

**CONTRACT NO. IN/13/2022**

**Alterations and Additions to the Existing Administration Building at the  
University of Venda, Thohoyandou, Limpopo Province  
(CIDB GRADING NO: 7GB)  
VOLUME 2 OF 2**

**PROCUREMENT DOCUMENT**

(Based on NEC3 Engineering and Construction Contract)

Date of Issue: 01 June 2022

**Issued by:**

Director Facilities Management

**University of the Venda, Thohoyandou**

**Name of tenderer:** .....

**Telephone Number:** .....

**Email Address:** .....

**Fax Number:** .....

**Cellphone Number:** .....

**Closing date: AS PER TENDER INVITATION**

# **PREAMBLES FOR TRADE**

## **PREAMBLES FOR TRADES**

### **1. MODEL PREAMBLES FOR TRADES**

The "Specification of Materials and Methods to be used - PW371" as issued by the Department of Public Works shall apply and shall be deemed to be incorporated herein.

The Bidders are referred to the above-mentioned document for the full description of materials to be used and work to be executed.

A copy of the above-mentioned document is available at the offices of the Principal Agent for inspection.

### **2. VARIATIONS AND/OR ADDITIONS TO MODEL PREAMBLES FOR TRADES**

- a. All work to be done in accordance to the detailed specification as per the Engineers and Architects drawings.
- b. Where variations and/or additions to Model Preambles differ from Clauses contained in the "Specification of Materials and Methods to be used - PW371", the variations and/or additions to Preambles shall take precedence.

### **3. MATERIALS AND WORKMANSHIP**

Materials and workmanship shall be the best of their respective kinds. Only undamaged materials may be used in the works. Work shall be to the satisfaction of the Architect/Engineer and shall be executed in accordance with good building practice and the relevant Manufacturer's instruction. Where the term "approved" is used in connection with materials and workmanship, it shall mean that such materials shall be to the approval, instructions or choice of the Architect.

### **4. STANDARD SPECIFICATIONS**

Materials and Workmanship shall comply with the Standard Building Regulations (SBR), National Building Regulations (NBR), SABS1200, the specifications and codes of practice of the South African Bureau of Standards, and CSIR recommendations. In cases of variance, these "Specification of Materials and Methods to be used - PW371" and any supplementary preambles thereto shall have precedence over the above-mentioned regulations, specifications and codes of practice. In cases of variance between the SBR and NBR, the NBR shall have precedence.

The latest issues of the above-mentioned regulations, specifications and codes of practice, as well as those of any other specifying body, to which reference is made, shall be applicable.

References to standard specifications and/or building regulations in these "Specification of Materials and Methods to be used - PW371" are for the information of the Contractor and shall in no way relieve him of his obligations under the Contract.

## **SECTION 1: PRELIMINARIES**



**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

Item No	Quantity	Rate	Amount
<b><u>SECTION 1</u></b>			
<b><u>BILL NO. 1</u></b>			
<b><u>PRELIMINARIES</u></b>			
<p>i) The NEC3 Engineering and Construction Contract Option B: Priced contract with bill of quantities (Third edition of June 2005 reprinted in April 2013) in conjunction with the Contract Data is taken to be incorporated herein</p> <p>ii) The tenderer is deemed to have taken cognizance of the above mentioned documents for the full intent and meaning of each clause. These clauses are referred to by clause number and heading only</p> <p>iii) The amount of Preliminaries to be included in each monthly payment certificate shall be assessed as an amount prorated to the value of the work duly executed in the same ratio as the preliminaries bears to the total of prices excluding any contingency sum and the amount for Preliminaries</p> <p>iv) Where the initial contract period is extended, the monthly charge shall be calculated on the basis as set out in (iii) but taking into account the revised period for completing the works</p> <p>v) The amount or the items of the Preliminaries are adjusted to take account of the theoretical financial effect which changes in time or value (or both) have on this section. Such adjustments shall be based on adjustments in the following categories as recorded in the Bills of Quantities:</p> <p style="padding-left: 40px;">a) an amount which is not varied, namely fixed b) an amount which is varied in proportion to the contract value, namely value related; and c) an amount which is varied in proportional to the construction period as compared to the initial construction period excluding revisions to the construction period for which the contractor is not entitled to adjustment in terms of the contract, namely Time Related</p>			
<b>Carried to Collection</b>			R
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**ALTERATIONS AND ADDITIONS TO THE  
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Where no provision is made in Bills of Quantities to indicate which of the three categories in (v) apply or where no selection is made, the adjustments shall be based on the following breakdown:

- a) 10 percent is Fixed
- b) 15 percent is Value related
- c) 75 percent is Time Related

The adjustments of the Preliminaries shall apply notwithstanding the actual employment of resources in the execution of the works. The contract value used for the adjustment of the Preliminaries shall exclude any contingency sum and the amount for Preliminaries

