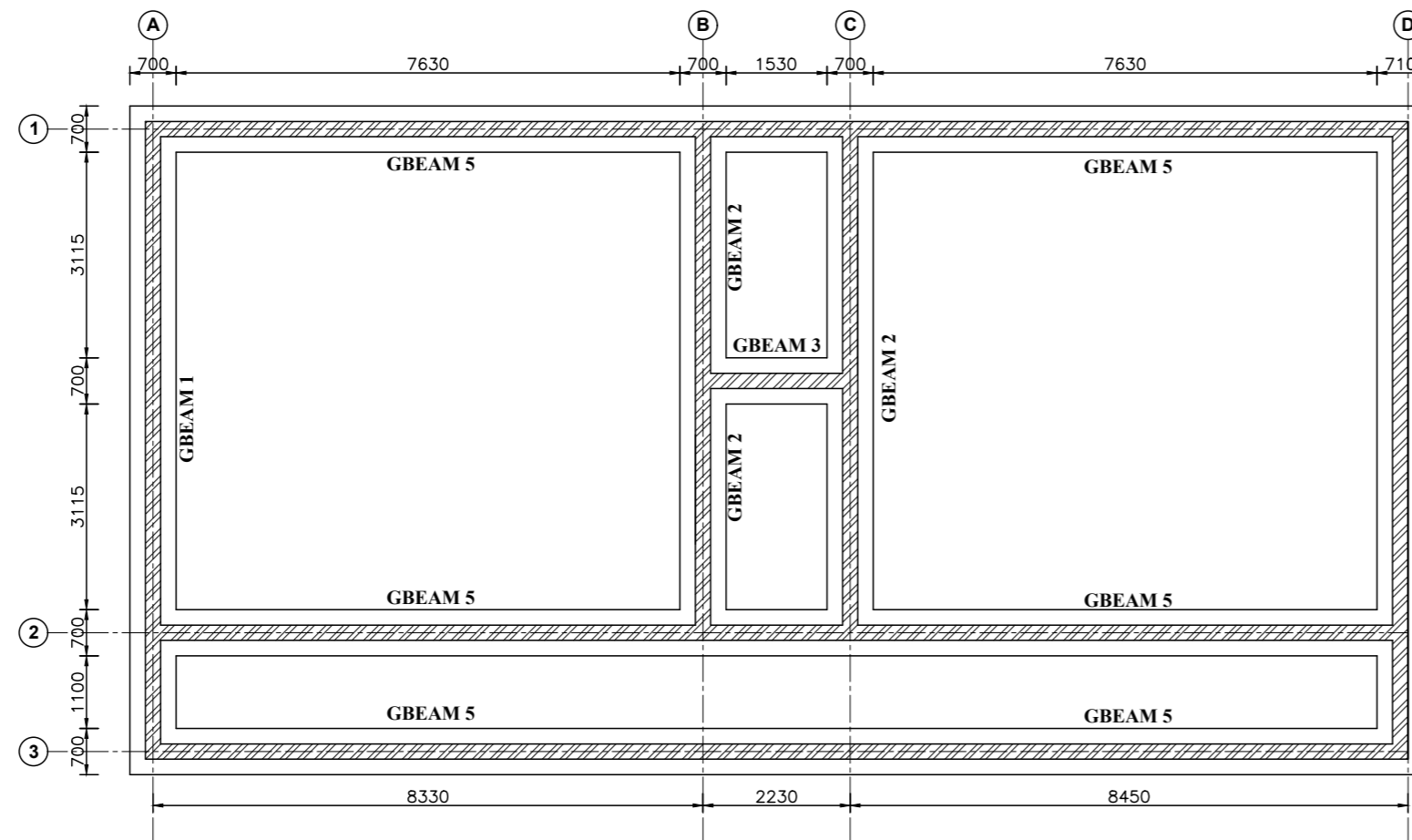
INFRASTRUCTURE PROVISIONING TO SCHOOLS WITH ACUTE INFRASTRUCTURE CHALLENGES, INCLUDING STORM DAMAGED SCHOOLS IN THE LIMPOPO PROVINCE CLUSTER E
VUTIVI PRIMARY SCHOOL

DRAWING TITLE

ENVIROLOO 10x SEAT - MIXED TOILETS FLOOR PLAN LIGHTING LAYOUT

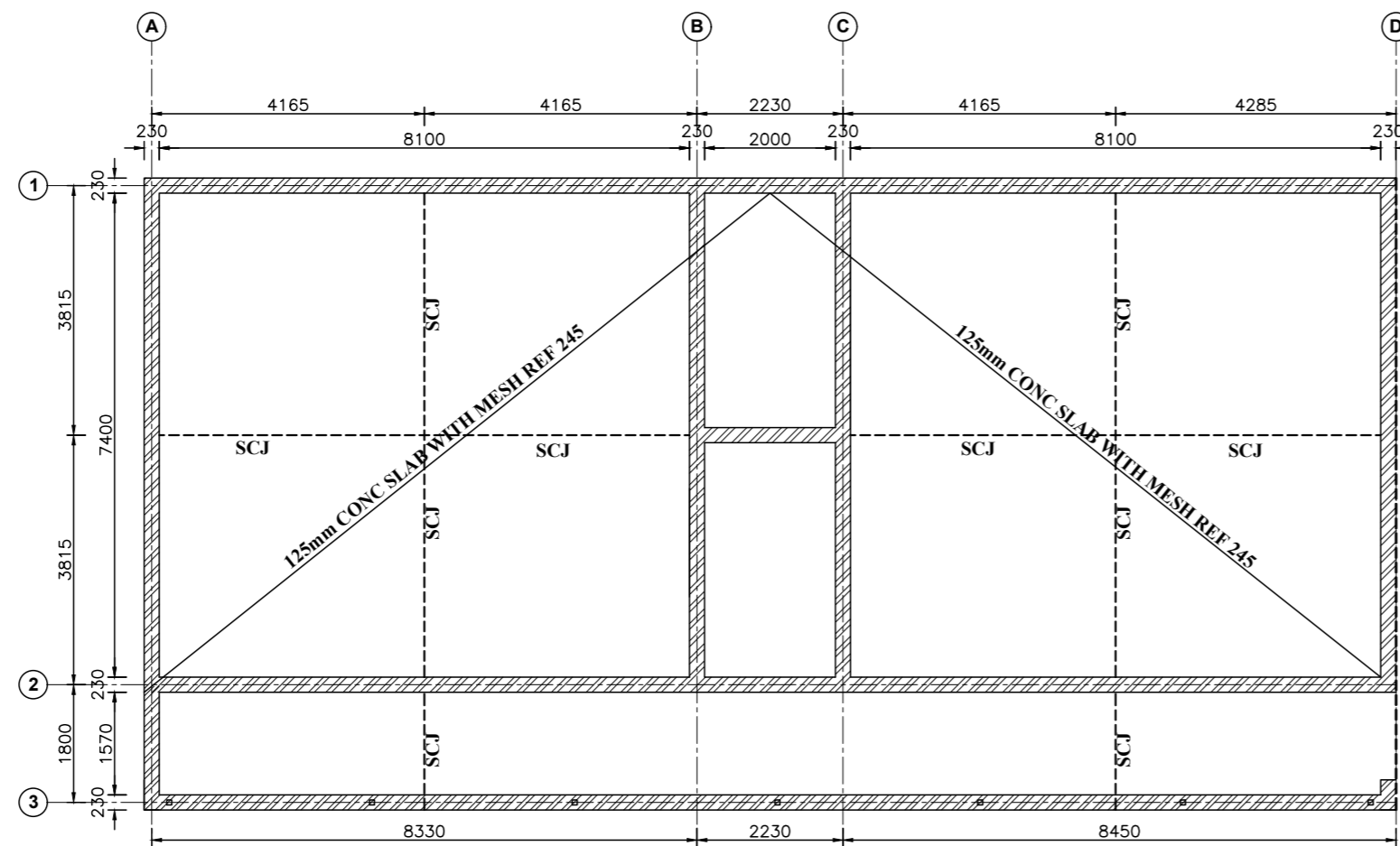
Project code	Studio	Client	Consultant	Doc Type	Seq No	Rev
VPS - C - BE - TCS - TDW - 002/15 - A						
SCALE						1:50
CHECKED						A
REV. No						
DATE						18.08.2021

