



**KAVANGO EAST REGIONAL COUNCIL
DIRECTORATE OF EDUCATION, ARTS AND CULTURE**

REQUEST FOR SEALED QUOTATION FOR WORKS

FOR

**CONSTRUCTION OF CLAS (THREE CLASSROOM AND STORE)
DIVUNDU COMBINED SCHOOL**

Procurement Reference No: W/RFQ/DOEAC-KERC/107/33/2023/2024

Cost: None

Bidder:.....

Address:.....

Tel:.....

Email Address:.....

Bid Price:.....



KAVANGO EAST REGIONAL COUNCIL DIRECTORATE OF EDUCATION, ARTS AND CULTURE

Letter of Invitation

08 May 2023

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

Procurement Reference No: W/RFQ/DOEAC-KERC/107/33/2023/2024

CONSTRUCTION OF CLA3S (THREE CLASSROOM AND STORE) DIVUNDU COMBINED SCHOOL

Dear Sir/Madam

The Kavango East Regional Council - Directorate of Education, Arts and Culture, will provide you with specification for the items described in details.

Any resulting contract shall be subject to the terms and conditions referred to in the document.

Queries, if any, should be addressed to Mr. V. S. Martin @ 0662589017 for Technical issues and Mr. J Kangumbe @ 066266000 for administrative issues during working hours from 0800 to 1700hours.

Please prepare and submit your quotation in accordance with the specifications and instructions given or inform the undersigned if you will not be submitting a quotation.

Yours faithfully,

.....
Mr. J.M. Kangumbe

Head: Procurement Management Unit



08/05/2023
Date

SECTION I: INSTRUCTIONS TO BIDDERS

1. Rights of Public Entity

Kavango East Regional Council – Directorate of Education, Arts and Culture reserves the right:

- (a) to split the contract as per the lowest evaluated cost per lot; and
- (b) to accept or reject any quotation or to cancel the quotation process and reject all quotations at any time prior to contract award.

2. Preparation of Quotations

You are requested to quote for the works mentioned in Section III, by completing, signing and returning:

- (a) the Quotation Letter in Section II with its annex for Bid Securing Declaration, where applicable;
- (b) the Priced Activity Schedule in Section IV;
- (c) the Specifications and Compliance Sheet in Section V; and
- (d) any other attachment as deemed appropriate

You are advised to carefully read the complete Request for Quotations document, including the Special Conditions of Contract in Section VII, before preparing your Quotation. The standard forms in this document may be retyped for completion but the Bidder is responsible for their accurate reproduction.

NB! Please take note that those already awarded Construction contracts during 2022/2023 Financial Year by the Kavango East Regional Council will not be considered for award

3. Validity of Quotations

The quotation validity period shall be **90 days** from the date of bid submission deadline.

4. Eligibility Criteria

To be eligible to participate in this Quotation exercise, you should:

- (a) **have a valid copy of company Registration Certificate;**
- (b) **have a valid original/certified copy of good Standing Tax Certificate;**
- (c) **have a valid original/certified copy of good Standing Social Security Certificate;**
- (d) **have a valid certified copy of Affirmative Action Compliance Certificate, proof from Employment Equity Commissioner that bidder is not a relevant employer, or exemption issued in terms of Section 42 of the Affirmative Action Act, 1998;**
- (e) **have a valid certified copy of SME Certificate Indicating SME Status**
- (f) **Written undertaking in terms of section 138 of Labour Act, 2015 and section 50(2)(D) of the Public Procurement Act, 2015 and that it will abide to sub-clause 4.6 of the General conditions of Contract if it is awarded the contract or part thereof;**

(g) **Certified Copy of the National Identity Document.** In case the company is owned by more than one person, all of them should submit certified copy of National Identity Document.

(h) **Site Foreman to supervise the works must have experience in related works for at least two projects (attach complete curriculum vitae, list of projects with testimonials accompanied with contact details).** Where the owner indicates that he/she will be the site Forman, he/she should attach the same.

(i) **Electrician to do the works MUST attach valid certified NORED Licence. NB: The same licence to be availed during construction and practical completion as well as issuance of certificate of compliance**

(j) **Section 66 (2B) (A) of the Public Procurement Amendment Act of 2022 shall apply.**

(k) **Provide Company experience in related works for at least two projects**

Other additional eligible criteria

1. Document to be completed with black ink only
2. No eraser fluid (tippex) to be used
3. All pages to be initialled and signed where applicable
4. All corrections must be initialled

5. Bid Securing Declaration

Bidders are required to subscribe to a Bid Securing Declaration for this procurement process.

6. Works Completion Period

The completion period for works shall be **four (4) months** after acceptance and issue of Purchase Order. Deviation in completion period shall not be accepted

Sealing and Marking of Quotations

Quotations should be sealed in a single envelope, clearly marked with the Procurement Reference Number, addressed to the Public Entity with the Bidder's name at the back of the envelope.

7. Submission of Quotations

Quotations should be deposited in the Quotation/Bid Box located at **Kavango East Regional Council, Rundu, for Attention Procurement Management Unit not later than 19 May 2023 at 11H00.** Quotations by post or hand delivered should reach this office by the same date and time at latest. Late quotations will be rejected. Quotations received by e-mail will not be considered.

8. Opening of Quotations

Quotations will be opened internally by the Public Entity immediately after the closing time referred to in section 7 above. A record of the Quotation Opening stating the name of the bidders, the amount quoted the presence or absence of a Bid Securing Declaration. Opening register will be made available on request after three days of opening.

9. Evaluation of Quotations

The Public Entity shall have the right to request for clarifications in writing during evaluation. Offers that are substantially responsive shall be compared on the basis of evaluated cost, subject to Margin of Preference where applicable, to determine the lowest evaluated quotation.

10. Technical Compliance

The Specifications and Compliance Sheet details the minimum specifications of the works to be carried out. The specifications have to be met, but no credit will be given for exceeding the specifications.

11. Prices and Currency of Payment

Prices for the execution of works shall be fixed in Namibian Dollars as quoted.

Quotations shall cover all costs of labour, materials, equipment, overheads, profits and all associated costs for performing the works, and shall include all duties. The whole cost of performing the works shall be included in the items stated, and the cost of any incidental works shall be deemed to be included in the prices quoted.

12. Margin of Preference

12.1 Not applicable to this Bid.

13. Award of Contract

The Bidder having submitted the lowest evaluated responsive quotation and qualified to perform the works shall be selected for award of contract. Award of contract shall be by issue of a Purchase Order/Letter of Acceptance in accordance with terms and conditions contained in Section VI: Contract Agreement and General Conditions of Contract.

SECTION II: QUOTATION LETTER

(to be completed by Bidders)

[Complete this form with all the requested details and submit it as the first page of your quotation with the Priced Activity Schedule and documents requested above. A signature and authorisation on this form will confirm that the terms and conditions of the RFQ prevail over any attachments. **If your quotation is not authorised, it will be rejected.**

Quotation addressed to:	
Procurement Reference Number:	
Subject matter of Procurement:	

We offer to execute the Works detailed in the Statement of Requirements, in accordance with the terms and conditions stated in your Request for Sealed Quotations referenced above.

We confirm that we are eligible to participate in this Quotation exercise and meet the eligibility criteria specified in Section 1: Instructions to Bidders

We undertake to abide by the Conduct of Bidders and Suppliers as provided under the Public Procurement Act during the procurement process and the execution of any resulting contract.

We have read and understood the content of the Bid Security/Bid Securing Declaration (BSD) attached hereto and subscribe fully to the terms and conditions contained therein. We further understand that this subscription could lead [forfeiture of the security amount / disqualification on the grounds mentioned in the BDS]

The validity period of our Quotation is _____ days *[insert number of days]* from the date of the bid submission deadline.

We confirm that the prices quoted in the Priced Activity Schedule are fixed and firm and will not be subject to revision or variation, if we are awarded the contract **prior to the expiry** date of the quotation validity.

Works will commence within _____ *[insert number]* days from date of issue of Purchase Order/ Letter of Acceptance.

Works will be completed within _____ *[insert number]* days from date of issue of Purchase Order/ Letter of acceptance.

Quotation Authorised by:

Name of Bidder		Company's Address and seal	
Contact Person			
Name of Person Authorising the Quotation:		Position:	Signature:
Date		Phone No./E-mail	

BID SECURING DECLARATION
(Section 45 of Act) (Regulation
37(1) (b) and 37(5))

Date:
[Day | month | year]

Procurement Ref No.: W/RFQ/DOEAC-KERC/107/33/2022/2023

To: Kavango East Regional Council – Directorate of Education, Arts and Culture

I/We* understand that in terms of section 45 of the Act a public entity must include in the bidding document the requirement for a declaration as an alternative form of bid security.

I/We* accept that under section 45 of the Act, I/we* may be suspended or disqualified in the event of

- (a) a modification or withdrawal of a bid after the deadline for submission of bids during the period of validity;
- (b) refusal by a bidder to accept a correction of an error appearing on the face of a bid;
- (c) failure to sign a procurement contract in accordance with the terms and conditions set forth in the bidding document, should I/We* be successful bidder; or
- (d) failure to provide security for the performance of the procurement contract if required to do so by the bidding document.

I/We* understand this bid securing declaration ceases to be valid if I am/We are* not the successful Bidder

Signed:
[insert signature of person whose name and capacity are shown]

Capacity of:
[indicate legal capacity of person(s) signing the Bid Securing Declaration]

Name:
[insert complete name of person signing the Bid Securing Declaration]

Duly authorized to sign the bid for and on behalf of:
[insert complete name of Bidder]

Dated on _____ day of _____
[insert date of signing]

Corporate Seal (where appropriate)

[Note*: In case of a joint venture, the bid securing declaration must be in the name of all partners to the joint venture that submits the bid.]



Republic Of Namibia

Ministry of Labour, Industrial Relations and Employment Creation

Witten undertaking in terms of section 138 of the Labour Act, 2015 and section 50(2)(D) of the Public Procurement Act, 2015

1. EMPLOYERS DETAILS

Company Trade Name:.....

Registration Number :.....

Vat Number:

Industry/Sector:

Place of Business:.....

Physical Address:.....

Tell No.:.....

Fax No.:.....

Email Address:.....

Postal Address:.....

Full name of Owner/Accounting Officer:.....

.....

Email Address:.....

2. PROCUREMENT DETAILS

Procurement Reference No.:

Procurement Description:

.....

.....

Anticipated Contract Duration:

Location where work will be done, good/services will be delivered:

.....

3. UNDERTAKING

I

[insert full name], owner/representative

of

[insert full name of company]

hereby undertake in writing that my company will at all relevant times comply fully with the relevant provisions of the Labour Act and the Terms and Conditions of Collective Agreements as applicable.

I am fully aware that failure to abide to such shall lead to the action as stipulated in section 138 of the labour Act, 2007, which include but not limited to the cancellation of the contract/licence/grant/permit or concession.

Signature:

Date:

Seal:.....

Please take note:

- 1. A labour inspector may conduct unannounced inspections to assess the level of compliance*
- 2 This undertaking must be displayed at the workplace where it will be readily accessible and visible by the employees rendering service(s) in relations to the goods and services being procured under this contract*

A. SCOPE OF WORKS, SPECIFICATIONS AND PERFORMANCE REQUIREMENTS

B. BILL OF QUANTITY IS ATTACHED

SECTION IV: PRICED ACTIVITY SCHEDULE

Procurement Reference Number: **W/RFQ/DOEAC-KERC/107/33/2023/2024**

[Complete the unit and total prices for each item listed below. Authorise the prices quoted in the signature block below.]

The quantities shown below are approximate and not subject to re-measurement for payment purposes.

Item No	Brief Description of Works	Quantity	Unit of Measure	Unit Price (N\$)	Total Price (N\$)
A*	B*	C*	D*	E	F
1	CONSTRUCTION OF CLA3S (THREE CLASSROOM AND STORE) DIVUNDU COMBINED SCHOOL AS PER ATTACHED BILL OF QUANTITY	1			
Enter 0% VAT rate if VAT exempt.				Subtotal	
				VAT @ 15 %	
				Total	

*Columns A to D to be completed as applicable by the Public Entity

Priced Activity Schedule Authorised By:

Name:		Signature:	
Position:		Date:	
Authorised for and on behalf of:	Company		

SECTION V: SPECIFICATIONS AND COMPLIANCE SHEET

Procurement Reference Number: **W/RFQ/DOEAC-KERC/107/33/2023/2024**

[Bidders should complete columns C and D with the specifications and performance of the Works offered. Also state “comply” or “not comply” and give details of any non-compliance/deviation to the specifications required. Attach detailed technical literature if required. Authorise the specifications offered in the signature block below]

Item No	Specifications and Performance Required	Compliance of Specifications and Performance Offered	Details of Non-Compliance/ Deviation (if applicable)
<i>A*</i>	<i>B*</i>	<i>C</i>	<i>D</i>
1	CONSTRUCTION OF CLA3S (THREE CLASSROOM AND STORE) DIVUNDU COMBINED SCHOOL AS PER ATTACHED BILL OF QUANTITY		

* Columns A and B to be completed by Public Entity.

Specifications and Compliance Sheet Authorised By:

Name:		Signature:	
Position:		Date:	
Authorised for and on behalf of:		Company	

SECTION VI: GENERAL CONDITIONS OF CONTRACT AND CONTRACT AGREEMENT

Any resulting contract shall be placed by means of a Purchase Order/Letter of Acceptance and shall be subject to the General Conditions of Contract (GCC) for the **Procurement of works – Ref. W/RFQ/DOEAC-KERC/107/33/2023/2024**

SECTION VIII SPECIAL CONDITIONS OF CONTRACT

Procurement Reference Number: **W/RFQ/DOEAC-KERC/107/33/2023/2024**

The clause numbers given in the first column correspond to the relevant clause number of the General Conditions of Contract.

GCC Clause Reference	Special Conditions
Employer GCC 1.1(r)	Kavango East Regional Council – Directorate of Education, Arts and Culture
Intended Completion Date GCC	The intended completion date is: September 2024
Project Manager GCC 1.1(y)	The Project Manager is: Mr. G. Sikoka
Site GCC 1.1(aa)	The site is at: DIVUNDU COMBINED SCHOOL
Start Date GCC 1.1(dd)	The Start Date shall be: June 2023
The Works GCC 1.1(hh)	The Works consist of: CONSTRUCTION OF CLA3S DIVUNDU COMBINED SCHOOL
Interpretation GCC 2.2	The project will be completed in the following sections: Four (4) Months
Interpretation GCC2.3	The following additional documents shall form part of the contract: Bill of Quantity, Standard Drawings, Purchase Order and appointment letter
Language and Law GCC 3.1	The language of the contract is English The law that applies to the Contract is the law of Namibia.
Project Manager's	The Project Manager shall obtain specific approval from the Employer before carrying out any of his duties under the Contract which in the Project Manager's

GCC Clause Reference	Special Conditions
Decisions 4.1	opinion will cause the amount finally due under the Contract to exceed the Contract Price or will give entitlement to extension of time. This requirement shall be waived in an emergency affecting safety of personnel or the Works or adjacent property.
Delegation GCC 5.1	The Project Manager may delegate his/her duties.
Notices GCC 6	<p>Any notice shall be sent to the following addresses:</p> <p>For the Employer, the address shall be as given on the page 2 of this Bidding Document and the contact name shall be</p> <p>Ms. Ludgela Nangura P/bag 2124, Rundu</p> <p>For the Contractor, the address shall be as given on the first page of the Purchase Order/Letter of Acceptance and the contact name shall be</p> <p>_____</p> <p>_____</p>
Insurance GCC 13.1	Not applicable
Site Date GCC 14.1	Not applicable
Possession of the Site GCC 20.1	The Site Possession Date shall be: June 2023
Procedure for Disputes GCC 24	No Adjudicator shall be appointed under the contract and arbitration shall not apply. If any dispute arises between the Employer and the Contractor in connection with or arising out of the Contract, the parties shall seek to resolve any such dispute by amicable agreement. If the parties fail to resolve such dispute by amicable agreement, within 14 days after one party has notified the other in writing of the dispute, then the dispute shall be referred to court by either party.
Program GCC 25.1	The Contractor shall submit for approval a Program for the Works within 5 days from the date of the Letter of Acceptance or issue of Purchase Order Agreement.
GCC 25.3	Program updates shall be required.
Defects Liability Period GCC 33.1	The Defects Liability Period is: 12 Months.
Payment Certificates GCC 39.7	Payment shall be made as per progress of works

GCC Clause Reference	Special Conditions
Payments GCC 40	The amount certified by the Project Manager shall be paid in full within 30 days of receipt by the Employer of an invoice, supported by: (a) the payment certificate; and (b) a certificate of Completion of the Works.
Adverse weather Conditions GCC 41.1 (l)	Rain, Storm, Flood
Price Adjustment GCC 44.	The Contract is not subject to price adjustment.
Retention GCC 45.	(ii) 5% of the amount shall be retained from any payment. Half of the retention money will be released after formal taking over of the Works and the remaining shall be released after the Defect Liability Period subject to the Contractor making good all defects.*
Liquidated Damages GCC 46.1	5% of the amount shall be retained from the total amount per day as penalties
Bonus GCC 47.1	Not applicable
Advance Payment GCC 48.1	No advance payment shall be made
Performance Security GCC 49.1	Not applicable
GCC 56.1	Not applicable
GCC 59.1	Not applicable

QUOTATION CHECKLIST SCHEDULE

Procurement Reference No.: W/RFQ/DOEAC-KERC/107/33/2023/2024

Description	Attached	Not Attached
Bid Letter		
List of Goods and Price Schedule		
Specification and Compliance Sheet		
Bid Securing Declaration		
Quotation		
Valid Original or Certified Good Standing Tax Certificate		
Valid Original or Certified Good Standing Social Security Certificate		
Valid Company Registration		

Disclaimer: The list defined above is meant to assist the Bidder in submitting the relevant documents and shall not be a ground for the bidder to justify its non-submission of major documents for its quotation to be responsive. The onus remains on the Bidder to ascertain that it has submitted all the documents that have been requested and are needed for its submission to be complete and responsive.

BILLS OF QUANTITIES

FOR: CLA 3 S (THREE CLASSROOM BLOCK AND STORE) AT DIVUNDU C.S

NOTES:

1. Please take note that this two classroom block is based on drawings and specifications as attached
2. Items have been coded for procurement for three class room block (CLA3S) at Divundu C.S
3. Descriptions and specifications in the Bill of Quantity to be read in conjunction with the drawings
4. Some descriptions and specifications on the drawings have been replaced as indicated in the Bill of Quantity. Bidders are hereby advised to ignore the information on the drawings which have been changed. Information regarding soil conditions, the supply and availability of water and electricity is responsibility of the contractor.
All unforeseen items to be measured and adjusted by the client's representative in this regard to reflect "as per built in" project upon completion of construction.

A contingency allowance has been made to cover unforeseen items, but will be reviewed assessed by client representative. But will have to be reviewed by the client representative once the construction process commences

Item No	Quantity	Rate	Amount
<u>SECTION NO. 1</u>			
<u>BILL NO. 1</u>			
<u>FOUNDATIONS (PROVISIONAL)</u>			
For Preambles refer to "Model Preambles for Trades"			
<u>SUPPLEMENTARY PREAMBLES</u>			
<u>Nature of ground</u>			
The nature of the ground is loose sandy material, therefore "earth"			
<u>Earth</u>			
All material which is pickable or which can be excavated by means of a backactor (complete with all equipment and accessories and in good condition, producing not less than 57kw (gross) at the flywheel and with a bare tractor mass of not less than 7900kg, equipped with 600mm wide bucket with matching teeth) will be classified as "earth". All boulders not exceeding 0,3m3 in volume will also be classified as "earth"			
<u>Soft rock</u>			
All material which can not be removed as described above, but the removal of which necessitates the use of jack hammers withmoil points, will be classified as "soft rock"			
<u>Hard rock</u>			
All very hard material which can not be removed as described above, but the removal of which necessitates the use of explosives or heavy duty hydraulic percussion hammers (peckers), will be classified as "hard rock"			
<u>Risk of collapse</u>			
No risk of collapse will be measured or paid. It is the responsibility of the Contractor to ensure that the sides of the excavations are supported and that they do not collapse. In the event of the sides of the excavations collapsing, the Contractor must at his own cost remove all loose material and compact the bottoms of the trenches, holes, etc.			
Carried to Collection			
Section No. 1		N\$	
Bill No. 1			
Foundations (Provisional)			
REVISED MODULES (2008)			

Carting away of excavated material

Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site

Concrete

Prices for concrete cast against excavated surfaces shall include for casting against all types of material in the excavations and shall include for additional concrete required in filling to irregularities.

Formwork

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"

EARTHWORKS**EXCAVATION, FILLING, ETC****Excavation in earth exceeding 1m deep for:**

1	Trenches and holes	m3	45
	<u>Selected earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO density in layers not exceeding 150mm</u>		
2	Under floors, steps, pavings, etc	m3	17
	<u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 98% Mod AASHTO density in layers not exceeding 150mm</u>		
3	Backfilling to trenches, holes, etc	m3	22

Carried to Collection**N\$**

Section No. 1
 Bill No. 1
 Foundations (Provisional)
 REVISED MODULES (2008)

<u>Earth filling supplied by the Contractor compacted to 93% Mod AASHTO density in layers not exceeding 150mm</u>		
4	Under floors, steps, pavings, etc	m3 43
<u>Coarse river sand filling supplied by the contractor</u>		
5	Approved clean earth filling laid over poisoned areas under floors	m3 9
<u>Compaction of surfaces</u>		
6	Compaction of ground surface under apron slabs, ramps, etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting at Optimum Moisture Content (OMC) to 90% Mod AASHTO density	m2 104
<u>CARTING AWAY</u>		
<u>Extra over all excavations for loading, carting and dumping surplus excavated material :</u>		
7	Off site to a dumping ground to be located by the Contractor	m3 6
<u>SOIL POISONING</u>		
<u>"Shell-Chem" or other approved anti-termite chemical soil poison</u>		
8	Under floors, etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m2 172
9	To bottoms and sides of trenches, etc	m2 191
<u>CONCRETE, FORMWORK AND REINFORCEMENT</u>		
<u>UN-REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u>		
<u>25MPa/19mm concrete in:</u>		
10	Strip footings	m3 13
<u>STEEL REINFORCEMENT</u>		

Carried to Collection

N\$

Section No. 1
 Bill No. 1
 Foundations (Provisional)
 REVISED MODULES (2008)

High tensile steel reinforcement to structural concrete work

11	12mm Diameter bars	kg	448
12	10mm Diameter bars	kg	186

BRICKWORK**Brickwork in 7 MPa cement bricks in Class I mortar**

13	Half brick walls	m2	13
14	One brick walls	m2	65

BRICKWORK SUNDRIES**Brickwork reinforcement**

15	75mm Wide reinforcement built in horizontally	m	156
16	150mm Wide reinforcement built in horizontally	m	770

Carried to Collection

Section No. 1
 Bill No. 1
 Foundations (Provisional)
 REVISED MODULES (2008)

N\$

Section No. 1

Bill No. 1

Foundations (Provisional)

COLLECTION

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Foundations (Provisional)

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Item
No

Quantity

Rate

Amount

SECTION NO. 1**BILL NO. 2****CONCRETE, FORMWORK AND
REINFORCEMENT**

For Preambles refer to "Model Preambles for Trades"

SUPPLEMENTARY PREAMBLES**Cost of tests**

The costs of making, storing and testing of concrete test cubes as required under clause 7 "Tests" of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the Engineer. The testing shall be undertaken by an independent firm or institution nominated by the Contractor to the approval of the Engineer. (Test cubes are measured separately)

Formwork

Description of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before re-use

Formwork to soffits of solid slabs, etc shall be deemed to be slabs not exceeding 250mm thick unless otherwise described

Formwork to sides of bases, pile caps, ground beams, etc will only be measured where it is prescribed by the Engineer for design reasons. Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in "Earthworks"

UNREINFORCED CONCRETE

Carried to Collection

N\$

Section No. 1
Bill No. 2
Concrete, Formwork & Reinforcement
REVISED MODULES (2008)

25MPa/19mm concrete in:

1	Surface beds cast in panels on waterproofing	m3	17
2	Apron slabs and ramps cast in panels	m3	10
3	Extra for thickening out 100mm thick apron slab to form toe size 200mm x 400mm deep overall tapering to 150mm wide x 400mm deep overall with one chamfered edge including all necessary excavation, formwork and dressing of damp proof material around same as required	m	75

REINFORCED CONCRETE**25MPa/19mm concrete in:**

4	Pockets	m3	4
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TEST BLOCKS**Test Cubes**

The costs of making, storing and testing of concrete test cubes as required under clause 7 "Tests" of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the Department of Works. The testing shall be undertaken by an independent firm or institution nominated by the contractor to the approval of the Department of Works.