## **SECTION A: CONDITIONS OF CONTRACT**

### **CORE CLAUSES**

#### **GENERAL**

##### **Action (clause 10)**

Actions (clause 10.1)

Fixed Related

Item

Value Related

Item

Time Related

Item

##### **Identified and defined terms (clause 11)**

Condition of contract (clause 11.1)

Fixed Related

Item

Value Related

Item

Time Related

Item

**Carried to Collection**

**R**

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Defined terms (clause 11.2)

Fixed Related

Item

Value Related

Item

Time Related

Item

**Interpretation and the law (clause 12)**

Interpretation of the law (clause 12.1 - 12.4)

Fixed Related

Item

Value Related

Item

Time Related

Item

**Communication (clause 13)**

Communication (clause 13.1 - 13.8)

Fixed Related

Item

Value Related

Item

Time Related

Item

**The Project Manager and the Supervisor (clause 14)**

The Project Manager and the Supervisor (clause 14.1 - 14.4)

Fixed Related

Item

Value Related

Item

Time Related

Item

**Carried to Collection**

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**Adding to the Working Areas (clause 15)**

Adding to the Working Areas (clause 15.1)

Fixed Related

Item

Value Related

Item

Time Related

Item

**Early Warning (clause 16)**

Early Warning (clause 16.1 - 16.4)

Fixed Related

Item

Value Related

Item

Time Related

Item

**Ambiguities and inconsistencies (clause 17)**

Ambiguities and inconsistencies (clause 17.1)

Fixed Related

Item

Value Related

Item

Time Related

Item

**Illegal and impossible requirements (clause 18)**

Illegal and impossible requirements (clause 18.1)

Fixed Related

Item

Value Related

Item

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	Time Related	Item		
<b><u>Prevention (clause 19)</u></b>				
Prevention (clause 19.1))				
	Fixed Related	Item		
	Value Related	Item		
	Time Related	Item		
<b><u>THE CONTRACTOR'S MAIN RESPONSIBILITIES</u></b>				
<b><u>Providing the Works (clause 20)</u></b>				
Providing the Works (clause 20.1)				
	Fixed Related	Item		
	Value Related	Item		
	Time Related	Item		
<b><u>The Contractor's design (clause 21)</u></b>				
The contractor's design (clause 21.1 - 21.3)				
	Fixed Related	Item		
	Value Related	Item		
	Time Related	Item		
<b><u>Using the Contractor's design (clause 22)</u></b>				
Using the Contractor's design (clause 22.1)				
			R	
<b>Carried to Collection</b>				
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**ALTERATIONS AND ADDITIONS TO THE  
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	Fixed Related	Item	
	Value Related	Item	
	Time Related	Item	
<b><u>Design of Equipment (clause 23)</u></b>			
Design of Equipment (clause 23.1)			
	Fixed Related	Item	
	Value Related	Item	
	Time Related	Item	
<b><u>People (clause 24)</u></b>			
People (clause 24.1 - 24.2)			
	Fixed Related	Item	
	Value Related	Item	
	Time Related	Item	
<b><u>Working with the Employer and Others (clause 25)</u></b>			
Working with the Employer and Others (clause 25.1 - 25.3)			
	Fixed Related	Item	
	Value Related	Item	
	Time Related	Item	
<b>Carried to Collection</b>			R
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**ALTERATIONS AND ADDITIONS TO THE  
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**Sub-contracting (clause 26)**

Sub-contracting (clause 26.1 - 26.3)

Fixed Related

Item

Value Related

Item

Time Related

Item

**Other responsibilities (clause 27)**

Other responsibilities (clause 27.1 - 27.4)

Fixed Related

Item

Value Related

Item

Time Related

Item

**TIME****Starting, Completion and Key dates (clause 30)**

Starting date (clause 30.1)

Fixed Related

Item

Value Related

Item

Time Related

Item

Completion date (clause 30.2)

Fixed Related

Item

Value Related

Item

**Carried to Collection****R**

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	Time Related	Item	
Key date (clause 30.3)			
	Fixed Related	Item	
	Value Related	Item	
	Time Related	Item	
<b><u>The Programme (clause 31)</u></b>			
The Programme (clause 31.1 - 31.3)			
	Fixed Related	Item	
	Value Related	Item	
	Time Related	Item	
<b><u>Revising the programme (clause 32)</u></b>			
Revising the programme (clause 32.1 - 32.2)			
	Fixed Related	Item	
	Value Related	Item	
	Time Related	Item	
<b><u>Access to and use of the Site (clause 33)</u></b>			
Access to and use of the Site (clause 33.1)			
	Fixed Related	Item	
	Value Related	Item	
	Time Related	Item	
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**Instruction to stop or not to start work (clause 34)**