STRUCTURAL DRAWINGS



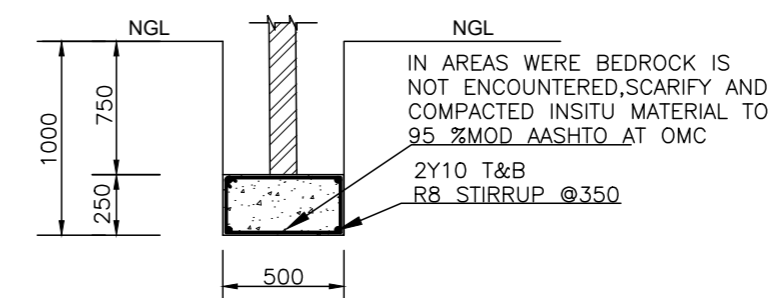
FOUNDATION LAYOUT

Scale 1:100



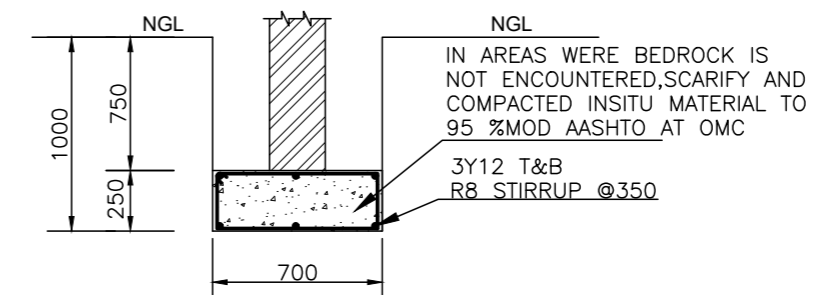
GROUND LAYOUT

Scale 1:100



110 WALL FOUNDATION DETAIL

Scale 1:20



220 FOUNDATION DETAIL

Scale 1:20

GENERAL NOTES.

1. 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 STANDARDS.
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-COMPLIANCE.
5. **CONCRETE:**
 - 5.1 ALL REINFORCED CONCRETE DESIGNED ACCORDING TO 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.
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 SABS 1431.
 - 10.4 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)**
 - 11.1 ALL SURFACES TO BE PAINTED MUST BE FREE OF MILL SCALE, CORROSION, GREASE, DUST ETC.
 - 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.
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No	DATE	REVISION	CONSULT	DIR

DESIGNED BY	NTB
CHECKED BY	TM
DRAWN BY	NTB
CHECKED BY	TM
APPROVED & ADOPTED BY	NTB

DEPARTMENT OF PUBLIC WORKS

The Head of department
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Department of Public Works
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LOWFLOW CONSTRUCTION & ENGINEERING

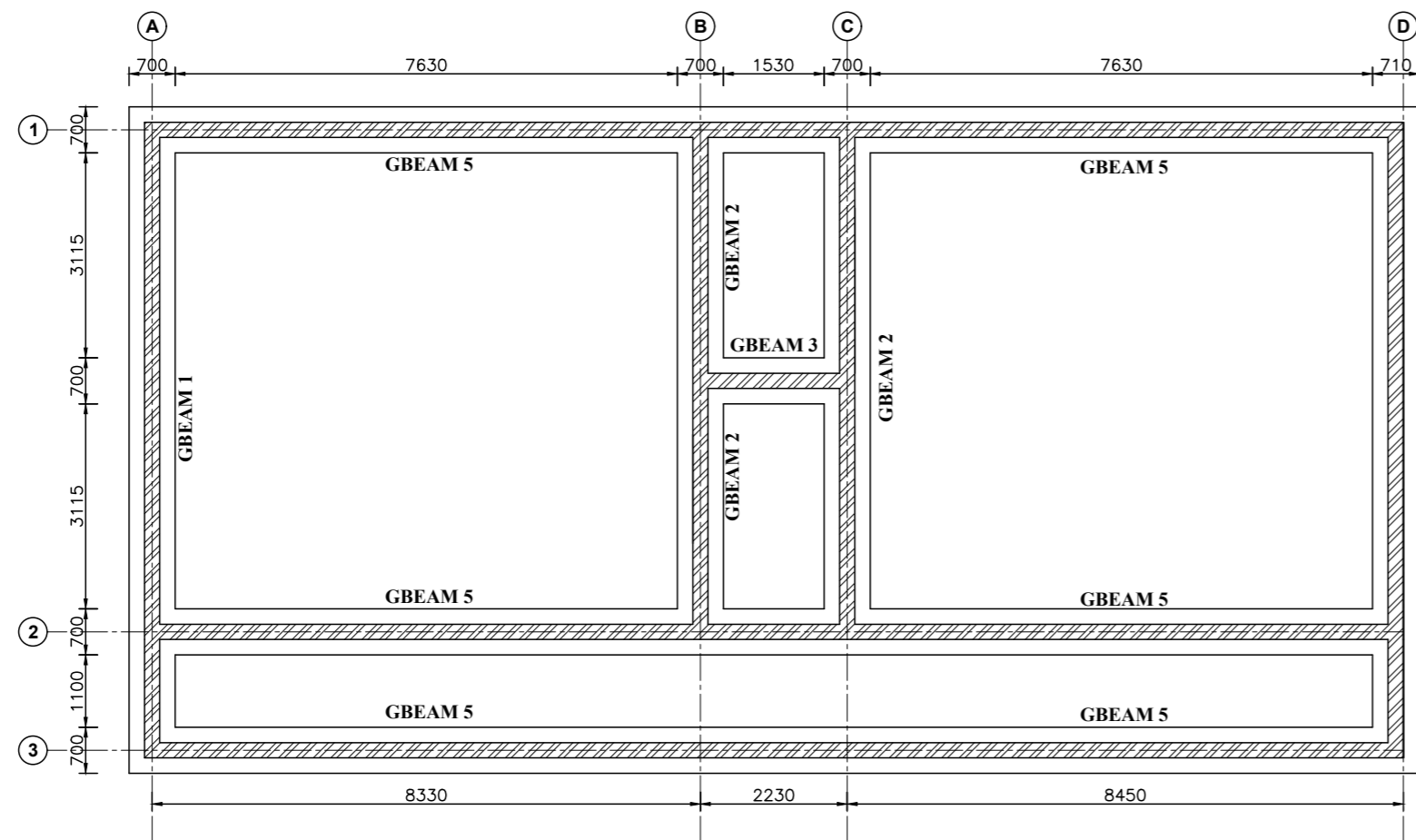
Head Office
26 Peace Street
Tzaneen
0850