5	Making and testing 150 x 150 x 150mm concrete strength test cube	No	12
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CONCRETE SUNDRIES**Finishing top surfaces of concrete smooth with a wood float**

6	Ramps, aprons, etc to falls	m2	104
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Finishing top surfaces of concrete smooth with a wood float

7	Surfacebeds, slabs, etc	m2	172
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ROUGH FORMWORK (DEGREE OF ACCURACY II)

Carried to Collection

Section No. 1
Bill No. 2
Concrete, Formwork & Reinforcement
REVISED MODULES (2008)

N\$

Rough formwork not exceeding 3,5m high to sides of:

8	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	76
9	Both exposed sides of pockets in one brick recess size 450mm x 4 courses high overall	No	16

MOVEMENT JOINTS, ETC

One layer of 250 micron "USB Green" or similar approved waterproof sheeting in slip joints between horizontal concrete and steel surfaces

10	In short lengths not exceeding 300mm wide	m	2
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Vertical construction joints through concrete

11	Surface beds and/or apron slabs not exceeding 300mm thick	m	36
----	---	---	----

Saw cut joints

12	3mm x 50mm Saw cut joints in top of concrete	m	45
----	--	---	----

Carried to Collection

Section No. 1
 Bill No. 2
 Concrete, Formwork & Reinforcement
 REVISED MODULES (2008)

N\$

Section No. 1

Bill No. 2

Concrete, Formwork & Reinforcement

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Section No. 1

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Concrete, Formwork & Reinforcement
REVISED MODULES (2008)

N\$

Item No		Quantity	Rate	Amount
	<u>SECTION NO. 1</u>			
	<u>BILL NO. 3</u>			
	<u>MASONRY</u>			
	For Preambles refer to "Model Preambles for Trades"			
	<u>BRICKWORK</u>			
	<u>Sizes in descriptions</u>			
	Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick			
	<u>Brickwork in 7 MPa cement bricks in Class II mortar</u>			
1	Half brick walls	m2	38	
2	One brick walls	m2	169	
3	Half brick walls in beamfilling	m2	12	
	<u>BRICKWORK SUNDRIES</u>			
	<u>Joint forming material in movement joints</u>			
4	10mm Thick bitumen impregnated softboard expansion joint filling built through brick walls	m2	1	
	<u>Brickwork reinforcement</u>			
5	75mm Wide reinforcement built in horizontally	m	111	
6	150mm Wide reinforcement built in horizontally	m	754	
	<u>Prestressed fabricated lintels</u>			
7	110mm x 75mm Lintels in lengths not exceeding 3m	m	66	
	<u>Brick-on-edge header course copings, sills, etc</u>			
8	220mm Wide sill set sloping and slightly projecting	m	24	
	Carried to Collection			
	Section No. 1		N\$	
	Bill No. 3			
	Masonry			
	REVISED MODULES (2008)			

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Section No. 1

Bill No. 3

Masonry

COLLECTION

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Section No. 1

Bill No. 3

Masonry

REVISED MODULES (2008)

N\$

Item No		Quantity	Rate	Amount
<u>SECTION NO. 1</u>				
<u>BILL NO. 4</u>				
<u>WATERPROOFING</u>				
For Preambles refer to "Model Preambles for Trades"				
<u>DAMPPROOFING OF WALLS AND FLOORS</u>				
<u>One layer of 375 micron "Brikgrip DPC" or similar approved embossed damp proof course</u>				
1	In walls	m2	17	
<u>One layer of 250 micron "USB Green" or other similar waterproof sheeting sealed at laps with "Pressure Sensitive Tape" or similar approved</u>				
2	Under surface beds, apron slabs, etc	m2	172	
<u>JOINT SEALANTS, ETC</u>				
<u>Approved polyurethane sealing compound including backing cord, bond breaker, primer, etc</u>				
3	6mm x 20mm In saw cut joints in floors	m	45	
4	10mm x 20mm In vertical expansion joints including raking out 20mm softboard in joints as necessary	m	11	
Carried Forward to Summary of Section No. 1			N\$	
Section No. 1				
Bill No. 4				
Waterproofing				
REVISED MODULES (2008)				

Item No		Quantity	Rate	Amount
	<u>SECTION NO. 1</u>			
	<u>BILL NO. 5</u>			
	<u>ROOF COVERINGS, ETC</u>			
	For Preambles refer to "Model Preambles for Trades"			
	<u>PROFILED METAL SHEETING AND ACCESSORIES</u>			
	<u>0,5mm "IBR" galvanised steel profiled sheeting and accessories fixed to steel/timber purlins in accordance with the manufacturer's instructions</u>			
1	Roof covering in single lengths with pitch not exceeding 25 degrees fixed to steel purlins	m2	274	
2	Standard "IBR" galvanised half-round ridge capping including flute closers both sides	m	25	
	<u>ROOF INSULATION</u>			
	<u>"Sisalation 400" or similar approved industrial grade aluminium foil based insulation</u>			
3	Insulation laid taut over purlins (at approximately 1 200mm centres) and fixed concurrent with roof covering including galvanised steel straining wires	m2	196	
	<u>SUNDRIES</u>			
	<u>Approved oil/gease</u>			
4	Apply one layer approved oil to roof sheeting bedded on brickwork (Provisional)	m2	9	
	Carried Forward to Summary of Section No. 1			
	Section No. 1			N\$
	Bill No. 5			
	Roof coverings			
	REVISED MODULES (2008)			

Item
No

Quantity

Rate

Amount

SECTION NO. 1**BILL NO. 6****CARPENTRY AND JOINERY**

For Preambles refer to "Model Preambles for all Trades"

WALL PROTECTION RAILS, ETC**Supawood**

Refer to Architect's drawing No. F34 when pricing the following bumper rail (the drawing is attached to these Bills of Quantities)

- 1 150mm x 22mm Rebated wall protector rail with exposed rounded edges plugged to brickwork at 450mm centres (finishes elsewhere measured)

m

58

Carried Forward to Summary of Section No. 1

Section No. 1

Bill No. 6

Carpentry & Joinery

REVISED MODULES (2008)

N\$

Item No		Quantity	Rate	Amount
	<u>SECTION NO. 1</u>			
	<u>BILL NO. 7</u>			
	<u>CEILINGS, PARTITIONS AND ACCESS FLOORING</u>			
	For Preambles refer to "Model Preambles for Trades"			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Descriptions</u>			
	Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins or shot pinned to brickwork or concrete			
	Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres, and where described as "bolted" the bolts have been given elsewhere			
	<u>METAL CEILINGS</u>			
	<u>0,5mm Thick "I.B.R" profile "Alu Zinc AZ 185" galvanised sheet steel fixed to steel purlins</u>			
1	Ceilings pop riveted to steel purlins (elsewhere)	m2	175	
	<u>Metal cornice</u>			
2	50mm x 50mm x 3mm x 2,24kg/m Mild steel cornice to suit horizontal ceilings screwed with 6mm diameter x 20mm long stainless steel self-tapping screws to sheet steel ceiling and plugged with 5mm thick sawn softwood spacer to brickwork/concrete at maximum 500mm centres	m	62	
	<u>Sundries</u>			
3	Extra over "I.B.R." ceiling for access hatch 800mm x 800mm formed of 30mm x 30mm x 2,5mm thick mild steel frame filled in with "I.B.R" sheeting and set into 30mm x 30mm x 2,5mm mild steel frame riveted to steel purlin	No	1	
	Carried to Collection			
	Section No. 1		N\$	
	Bill No. 7			
	Ceilings, Partitions & Access flooring			
	REVISED MODULES (2008)			

- 4 Apply one layer approved oil to ceiling sheeting bedded on brickwork

m2

3

Carried to Collection

Section No. 1
Bill No. 7
Ceilings, Partitions & Access flooring
REVISED MODULES (2008)

N\$

Section No. 1

Bill No. 7

Ceilings, Partitions & Access flooring

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Section No. 1

Bill No. 7

Ceilings, Partitions & Access flooring
REVISED MODULES (2008)

N\$

Item No			Quantity	Rate	Amount
	<u>SECTION NO. 1</u>				
	<u>BILL NO. 8</u>				
	<u>IRONMONGERY</u>				
	For Preambles refer to "Model Preambles for Trades".				
	<u>SUPPLEMENTARY PREAMBLES</u>				
	Prices must allow for fixing to timber, steel and plastered or tiled walls as may be necessary.				
	All locks are to have consecutive numbers stamped on the forend and to be supplied with two keys attached to and including an approved chromium plated split ring; in addition prices are to include for the supply of one standard plastic tag key ring with number written on paper strip and one 35mm diameter circular key tags formed of 3mm thick perspex plates engraved in black with 6mm high numerals and letters corresponding with the respective lock numbers, holed for and fitted to split ring.				
	All locks to be fitted with pattern screws.				
	<u>CATCHES, CABIN HOOKS, ETC</u>				
1	"Halcast 166" or similar approved 150mm long brass storm hook and cleat plugged	No	1		
	<u>LOCKS</u>				
	<u>"Union" or other approved</u>				
2	"UN337800000000" or similar approved brass padlock.	No	4		
	<u>LETTERS, NAMEPLATES, ETC</u>				
	<u>1,2mm Thick natural anodised aluminium signage numberplate black engraved in 15mm high "Bold Condensed Helvetica" letters screwed to doors with aluminium counters sunk screws and sealed with approved silicone sealant as follows:</u>				
3	50mm x 25mm with 2 letters and/or numerals	No	5		
	Carried to Collection				
	Section No. 1			N\$	
	Bill No. 8				
	Ironmongery				
	REVISED MODULES (2008)				

1,2mm Thick natural anodised aluminium signage nameplate black engraved in 30mm high "Bold Helvetica" letters screwed to doors with countersunk aluminium screws and sealed with approved silicone sealant as follows:

- 4 300mm x 100mm with 5 letters or numerals

No 1

- 5 360mm x 100mm with 10 letters or numerals

No 3

SUNDRIES

- 6 "Union" AL8730 AS or similar approved 38mm diameter black rubber door stop, plugged

No 4

SHELVES, ETC

"Storage Direct" or other similar approved

- 7 Industrial standard module adjustable bolted shelving unit 914 mm x 305mm x 1 905mm high consisting of four uprights, one top and bottom shelf bay unit (code: BF 2134305 cut to specified height) and five shelves (code BS 305), all inclusive of all corner gussets, nuts and bolts including bolting to similar adjacent bays

No 12

STEEL LOCKERS

"Storage Direct" or other similar steel lockers with standard baked enamel finish

- 8 Standard teacher's cupboard size 900mm x 450mm x 1800mm with four adjustable shelves (code: CU10) fixed to brickwork with 4, 6x4 "Rawl" coach screws

No 3

PINNING BOARDS, WRITING BOARDS, PROJECTION SCREENS, ETC

"Storage Direct" or similar approved

- 9 Steel framed chalkboard (code: SYS 1000) size 2 700mm x 1 140mm with magnetic non-reflective steel surface and aluminium chalk rail, plugged
sys1000

No 3

Carried to Collection

Section No. 1
Bill No. 8
Ironmongery
REVISED MODULES (2008)

N\$

"Vitrex" or similar approved

- 10 Model 2300 "code 2315" aluminium framed pinning board size 1 000mm x 1 200mm high with "misty (light grey)" pinning surface, plugged to wall
- 11 Model 2300 "code 2309" aluminium framed pinning board size 2 400mm x 1 200mm high with "misty (light grey)" pinning surface, plugged to wall

No

6

No

6

Section No. 1
Bill No. 8
Ironmongery
REVISED MODULES (2008)

Carried to Collection

N\$

Section No. 1

Bill No. 8

Ironmongery

COLLECTION

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Section No. 1

Bill No. 8

Ironmongery

REVISED MODULES (2008)

N\$

Item No	Quantity	Rate	Amount
<u>SECTION NO. 1</u>			
<u>BILL NO. 9</u>			
<u>STRUCTURAL STEELWORK</u>			
For Preambles refer to "Model Preambles for Trades"			
<u>SUPPLEMENTARY PREAMBLES</u>			
<u>Descriptions</u>			
Descriptions of bolts shall be deemed to include nuts and washers			
Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete			
Metalwork described as "holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described			
Descriptions of L-shaped and U-shaped anchor bolts shall be deemed to include bending, threading, nuts and washers and embedding in concrete. Where anchor bolts are described as embedded in sides or soffits of concrete it shall be deemed to include holes through formwork.			
Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete.			
All steel to be painted with two coats red oxide primer before delivery to site			
Structural steel components and the calculation of masses are in accordance with "Structural Steel Tables" issued by the South African Institute of Steel Construction.			
Prices for structural steelwork are to include for all cutting, fitting, welding, drilling of holes or slotted holes, bolts, nuts, washers, etc. and for bolting and welding components together either in the place of manufacture or on the site.			
Carried to Collection			
Section No. 1		N\$	
Bill No. 9			
Structural Steelwork			
REVISED MODULES (2008)			

All steel work build into brickwork or concrete to be wrapped in two layers with DPC extending for a minimum of 150mm both sides of brickwork or concrete.

STEEL RAFTERS, TRUSSES, ETC

Welded roof trusses of 50mm x 50mm x 5mm angle section top- and bottom cords and 40mm x 40mm x 5mm angle section intermediate members including all angle rails, struts, braces, cleats, etc and flat section bearer, gusset and connection plates bolted to steel or fixed to concrete

1	Double pitched trusses 10,440m x 1,095m high extreme	kg	860
---	--	----	-----

Baseplates, bolts to trusses, etc

2	150mm x 85mm x 6mm Base plate	kg	10
3	12mm diameter mild steel U-bolt 700mm girth with 75mm threaded ends cast into concrete ringbeam	No	16
4	M8 "Rawl" bolt 100mm long	No	64

PURLINS, GIRTS, BRACING, ETC

Purlins and girts welded to steel

5	100mm x 50mm x 20mm x 2,5mm Lipped channel section purlins	kg	1,140
6	75mm x 50mm x 20mm x 2,5mm 3,85kg/m Lipped channel section purlins	kg	680

Carried to Collection

Section No. 1
Bill No. 9
Structural Steelwork
REVISED MODULES (2008)

N\$

Section No. 1

Bill No. 9

Structural Steelwork

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Section No. 1

Bill No. 9

Structural Steelwork

REVISED MODULES (2008)

N\$

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Refer to Architect's drawings No. D12a, D12b, No. D13a and D13b when pricing the following security gates (the drawings are attached to these Bills of Quantities)

- 1 Single gate to suit door opening 813mm x 2 337mm high overall, formed of 40mm x 40mm x 2,5mm hollow section frame divided in two panels with two 40mm x 40mm x 2,5mm horizontal intermediate middle rails 200mm apart and filled in with 3mm thick mild steel plate, each panel filled in with five 15 mm x 15mm x 2mm hollow section vertical bars at equal centres, the entire gate hung on and including three 100mm steel weld-on lift-off hinges fitted onto 3mm thick mild steel plate welded into both sides of rebate of metal frame (elsewhere) including "Union L-21315-40PL" or similar approved narrow style cylinder deadlock suitable for masterkeying with striking plate and "Union 5375-05AS" or similar approved escutcheons and with 3mm mild steel plate 75mm wide x 200mm high welded to gate frame to cover lock bolt (paintwork elsewhere) (D12) as Item No: Non Scheduled

No 4

PRESSED STEEL SINGLE PANEL STEEL CHAWL DOORS AND FRAMES

1,2mm "Wispeco Single Panel Steel Chawl" or similar approved doors

- 2 Door 813mm x 2 032mm high with rebated frame suitable for one brick wall with padlatch with independent operation from inside fitted with standard steel hinges and striking plate

No 3

- 3 Door 813mm x 2 032mm high with 305mm high fanlight with rebated frame suitable for one brick wall with padlatch with independent operation from inside fitted with standard steel hinges and striking plate

No 1

STEEL WINDOWS, DOORS, ETC

Standard residential windows with NBP33 burglar bars to all sections

- 4 Window type NG2, 1 022mm x 359mm high

No 1

- 5 Window type ES4H, 1 511mm x 654mm high

No 6

Carried to Collection

Section No. 1
Bill No. 10
Metalwork
REVISED MODULES (2008)

N\$

6 Windows type ES4H and E9H, both 1 511mm x 654mm high
and welded together to form window size 1 511mm x 1 308mm
high overall

No

9

Carried to Collection

N\$

Section No. 1
Bill No. 10
Metalwork
REVISED MODULES (2008)

Section No. 1

Bill No. 10

Metalwork

COLLECTION

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Section No. 1

Bill No. 10

Metalwork

REVISED MODULES (2008)

N\$

Item No		Quantity	Rate	Amount
	<u>SECTION NO. 1</u>			
	<u>BILL NO. 11</u>			
	<u>PLASTERING</u>			
	For Preambles refer to "Model Preambles for Trades"			
	<u>INTERNAL PLASTER</u>			
	<u>1:5 Cement plaster on brickwork</u>			
1	On walls	m2	255	
2	On narrow widths	m2	9	
	<u>1:5 Cement plaster on concrete</u>			
	<u>EXTERNAL PLASTER</u>			
	<u>1:5 Cement plaster on brickwork</u>			
3	On walls	m2	163	
4	On walls in foundations (Provisional)	m2	16	
5	On narrow widths	m2	6	
6	On sloping top; edge and projecting soffit of sills 300mm girth	m	24	
	<u>CORNER PROTECTORS, DIVIDING STRIPS, ETC</u>			
7	25mm x 25mm x 3mm Mild steel angle section corner protectors in varying lengths with 25mm x 3mm fish tail lugs 50mm long welded on at 500mm centres including embedding in concrete	kg	4	
8	50mm x 50mm x 5mm Mild steel angle section corner protectors in varying lengths with 30mm x 3mm fish tail lugs 200mm long welded on at 400mm centres including embedding in concrete	kg	125	
9	3mm x 20mm Flat section brass dividing strips between different floor finishes	m	3	
	Carried to Collection			
	Section No. 1		N\$	
	Bill No. 11			
	Plastering			
	REVISED MODULES (2008)			

10 5mm x 50mm Flat section brass weatherbar cut to lengths, set on edge and embedded in concrete threshold

m

3

Section No. 1
Bill No. 11
Plastering
REVISED MODULES (2008)

Carried to Collection

N\$

Section No. 1

Bill No. 11

Plastering

COLLECTION

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Section No. 1

Bill No. 11

Plastering

REVISED MODULES (2008)

N\$

Item
No

Quantity

Rate

Amount

SECTION NO. 1**BILL NO. 12****GLAZING**

For Preambles refer to "Model Preambles for Trades"

GLAZING TO STEEL WITH PUTTY**4mm "Ampaguard"**

1 Panes exceeding 0,1m2 and not exceeding 0,5m2

m2

24

Carried Forward to Summary of Section No. 1

Section No. 1

Bill No. 12

Glazing

REVISED MODULES (2008)

N\$

Item No		Quantity	Rate	Amount
<u>SECTION NO. 1</u>				
<u>BILL NO. 13</u>				
<u>PAINTWORK</u>				
For Preambles refer to "Model Preambles for Trades"				
<u>ON FLOATED PLASTER</u>				
<u>Prepare and apply one coat plaster primer and two coats "Plascon Double Velvet" or similar approved paint</u>				
1	On internal walls	m2	263	
<u>Prepare and apply two coats high gloss enamel paint</u>				
2	On internal walls in skirtings 100mm high	m	102	
<u>Prepare and apply one coat plaster primer and two coats exterior quality "Plascon Polvin" or similar approved super acrylic PVA paint</u>				
3	On external walls	m2	176	
4	On external walls in foundations (Provisional)	m2	16	
<u>ON FIBRE-CEMENT</u>				
<u>Prepare and apply one coat undercoat and two coats exterior quality "Plascon Polvin" or similar approved super acrylic PVA paint</u>				
5	On window cills	m2	2	
<u>ON METAL</u>				
<u>Prepare, touch up factory primer and apply one coat universal undercoat and two coats high gloss enamel paint</u>				
6	On door frames	m2	8	
7	On doors	m2	14	
Carried to Collection				
Section No. 1				N\$
Bill No. 13				
Painting				
REVISED MODULES (2008)				

8	On gates, grilles, burglar screens, balustrades, etc (both sides measured over the full flat area)	m2	4
9	On windows with burglar bars (both sides measured over the full flat area)	m2	48
10	On exposed members of roof trusses, purlins, etc,	m2	57
<u>Prepare, remove storage oil with galvanised roof cleaner, rinse with clean water and apply two coats acrylic PVA</u>			
11	On profiled metal sheet ceilings and cornices (measured on flat)	m2	178
<u>ON WOOD</u>			
<u>Prepare and apply two coats clear varnish</u>			
12	On skirtings, rails, etc. not exceeding 300mm girth:	m	58
<u>Floor tiles</u>			
300x300mm porcelain full body ceramic tiles laid on Screed (elsewhere measured) with adhesive and Including jointing and pointing with dove grey tiles grout In strict accordance with the manufacture's instruction			
13	on floors and landings	m ²	173.28
14	skirting 100mm high	m	99.38
15	floor to patterns	m ²	173.28
16	similar approved natural anodized aluminum tiles edge Trim Cut to lengths and bedded in tile adhesive	m	99.38
17	deco m 80 D" or similar approved solid brass tiles edge Trim cut to length and bedded in tiles adhesive	m	4

MODULE: CLA 3 S

Section No. 1	Carried to Collection	N\$
Bill No. 13		
Painting		
REVISED MODULES (2008)		

Section No. 1

Bill No. 13

Painting

COLLECTION

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Section No. 1

Bill No. 13

Painting

REVISED MODULES (2008)

N\$

Item No		Quantity	Rate	Amount
	<u>SECTION NO. 2</u>			
	<u>BILL NO. 14</u>			
	<u>EXTERNAL WORKS</u>			
	For Preambles refer to "Model Preambles for Trades".			
	The Contractor is referred to the previous Sections for the full descriptions of labour and material which apply equally to the items in this Section unless otherwise described			
	<u>SITE CLEARANCE</u>			
	<u>Cutting down and removing, grubbing up and filling in hole</u>			
1	Tree exceeding 100mm and not exceeding 200mm girth NO.	2		
Carried Forward to Summary of Section No. 1				
Section No. 1				
Bill No. 14				
External Work				
REVISED MODULES (2008)				
				N\$

SECTION SUMMARY - Building Works

Bill No		Page No	Amount
1	Foundations (Provisional)	-6-	
2	Concrete, Formwork & Reinforcement	-10-	
3	Masonry	-13-	
4	Waterproofing	-14-	
5	Roof coverings	-15-	
6	Carpentry & Joinery	-16-	
7	Ceilings, Partitions & Access flooring	-19-	
8	Ironmongery	-23-	
9	Structural Steelwork	-26-	
10	Metalwork	-30-	
11	Plastering	-33-	
12	Glazing	-34-	
13	Painting	-37-	
14	External Work	-38-	
Section No. 1 REVISED MODULES (2008)			N\$
Carried to Final Summary			

BILL NO. 1

CLASSROOMS

ELECTRICAL INSTALLATION TO MODULE: CLA3S
(THREE CLASSROOM BLOCK AND STORE)

**Refer to attached sheets 1-3 of "SCHEDULE 07:
ELECTRICAL INSTALLATION: MODULE CLA 3S"**

1 "SCHEDULE 07" **Material Total** brought forward from page 3
as Item No: Non Scheduled

2 "SCHEDULE 07" **Labour Total** brought forward from page 3 as
Item No: Non Scheduled

Quantity

Rate

Amount

Item

Item

Section No. 2
Bill No. 1
Electrical Installation
REVISED MODULES (2008)

Carried to Final Summary

NS

FINAL SUMMARYSection
No

- 1 Building Works
- 2 Specialist Installations

Sub-total for net building works

Nett Location factor value

Sub-total for net building works including location factor**Contingencies**

Allow the contingencies to be used as directed by the client's representative to be deducted in whole or in part if not required

Sub-total for net building works including contingencies

VAT on net building cost (15%)

Carried to Form of Tender

REVISED MODULES (2008)

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Item

10%

Amount

N\$

N\$

N\$

N\$

N\$

ELECTRICAL WORK OF 3CLAS AT DIVUNDU COMBINED SCHOOL

SECTION IV: PRICED ACTIVITY SCHEDULE

Procurement Reference Number: _____

The quantities shown below are approximate, and subject to re-measurement for payment purpose.