Instruction to stop or not to start work (clause 34.1)

Fixed Related

Item

Value Related

Item

Time Related

Item

**Take over (clause 35)**

Take over (clause 35.1 - 35.3)

Fixed Related

Item

Value Related

Item

Time Related

Item

**Acceleration (clause 36)**

Acceleration (clause 36.1 - 36.3)

Fixed Related

Item

Value Related

Item

Time Related

Item

**TESTING AND DEFECTS****Testing and inspections (clause 40)**

Testing and inspections (clause 40.1 - 40.6)

**Carried to Collection****R**

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Fixed Related	Item	
Value Related	Item	
Time Related	Item	
<b><u>Testing and inspections before delivery (Clause 41)</u></b>		
Testing and inspection before delivery (clause 41.1)		
Fixed Related	Item	
Value Related	Item	
Time Related	Item	
<b><u>Searching for and notifying Defects (Clause 42)</u></b>		
Searching for and notifying Defects (Clause 42.1 - 42.2)		
Fixed Related	Item	
Value Related	Item	
Time Related	Item	
<b><u>Correcting Defects (Clause 43)</u></b>		
Correcting Defects (Clause 43.1 - 43.4)		
Fixed Related	Item	
Value Related	Item	
Time Related	Item	
Fixed Related	Item	
Value Related	Item	
<b>Carried to Collection</b>		R
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**ALTERATIONS AND ADDITIONS TO THE  
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**Payment (clause 51)**

Payment (clause 51.1 - 51.4)

Fixed Related

Item

Value Related

Item

Time Related

Item

**Defined Cost (clause 52)**

Defined Cost (clause 52.1)

Fixed Related

Item

Value Related

Item

Time Related

Item

**The Bills of Quantities (clause 55)**

The bills of quantities (clause 55.1)

Fixed Related

Item

Value Related

Item

Time Related

Item

**COMPENSATION EVENTS****Carried to Collection****R**

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**ALTERATIONS AND ADDITIONS TO THE  
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**Compensation events (clause 60)**

Compensation events (clause 60.1 - 60.7)

Fixed Related

Item

Value Related

Item

Time Related

Item

**Notifying compensation events (clause 61)**

Notifying compensation events (clause 61.1 - 61.7)

Fixed Related

Item

Value Related

Item

Time Related

Item

**Quotation for compensation events (clause 62)**

Quotation for compensation events (clause 62.1 - 62.6)

Fixed Related

Item

Value Related

Item

Time Related

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**Assessing compensation events (clause 63)**

Assessing compensation events (clause 63.1 - 63.13)

Fixed Related

Item

Value Related

Item

Time Related

Item

**The Project Manager's assessment (clause 64)**

The Project Manager's assessment (clause 64.1 - 64.4)

Fixed Related

Item

Value Related

Item

Time Related

Item

**Implementing compensation events (clause 65)**

Implementing compensation events (clause 65.1 - 65.4)

Fixed Related

Item

Value Related

Item

Time Related

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**TITLE****The Employer's title to Plant and Materials (clause 70)**

Plant and Materials outside the working area (clause 70.1)

Fixed Related

Item

Value Related

Item

Time Related

Item

Plant and Materials within the working area (clause 70.2)

Fixed Related

Item

Value Related

Item

Time Related

Item

**Marking Equipment, Plant and Materials outside Working Areas (clause 71)**

Marking Equipment, Plant and Materials outside Working Areas (clause 71.1)