Tel: 060 311 2170
Fax: 086 541 9992
E-mail: lowflowsa@gmail.com

CHIEF ENGINEER (LDP-DPW)	DATE
CONSULTING ENGINEER	DATE

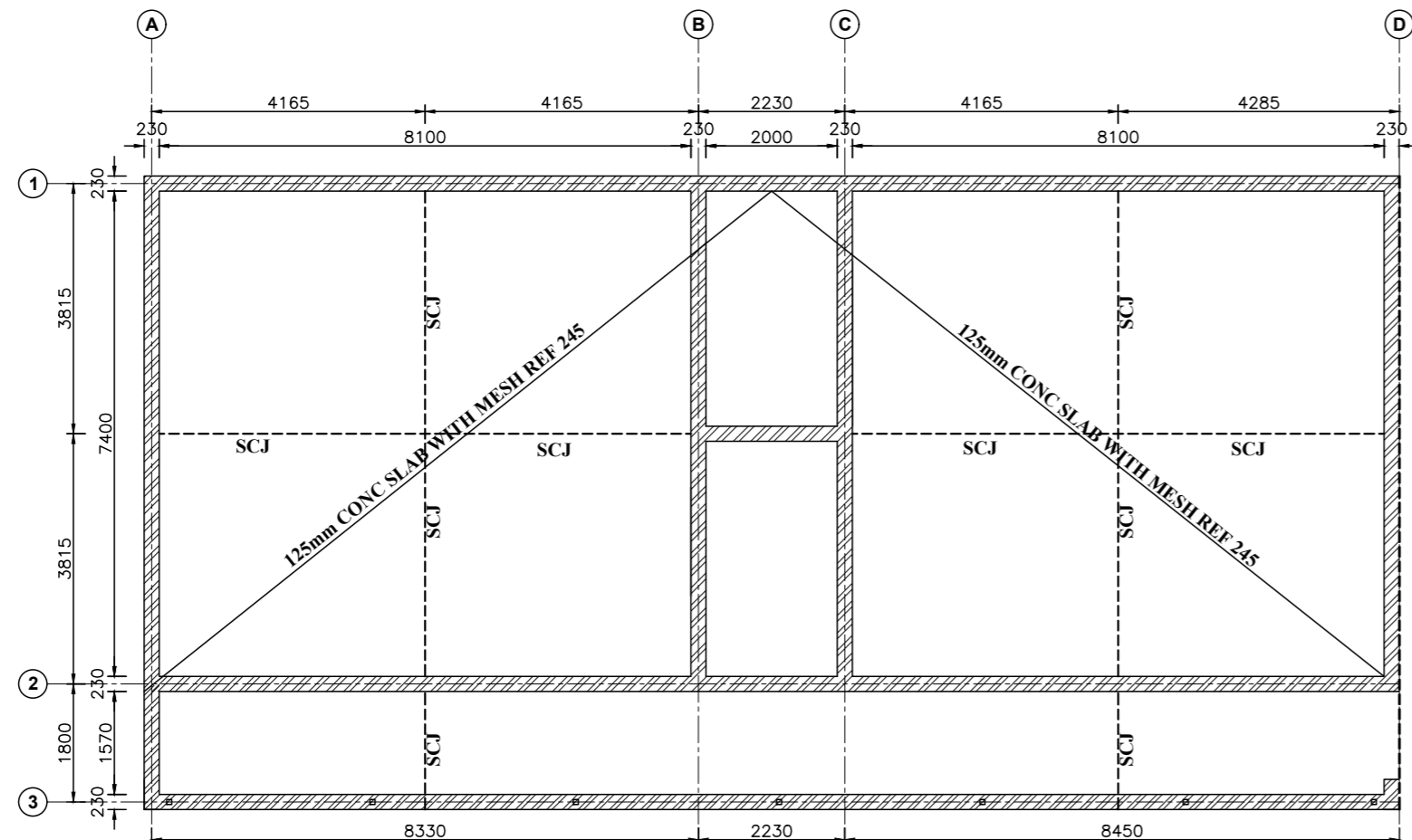
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VUTVI PRIMARY SCHOOL	2016 / /
2 CLASSROOM BLOCK (1) STRUCTURAL DETAIL	FOR CONSULTANT DRAWING NUMBER: STR-002-BOS-201/1