Item No.	Brief Description of Works	Unit of Measure	Quantity	Unit of Price N\$	Total Price N\$
	ELECTRICAL INSTALLATION FOR MODULE C-CLA3S				
1.0	Supply & install flush white epoxy powder coated sheet steel DB-3 (MOD-12) complete as specified but excluding equipment listed below	Lot	1.00		
1.1	40A DP 5kA Isolator	No	1.00		
1.2	5A SP 5kA MCB	No	1.00		
1.3	10A SP 5kA MCB	No	1.00		
1.4	20A SP 5kA MCB	No	2.00		
1.5	40A DP 5kA ELR without overload	No	1.00		
1.6	60A SP 5KA MCB	No	1.00		
1.7	Surge Arresters	No	2.00		
1.8	Blank cover	No	2.00		
1.9	DB Labelling	No	1.00		
2.0	Supply & install 600/1000V PVCAS supply cable drawn into conduits or in ground				
2.1	16mm ² x 2c Cu	M	40.00		
2.2	10mm ² x4c Cu	M	30.00		
2.3	Cable joints pvc scotch 4 Core 10mm ²	No	1.00		
	Terminate 600/1000V PVCAS cables in DBs, including glands, etc				
2.2	16mm ² x 2c Cu	No	2.00		
	Supply & install Bare Copper Earth wire cable drawn into conduits or in ground				
2.3	10mm ²	M	40.00		

3.0	Supply & install heavy gauge PVC conduit, including adapters, glueing, terminations, etc				
3.1	ø20mm flush in wall (chasing included), surface in ceiling, cast in concrete	M	200.00		
3.2	ø25mm flush in wall (chasing included), surface in ceiling, cast in concrete	M	6.00		
4.0	Supply & install Class 9 uPVC sleeves for supply cables to DBs				
4.1	ø50mm flush in wall (chasing included), surface in ceiling, cast in concrete, in ground	M	5.00		
4.2	ø50mm slow bends	No	1.00		
5.0	Supply & install light switches & socket outlets complete with cover plates & connection to circuit wiring				
5.0	Light switches				
5.1	16A flush 1-lever, 1-way	No	4.00		
5.2	Photocell	No	1.00		
	Socket outlets				
5.3	16A 3-pin single SSO flush in wall	No	4.00		
6.0	Supply & install luminaire, including control gear & lamp complete & connect to circuit wiring				
6.1	Type A	No	3.00		
6.2	Type B	No	1.00		
6.3	Type C	No	12.00		
7.0	Supply & install grade 600/1000V PVC insulated stranded copper wiring drawn into conduits, sleeves & trunking				
7.1	2.5mm ²	M	300.00		
7.2	4mm ²	M	200.00		
	Supply & install grade 600/1000V PVC insulated stranded copper earth wiring drawn into conduits, sleeves & trunking				
7.3	2.5mm ²	M	200.00		
8.0	Supply & install galvanised mild steel conduit outlet boxes, draw boxes & cover plates as required				
8.1	Ø20mm flush in wall (chasing included), surface in ceiling, cast in concrete	No	16.00		

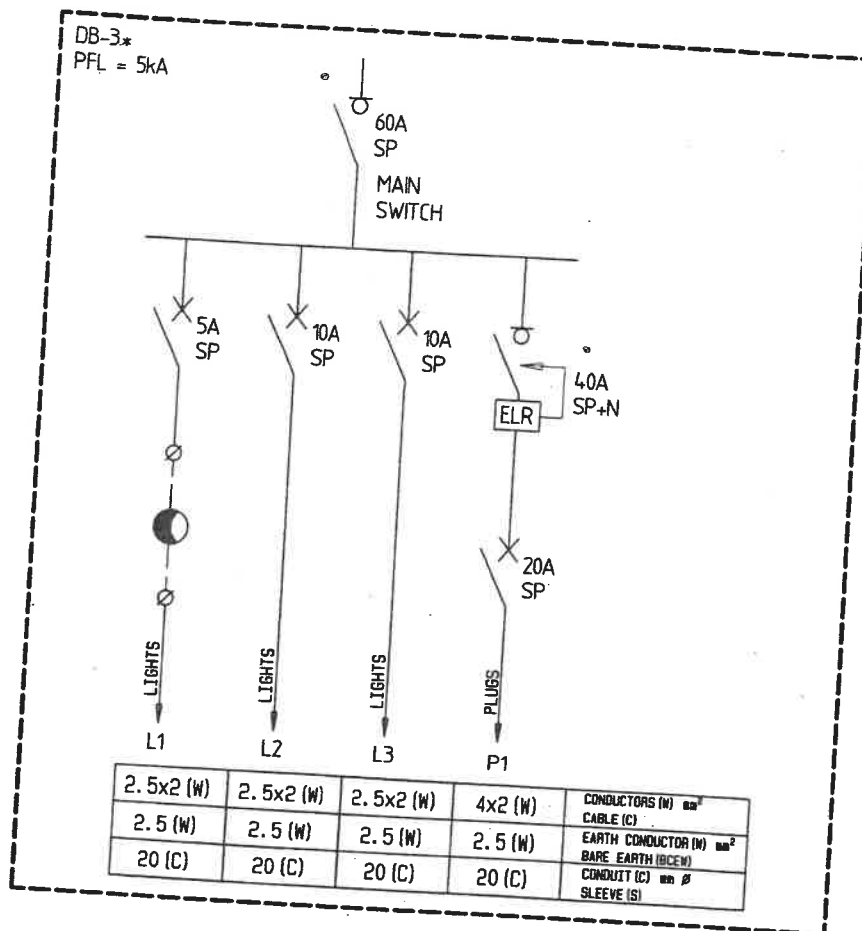
8.2	100x50x50 flush in wall (chasing included), surface in ceiling, cast in concrete	No	4.00		
8.3	100x100x50 flush in wall (chasing included), surface in ceiling, cast in concrete	No	4.00		
9.0	LV cable trenches 600 mm wide x 500 mm deep including backfilling & compaction				
9.1	In earth	M	112.00		
10.0	Supply and install 1.5m copper earth spikes to detail, including excavation, backfilling, compaction and connection to BCEW				
10.1	1.5m Copper earth spikes	No	2.00		
	Connect 50mm² earth wire to roof, stud in earth test point box and earth spike, including lugs and fixing hardware				
10.2	Connections 50mm ² insulated earth wire	No	6.00		
	Supply and install 50mm² insulated earth from earth test point to roof earth point and to earth spike				
10.3	50mm ² insulated earth	No	8.00		
	Earth terminal box complete with earth bar and clearly labelled "Earth Terminal"				
10.4	Terminal box	No	2.00		
			Subtotal:		
			Contingencies 10%		
			VAT@15%		
			Total		


MODULE CLA3S

THREE CLASSROOMS & STORE



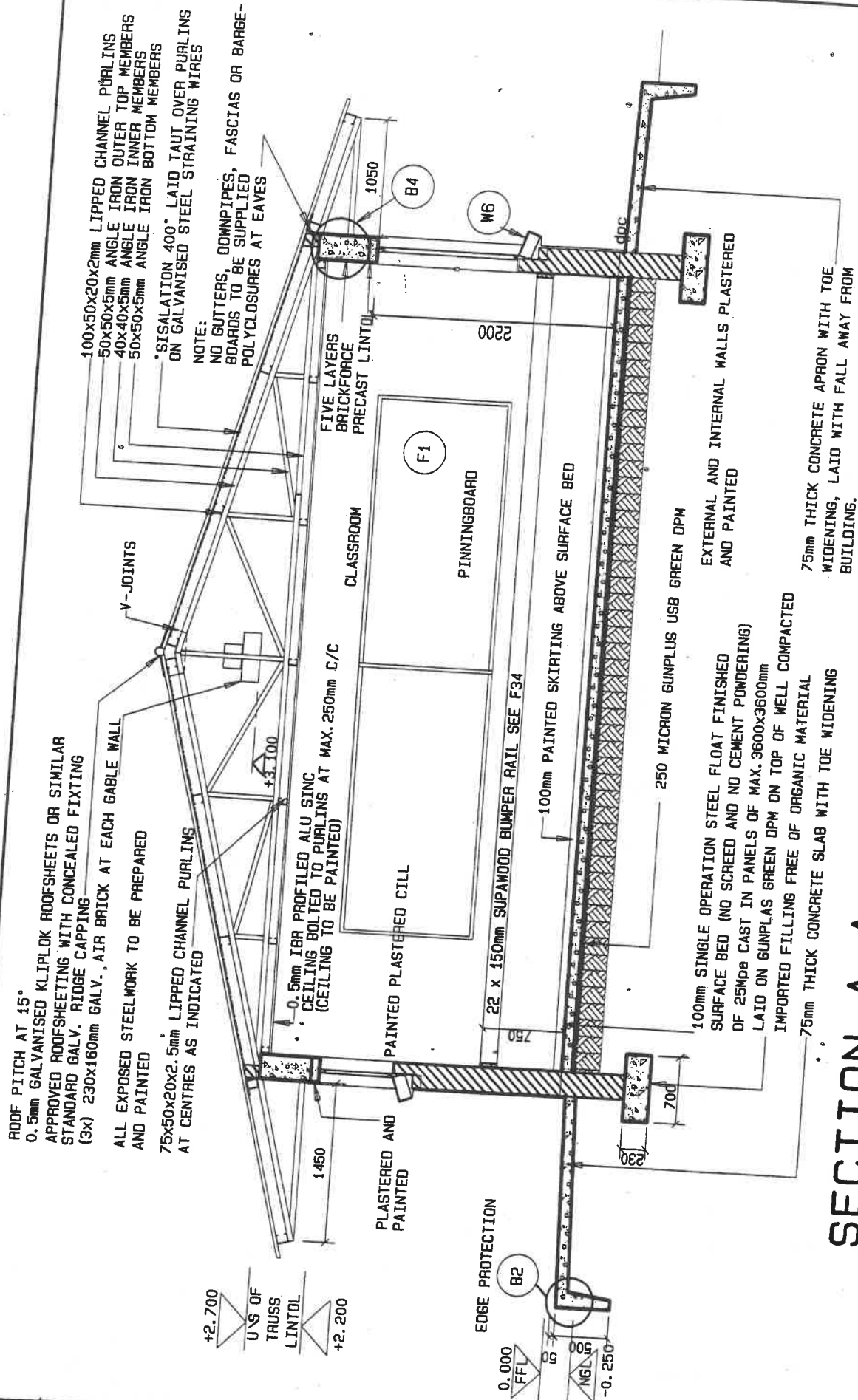
MINISTRY OF WORKS,
TRANSPORT & COMMUNICATION




SCALE	DATE	DRAWN	REVISIONS			PROJECT NUMBER	MODULE	DRAWING NUMBER	PROPERTY OF GOVERNMENT OF NAMIBIA PROJECT CONSULTANT	 MINISTRY OF WORKS TRANSPORT & COMMUNICATION
N. T. S	AUG03	ESAD								
THREE CLASSROOMS & STORE SINGLE LINE DIAGRAM						CLA3S 2008	CLA3S 09	TEL :		
USER MINISTRY MINISTRY OF BASIC EDUCATION, SPORT & CULTURE										



MINISTRY OF WORKS
TRANSPORT & COMMUNICATION



SECTION A-A Scale 1:50

SCALE	DATE	DRAWN	REVISIONS	PROJECT NUMBER	MODULE	DRAWING NUMBER	PROPERTY OF	
1:50	AUG03	ESAD	JAN08				GOVERNMENT OF NAMIBIA	
THREE CLASSROOMS & STORE SECTION A-A							PROJECT CONSULTANT	
USER MINISTRY MINISTRY OF BASIC EDUCATION, SPORT & CULTURE								
				CLA3S 2008	CLA3S 04		TEL :	
				 MINISTRY OF WORKS TRANSPORT & COMMUNICATION				

LIST OF DETAILS

CONSTRUCTION
DETAILS:

- B 1
- B 2
- B 3
- B 4
- B 5
- B 8
- B19
- B33
- B41

DOORS:

- D 1
- D 9
- D12

WINDOWS:


- W1
- W2
- W3

ELECTRICAL:

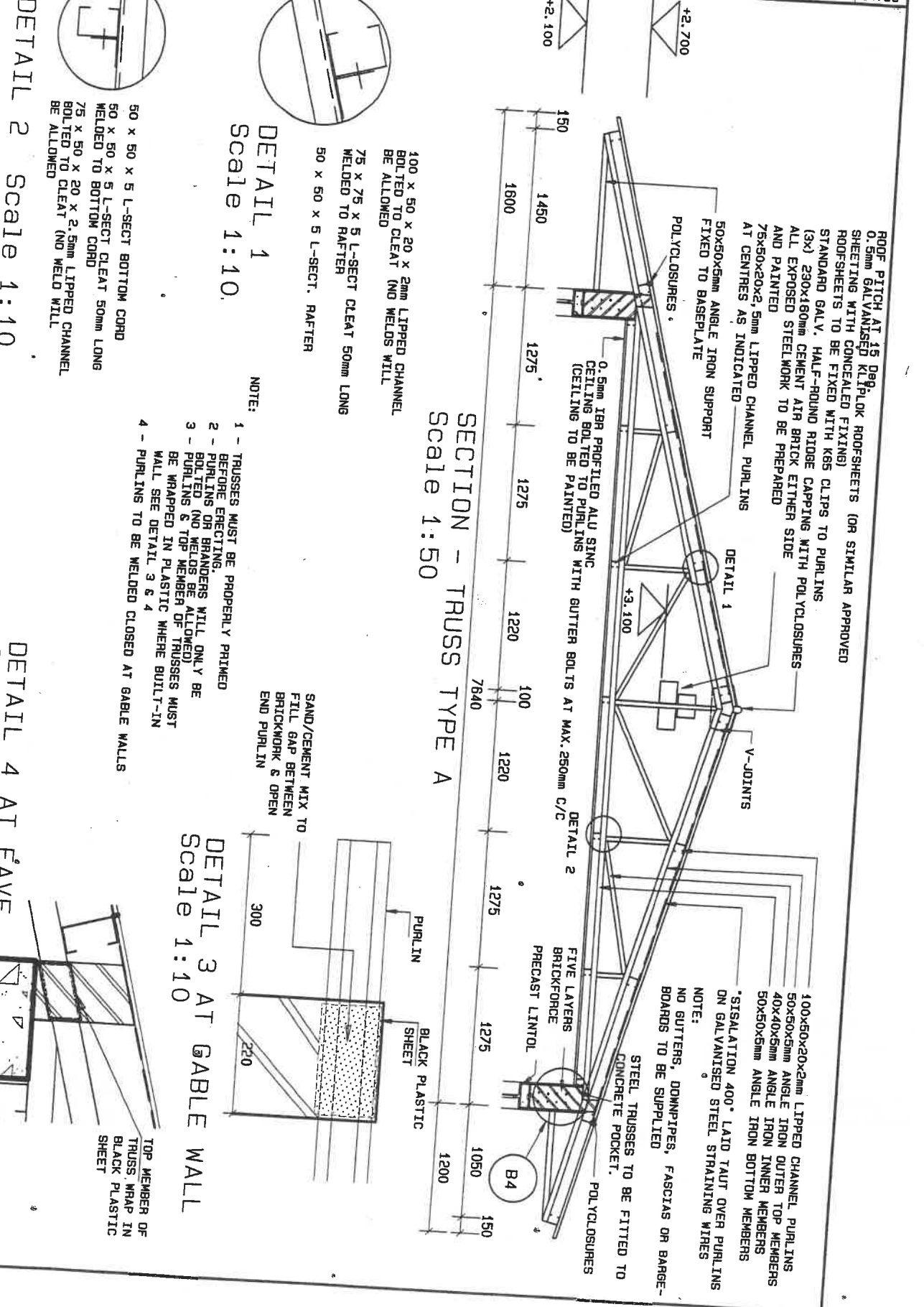
- E01
- E02

GENERAL
FURNITURE:

- F 1
- F 3
- F 4
- F 6
- F10

SCALE	DATE	DRAWN	REVISIONS	PROJECT NUMBER	MODULE	DRAWING NUMBER	PROPERTY OF GOVERNMENT OF NAMIBIA
-	AUG03	ESAD			CLA3S 2008	CLA3S 10	PROJECT CONSULTANT
THREE CLASSROOMS & STORE LIST OF DETAILS							
USER MINISTRY MINISTRY OF BASIC EDUCATION, SPORT & CULTURE							
				 MINISTRY OF WORKS TRANSPORT & COMMUNICATION			
				TEL :			

USER MINISTRY		MINISTRY OF BASIC EDUCATION, SPORT & CULTURE	
SCALE	DATE	DRAWN	REVISIONS
1:50/10	AUG03	ESAD	NOV07
SECTION THROUGH TRUSS TYPE A			
PROJECT	MODULE	CONSTR.	DETAILS
2008	B1	2008	2008
DRAWING NUMBER		PROJECT CONSULTANT	
PROPERTY OF		GOVERNMENT OF NAMIBIA	
TEL :		MINISTRY OF WORKS	
		TRANSPORT & COMMUNICATION	



SECTION - TRUSS TYPE A
Scale 1:50

DETAIL 1
Scale 1:10

DETAIL 2 Scale 1:10

DETAIL 3 AT GABLE WALL
Scale 1:10

DETAIL 4 AT EAVE
Scale 1:10

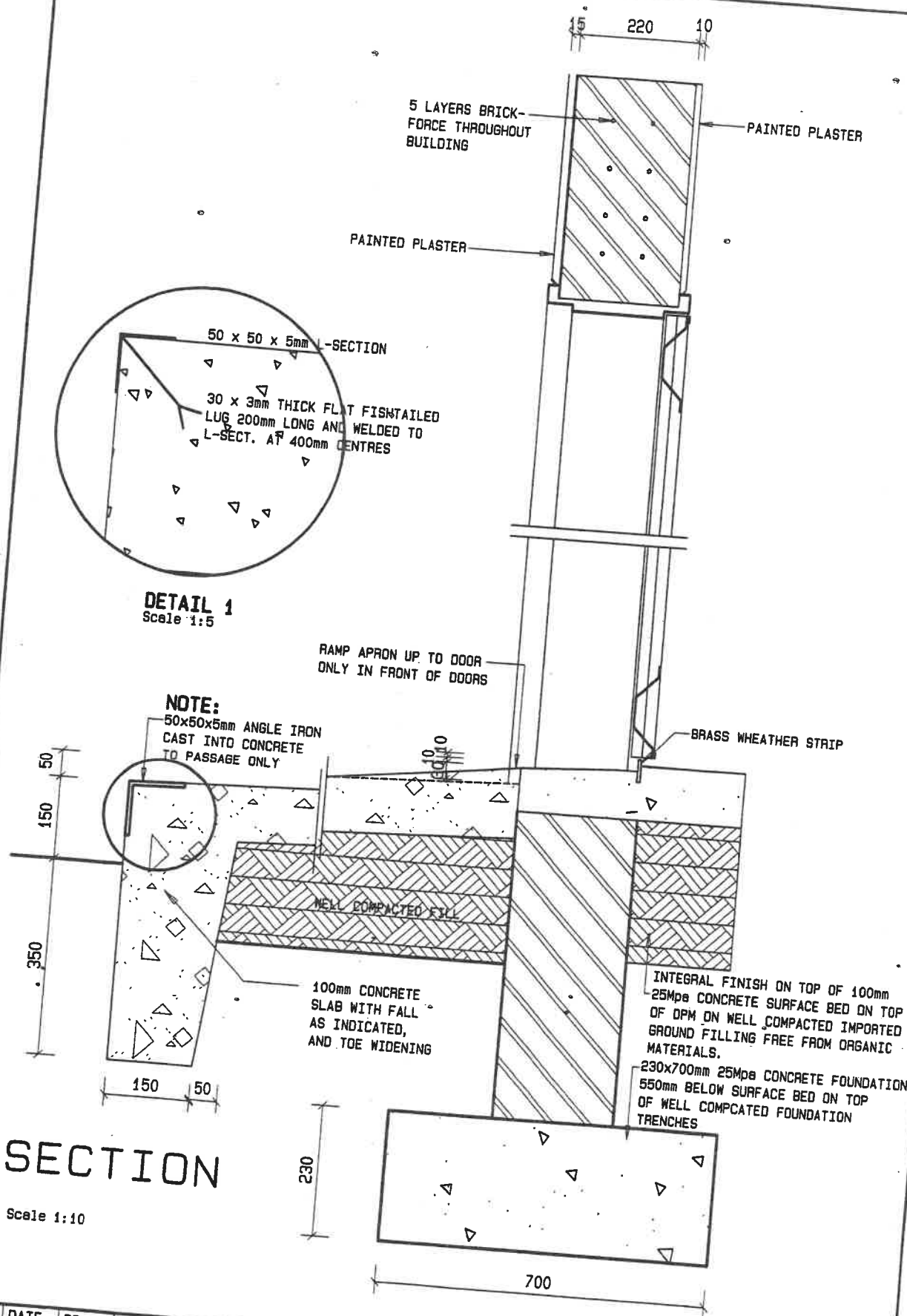
50 x 50 x 5 L-SECT BOTTOM CHORD
50 x 50 x 5 L-SECT CLEAT 50mm LONG
75 x 50 x 20 x 2, 5mm LIPPED CHANNEL
BOLTED TO CLEAT (NO WELD WILL
BE ALLOWED

100 x 50 x 20 x 2mm LIPPED CHANNEL
BOLTED TO CLEAT (NO WELDS WILL
BE ALLOWED
75 x 75 x 5 L-SECT CLEAT 50mm LONG
WELDED TO RAFTER
50 x 50 x 5 L-SECT. RAFTER

- NOTE:
- 1 - TRUSSES MUST BE PROPERLY PRIMED BEFORE ERECTING.
 - 2 - PURLINS OR BRANDERS WILL ONLY BE BOLTED (NO WELDS BE ALLOWED)
 - 3 - PURLINS & TOP MEMBER OF TRUSSES MUST BE WRAPPED IN PLASTIC WHERE BUILT-IN WALL SEE DETAIL 3 & 4
 - 4 - PURLINS TO BE WELDED CLOSED AT GABLE WALLS


SAND/CEMENT MIX TO
FILL GAP BETWEEN
BRICKWORK & OPEN
END PURLIN

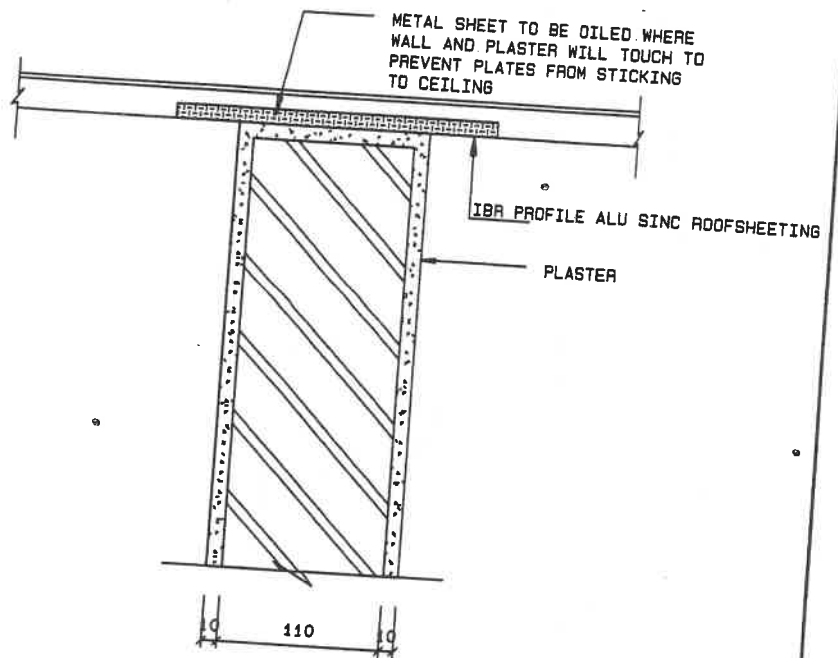
TOP MEMBER OF
TRUSS WRAP IN
BLACK PLASTIC
SHEET