Fixed Related

Item

Value Related

Item

**Carried to Collection**

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Time Related	Item	
<b><u>Removing Equipment (clause 72)</u></b>		
Removing Equipment (clause 72.1)		
Fixed Related	Item	
Value Related	Item	
Time Related	Item	
<b><u>Objects and materials within the site (clause 73)</u></b>		
Objects and materials within the site (clause 73.1 - 73.2)		
Fixed Related	Item	
Value Related	Item	
Time Related	Item	
<b><u>RISK AND INSURANCE</u></b>		
<b><u>Employer's risk (clause 80)</u></b>		
Employer's risk (clause 80.1)		
Fixed Related	Item	
<b>Carried to Collection</b>		R
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	Value Related	Item
	Time Related	Item
<b><u>Contractor's risk (clause 81)</u></b>		
Contractor's risk (clause 81.1)		
	Fixed Related	Item
	Value Related	Item
	Time Related	Item
<b><u>Repairs (clause 82)</u></b>		
Repairs (clause 82.1)		
	Fixed Related	Item
	Value Related	Item
	Time Related	Item
<b><u>Indemnity (clause 83)</u></b>		
Indemnity (clause 83.1- 83.2)		
	Fixed Related	Item
	Value Related	Item
<b>Carried to Collection</b>		
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	Time Related	Item	
<b><u>Insurance cover (clause 84)</u></b>			
Insurance cover (clause 84.1 - 84.2)			
	Fixed Related	Item	
	Value Related	Item	
	Time Related	Item	
<b><u>Insurance policies (clause 85)</u></b>			
Insurance policies (clause 85.1 - 85.4)			
	Fixed Related	Item	
	Value Related	Item	
	Time Related	Item	
<b><u>If the Contractor does not insure (clause 86)</u></b>			
If the Contractor does not insure (clause 86.1)			
	Fixed Related	Item	
	Value Related	Item	
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Time Related	Item	
<b><u>Insurance by the Employer (clause 87)</u></b>		
Insurance by the Employer (clause 87.1 -87.3)		
Fixed Related	Item	
Value Related	Item	
Time Related	Item	
<b><u>TERMINATION</u></b>		
<b><u>Termination (clause 90)</u></b>		
Termination (clause 90.1 - 90.5)		
Fixed Related	Item	
Value Related	Item	
Time Related	Item	
<b><u>Reasons for termination (clause 91)</u></b>		
Reasons for termination (clause 91.1 - 91.7)		
<b>Carried to Collection</b>		R
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**ALTERATIONS AND ADDITIONS TO THE  
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**Option W1**

Dispute Resolution (clause W1.1)

Fixed Related Item

Value Related Item

Time Related Item

The Adjudicator (clause W1.2)

Fixed Related Item

Value Related Item

Time Related Item

The Adjudication (clause W1.3)

Fixed Related Item

Value Related Item

Time Related Item

Review by the Tribunal (clause W1.4)

Fixed Related Item

Value Related Item

Time Related Item

**SECONDARY OPTION CLAUSES****Price adjustment for inflation (Option X1)**

Defined terms (clause X1.1)

Fixed Related Item

Value Related Item

Time Related Item

**Carried to Collection**

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Price Adjustment Factor (clause X1.2)

Item

Item

Item

Item

Item

Item

Item

Item

Item

Changes in the law (clause X2.1)

Item

Item

Item

**Delay damages (clause X7.1 - X7.3)**

Item

Item

Item

R

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**ALTERATIONS AND ADDITIONS TO THE  
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**Performance bond (Option X13)**

Performance bond (Option X13.1)

Fixed Related

Item

Value Related

Item

Time Related

Item

**Advanced payment to the contractor (Option X14)**

Advanced payment to the contractor (Option X14.1 - X14.3)

Fixed Related

Item

Value Related

Item

Time Related

Item

**Limitation of the Contractor's liability for his design to reasonable skill and care (Option X15)**

Limitation of the Contractor's liability for his design to reasonable skill and care (Option X15.1 - X15.2)

Fixed Related

Item

Value Related

Item

Time Related

Item

**Retention (Option X16)**

Retention (Option X16.1 - X16.2)

Fixed Related

Item

Value Related

Item

Time Related

Item

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**Low performance damages (Option X17)**

Low performance damages (Option X17.1)

Fixed Related

Item

Value Related

Item

Time Related

Item

**Limitation of Liability (Option X18)**

Limitation of Liability (Option X18.1 - X18.5)

Fixed Related

Item

Value Related

Item

Time Related

Item

**CONTRACT DATA**

Contractual Requirements as stated elsewhere in the document

**ESTABLISHMENT OF FACILITIES ON THE  
SITE****Facilities for Project Manager**

Furnished offices (In no 1)

Fixed Related

Item

Value Related

Item

Time Related

Item

Name boards (In no 1)

Fixed Related

Item

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	Value Related	Item		
	Time Related	Item		
Offices and storage sheds				
	Fixed Related	Item		
	Value Related	Item		
	Time Related	Item		
<b><u>Facilities for the contractor</u></b>				
Living accommodation				
	Fixed Related	Item		
	Value Related	Item		
	Time Related	Item		
Ablution and latrine facilities				
	Fixed Related	Item		
	Value Related	Item		
	Time Related	Item		
Tools and Equipments				
	Fixed Related	Item		
	Value Related	Item		
	Time Related	Item		
Water supplies, electric power, communication, dealing with water and access				
	Fixed Related	Item		
	Value Related	Item		
	Time Related	Item		
			R	
<b>Carried to Collection</b>				
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Other fixed charge obligations				
	Fixed Related	Item		
	Value Related	Item		
	Time Related	Item		
Removal of site establishment				
	Fixed Related	Item		
	Value Related	Item		
	Time Related	Item		
<b><u>Occupational Health and safety</u></b>				
Allow for compliance to Occupational Health and safety specifications including, OHS testing of personnel before commencement and after completion of project, safety equipment and safety officer.				
	Fixed Related	Item		
	Value Related	Item		
	Time Related	Item		
Allow for compliance with all COVID 19 Regulations and Requirements				
	Fixed Related	Item		
	Value Related	Item		
	Time Related	Item		
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## **SECTION 2: ALTERATIONS**