SHEET 1 OF 1	SCALE: AS SHOWN
DRAWING NUMBER: STR-005-BOS-201/1	



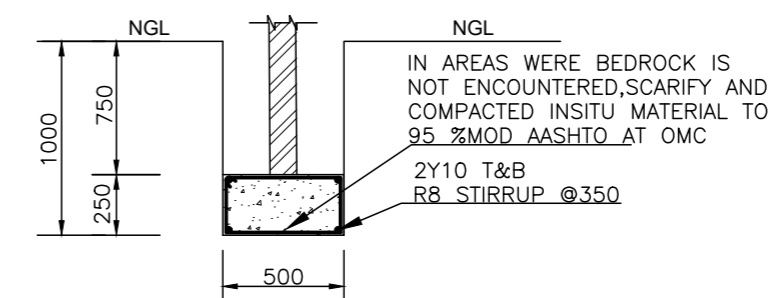
FOUNDATION LAYOUT

Scale 1:100



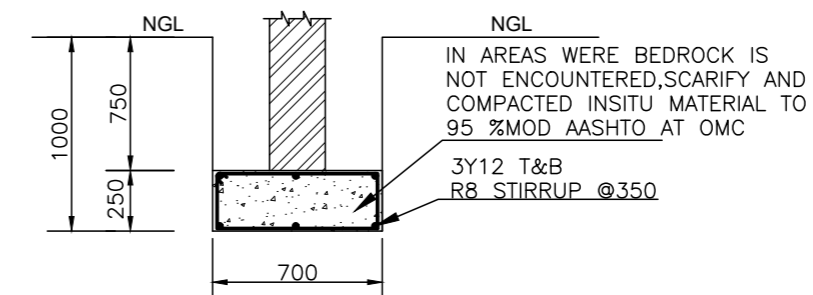
GROUND LAYOUT

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110 WALL FOUNDATION DETAIL

Scale 1:20



220 FOUNDATION DETAIL

Scale 1:20

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DESIGNED BY	NTB
CHECKED BY	TM
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APPROVED & ADOPTED BY	NTB

DEPARTMENT OF PUBLIC WORKS

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LOWFLOW CONSTRUCTION & ENGINEERING

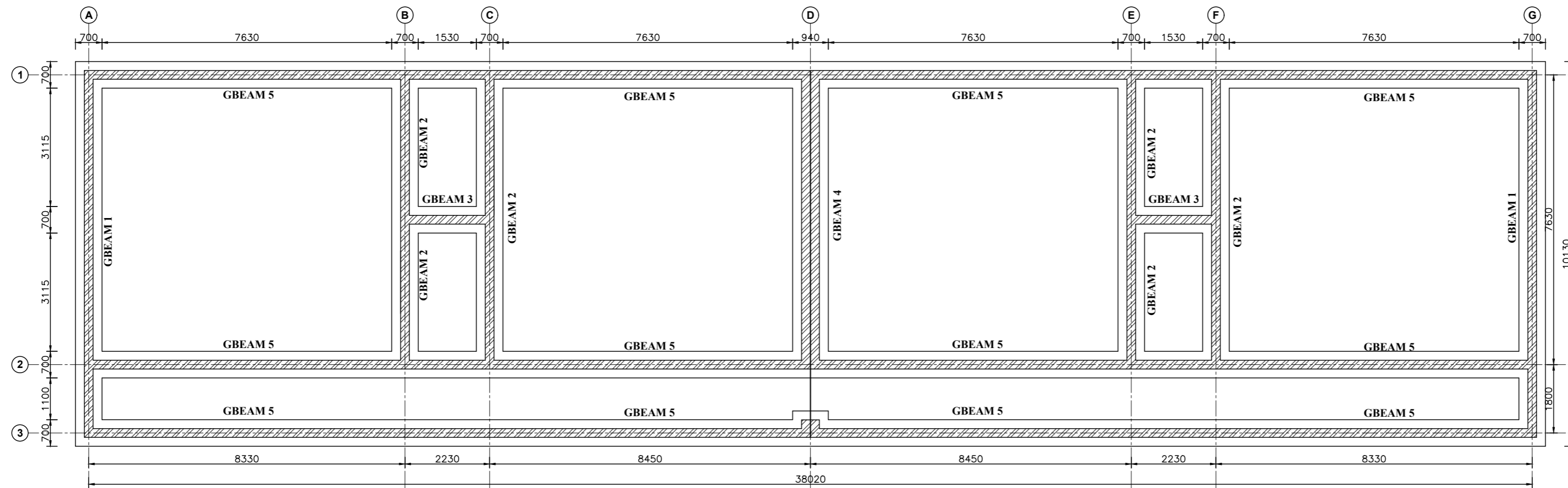
Head Office
26 Peace Street
Tzaneen
0850

Tel: 060 311 2170
Fax: 086 541 9992
E-mail: lowflowsa@gmail.com

CHIEF ENGINEER (LDPW)	DATE
CONSULTING ENGINEER	DATE

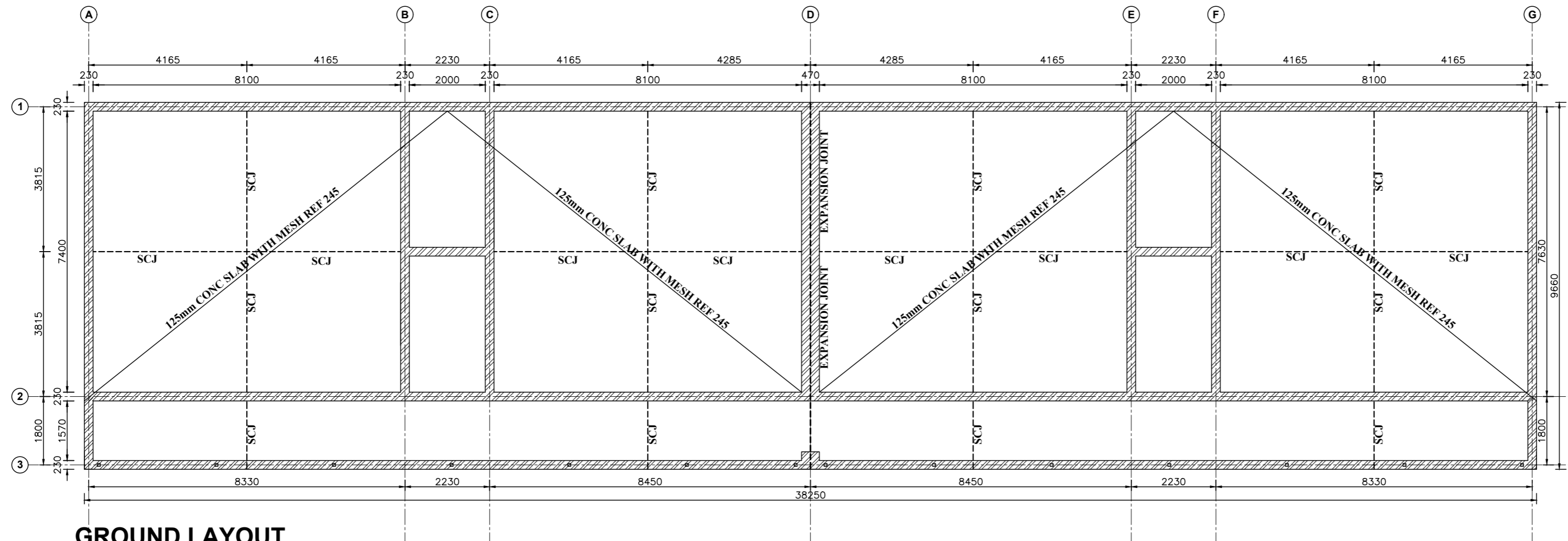
CONTRACT NO.: LDPW.PROF/11026	ISSUED FOR TENDER (Full Signature)
VUTVI PRIMARY SCHOOL	2016 / /
2 CLASSROOM BLOCK (2) STRUCTURAL DETAIL	FOR CONSULTANT 2016 / /
	CONSULTANT DRAWING NUMBER: STR-002-BOS-201/1