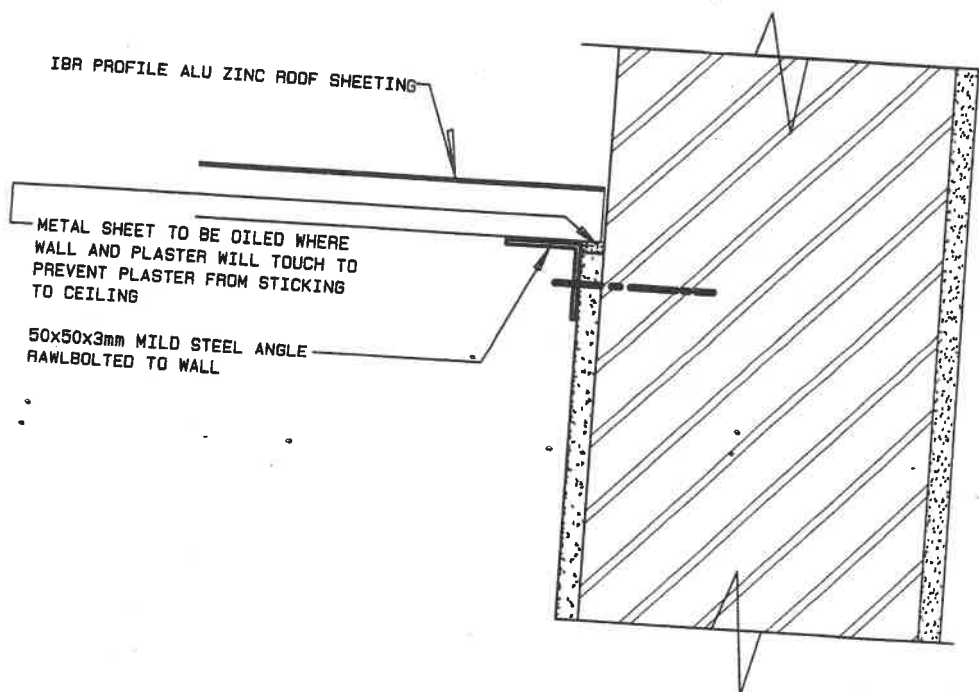
SECTION

Scale 1:10


SCALE	DATE	DRAWN	REVISIONS	PROJECT NUMBER	MODULE	DRAWING NUMBER	PROPERTY OF
1:10	AUG03	ESAD	NOV03		CONSTR.	82	GOVERNMENT OF NAMIBIA
SECTION THROUGH THRESHOLD AND PASSAGE					DETAILS		PROJECT CONSULTANT
USER MINISTRY MINISTRY OF BASIC EDUCATION, SPORT & CULTURE					2008		TEL :
				 MINISTRY OF WORKS TRANSPORT & COMMUNICATION			



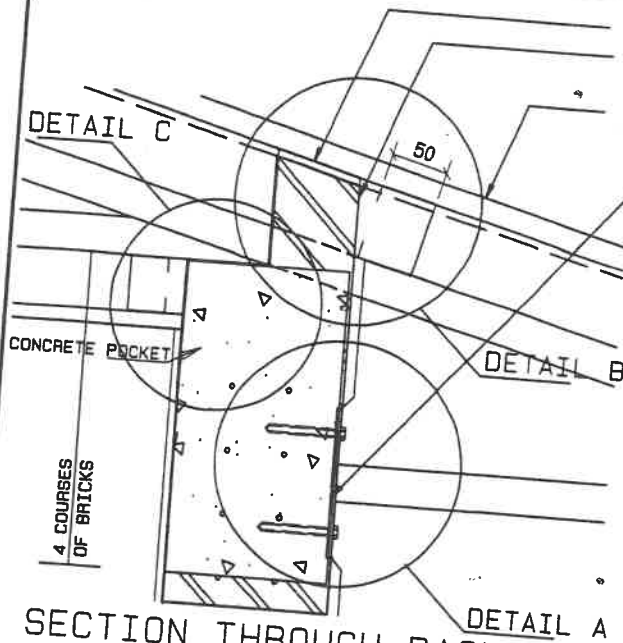
SECTION Scale 1:5
THROUGH INTERNAL WALLS



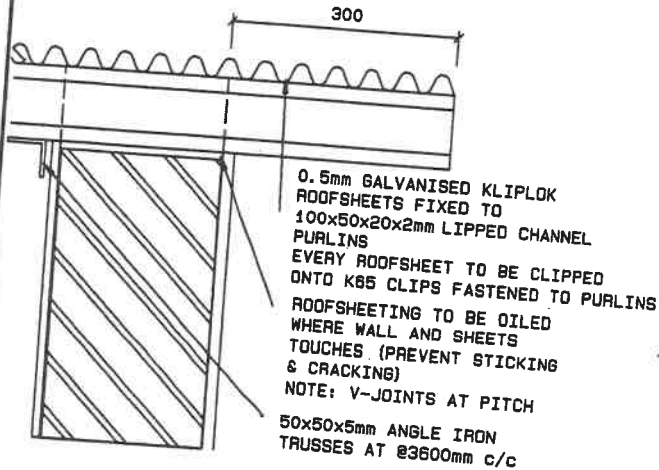
SECTION Scale 1:5
THROUGH CABLE END

SCALE	DATE	DRAWN	REVISIONS	PROJECT NUMBER	MODULE	DRAWING NUMBER	PROPERTY OF	 MINISTRY OF WORKS TRANSPORT & COMMUNICATION
1:2/5	AUG03	ESAD	NOV07				GOVERNMENT OF NAMIBIA	
CEILING DETAIL AT WALL INTERSECTIONS					CONSTR. DETAILS	B3	PROJECT CONSULTANT	
USER MINISTRY MINISTRY OF BASIC EDUCATION, SPORT & CULTURE					2008		TEL :	

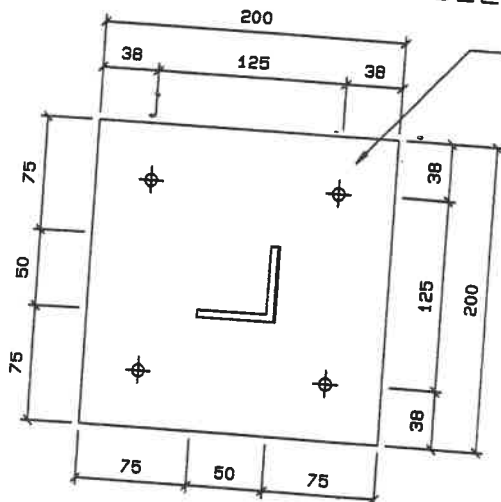
DETAIL C



SECTION THROUGH BACK & FRONT WALL



SECTION THROUGH GABLE END



50x50x5mm ANGLE IRON WELDED TO BASEPLATE BASEPLATE TO BE RAWLBOLTED WITH (4x) M8 100mm LONG RAWLBOLTS

DETAIL A

ROOFSHEETING TO BE OILED WHERE WALL AND SHEETS TOUCHES (PREVENTS STICKING & CRACKING) POLYCLOSURES TO EAVES

0.5mm GALVANISED KLIPOK ROOFSHEETS FIXED TO 100x50x20x2mm LIPPED CHANNEL PURLINS

FIXED TO 50x50x5mm ANGLE IRON TRUSSES AT 83600mm c/c

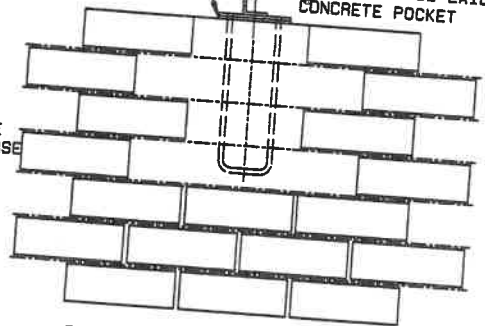
ROOFSHEETS TO BE BOLTED AT MAX. 250mm C/C TO PURLINS

50x50x5mm ANGLE IRON TIE BEAM WELDED TO 200x200x6mm BASEPLATE. BASEPLATE TO BE RAWLBOLTED TO WALL WITH 4x M8 RAWLBOLTS

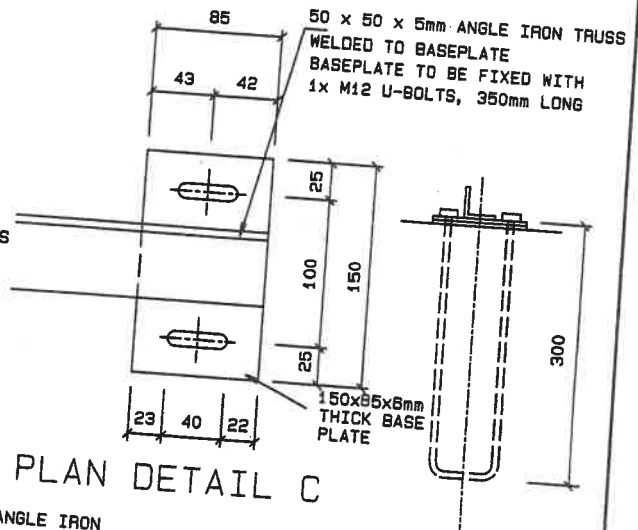
SINGLE LAYER DPC BETWEEN BASEPLATE AND CONG. POCKET

CENTRE LINE TO TRUSSES TRUSSES TO BE LAID ON CONCRETE POCKET

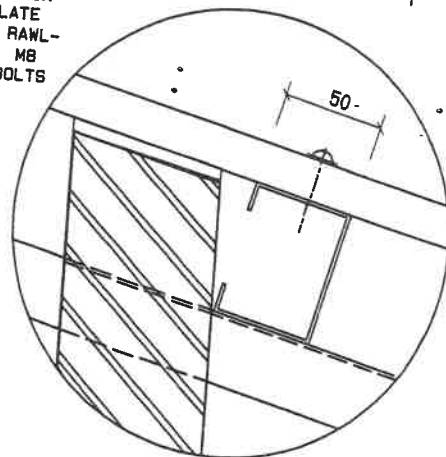
BRICKFORCE EVERY COURSE



ELEVATION DETAIL C



PLAN DETAIL C



DETAIL B

SCALE	DATE	DRAWN	REVISIONS
1:5/10	AUG03	ESAD	NOV07

DETAIL SECTIONS THROUGH PITCH ROOF

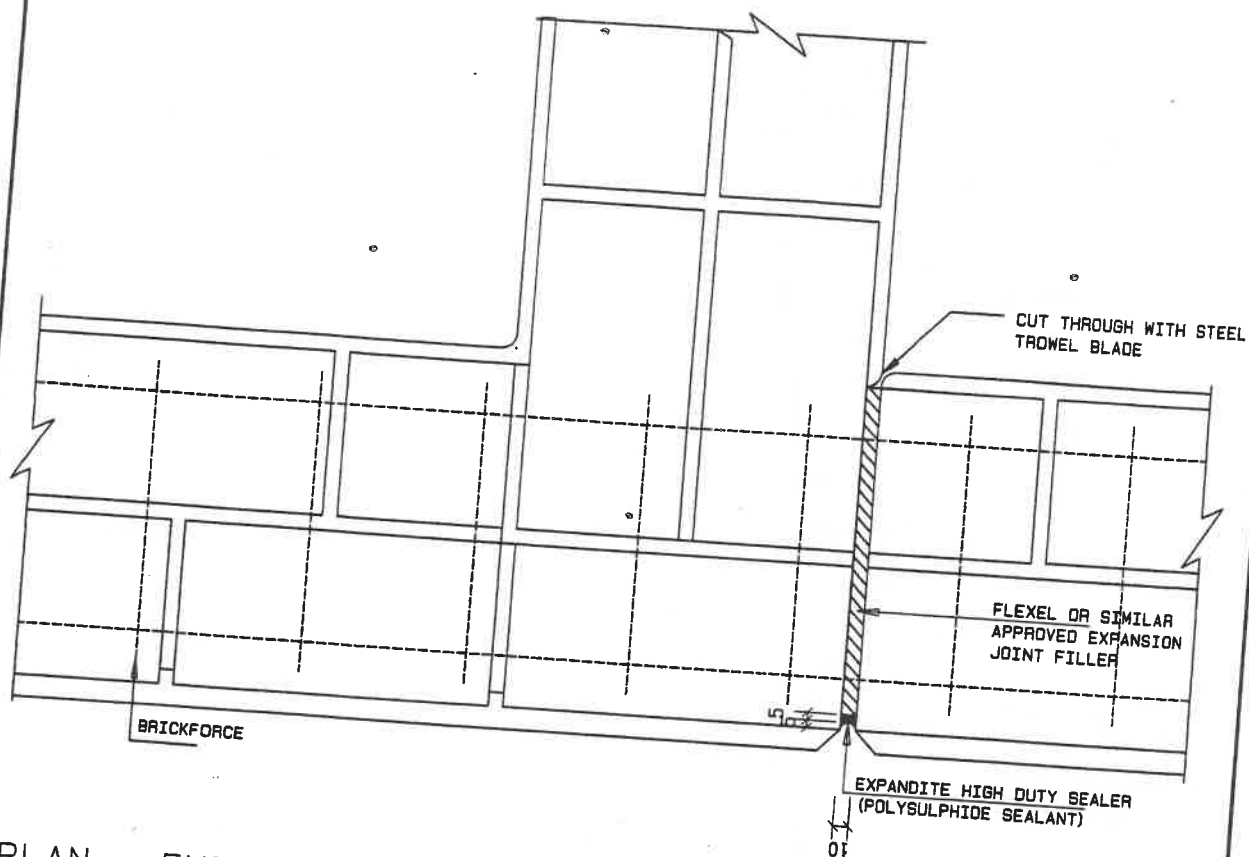
USER MINISTRY
MINISTRY OF BASIC EDUCATION, SPORT & CULTURE

PROJECT NUMBER	MODULE	DRAWING NUMBER	PROPERTY OF
	CONSTR. DETAIL 2008	B4	GOVERNMENT OF NAMIBIA
			PROJECT CONSULTANT

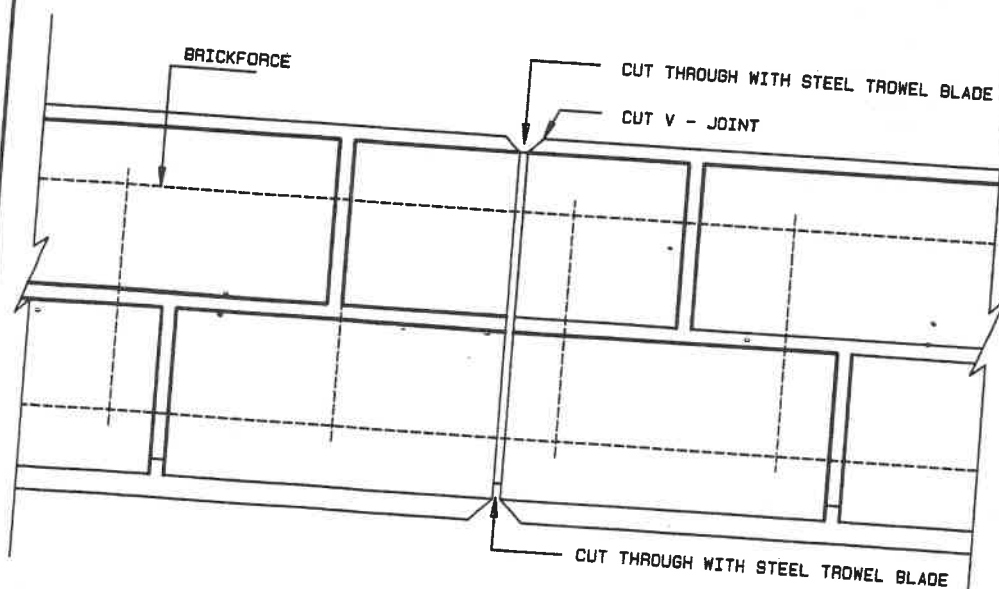
TEL :




MINISTRY OF WORKS
TRANSPORT & COMMUNICATION

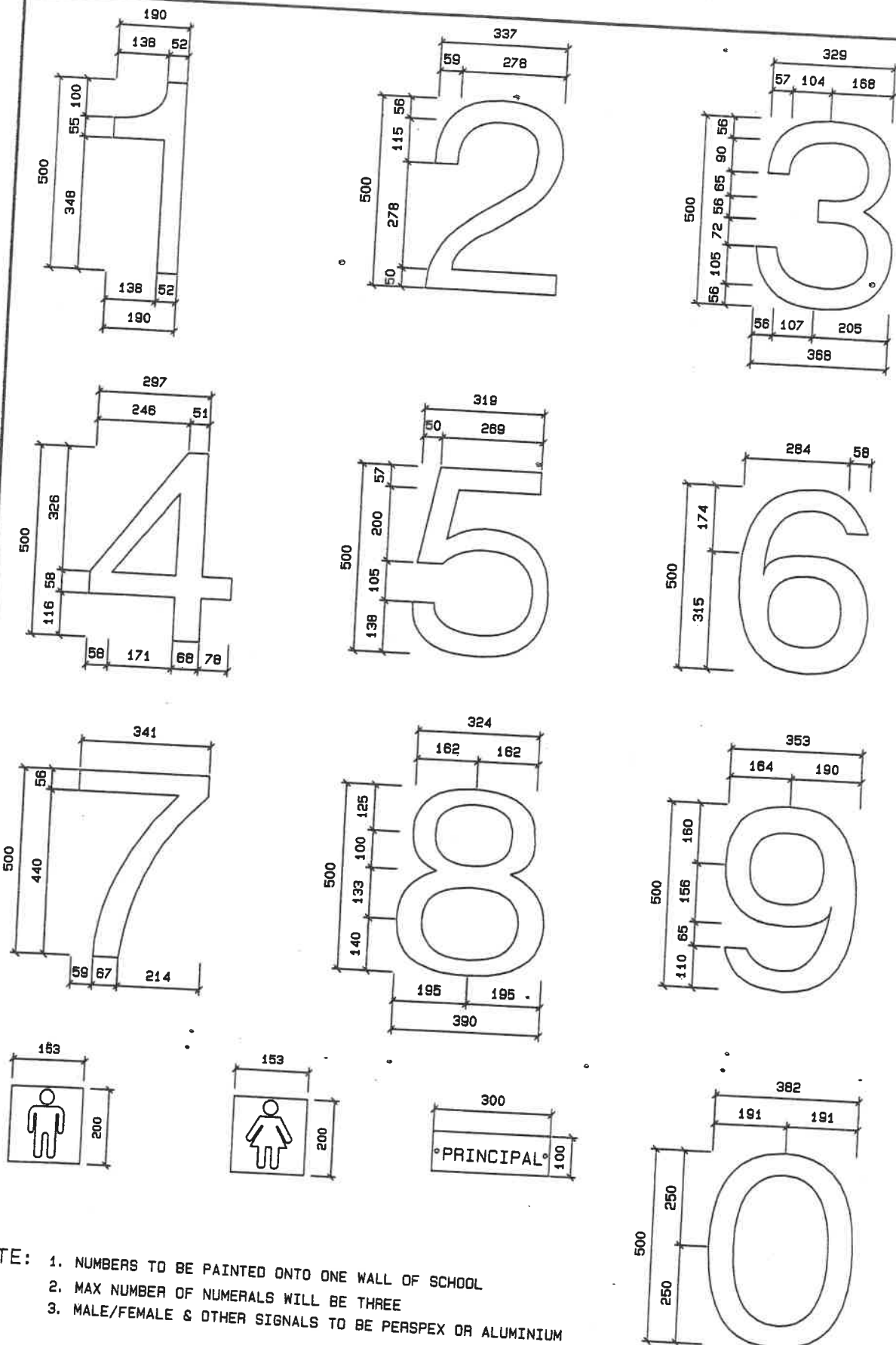


PLAN - EXPANSION JOINT



PLAN - BUTT JOINT

SCALE	DATE	DRAWN	REVISIONS	PROJECT NUMBER	MODULE	DRAWING NUMBER	PROPERTY OF	 MINISTRY OF WORKS TRANSPORT & COMMUNICATION
1:5	AUG03	ESAD	NOV07				GOVERNMENT OF NAMIBIA	
TYPICAL EXPANSION AND BUTT JOINT					CONSTR. DETAILS	B5	PROJECT CONSULTANT	
USER MINISTRY MINISTRY OF BASIC EDUCATION, SPORT & CULTURE					2008		TEL :	

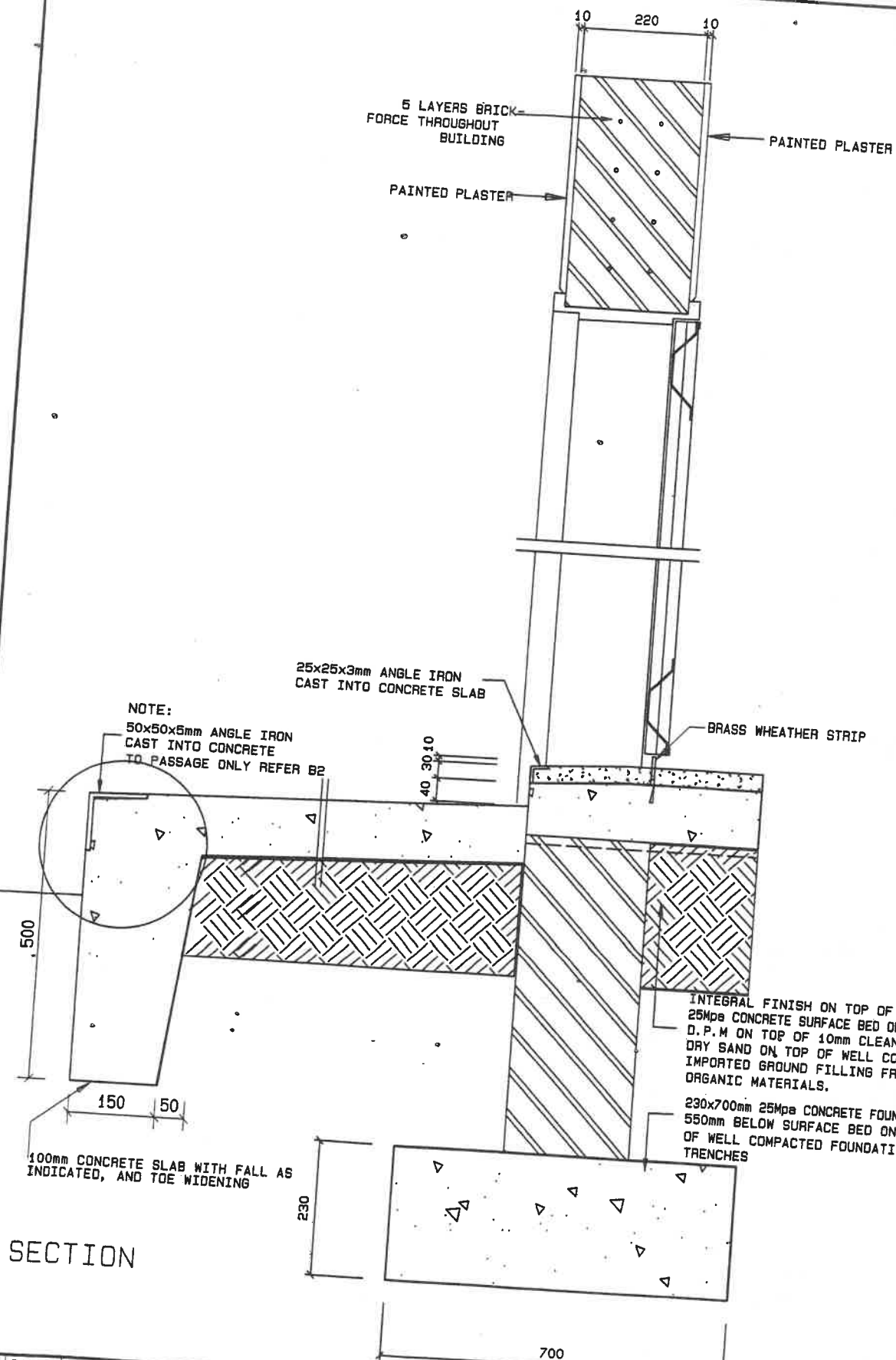


- NOTE:
1. NUMBERS TO BE PAINTED ONTO ONE WALL OF SCHOOL
 2. MAX NUMBER OF NUMERALS WILL BE THREE
 3. MALE/FEMALE & OTHER SIGNALS TO BE PERSPEX OR ALUMINIUM