**Item  
No**

Quantity

Rate

Amount

## SECTION NO.2

## BILL NO. 1

## ALTERATIONS

## PREAMBLES

## REMOVAL OF EXISTING WORKS

**Note:**

**NATURE OF WORK** Tenderers are advised to visit the site and to satisfy themselves as to the nature and extent of the work to be done and provide in their tenders for any items not specifically mentioned which they may deem necessary for the proper completion of the work. Tenderers are advised that the adjacent existing buildings will be in occupation during the progress of the work and due allowance must be made for the work being carried out at such times and in such manner as will least interfere with the routine of the occupants and as may be directed by the Principal Agents

**DIMENSIONS** The Contractor is advised to take all dimensions affecting the existing buildings on the site, as he will be held solely responsible for all new work being of the correct sizes.

**CLEANING OF SITE:** The Contractor should allow for removing of rubble from site on daily basis, failing which the client might stop the construction until the site has been cleaned. None of the old stock bricks from the pulling down are to be re-used for any new work.

**Carried to Collection**

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ALTERATIONS



**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

**PIPES, ETC.** Special care is to be taken not to interfere unnecessarily with any water supply pipes or other piping that may be met with and found necessary to disconnect or cut, are to be effectively stopped off and any new connections that may be necessary are to be made with proper fittings and to the satisfaction of the Principal Agents to whom due notice must be given of any alterations to the existing services.

**PROTECTION** In taking down and removing existing work the utmost care is to be observed to avoid any structural or other damage to the remaining portions of the buildings. The Contractor must also protect all work not removed such as walls, floors, doors, windows or other joinery, loose and fixed fittings and electrical appliances, etc., from damage during the progress of the work and provide all necessary materials for so doing. The Contractor will be held solely responsible for any damage to persons or property and for the safety of the structure throughout the whole of this Contract and must make good at his own expense any damage that may occur.

**CREDITS, ETC.** Old materials from the pulling down (except such as are described to be re-used or handed over) are to become the property of the Contractor who shall allow credit as provided for in the summary at the end of these Bills of Quantities. Old materials for re-use are to be carefully removed, stored and protected from injury including making good any damaged or defective parts as required before re fixing. Old materials described to be handed over are to be carefully removed and neatly stacked on site where directed. The remainder of the old materials and all rubbish to be immediately carted away and the site left clean and unencumbered. None of the old stock bricks from the pulling down are to be re-used for any new work.

**MATERIALS, ETC.** The materials to be used and work to be done to be similar in all respects to that described for new work insofar as they concur. All work in making good is to be properly jointed to the existing.

**Carried to Collection**

**R**

Section No. 2  
ALTERATIONS  
Bill No. 1  
ALTERATIONS



# ALTERATIONS AND ADDITIONS TO THE EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA

Unless otherwise stated, all materials from the alterations and demolitions will belong to the builder.

The builder should allow for the removal of all debris from site

## Breaking up and removing mass concrete

1	100mm Thick concrete surface bed	m2	58
2	100mm Thick reinforced concrete surface bed	m2	177

## Hacking up/off and removing granolithic, screeds, plaster, etc from concrete or brickwork and preparing surfaces for new screeds, plaster, etc

3	Internal plaster from walls	m2	23
4	30mm Thick screed in patches	m2	50

## Taking up and removing floor coverings, etc

5	Floor carpet including preparing screed for new carpet	m2	114
6	Wall carpet including preparing walls for new carpet	m2	97
7	Floor carpet including preparing screed for new porcelain floor tiles	m2	419

## Taking up and removing floor tiles, etc

8	Floor tiles including preparing screed for new floor tiles	m2	1 734
9	Wall tiles including preparing for new wall tiles	m2	45

## Taking out and removing meranti skirting

10	Taking out and removing meranti skirting	m	2 011
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## Breaking down and removing brickwork etc

11	Half brick walls	m2	532
12	Partition walls 2890mm high complete	m	39

**Carried to Collection**

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**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

13	One brick walls	m2	208
14	One and half brick walls	m2	7
	<u>Taking out and removing ceilings, etc</u>		
15	Owa suspended ceilings	m2	1 799
	<u>Taking out and removing doors, windows, etc</u>		
16	Timber single door size 813 x 2400mm high	No	76
17	Timber single door and steel frame size 813 x 2400mm high	No	2
18	Timber double door size 1206 x 2400mm high	No	6
19	Timber double door size 1614 x 2400mm high	No	17
	<u>Taking out and removing doors, windows, etc from brickwork to be demolished</u>		
20	Steel window size 600 x 900mm high	No	8
21	Steel window size 1022 x 1599mm high	No	3
22	Steel window size 1200 x 1540mm high	No	1
23	Steel window size 1455 x 1599mm high	No	1
24	Steel window size 1760 x 1540mm high	No	116
25	Steel window size 2104 x 1599mm high	No	6
26	Timber door and steel frame 813 x 2400mm high	No	16
	<u>Taking out and removing piping, sanitary fittings, etc including disconnecting piping from fittings and making good floor and wall finishes (making good tiling and paintwork elsewhere)</u>		
27	Paper towel	No	2
28	Soap dispenser	No	6
29	She bins	m	6