SHEET 1 OF 1	DRAWING NUMBER: STR-005-BOS-201/1
SCALE: AS SHOWN	



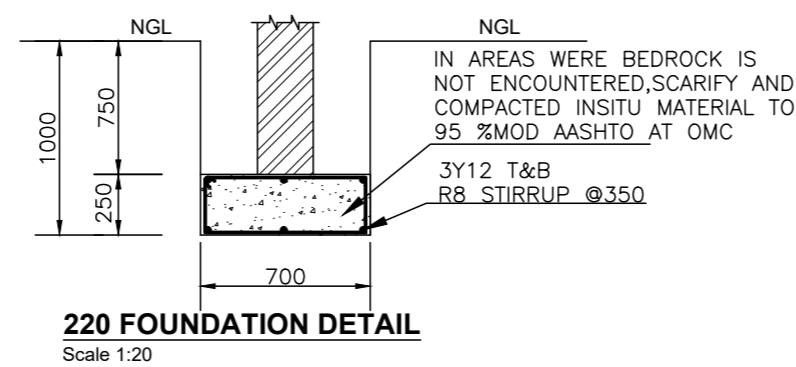
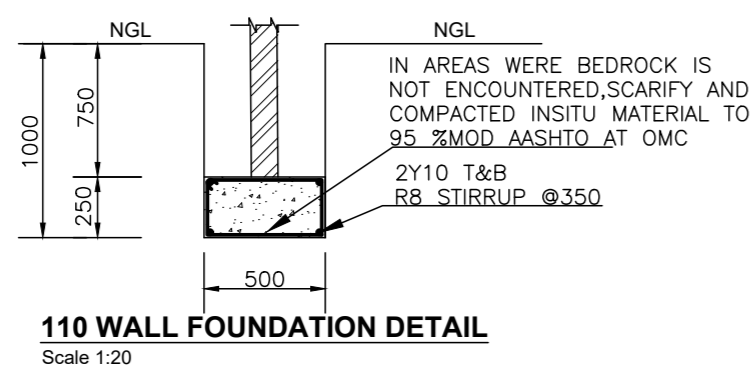
FOUNDATION LAYOUT

Scale 1:100



GROUND LAYOUT

Scale 1:100



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DESIGNED BY	NTB
CHECKED BY	TM
DRAWN BY	NTB
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APPROVED & ADOPTED BY	NTB

DEPARTMENT OF PUBLIC WORKS

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Department of Public Works
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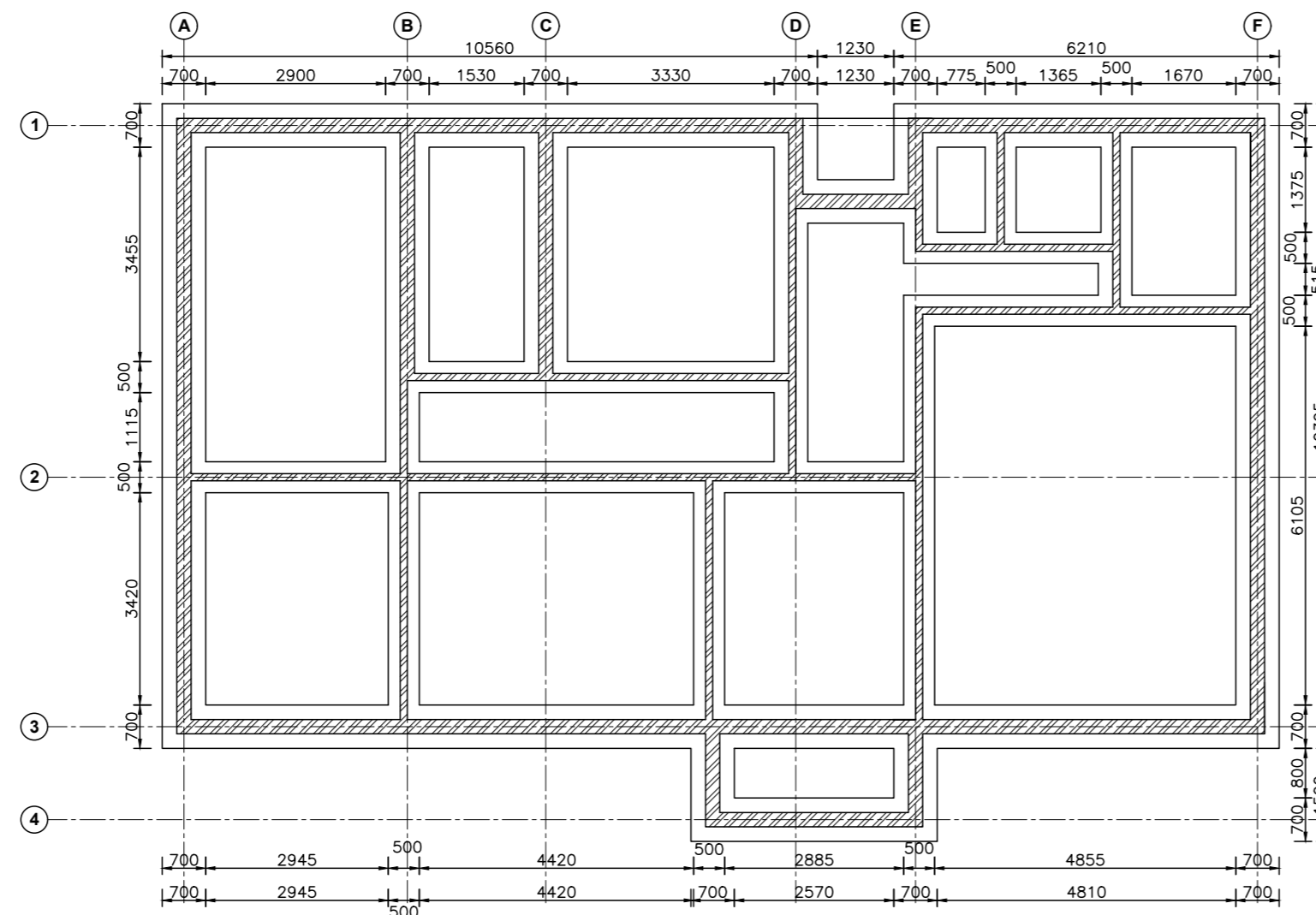
CHIEF ENGINEER (LDP/DPW)	DATE
CONSULTING ENGINEER	DATE