SCALE	DATE	DRAWN	REVISIONS	PROJECT NUMBER	MODULE	DRAWING NUMBER	PROPERTY OF
1:15	AUG03	ESAD					GOVERNMENT OF NAMIBIA
STANDARD HELVETICA					CONSTR. DETAILS	B8	PROJECT CONSULTANT
USER MINISTRY MINISTRY OF BASIC EDUCATION, SPORT & CULTURE					2008		TEL :



MINISTRY OF WORKS,
TRANSPORT & COMMUNICATION




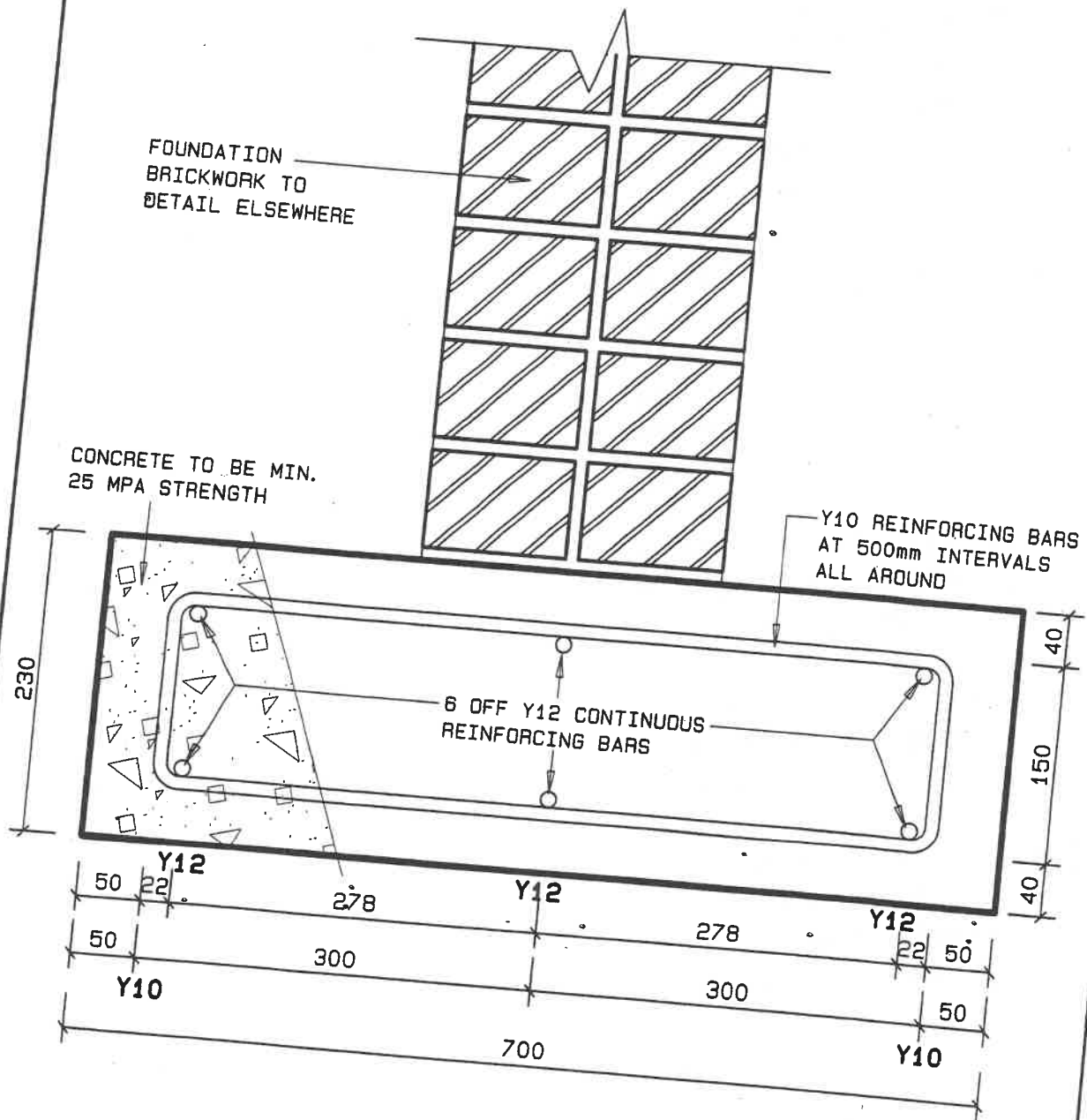
SECTION


SCALE	DATE	DRAWN	REVISIONS	PROJECT NUMBER	MODULE	DRAWING NUMBER	PROPERTY OF GOVERNMENT OF NAMIBIA	 MINISTRY OF WORKS TRANSPORT & COMMUNICATION
1:10	AUG03	ESAD	NOV07				PROJECT CONSULTANT	
SECTION THROUGH THRESHOLD					CONSTR. DETAILS	B19		
USER MINISTRY MINISTRY OF BASIC EDUCATION, SPORT & CULTURE					2008		TEL :	

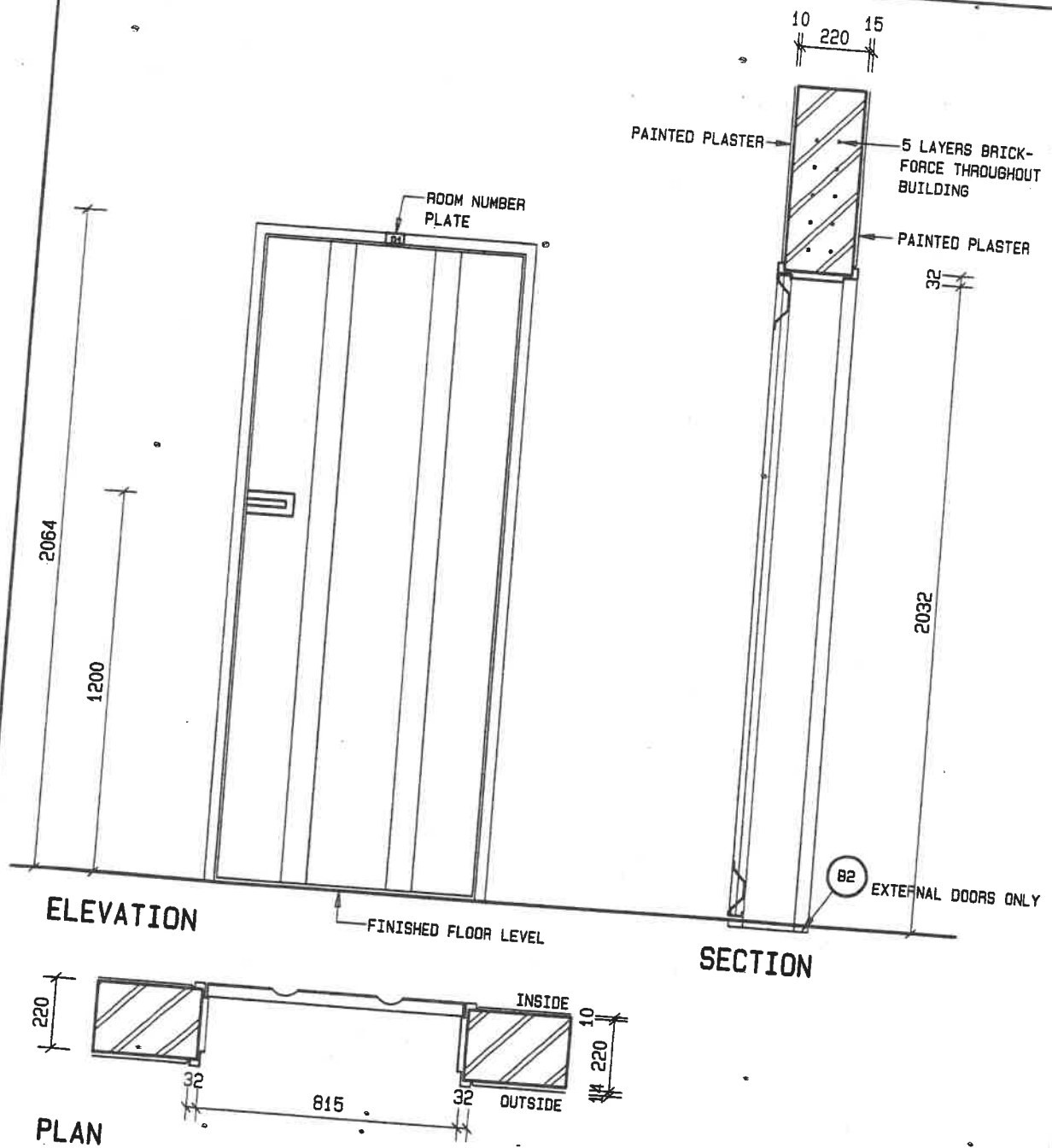
GENERAL PAINT SPECIFICATION


1. PAINT SPECIFICATION FOR INTERNAL PLASTERED WALLS, PRIMER & 2 COATS DOUBLE VELVET PAINT TO ALL INTERNAL WALLS OF CLASS ROOMS, OFFICES, STORES, CORRIDOR, BEDROOMS, ETC. THE PAINT SPECIFICATION MUST COMPLY WITH SABS REQUIREMENTS AND APPLIED ACCORDING TO MANUFACTURER'S SPECIFICATION.
ALL SHOWERS TO BE TILED TO CEILING HEIGHT WITH STANDARD 200x200 WHITE CERAMIC TILES.
2. WHERE SKIRTING SPECIFIED PAINTED ON PLASTERED WALL, PAINT MUST BE HIGH GLOSS ENAMEL.
3. ALL STEEL DOOR FRAME, CHAWL DOORLEAF AND WINDOW FRAMES MUST BE FACTORY PRIMED AND FINISHED WITH UNDER COAT AND TWO COATS HIGH GLOSS ENAMEL PAINT.
4. PAINT TO ALUZINC CEILING, ACRYLIC PVA WHITE, 2 COATS (PRIOR TO PAINT, CEILING MUST BE CLEANED WITH GALVANISED ROOF CLEANER)
5. ALL TRUSSES AND PURLINS AND EXPOSED STEELWORK MUST BE PRIMED WITH METAL PRIMER AND FINISHED WITH TWO COATS HIGH GLOSS ENAMEL.
6. EXTERNAL PAINT TO CONSIST OF PRIMER AND TWO COATS OF EXTERIOR QUALITY PVA AND APPLIED ACCORDING TO MANUFACTURER'S INSTRUCTION. ALL COLOURS MUST BE APPROVED BY PROJECT MANAGER OR REPRESENTATIVE OF THE CLIENT.

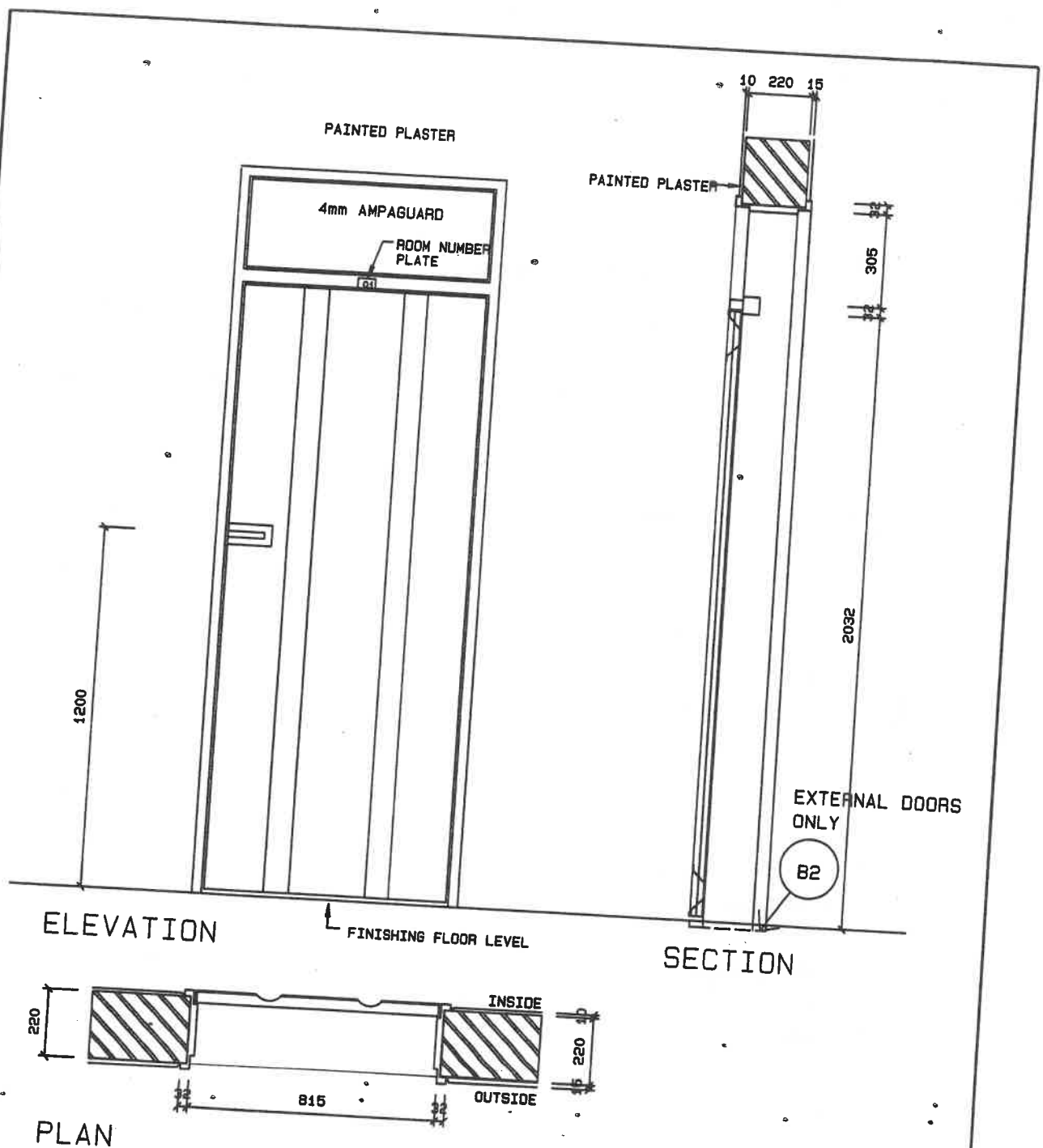
SCALE	DATE	DRAWN	REVISIONS	PROJECT NUMBER	MODULE	DRAWING NUMBER	PROPERTY OF GOVERNMENT OF NAMIBIA PROJECT CONSULTANT	 MINISTRY OF WORKS, TRANSPORT & COMMUNICATION
N/A	SEPT03	ESAD	NOV07					
PAINT SPECIFICATION				CONSTR. DETAILS 2008	B33	TEL :		
USER MINISTRY MINISTRY OF BASIC EDUCATION, SPORT & CULTURE								




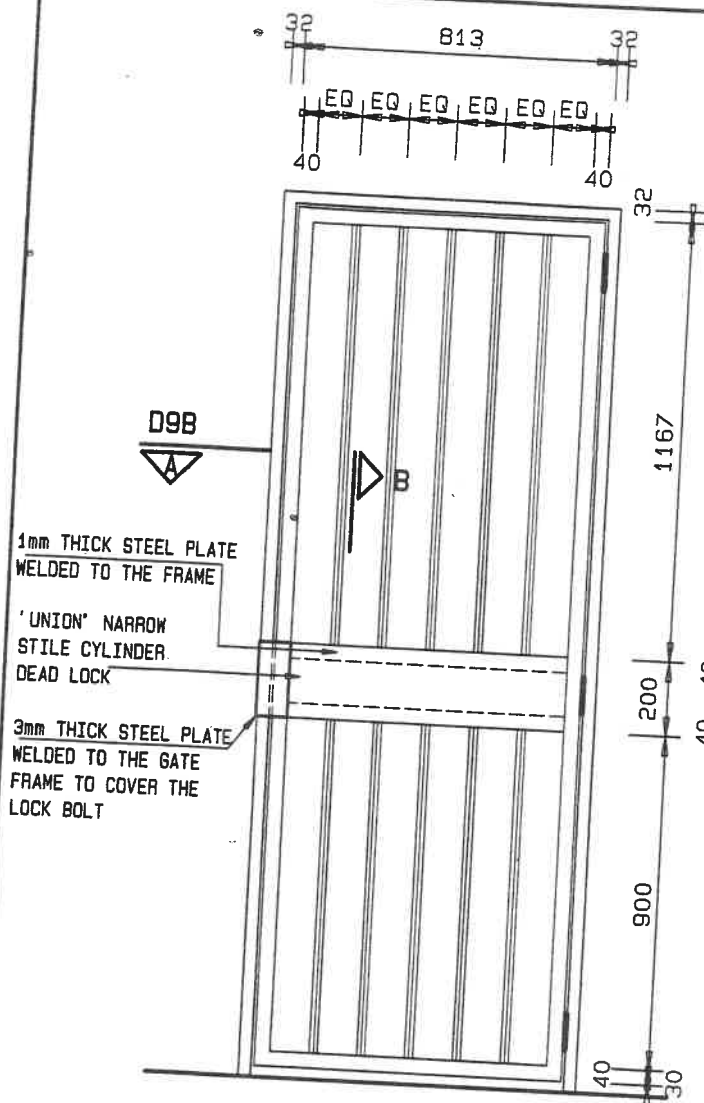
SCALE	DATE	DRAWN	REVISIONS	PROJECT NUMBER	MODULE	DRAWING NUMBER	PROPERTY OF GOVERNMENT OF NAMIBIA	 MINISTRY OF WORKS, TRANSPORT & COMMUNICATION
1:5	SEP03	ESAD			CONSTR. DETAILS 2008	B41	PROJECT CONSULTANT	
FOUNDATION REINFORCING DETAIL - B41				USER MINISTRY MINISTRY OF BASIC EDUCATION, SPORT & CULTURE		TEL :		



CATALOGUE NO.		WISPECO CHAWL DOOR		CILL	N.A			
ACTION/NO. REQD		SIDE HUNG WITH THREE HINGES / SEE KEY-PLANS		LINTOLS	5 LAYER BRICKFORCE			
FRAME/GLAZ.BEAD		1.2mm MILD STEEL FRAME		BOLTS	PADLATCH WITH INDEPENDENT OPERATION FROM INSIDE			
GLAZING		N.A		LOCK SETS	PADLOCK			
SCREEN		N.A		HINGES/STOPS	STD HINGES/BLACK RUBBER DOOR STOP FIXED TO FLOOR			
SOLID		SINGLE PANEL CHAWL DOOR		OTHER	ROOM Nu. ABOVE DOOR - 20mm HIGH TYPE HELVETICA			
FIXTURE		BUILT IN		FINISH	HIGH GLOSS ENAMEL			
SCALE	DATE	DRAWN	REVISIONS	PROJECT NUMBER	MODULE	DRAWING NUMBER	PROPERTY OF GOVERNMENT OF NAMIBIA PROJECT CONSULTANT	 MINISTRY OF WORKS TRANSPORT & COMMUNICATION
1:20	SEPT03	ESAD	NOV 07					
SINGLE PANEL CHAWL DOOR & FRAME 815X2032 TO SUIT 220MM WALL				DOORS 2008	D1	TEL :		
USER MINISTRY MINISTRY OF BASIC EDUCATION, SPORT & CULTURE								

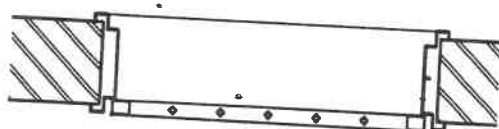


CATALOGUE NO.	WISPECO CHAWL DOOR WITH FIXED FANLIGHT			CILL	N. A			
ACTION/NO. REQD	SIDE HUNG WITH THREE HINGES / SEE KEY-PLANS			LINTOLS	5 LAYER BRICKFORCE			
FRAME/GLAZ. BEAD	1.2mm MILD STEEL FRAME			BOLTS	PADLATCH WITH INDEPENDENT OPERATION FROM INSIDE			
GLAZING	4mm AMPAGUARD			LOCK SETS	PADLOCK			
SCREEN	N. A			HINGES/STOPS	STD HINGES/BLACK RUBBER DOOR STOP FIXED TO FLOOR			
SOLID	SINGLE PANEL CHAWL DOOR			OTHER	ROOM Nu. ABOVE DOOR - 20mm HIGH TYPE HELVETICA			
FIXTURE	BUILT IN			FINISH	HIGH GLOSS ENAMEL			
SCALE	DATE	DRAWN	REVISIONS	PROJECT NUMBER	MODULE	DRAWING NUMBER	PROPERTY OF	
1:20	SEPT03	ESAD	NOV07				GOVERNMENT OF NAMIBIA	
SINGLE PANEL CHAWL DOOR & FRAME				DOORS	2008	D9	PROJECT CONSULTANT	
815 X 2401 TO SUIT 220MM WALL							TEL :	
USER MINISTRY								
MINISTRY OF BASIC EDUCATION, SPORT & CULTURE								
				MINISTRY OF WORKS TRANSPORT & COMMUNICATION				