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**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

30	Toilet roll holder	No	12
31	Waste bin	No	1
32	Hand dryer	m	4
33	Vitreous china wash hand basin	No	10
34	Vitreous china WC pan with cistern	No	12
35	9KG Fire extinguisher, store safely, service and install on hardwood backing (hardwood backing e/m)	No	2
	<u>Taking out and removing piping, sanitary fittings, etc including disconnecting piping from fittings and preparing pipes for new fittings (e/m) making good floor and wall finishes (making good good and wall finishes elsewhere)</u>		
36	15mm Copper piping including fittings and brackets	m	10
37	15mm Copper piping including chasing of walls and removing of pipes from walls	m	9
38	50mm uPVC pipes	m	15
39	50mm PVC pipes including fittings and brackets	m	12
40	110mm uPVC pipes	m	21
	<u>Taking out and removing glass and mirrors</u>		
41	Mirror 600 x 600mm high from wall	No	16
42	Mirror 1500 x 1500mm high from wall	No	4
	<b><u>BUILDING UP OPENINGS</u></b>		
	<u>Brickwork of NFP bricks in class II mortar</u>		
43	Half brick walls	m2	2
44	One brick walls	m2	2

**Carried to Collection**

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**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

Sundries

45	Cutting toothings and bonding new brickwork to existing	m2	2
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**MAKING GOOD OF FINISHES ETC**Making good screed

46	Floors where half brick walls removed	m	157
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47	30mm Thick screeds in patches	m2	50
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48	Floors where one brick walls removed	m	63
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49	Floors where one and half brick walls removed	m	2
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Making good internal cement plaster

50	Walls in patches	m2	19
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51	Walls where half brick walls removed	m	41
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52	Walls where one brick walls removed	m	12
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53	Walls where one and half brick walls removed	m	4
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**PREPARATORY WORK TO EXISTING SURFACES**

54	Prepare, and clean external walls with high pressure water and leave surfaces free from dirt, etc.	m2	1 887
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55	Prepare, and clean Internal walls with high pressure water and leave surfaces free from dirt, etc.	m2	145
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**OPENINGS THROUGH EXISTING WALLS ETC**

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**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

<u>Altering openings</u>				
56	Altering opening in one brick wall where 600 x 900mm high window was removed to form opening for new window 600 x 900mm high by breaking out brickwork on both sides and bottom including necessary precast concrete lintel and making good plaster on one side and into reveals and face brickwork on other side and into reveals (new window and making good paintwork elsewhere)	No	8	
57	Altering opening in one brick wall where 1022 x 1559mm high window was removed to form opening for new window 1022 x 1559mm high by breaking out brickwork on both sides and bottom including necessary precast concrete lintel and making good plaster on one side and into reveals and face brickwork on other side and into reveals (new window and making good paintwork elsewhere)	No	3	
58	Altering opening in one brick wall where 1200 x 1540mm high window was removed to form opening for new window 1200 x 1540mm high by breaking out brickwork on both sides and bottom including necessary precast concrete lintel and making good plaster on one side and into reveals and face brickwork on other side and into reveals (new window and making good paintwork elsewhere)	No	1	
59	Altering opening in one brick wall where 1455 x 1559mm high window was removed to form opening for new window 1455 x 1559mm high by breaking out brickwork on both sides and bottom including necessary precast concrete lintel and making good plaster on one side and into reveals and face brickwork on other side and into reveals (new window and making good paintwork elsewhere)	No	1	
60	Altering opening in one brick wall where 1760 x 1540mm high window was removed to form opening for new window 1760 x 1540mm high by breaking out brickwork on both sides and bottom including necessary precast concrete lintel and making good plaster on one side and into reveals and face brickwork on other side and into reveals (new window and making good paintwork elsewhere)	No	116	
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**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

- 61 Altering opening in one brick wall where 2104 x 1559mm high window was removed to form opening for new window 2104 x 1559mm high by breaking out brickwork on both sides and bottom including necessary precast concrete lintel and making good plaster on one side and into reveals and face brickwork on other side and into reveals (new window and making good paintwork elsewhere)