CONTRACT NO.: LDPW.PROF/11026

VUTVI PRIMARY SCHOOL

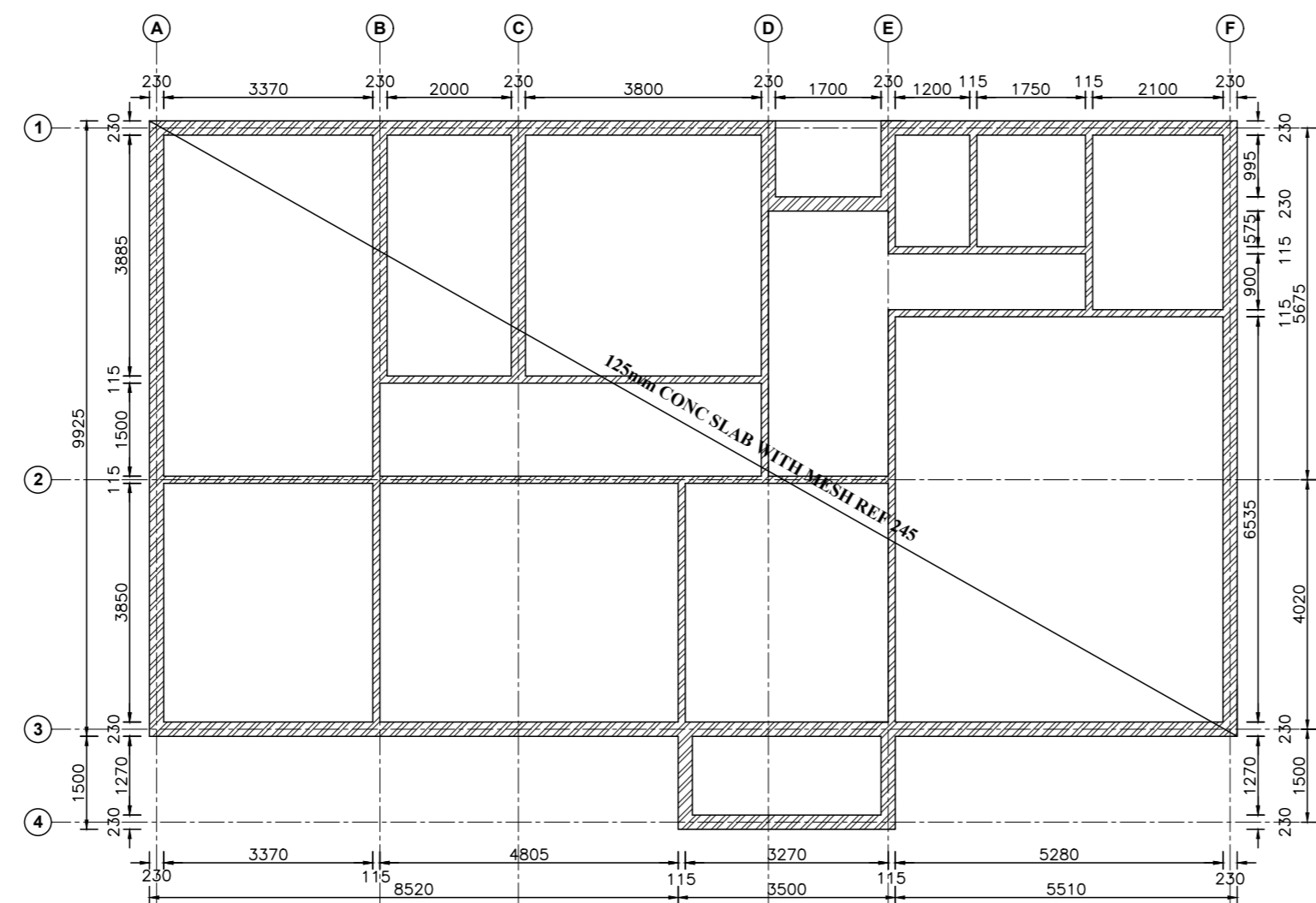
4 CLASSROOM BLOCK STRUCTURAL DETAIL

ISSUED FOR TENDER (Full Signature)	2016 / /	SHEET 1 OF 1
For Department of Public Works	2016 / /	SCALE: AS SHOWN
For Consultant	2016 / /	DRAWING NUMBER: STR-002-BOS-201/1
CONSULTANT DRAWING NUMBER: STR-002-BOS-201/1		STR-005-BOS-201/1