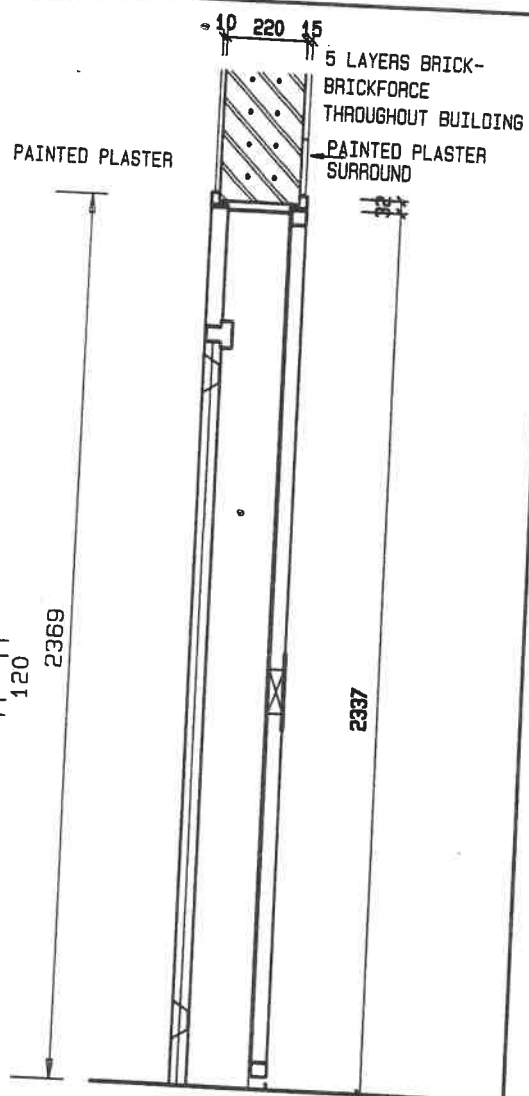


ELEVATION


SCALE 1:20



PLAN



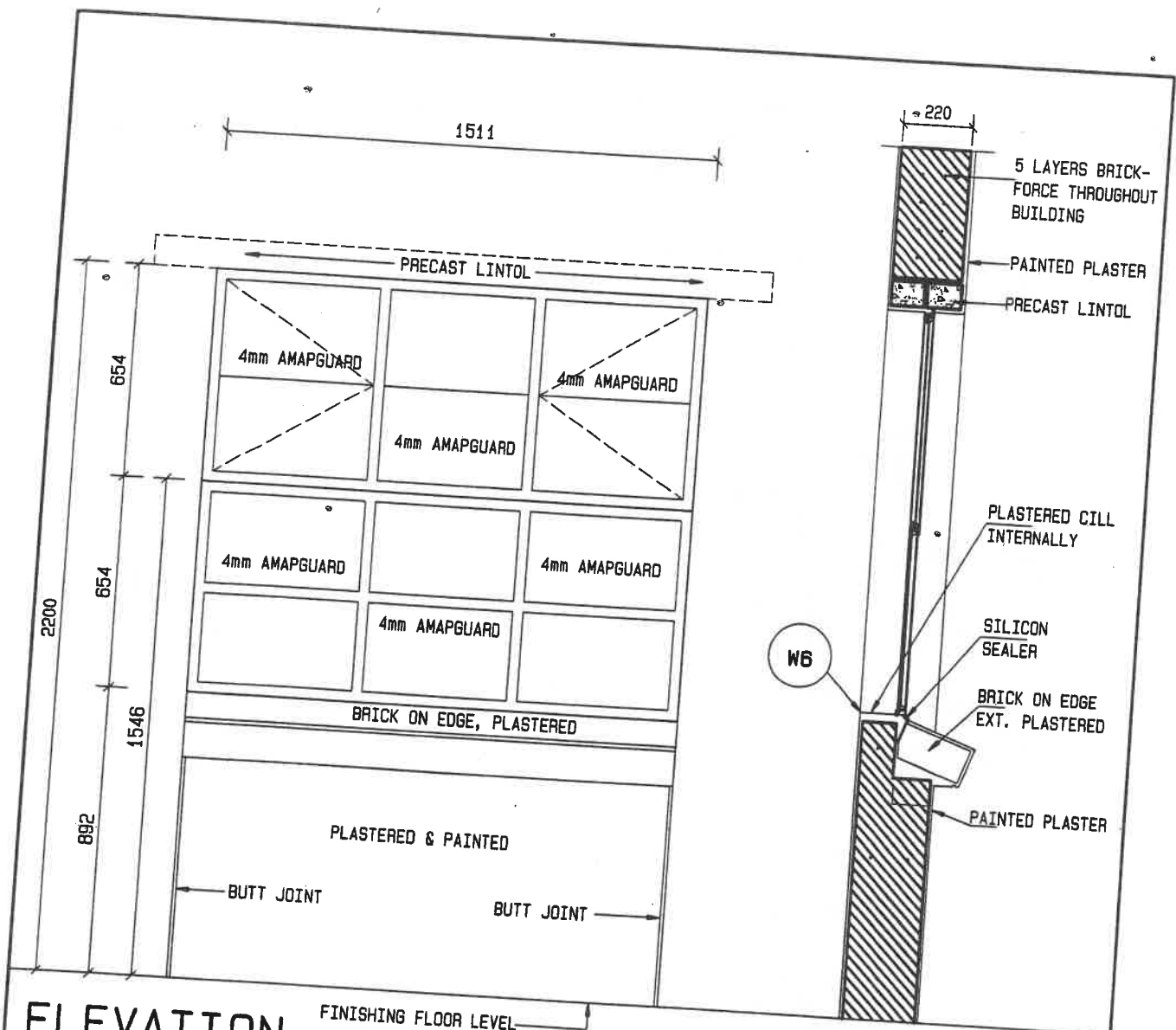
SECTION D1

CATALOGUE NO.	PURPOSE MADE SECURITY GATE	CILL	N.A
ACTION/NO. REQD	SIDE HUNG WITH THREE HINGES / SEE KEY-PLANS	LINTOLS	5 LAYER BRICKFORCE
FRAME/GLAZ. BEAD	40x40x2mm HOLLOW SECTION FRAME, & 15x15x2mm UPRIGHT HOLLOW SECTION INTERMEDIATES	HANDLES	N/A
GLAZING	N/A	LOCK SETS	'UNION' NARROW STILE CYLINDER DEAD LOCK ART: L-21315-40PL
SCREEN	N/A	HINGES/STOPS	3 OFF 100mm WELD-ON LIFT-OFF HINGES BLACK RUBBER DOOR STOP FIXED TO WALL
SOLID	N/A	OTHER	
FIXTURE	BUILT IN	FINISH	HIGH GLOSS ENAMEL
SCALE	DATE	DRAWN	REVISIONS
1:20	SEPT03	ESAD	JAN08
PROJECT NUMBER			
MODULE			
DRAWING NUMBER			
PROPERTY OF			
GOVERNMENT OF NAMIBIA			
PROJECT CONSULTANT			
TEL :			
			
MINISTRY OF WORKS, TRANSPORT & COMMUNICATION			

PURPOSE MADE SECURITY GATE
813 X 2300 TO SUIT 220MM WALL
USER MINISTRY
MINISTRY OF BASIC EDUCATION, SPORT & CULTURE

DOORS
2008

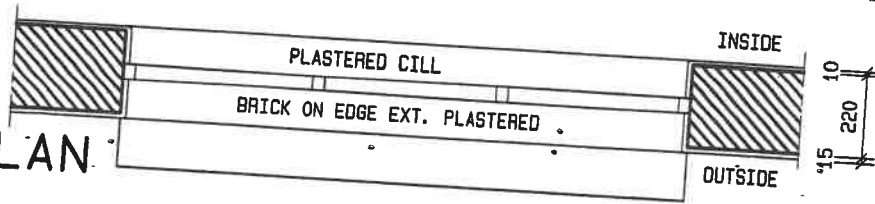
D12a




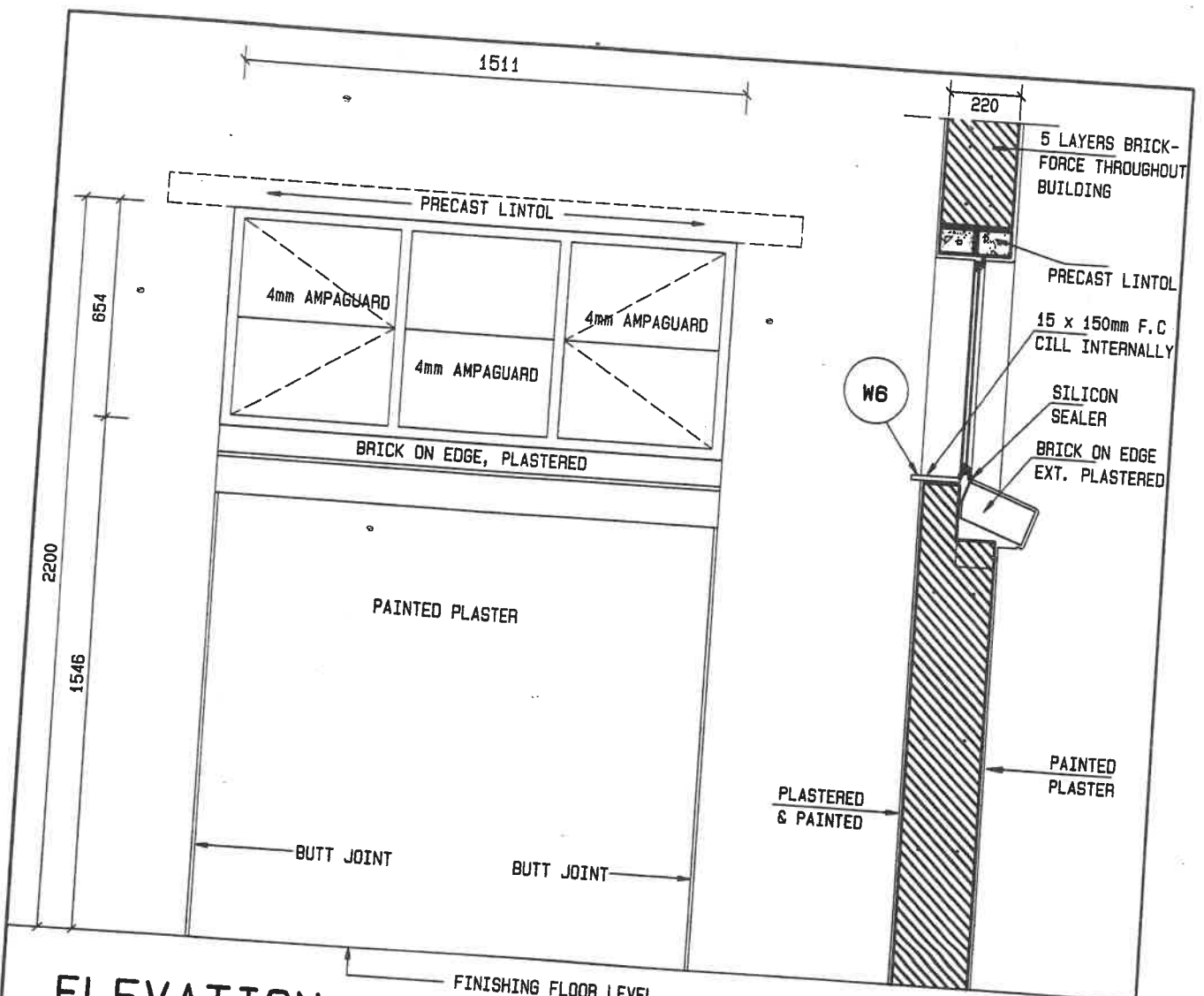
ELEVATION

SECTION

PLAN

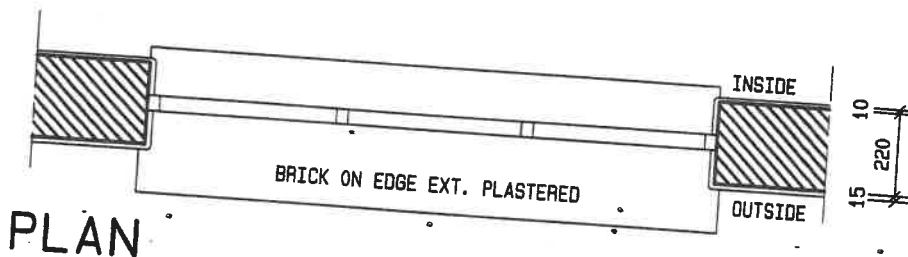


CATALOGUE NO.	STANDARD WISPECO WINDOWS ES4H + E9H WITH NP82 BB PROOFING TO ALL SECTIONS	CILL	PLASTERED INT. & BRICK ON EDGE EXT. PLASTERED
ACTION/NO. REQD	SIDE HUNG / SEE KEY-PLANS	LINTOLS	PRECAST LINTOL & 5 LAYERS BRICKFORCE THROUGHOUT BUILDING
FRAME/GLAZ.BEAD	STD. WISPECO / SILICON	HANDLES	STANDARD WISPECO
GLAZING	POLYCARBONATE	LOCK SETS	N.A
SCREEN	N.A	HINGES/STOPS	STANDARD WISPECO
SOLID	N.A	OTHER	N.A
FIXTURE	BUILT IN	FINISH	HIGH GLOSS ENAMEL
SCALE	DATE	DRAWN	REVISIONS
1:20	SEPT03	ESAD	NOV07
PROJECT NUMBER		MODULE	DRAWING NUMBER
STANDARD WISPECO WINDOWS ES4H + E9H COUPLED TOGETHER		WINDOWS 2008	W1
USER MINISTRY MINISTRY OF BASIC EDUCATION, SPORT & CULTURE		PROPERTY OF GOVERNMENT OF NAMIBIA PROJECT CONSULTANT	
		TEL :	
		 MINISTRY OF WORKS, TRANSPORT & COMMUNICATION	



ELEVATION

SECTION

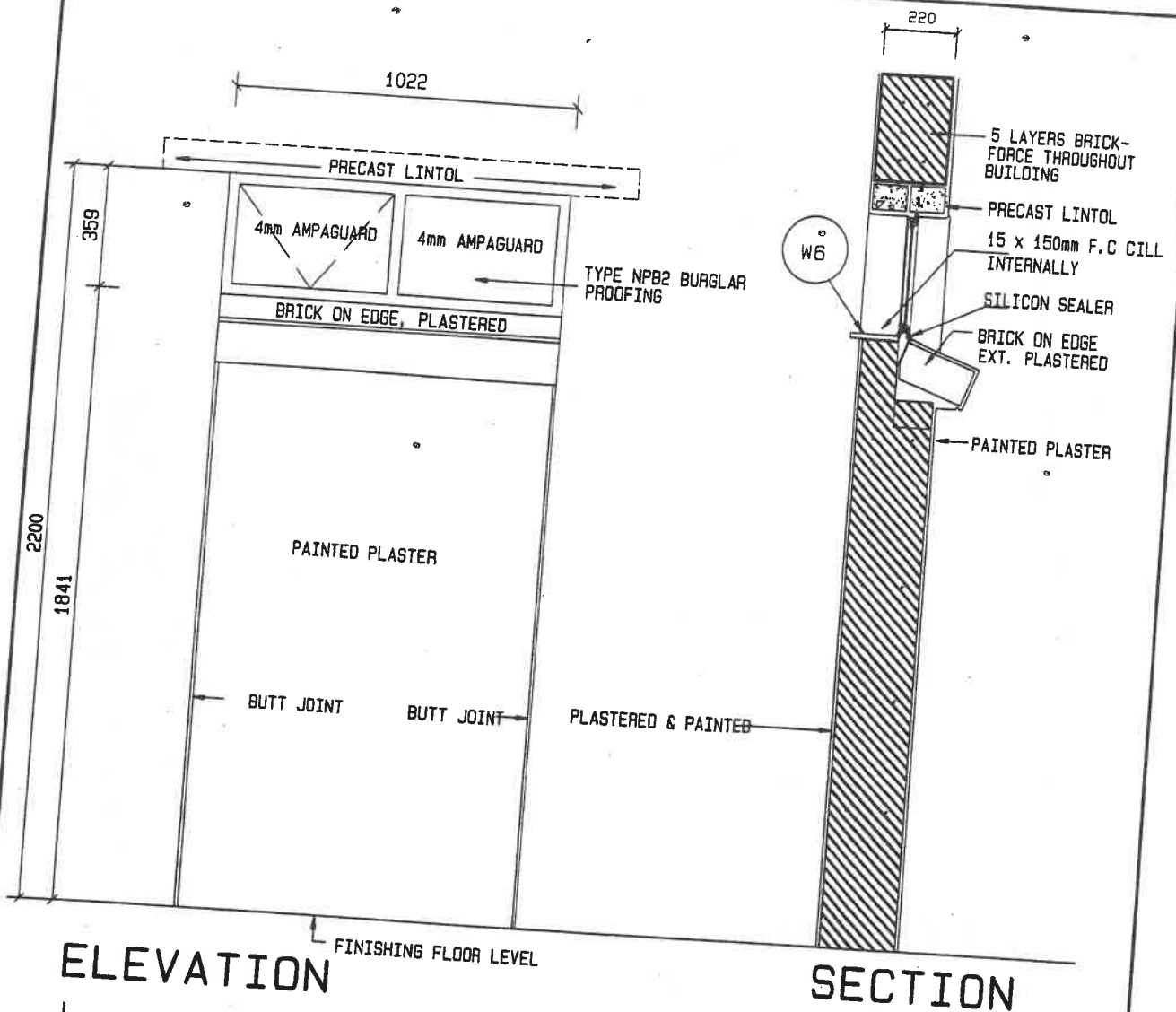


PLAN

CATALOGUE NO.	STANDARD WISPECO ES4H WITH NP2 BURGLAR PROOFING TO ALL SECTIONS	CILL	15 x 150 FC CILL INT. & BRICK ON EDGE EXT. PLASTERED
ACTION/NO. REQD	SIDE HUNG / SEE KEY-PLANS	LINTOLS	PRECAST LINTOL & 5 LAYERS BRICKFORCE THROUGHOUT BUILDING
FRAME/GLAZ.BEAD	STD. WISPECO / SILICON	HANDLES	STANDARD WISPECO
GLAZING	POLYCARBONATE	LOCK SETS	N.A
SCREEN	N.A	HINGES/STOPS	STANDARD WISPECO
SOLID	N.A	OTHER	N.A
FIXTURE	BUILT IN	FINISH	HIGH GLOSS ENAMEL
SCALE	DATE	DRAWN	REVISIONS
1:20	SEPT03	ESAD	NOV07
STANDARD WISPECO ES4H WINDOW			
1511 X 654			
USER MINISTRY			
MINISTRY OF BASIC EDUCATION, SPORT & CULTURE			
PROJECT NUMBER	MODULE	DRAWING NUMBER	PROPERTY OF
	WINDOWS	W2	GOVERNMENT OF NAMIBIA
	2008		PROJECT CONSULTANT
			TEL :



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CATALOGUE NO.	STANDARD WISPECO N62 WITH BURGLAR NPB2 PROOFING TO ALL SECTIONS			CILL	15 x 150 FC CILL INT. & BRICK ON EDGE EXT. PLASTERED		
ACTION/NO. REQD	SIDE HUNG / SEE KEY-PLANS			LINTOLS	PRECAST LINTOL & 5 LAYERS BRICKFORCE THROUGHOUT BUILDING		
FRAME/GLAZ. BEAD	STD. WISPECO / SILICON			HANDLES	STANDARD WISPECO		
GLAZING	POLYCARBONATE			LOCK SETS	N.A		
SCREEN	N.A			HINGES/STOPS	STANDARD WISPECO		
SOLID	N.A			OTHER	N.A		
FIXTURE	BUILT IN			FINISH	HIGH GLOSS ENAMEL		
SCALE	DATE	DRAWN	REVISIONS	PROJECT NUMBER	MODULE	DRAWING NUMBER	PROPERTY OF
1:20	SEP03	ESAD	NOV07				GOVERNMENT OF NAMIBIA
WINDOW: TYPE N62				WINDOWS	2008	W3	PROJECT CONSULTANT
STD 1022x359x220mm WALL							TEL :
USER MINISTRY MINISTRY OF BASIC EDUCATION, SPORT & CULTURE							

DRAWING SYMBOLS

(A)	BULKHEAD LUMINAIRE WITH CLEAR DIFFUSER AND 2xPL9 COOL WHITE LAMPS EQUAL OR SIMILAR APPROVED TO LASCON B10-2PL9
(B)	OPEN CHANNEL SINGLE TUBE FLUORESCENT LUMINAIRE WITH TELESCOPIC LAMPHOLDERS AND 1x58W COOL WHITE LAMP EQUAL OR SIMILAR APPROVED TO LASCON R1-158SS
(C)	OPEN CHANNEL DOUBLE TUBE FLUORESCENT LUMINAIRE WITH TELESCOPIC LAMPHOLDERS AND 2x58W COOL WHITE LAMPS EQUAL OR SIMILAR APPROVED TO LASCON R1-258SS
(D)	MOTORISED SIREN, 230 V WITH AN AUDIBLE DISTANCE OF 1000m
(E)	PILOT LIGHT WITH RED LENS, AND 230V 15W PIGMY LAMP
✓	16A SINGLE LEVER ONE WAY LIGHT SWITCH, WHITE COVER PLATE, 1200mm AFFL
✓ 2L	16A TWO LEVER ONE WAY LIGHT SWITCH, WHITE COVER PLATE, 1200mm AFFL
✓ 2W	16A SINGLE LEVER TWO WAY LIGHT SWITCH, WHITE COVER PLATE, 1200mm AFFL
✓ 2L2W	16A TWO LEVER TWO WAY LIGHT SWITCH, WHITE COVER PLATE, 1200mm AFFL
✓ BP	16A SINGLE LEVER BELL PUSH LIGHT SWITCH, WHITE COVER PLATE, 1200mm AFFL
	ELECTRICAL DISTRIBUTION BOARD, FLUSH MOUNTED ARCHITRAVE TYPE WHERE INSTALLED INDOOR AND SEMI-RECESSED WEATHERPROOF TYPE WHERE INSTALLED OUTDOORS. DOORS SHALL BE PADLOCKABLE, COLOUR WHITE
	DAYLIGHT SWITCH, 10A, MOUNTED INSIDE EMPTY B10 BULKHEAD LIGHT FITTING
A DB-B	CIRCUIT A OF DISTRIBUTION BOARD B
	16A SINGLE SWITCHED SOCKET OUTLET 300mm AFFL (UNDERSIDE) EXCEPT WHERE OTHERWISE INDICATED, COLOUR WHITE
	16A DOUBLE SWITCHED SOCKET OUTLET 300mm AFFL (UNDERSIDE) EXCEPT WHERE OTHERWISE INDICATED, COLOUR WHITE
	LOW VOLTAGE DC TERMINALS WITH 5 A 2.5 KA MCCB 300mm AFFL (UNDERSIDE) EXCEPT WHERE OTHERWISE INDICATED, COLOUR WHITE
✓	30A DOUBLE POLE ISOLATOR FLUSH MOUNTED 1200mm AFFL (UNDERSIDE) AND 50mm Ø OUTLET BOX 200mm AFFL BEHIND STOVE FOR STOVE CONNECTION, COLOUR WHITE
✓ WP	25A DOUBLE POLE ISOLATOR WEATHERPROOF IP 56 SURFACE MOUNTED. KNOCKOUT HOLES WHERE CONDUCTORS ENTER AND EXIT THE ISOLATOR MUST BE SEALED WITH SEALANT
✓ CG	20A DOUBLE POLE CORD GRIP ISOLATOR FLUSH MOUNTED 1200mm AFFL (UNDERSIDE) EXCEPT WHERE OTHERWISE INDICATED, COLOUR WHITE
	EARTHING OF ROOF, 25mm Ø PVC CONDUIT CHASED IN WALL FROM 300mm BELOW NGL TO ROOF, 1.5m x 16mm Ø COPPER PLATED EARTH ROD INSTALLED 300mm BELOW NGL, 50mm ² INSULATED COPPER CONDUCTOR BOLTED TO ROOF AND CLAMPED TO EARTH ROD.
	100x100x50mm OUTLET BOX WITH WHITE COVER PLATE
	100x50x50mm OUTLET BOX FOR PRE-PAYMENT METER
IV	100x100x50mm OUTLET BOX WITH WHITE COVER PLATE 300mm AFFL (UNDERSIDE) AND 20mm Ø PVC CONDUIT TO ROOF SPACE FOR TV ANTENNA CABLE

SCALE DATE DRAWN REVISIONS
N. T. S. JUL03 ESAD

**ELECTRICAL LEGEND FOR
ALL MODULES - SHEET 1**







USER MINISTRY
MINISTRY OF BASIC EDUCATION, SPORT & CULTURE

PROJECT NUMBER MODULE DRAWING NUMBER PROPERTY OF
2008 E E 01 GOVERNMENT OF NAMIBIA
PROJECT CONSULTANT
TEL :




MINISTRY OF WORKS,
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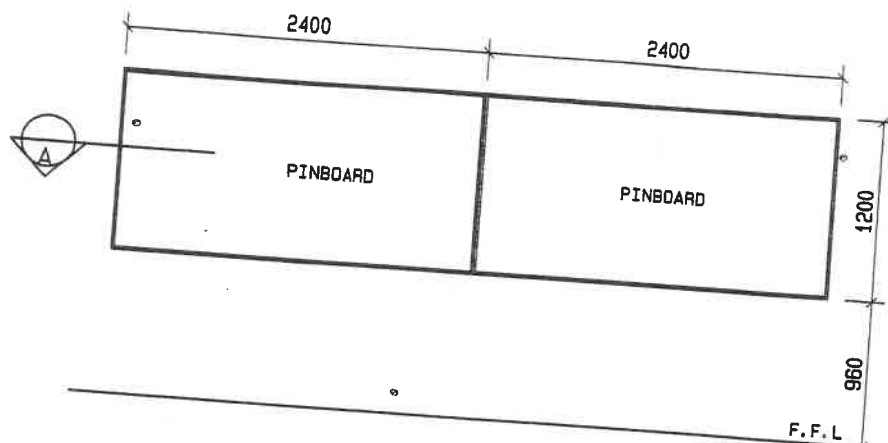
DRAWING SYMBOLS