No

6

Breaking out for and forming openings through brick walls for new doors and frames including necessary precast concrete lintels and making good plaster on both sides and into reveals and with concrete thresholds with steel trowelled finish (new doors and frames and making good paintwork elsewhere)

- 62 Create opening size 762 x 2032mm high overall through one brick wall

No

4

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ALTERATIONS AND ADDITIONS TO THE  
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## **SECTION 3: BUILDINGS**



**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO. 3</u></b>			
	<b><u>BILL NO. 1</u></b>			
	<b><u>FOUNDATIONS</u></b>			
	<b><u>PREAMBLES</u></b>			
	For Preambles refer to "Department of Public Works: Specification of material and methods to be used - PW371"			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	<u>Nature of ground</u>			
	The nature of the ground is assumed to be sandy weathered granite, therefore "earth", but possibly interspersed with "hard rock"			
	<u>Excavation for working space in rock</u>			
	Notwithstanding clause 11 page 8 of the Standard System of Measuring Building Work, excavation for working space in rock will be measured in cubic metres to the extent executed and given as "extra over" bulk excavation or trench and hole excavation as the case may be			
	<u>Carting away of excavated material</u>			
	Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site			
	<u>Filling</u>			
	Notwithstanding the reference to prescribed multiple handling in clause 1 page 6 of the Standard System of Measuring Building Work, prices for filling and backfilling shall include for all selection and any multiple handling of material			
	<b>Carried to Collection</b>			R
	Section No. 3 NEW WORK Bill No. 1 FOUNDATIONS			

**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

Excavations

All excavations will be by hand

Concrete curing before propping

All concrete will be allowed to cure for 14 days before allowing for propping. The contractor will not prop until they have submitted concrete tests result to the Engineers for approval

Concrete mixing

All concrete to be in line with SABS1200

All site mixed concrete to have mix design approved and tested before casting

All concrete to be vibrated

No 50/50 slag cement may be used without the Engineer's approval

Reinforcement

Reinforcement steel to be supported on spacer blocks and not broken bricks or tiles

Brickwork

All brickwork to comply with SABS 0164

All bricks to have compressive strength of 7Mpa and are to be at least six (6) weeks old before being built into the walls

Sand to comply with SABS 1090

Mortar mix to be 1:6 with 10 litres of lime added per sack of cement. Alternatively masonry cement may be used

Joints

Brickwork to be provided with flush joints

**Carried to Collection**

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**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

All longitudinal joints to be 10mm wide and solidly caulked with mortar. Failure to comply will mean mandatory demolition

## **EARTHWORKS**

### **EXCAVATIONS**

#### **Excavation in earth not exceeding 2m deep**

1	Trenches	m3	123
2	Holes	m3	45
3	Holes to form platforms	m3	393
4	Lift pit	m3	39

#### **Compaction of surfaces**

5	Rip and scarify ground level to a depth of 150mm and consolidate to 93% mod. AASHTO density at -2% to 1% OMC at bottom of holes	m2	227
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#### **Extra over trench and hole excavations in earth for excavation in**

6	Soft rock	m3	8
7	Hard rock	m3	8

#### **Extra over all excavations for carting away**

8	Surplus material from excavations and/or stock piles on site to a dumping site to be pointed out by the Project Manager situated approximately 1km from the building site (G6 Material)	m3	46
9	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	332

**Carried to Collection**

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**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

	<u>Risk of collapse of excavations</u>		
10	Sides of trench and hole excavations not exceeding 1,5m deep	m2	704
11	Sides of trench and hole excavations exceeding 1,5 and not exceeding 3m deep	m2	122
	<u>Keeping excavations free of water</u>		
12	Keeping excavations free of water		Item
	<b><u>FILLING ETC</u></b>		
	<u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO density at -2% to 1% OMC (G6 Materials from excavations)</u>		
13	Under floors, steps, pavings, etc	m3	88
14	Backfilling to trenches, holes, etc	m3	34
15	Backfilling to trenches, holes, etc (Lift shaft)	m3	31
	<u>Earth filling obtained from the excavations and/or prescribed stock piles on site (not compacted).</u>		
16	Over site to form platforms laid in 150mm thick layers (compaction e/m)	m3	60
	<u>Earth filling of G6 material obtained from the excavations and/or prescribed stock piles on site (not compacted).</u>		
17	Over site to form platforms laid in 150mm thick layers (compaction e/m)	m3	242
18	Over site to form platform laid in 150mm thick layer and stabilized with 3% cement (cement and compaction e/m)	m3	91

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**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