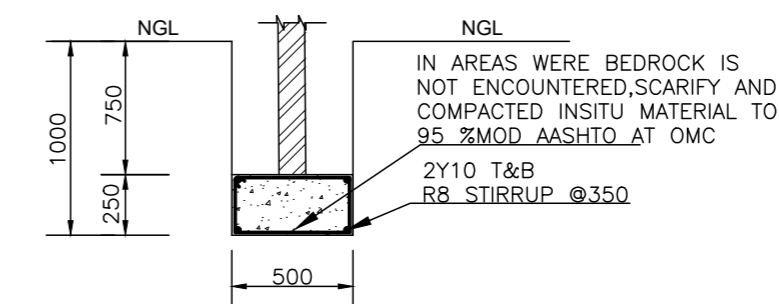
GROUND LAYOUT

Scale 1:100



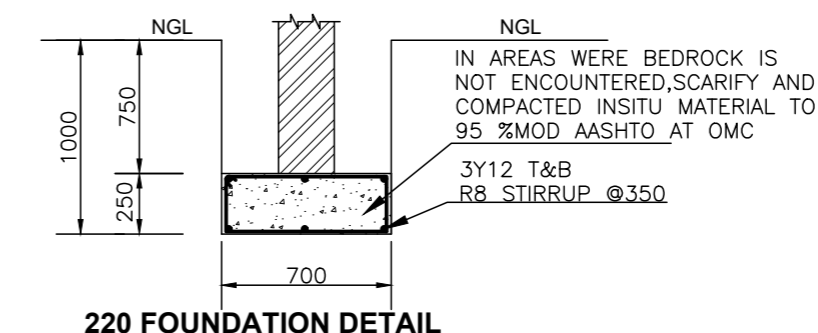
FOUNDATION LAYOUT

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110 WALL FOUNDATION DETAIL

Scale 1:20

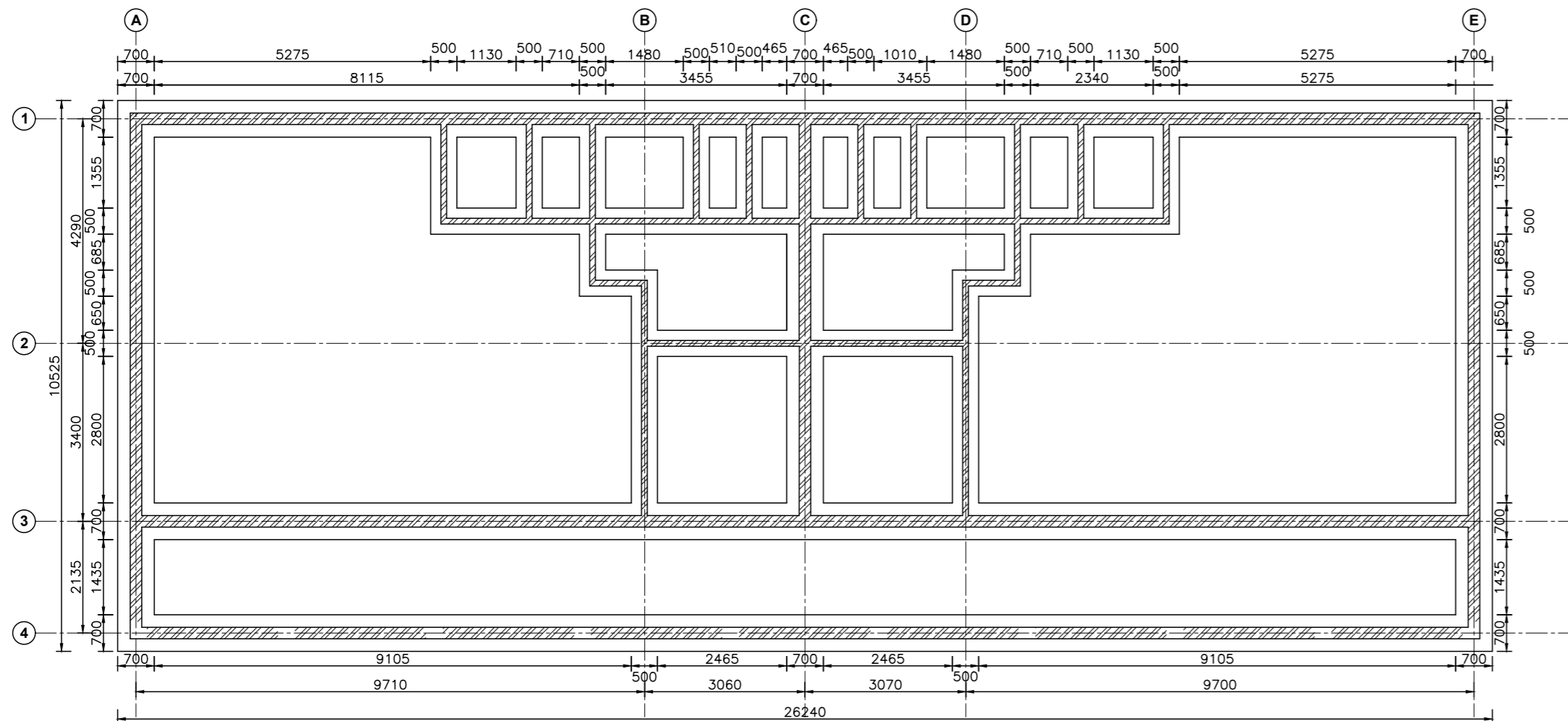


220 FOUNDATION DETAIL

Scale 1:20

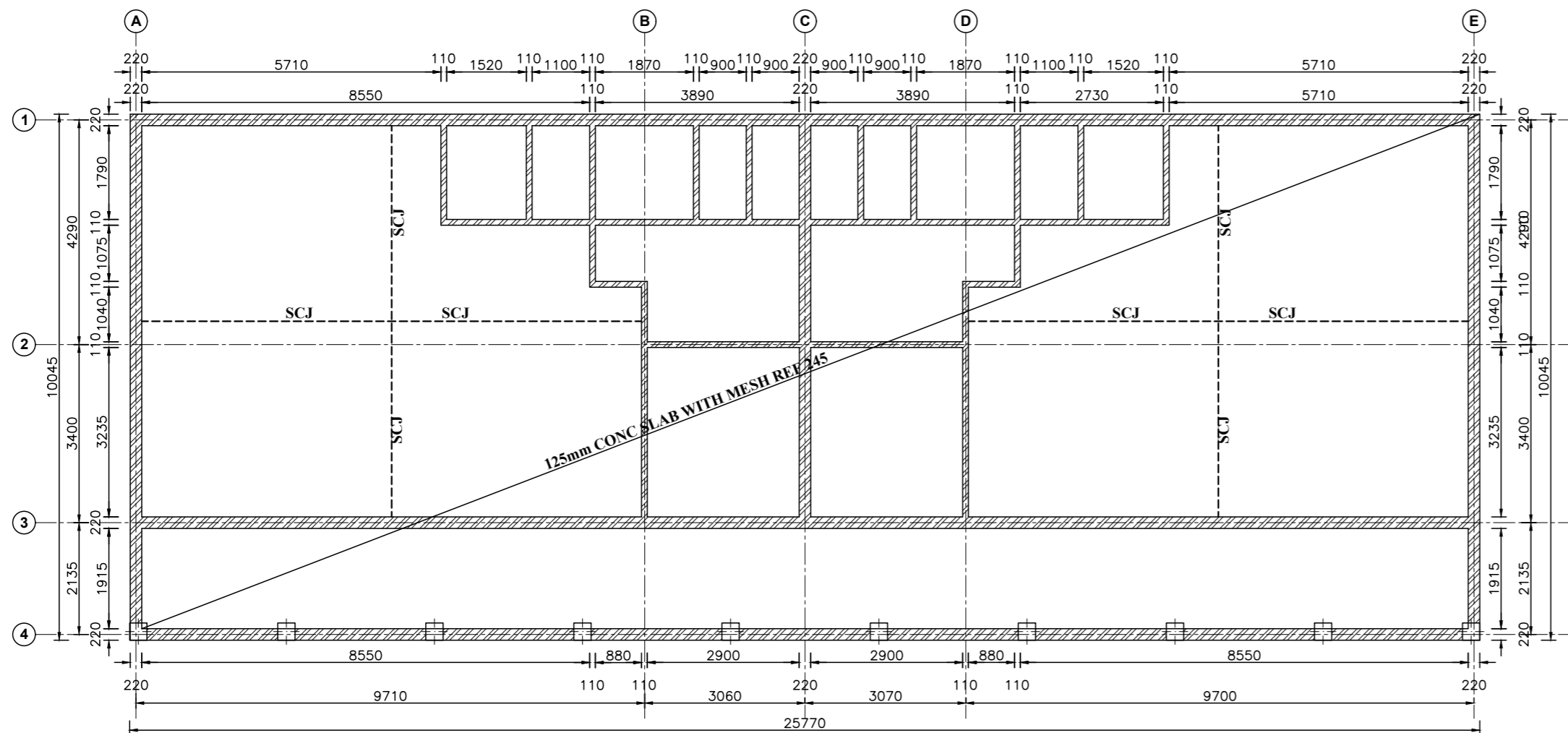
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 - B2 SECOND LOWEST OF THE BOTTOM LAYER.
 - FINISHES:**
 - ALL VISIBLE CORNERS ON FLOORS, RINGBEAMS, ETC. TO BE CHAMFERED 20X20MM UNLESS OTHERWISE SPECIFIED.
 - ALL VISIBLE CONCRETE SURFACES TO BE EXTRA SMOOTH AND SHUTTER JOINTS RUBBED WITH CARBORUNDUM BLOCKS.
 - CONCRETE CURING:**
 - ALL CONCRETE TO BE CURED BY KEEPING MOIST FOR AT LEAST 14 DAYS AFTER CASTING.
 - 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.
 - STRUCTURAL STEELWORK:**
 - 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 SABS 1431.
 - 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.
 - CORROSION PROTECTION(STRUCTURAL STEEL)**
 - ALL SURFACES TO BE PAINTED MUST BE FREE OF MILL SCALE, CORROSION, GREASE, DUST ETC.
 - 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.
 - ASSEMBLY AND ALIGNMENT(STRUCTURAL STEEL)**
 - ALL STRUCTURAL MEMBERS MUST BE TEMPORARILY BRACED OR PROPPED DURING ERECTION, SUFFICIENT TO ENSURE TO ENSURE THE STABILITY OF THE STRUCTURE AT ALL TIME.
 - 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.
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		DESIGNED BY	NTB	<p>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</p>		<p>Head Office LOWFLOW CONSTRUCTION & ENGINEERING 26 Peace Street Tzaneen 0850 Tel: 060 311 2170 Fax: 086 541 9992 E-mail: lowflowsa@gmail.com</p>		CONTRACT NO.: LDPW.PROF/11026		ISSUED FOR TENDER (Full Signature)		SHEET 1 OF 1					
		CHECKED BY	TM					CHIEF ENGINEER (LDPW/PROF)		DATE		VUTVI PRIMARY SCHOOL		2016 / /		SCALE: AS SHOWN	