	100 VA, 230V AC TO 12V DC SWITCH MODE RECTIFIER POWER SUPPLY WITH LESS THAN 2.5% REGULATION FAULT AT FULL LOAD, MOUNTED INSIDE PADLOCKABLE VENTILATED SURFACE MOUNTED ENCLOSURE, COLOUR BEIGE
	25mmØ PVC CONDUIT
	32mmØ PVC CONDUIT
	50mmØ PVC SLEEVE
	TELEPHONE DISTRIBUTION BOARD 510x410x110mm FLUSH INSTALLED, COLOUR WHITE
	100x100x50mm OUTLET BOX WITH WHITE COVER PLATE 300mm AFFL (UNDERSIDE) OR AS INDICATED FOR TELEPHONE OUTLET POINT

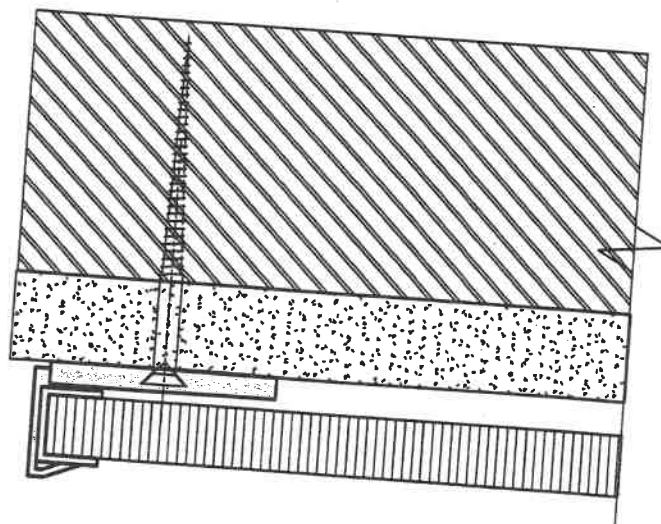
GENERAL NOTES:

1. THE COMPLETE INSTALLATION SHALL BE FLUSH MOUNTED IN ACCORDANCE WITH THE LATEST "SABS 0142": CODE OF PRACTICE FOR THE WIRING OF PREMISES.
2. ALL CONDUITS IN CEILING VOIDS SHALL BE BLACK MILD STEEL.
3. CONDUITS IN FLOORS TO BE PVC.
4. CONDUIT FROM FLOOR TO ANY OUTLET POINT SHALL BE PVC AND FROM ANY OUTLET POINT TO CEILING SHALL BE BLACK MILD STEEL.
5. NO DRAW BOXES SHALL BE INSTALLED EXCEPT IF APPROVED BY THE ARCHITECT OR CLIENT.
6. ALL SWITCH GEAR TO BE RATED 5 KA.
7. LIGHT FITTINGS TO BE APPROVED BY ARCHITECT OR CLIENT PRIOR TO ORDERING.
8. METAL ROOFS TO BE EARTHED WITH 50mm sq PVC INSULATED COPPER EARTHWIRE IN 25mm CONDUIT BETWEEN CEILING VOID AND 300mm BELOW GROUND LEVEL AND WITH 1.5m LONG COPPER EARTH ELECTRODES AT THE CENTRE OF TWO SHORT SIDES OF THE EXTERNAL BUILDING WALLS. THE JOINT AT THE EARTH SPIKE TO BE PROPERLY PROTECTED AGAINST CORROSION.
9. ALL OUTDOOR LUMINAIRES AND ISOLATORS SHALL BE SEALED WHERE CONDUCTORS ENTER AND EXIT THE ENCLOSURES TO PREVENT THE INGRESS OF INSECTS AND WATER.
10. ALL ITEMS TO BEAR THE SABS MARK IF AN SABS MARK EXISTS FOR THE ITEM CONCERNED.

SCALE	DATE	DRAWN	REVISIONS	PROJECT NUMBER	MODULE	DRAWING NUMBER	PROPERTY OF	 MINISTRY OF WORKS TRANSPORT & COMMUNICATION
N. T. S.	JUL03	ESAD			E	E 02	GOVERNMENT OF NAMIBIA	
ELECTRICAL LEGEND FOR ALL MODULES - SHEET 2					2008		PROJECT CONSULTANT	
USER MINISTRY MINISTRY OF BASIC EDUCATION, SPORT & CULTURE							TEL :	




ELEVATION

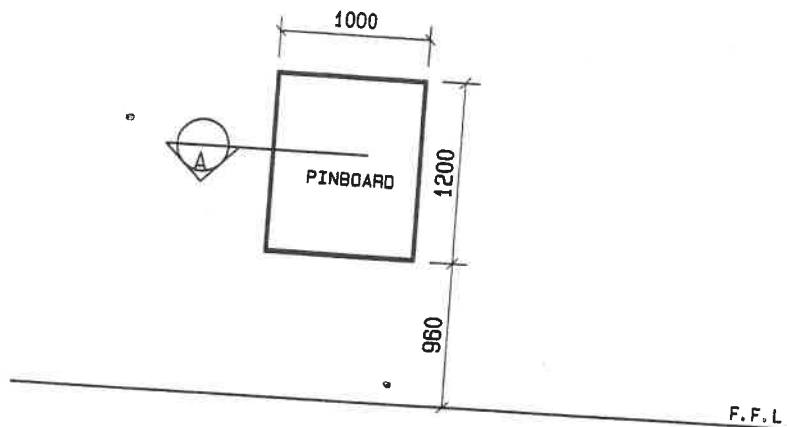


PLAN Scale 1:1

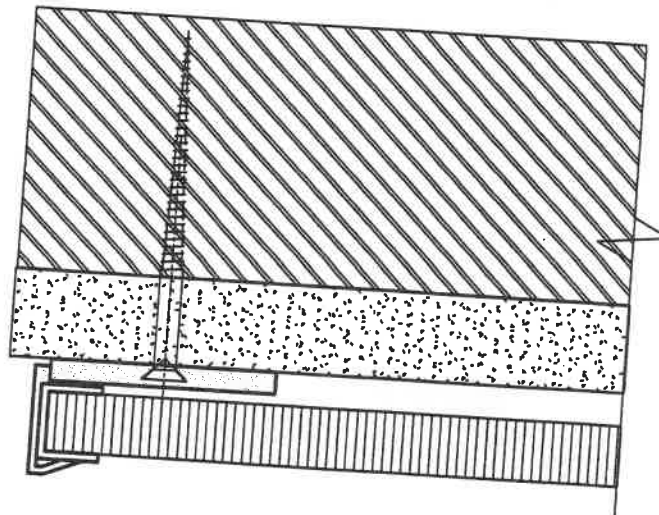
NOTE:

1. 2 OFF VITREX PINBOARD MODEL 2300 CODE: '2309' WITH ALUMINIUM FRAME PLUGGED AND SCREWED TO WALL WITH 38mm STEEL COUNTERSUNK SCREWS WHERE APPLICABLE
2. PINNING SURFACE STANDARD COLOUR 'MISTY' (LIGHT GREY)

SCALE	DATE	DRAWN	REVISIONS	PROJECT NUMBER	MODULE	DRAWING NUMBER	PROPERTY OF	 MINISTRY OF WORKS TRANSPORT & COMMUNICATION
1:50	SEP03	ESAD	JAN08		FIXTURES	F1	GOVERNMENT OF NAMIBIA	
PINBOARDS (2400x1200mm)					2008		PROJECT CONSULTANT	
USER MINISTRY MINISTRY OF BASIC EDUCATION, SPORT & CULTURE							TEL :	




ELEVATION

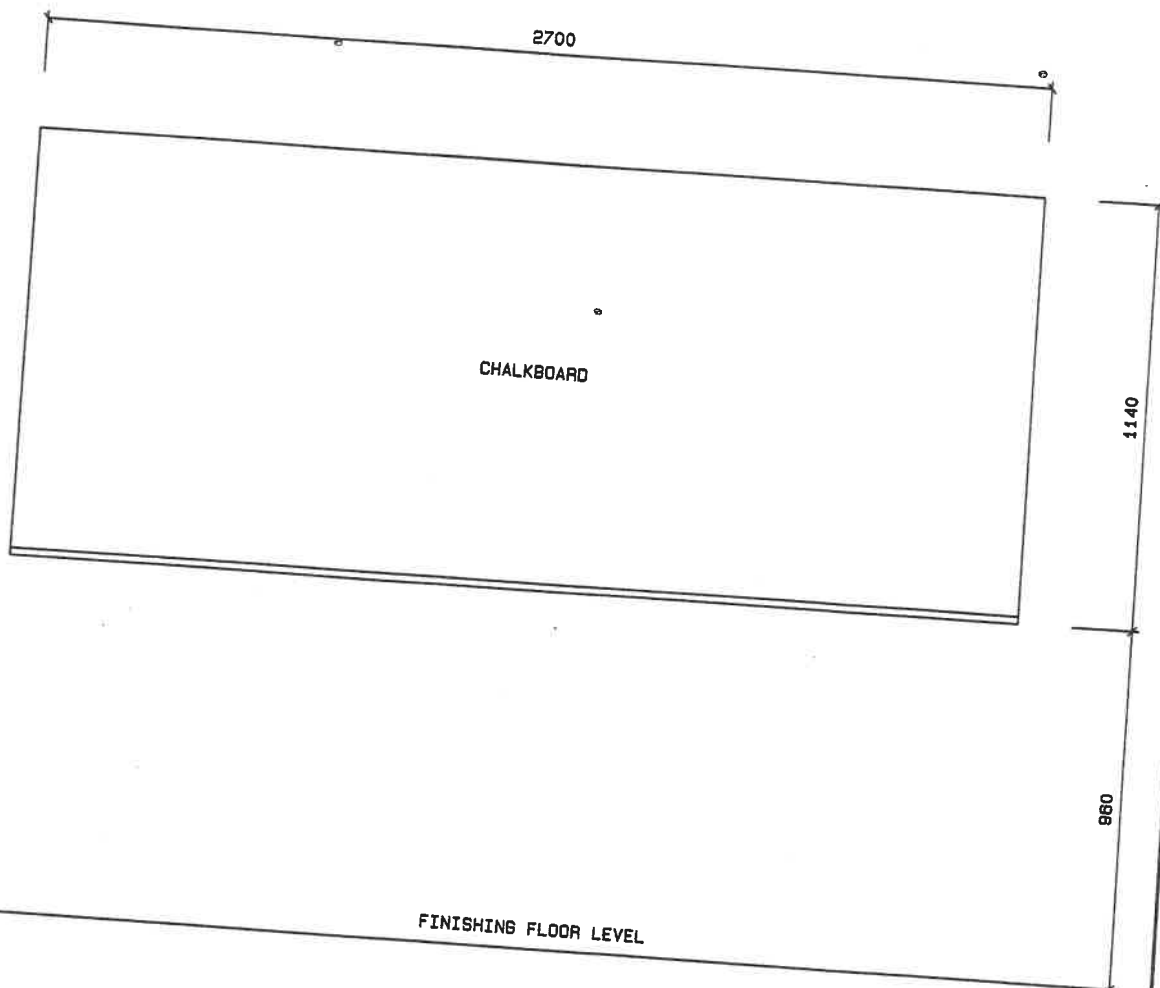


PLAN Scale 1:1

NOTE:


1. 1 OFF VITREX PINBOARD MODEL 2300 CODE: '2315' WITH ALUMINIUM FRAME PLUGGED AND SCREWED TO WALL WITH 38mm STEEL COUNTERSUNK SCREWS WHERE APPLICABLE
2. PINNING SURFACE STANDARD COLOUR 'MISTY' (LIGHT GREY)

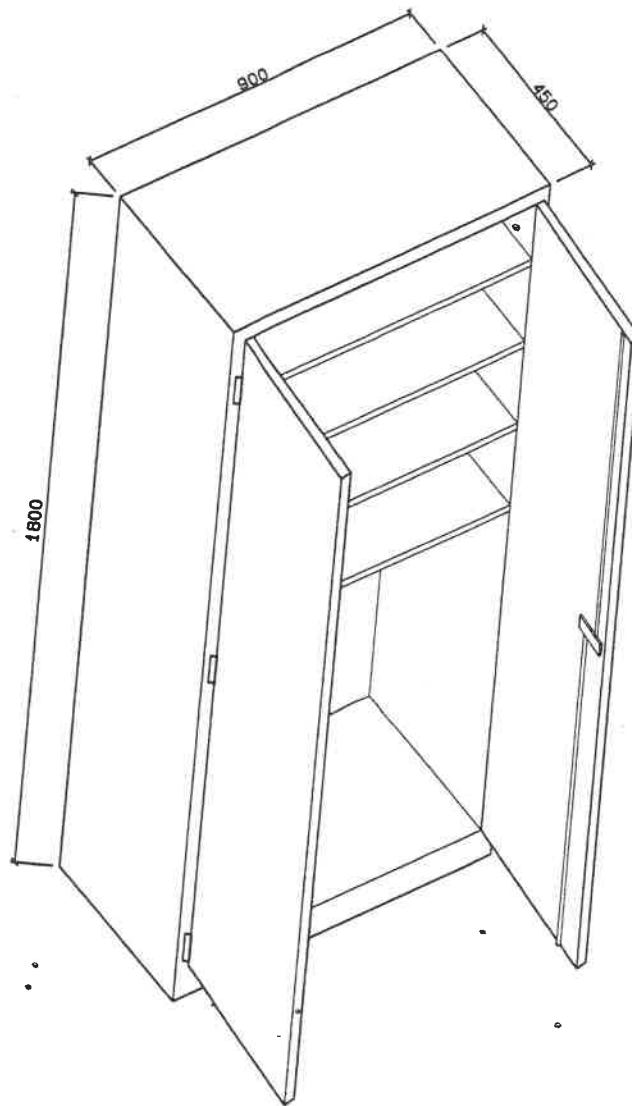
SCALE	DATE	DRAWN	REVISIONS	PROJECT NUMBER	MODULE	DRAWING NUMBER	PROPERTY OF	 MINISTRY OF WORKS TRANSPORT & COMMUNICATION
1:50	SEP03	ESAD	JAN08				GOVERNMENT OF NAMIBIA	
PINBOARD (1000x1200mm)					FIXTURES	F3	PROJECT CONSULTANT	
USER MINISTRY MINISTRY OF BASIC EDUCATION, SPORT & CULTURE					2008		TEL :	




ELEVATION

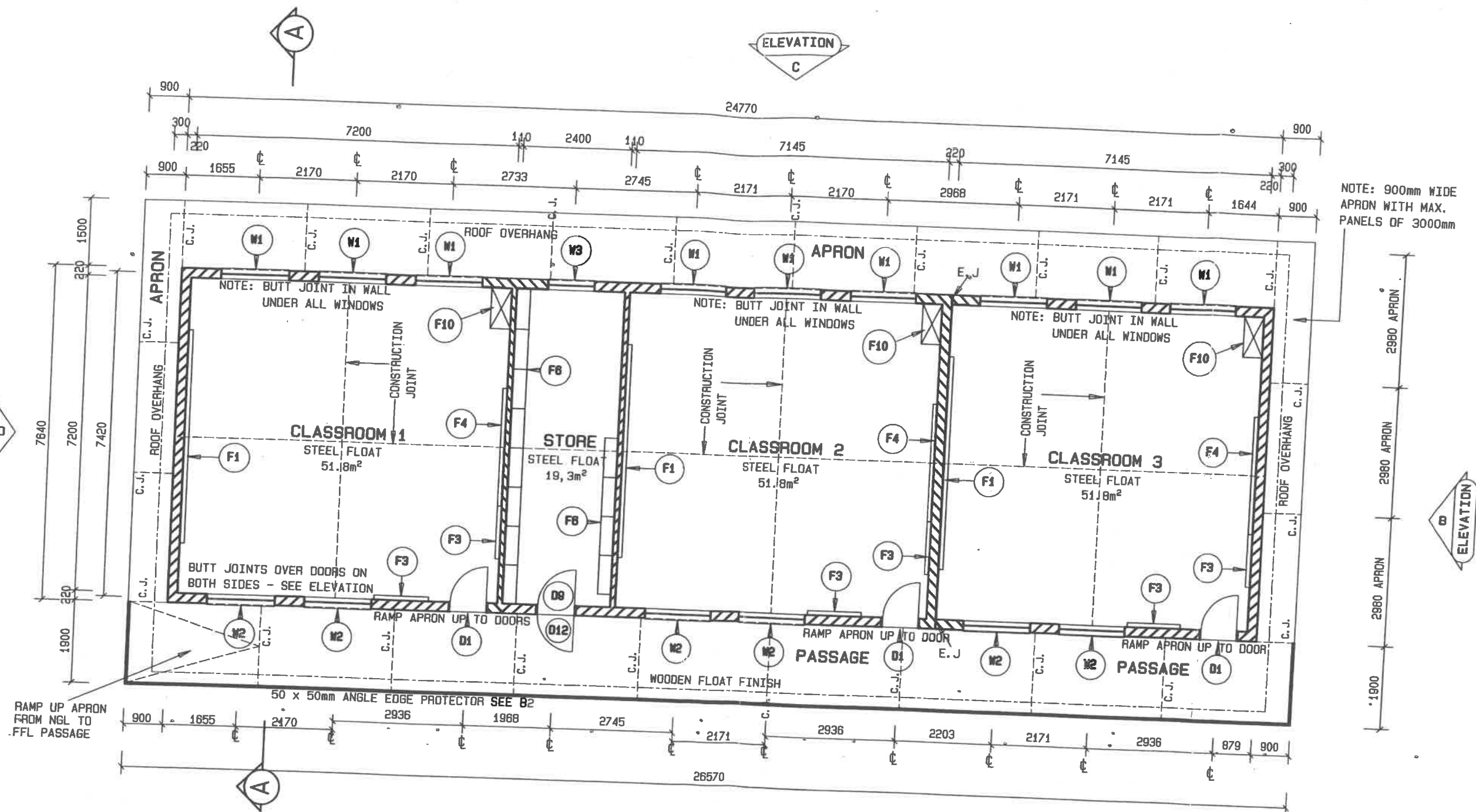
NOTE:
VITREOUS ENAMELLED CHALKBOARD MAGNETIC STEEL SURFACE, NON REFLECTIVE TO
COMPLY WITH SABS. SPECIFICATION CKS - 36 - 1980 SUPPLIED COMPLETE WITH
ALUMINIUM CHALK RAIL AND MOUNTED TO WALL WITH STD. FIXING BRACKETS.

SCALE	DATE	DRAWN	REVISIONS	PROJECT NUMBER	MODULE	DRAWING NUMBER	PROPERTY OF	 MINISTRY OF WORKS, TRANSPORT & COMMUNICATION
1:20	SEP03	ESAD	JAN08				GOVERNMENT OF NAMIBIA	
CHALKBOARD (2700 x 1440)					FIXTURES 2008	F4	PROJECT CONSULTANT	
USER MINISTRY MINISTRY OF BASIC EDUCATION, SPORT & CULTURE							TEL :	



- NOTE: 1. STANDARD STEEL TEACHERS CUPBOARD 900x450x1800mm ART NO. 5060
 WITH 4 ADJUSTABLE SHELVES, EPOXY POWDER COATED
 2. CUPBOARD TO BE FIXED TO WALL WITH (4X) 6x4 RAWL COACH SCREWS

SCALE	DATE	DRAWN	REVISIONS	PROJECT NUMBER	MODULE	DRAWING NUMBER	PROPERTY OF	 MINISTRY OF WORKS TRANSPORT & COMMUNICATION
1:20	SEP03	ESAD	JAN08		FIXTURES 2008	F10	GOVERNMENT OF NAMIBIA PROJECT CONSULTANT	
TEACHERS STEEL CUPBOARD (FIXED)				MINISTRY OF BASIC EDUCATION, SPORT & CULTURE		TEL :		



NET AREA = 174,9m²
GROSS AREA = 189,2m²

PLAN

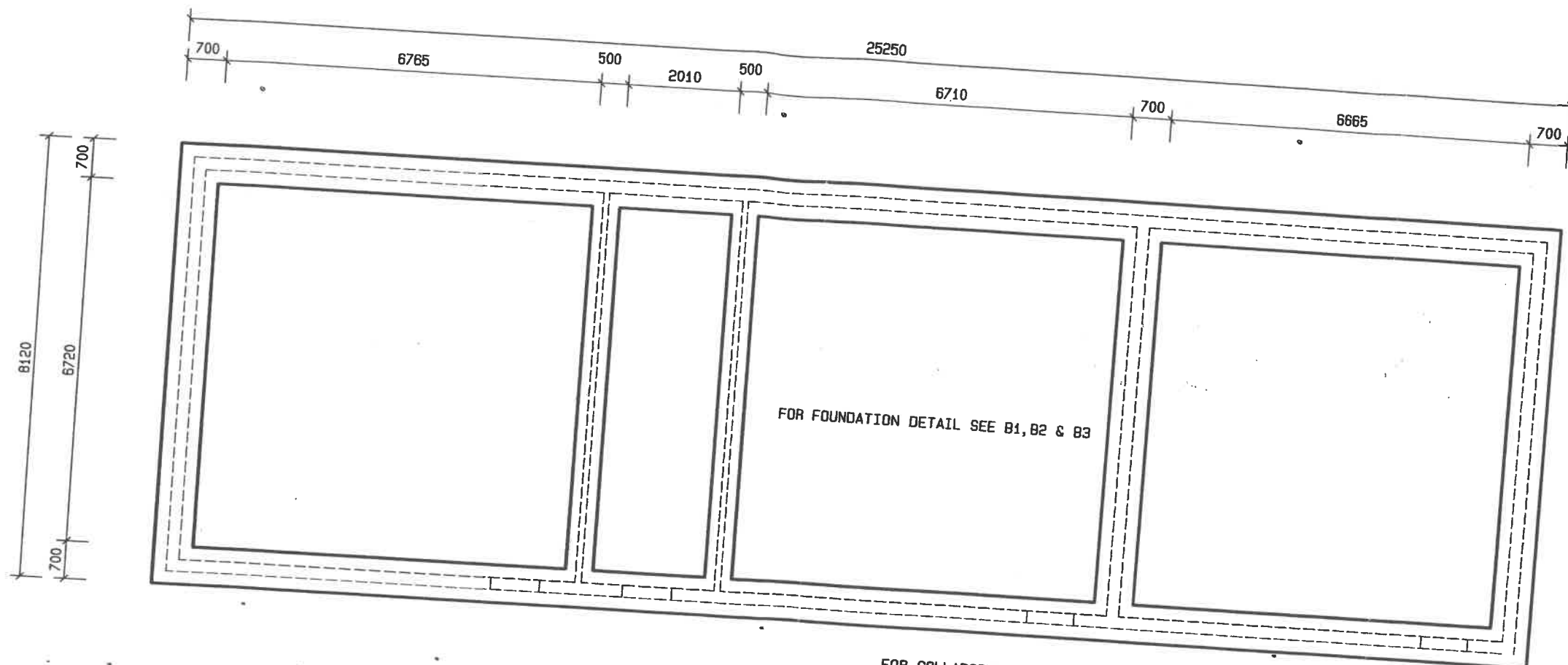
Scale 1:100



SCALE	DATE	DRAWN	REVISIONS	PROJECT NUMBER	MODULE	DRAWING NUMBER	PROPERTY OF
1:100	JUL03	ESAD	JAN08				GOVERNMENT OF NAMIBIA
THREE CLASSROOMS & STORE STRUCTURE PLAN					CLA3S 2008	CLA3S 01	PROJECT CONSULTANT
USER MINISTRY MINISTRY OF BASIC EDUCATION, SPORT & CULTURE							TEL :



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FOR COLLAPSING SOIL AND CLAY
CONDITIONS REFER TO DETAIL B 41

FOUNDATION PLAN

Scale 1:100

SCALE	DATE	DRAWN	REVISIONS	PROJECT NUMBER	MODULE	DRAWING NUMBER	PROPERTY OF
1:100	AUG03	ESAD					GOVERNMENT OF NAMIBIA
THREE CLASSROOMS & STORE FOUNDATION LAYOUT					CLA3S 2008	CLA3S 02	PROJECT CONSULTANT
USER MINISTRY MINISTRY OF BASIC EDUCATION, SPORT & CULTURE							TEL :