		DRAWN BY	NTB					CONSULTANT ENGINEER		DATE		ADMINISTRATION BLOCK STRUCTURAL DETAIL		2016 / /		DRAWING NUMBER: STR-001-BOS-201/1	
		CHECKED BY	TM														
		APPROVED & ADOPTED BY	NTB														
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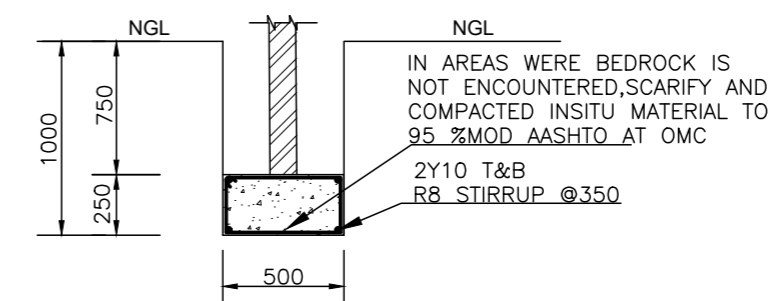
FOUNDATION LAYOUT

Scale 1:100



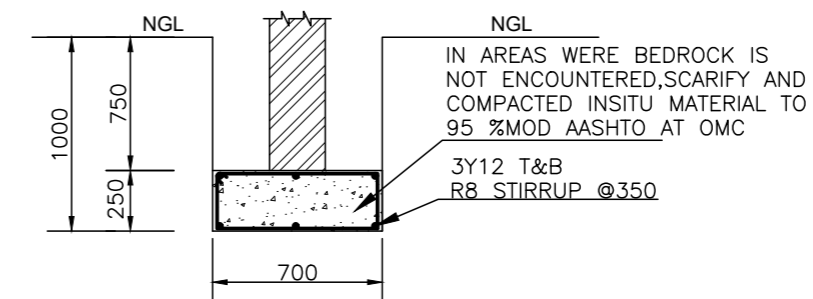
GROUND LAYOUT

Scale 1:100



110 WALL FOUNDATION DETAIL

Scale 1:20



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.
 - ALL LEVELS AND DIMENSIONS TO BE VERIFIED ON SITE PRIOR COMMENCEMENT OF ANY WORK, AND THE ENGINEER TO BE NOTIFIED IN CASE OF DISCREPANCIES.
 - ALL CIVIL WORK TO BE DONE ACCORDING TO SABS 1200 STANDARDS.
 - 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-COMPLIANCE.
 - CONCRETE:**
 - ALL REINFORCED CONCRETE DESIGNED ACCORDING TO SABS 0100: PART 1-1980
 - ALL CONCRETE WORK TO BE DONE ACCORDING TO SABS 0100: PART 2-1980
 - CONCRETE STRENGTH @ 28 DAYS:
 - STRIP FOUNDATION -30MPa
 - SURFACE BED -25MPa
 - SLABS AND BEAMS -30MPa
 - COLUMNS & BASES -30MPa
 - 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:
 - 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.
 - 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.
 - 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 COMPOUNDS.
 - 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.
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APPROVED & ADOPTED BY	NTB

DEPARTMENT OF PUBLIC WORKS

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CHIEF ENGINEER (LDPW/MS)	DATE
CONSULTING ENGINEER	DATE

CONTRACT NO.: LDPW.PROF/11026
VUTVI PRIMARY SCHOOL
GRADE R CLASSROOM BLOCK STRUCTURAL DETAIL

ISSUED FOR TENDER (Full Signature)	2016 / /	SHEET 1 OF 1
For Department of Public Works	2016 / /	SCALE: AS SHOWN
For Consultant	2016 / /	DRAWING NUMBER: STR-002-BOS-201/1
CONSULTANT DRAWING NUMBER: STR-002-BOS-201/1		STR-005-BOS-201/1