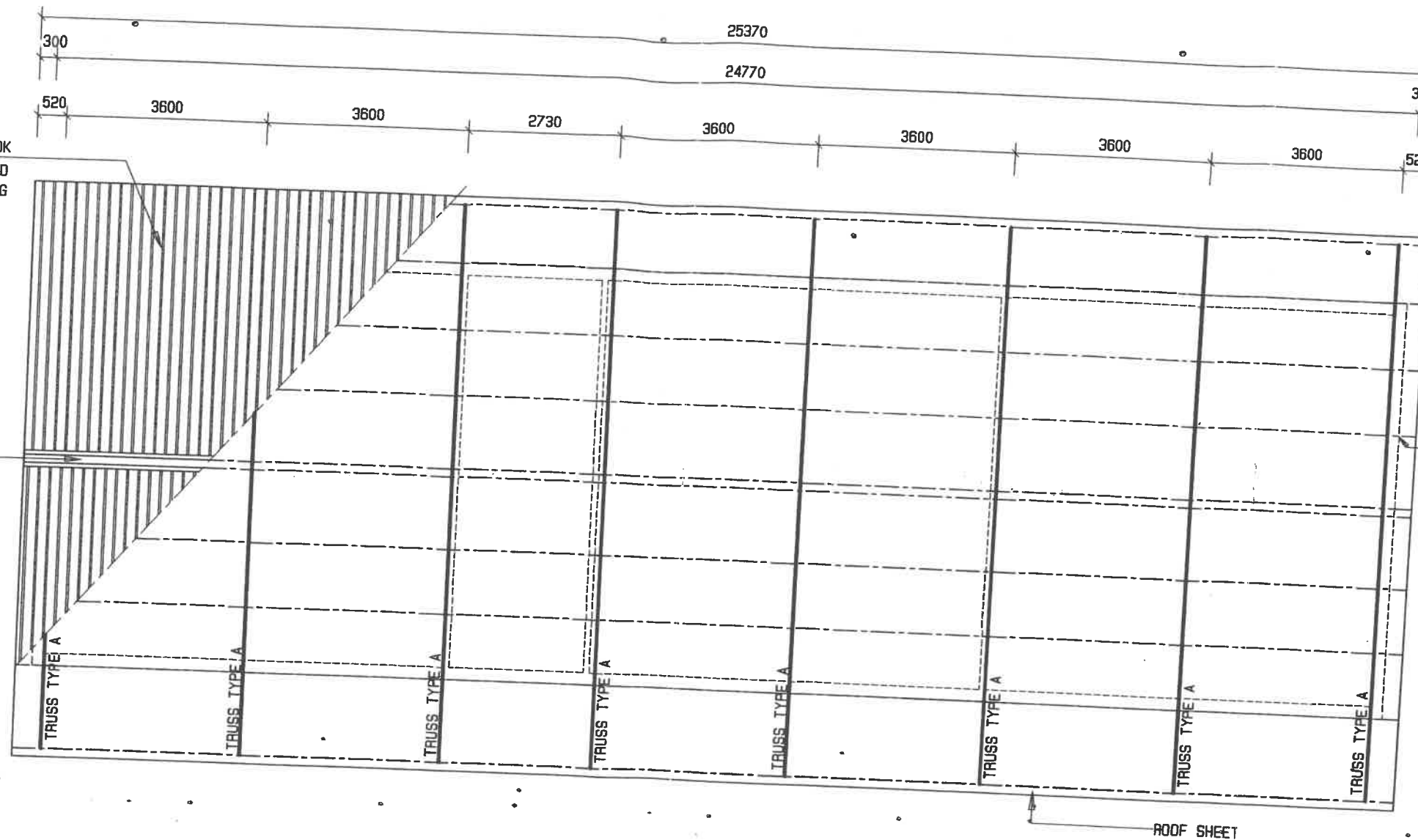


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0.5mm THICK GALVANISED KLIPLOK
ROOFSHEETS OR SIMILAR APPROVED
SHEETING WITH CONCEALED FIXING

STD. GALVANISED
RIDGE CAPPING

PURLINS WELDED
CLOSED AT GABLE
WALLS




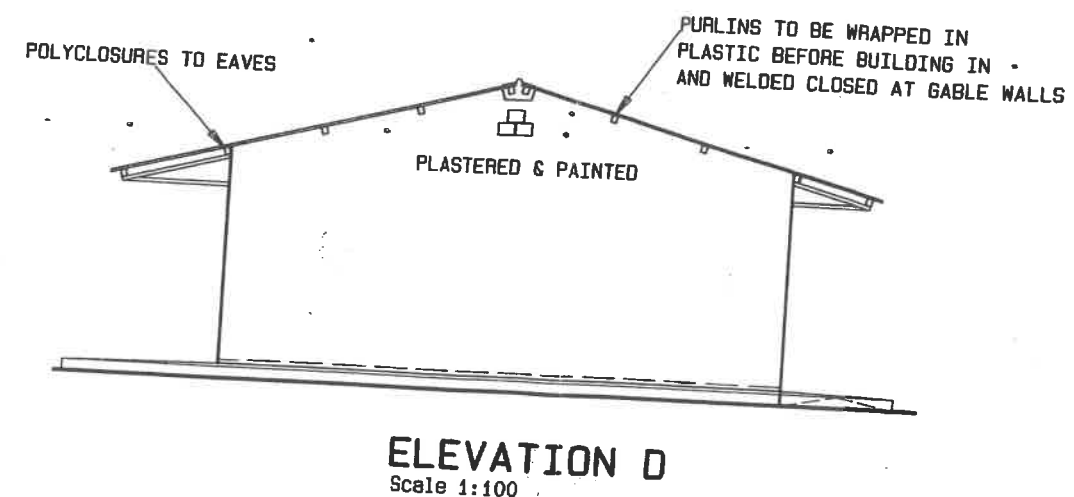
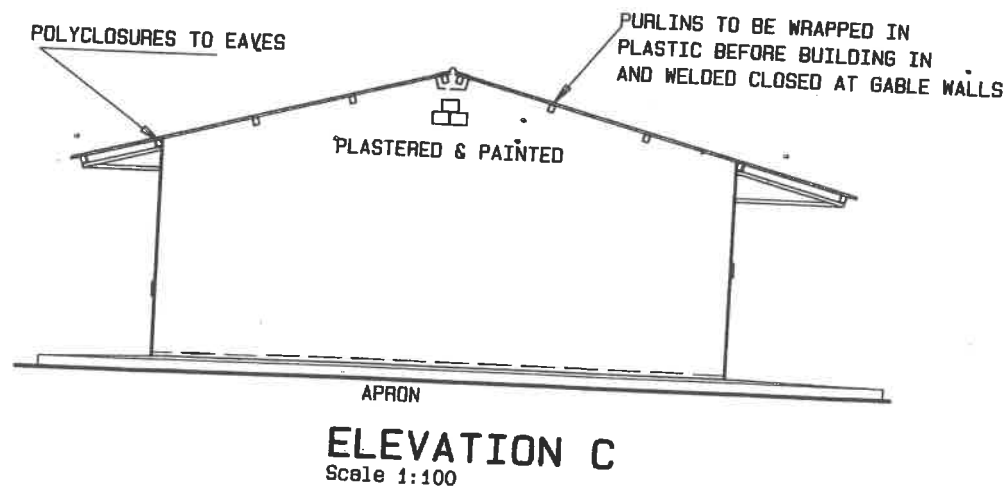
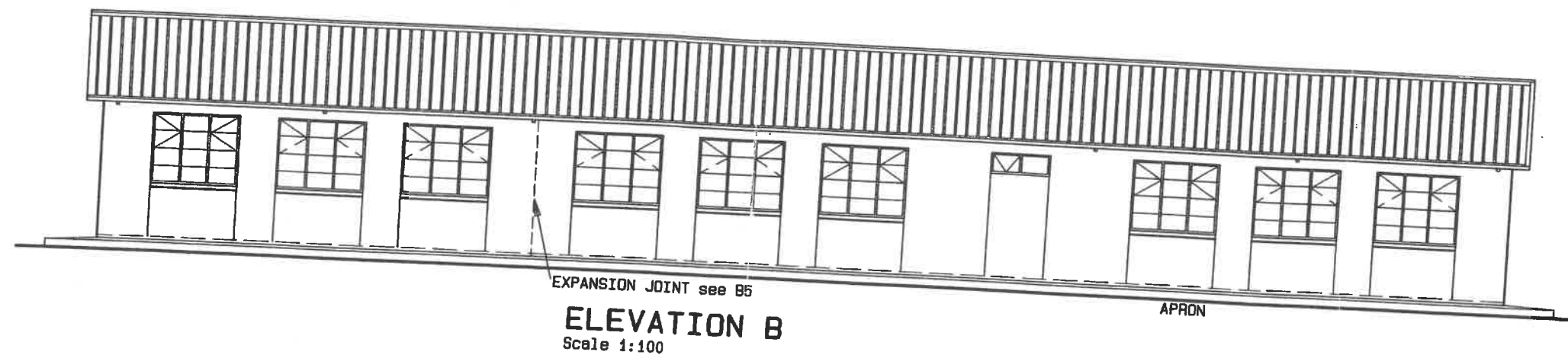
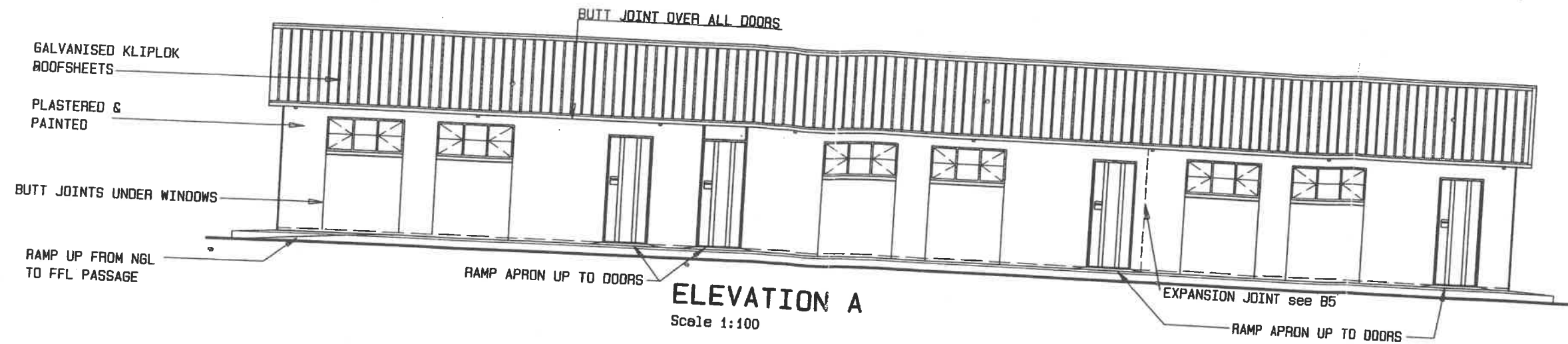
LEGEND

100x50x20x2.0mm
LIPPED CHANNEL PURLINS
50x50x5mm ANGLE
IRON TRUSSES

ROOF LAYOUT

Scale 1:100

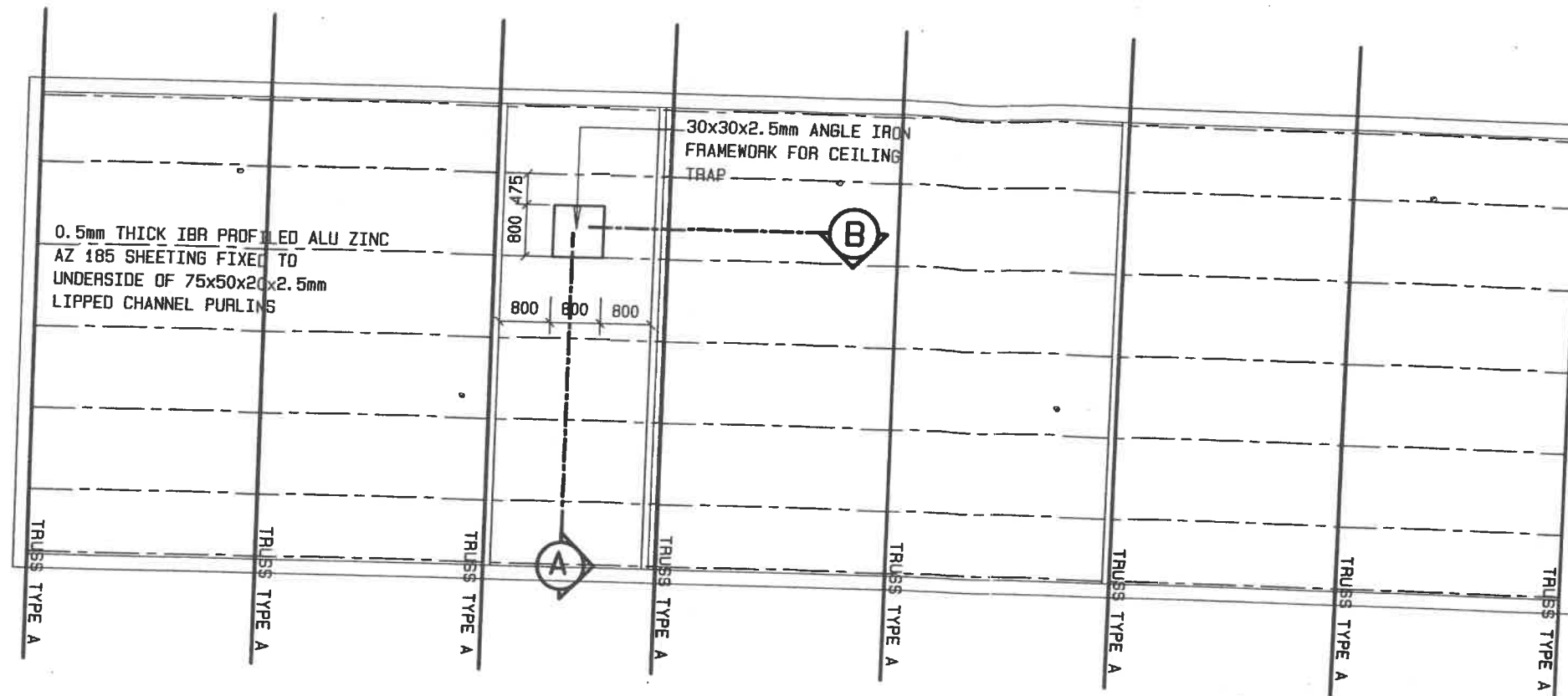
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THREE CLASSROOMS & STORE ROOF LAYOUT					CLA3S 2008	CLA3S 03	PROJECT CONSULTANT
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SCALE	DATE	DRAWN	REVISIONS	PROJECT NUMBER	MODULE	DRAWING NUMBER	PROPERTY OF
1:100	AUG03	ESAD	JAN08				GOVERNMENT OF NAMIBIA
THREE CLASSROOMS & STORE ELEVATIONS					CLA3S 2008	CLA3S 05	PROJECT CONSULTANT
USER MINISTRY MINISTRY OF BASIC EDUCATION, SPORT & CULTURE							TEL :



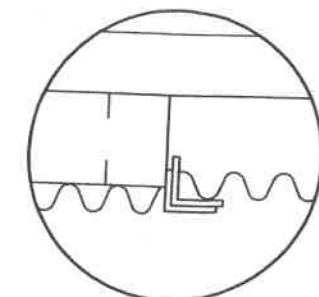
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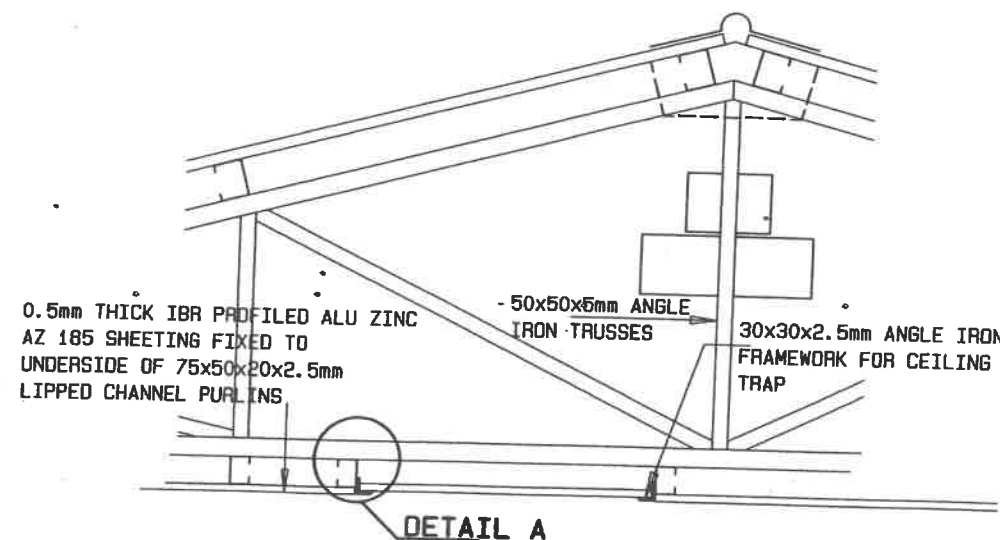
CEILING LAYOUT
Scale 1:100

LEGEND

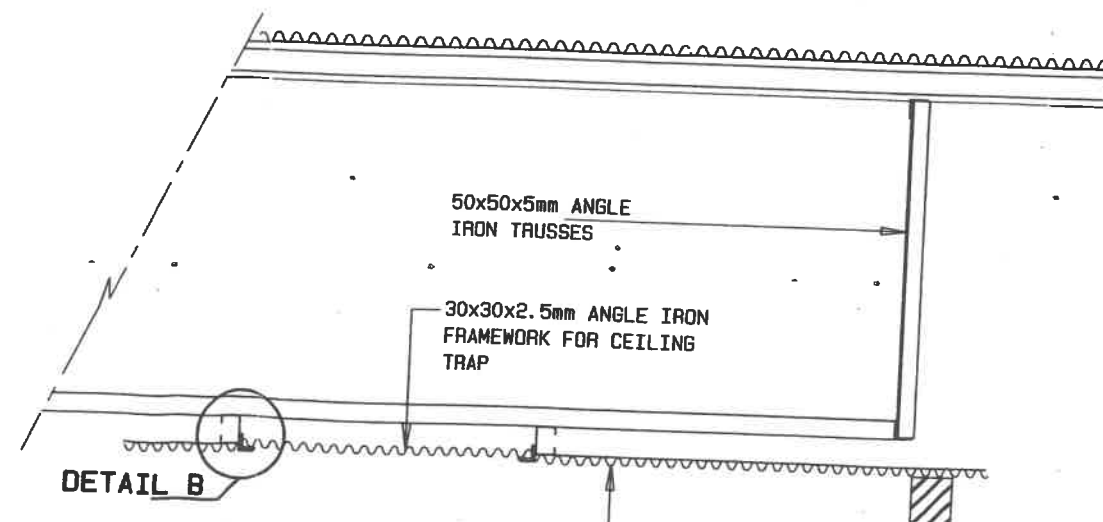
- 75x50x20x2.5mm LIPPED CHANNEL
- 50x50x5mm ANGLE IRON TRUSSES



DETAIL B
Scale 1:20

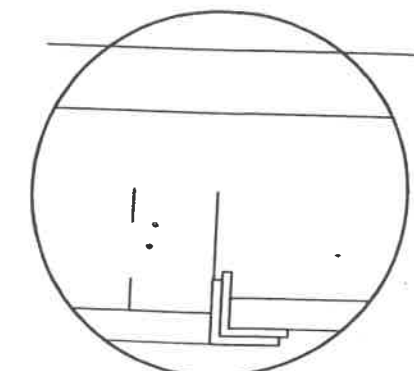


SECTION A
Scale 1:100



0.5mm THICK IFR PROFILED ALU ZINC
AZ 185 SHEETING FIXED TO
UNDERSIDE OF 75x50x20x2.5mm
LIPPED CHANNEL PURLINS

SECTION B
Scale 1:100

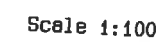


DETAIL A
Scale 1:20

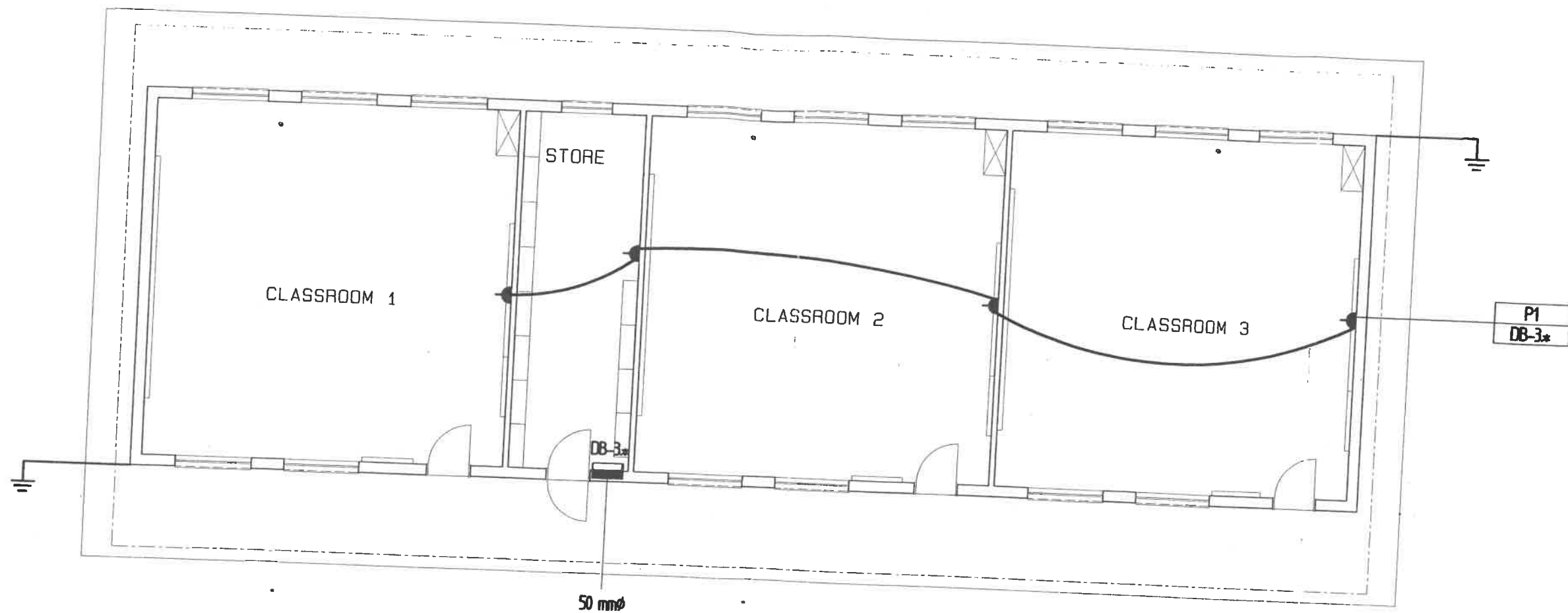
SCALE	DATE	DRAWN	REVISIONS	PROJECT NUMBER	MODULE	DRAWING NUMBER	PROPERTY OF
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THREE CLASSROOMS & STORE					CLA3S	CLA3S	PROJECT CONSULTANT
USER MINISTRY MINISTRY OF BASIC EDUCATION, SPORT & CULTURE					2008	06	TEL :



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POWER LAYOUT

Scale 1:100

SCALE	DATE	DRAWN	REVISIONS	PROJECT NUMBER	MODULE	DRAWING NUMBER	PROPERTY OF
1:100	AUG03	ESAD	JAN08		CLA3S	CLA3S	GOVERNMENT OF NAMIBIA
THREE CLASSROOMS & STORE POWER INSTALLATION					2008	08	PROJECT CONSULTANT
USER MINISTRY MINISTRY OF BASIC EDUCATION, SPORT & CULTURE							TEL :



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