	<u>Stabilization agent</u>				
19	Ordinary Portland Cement (CEM 1)	t	7.60		
	<u>Compaction of surfaces</u>				
20	Compaction of ground surface under floors etc, including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density at -2% to 1% OMC (Layer 1)	m2	201		
21	Compaction of ground surface under floors etc, including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density at -2% to 1% OMC (Layer 2)	m2	201		
22	Compaction of ground surface under floors etc, including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density at -2% to 1% OMC (Layer 3)	m2	201		
23	Compaction of ground surface under floors etc, including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density at -2% to 1% OMC (Layer 4)	m2	201		
24	Compaction of ground surface under floors etc, including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density at -2% to 1% OMC (Layer 5)	m2	201		
	<b>Carried to Collection</b>			R	
	Section No. 3 NEW WORK Bill No. 1 FOUNDATIONS				

**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

25	Compaction of ground surface under floors etc, including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density at -2% to 1% OMC (Layer 6)	m2	201
26	Compaction of ground surface under floors etc, including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density at -2% to 1% OMC (Layer 7)	m2	201
27	Compaction of ground surface under floors etc, including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density at -2% to 1% OMC (Layer 8)	m2	201
28	Compaction of ground surface under floors etc, including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density at -2% to 1% OMC (Layer 9)	m2	201
29	Compaction of ground surface under floors etc, including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density at -2% to 1% OMC (Layer 10)	m2	201
30	Compaction of ground surface under floors etc, including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density at -2% to 1% OMC (Layer 11)	m2	201

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**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

31	Compaction of ground surface under floors etc, including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density at -2% to 1% OMC (Layer 12)	m2	201
32	Compaction of ground surface under floors etc, including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density at -2% to 1% OMC (Layer 13)	m2	201
	<u>Prescribed density tests on filling</u>		
33	"Mod. AASHTO Density" test	No	50
	<b><u>SOIL POISONING</u></b>		
	<u>Soil insecticide to be executed with SABS compliance by a firm of specialists under a 5 year guarantee</u>		
34	To bottoms and sides of trenches etc	m2	777
35	Under floors etc, including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m2	547
	<u>Weedkiller mixed in accordance to supplier's specifications</u>		
36	To bottoms and sides of trenches etc	m2	777
37	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m2	547

**CONCRETE, FORMWORK &  
REINFORCEMENT**

**UNREINFORCED CONCRETE CAST  
AGAINST EXCAVATED SURFACES**

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**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

	<u>15MPa/19mm concrete</u>		
38	Surface blinding under footings and bases	m3	13

**REINFORCED CONCRETE CAST AGAINST  
EXCAVATED SURFACES**

	<u>30MPa/19mm concrete</u>		
39	Bases	m3	26
40	Strip footings	m3	61

**REINFORCED CONCRETE**

	<u>30MPa/19mm concrete</u>		
41	Lift shaft walls	m3	5
42	Lift shaft base etc.	m3	4
43	Columns in foundations	m3	1

**TEST CUBES**

44	Allow for preparing a set of three (3) concrete strength test cubes, each size 150 x 150 x 150mm, sending them to an approved Testing Laboratory for testing and paying all charges in connection therewith.	No	20
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**REINFORCEMENT**

	<u>Mild steel reinforcement to structural concrete work</u>		
45	8mm Diameter bars	t	3.47
46	10mm Diameter bars	t	1.96
	<u>High tensile steel reinforcement to structural concrete work</u>		
47	16mm Diameter bars	t	9.16

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**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

**SMOOTH FORMWORK (DEGREE OF  
ACCURACY II)**

Smooth formwork to sides

48	Edges exceeding 300mm high	m2	11
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**SMOOTH FORMWORK (DEGREE OF  
ACCURACY III)**

Smooth formwork to sides

49	Inner face of lift shaft walls	m2	14
50	Outer face of lift shaft walls	m2	17
51	Rectangular columns in foundations	m2	9
52	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	4

Special formwork to circular columns

53	500mm Diameter circular columns 505mm high in foundations	No	4
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**MASONRY**

Brickwork of NFX bricks (7MPa nominal compressive strength) in class I mortar

54	Half brick walls	m2	2
55	One brick walls	m2	143
56	One and half brick walls	m2	3

**BRICKWORK SUNDRIES**

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**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

	<u>Brickwork reinforcement</u>		
57	150mm Wide reinforcement built in horizontally	m	1 678
58	230mm Wide reinforcement built in horizontally	m	39

**FACE BRICKWORK**

Face clay face brick, size 222 x 106 x 73mm, bedded and jointed in Class II mortar and pointed with recessed vertical and recessed horizontal joints, suitable for exposure zone 1-2 (PC Amount R9 000-00/1000 VAT excl. supplied and delivered to site)

59	Extra over brickwork for face brickwork	m2	42
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**WATERPROOFING**

**WATERPROOFING TO ROOFS,  
BASEMENTS, ETC**

One layer "Bituthene 3000" waterproofing

60	On bottoms and sides of lift shaft, ducts, etc	m2	23
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N1053

**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

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### SECTION NO 3

## BILL NO. 2

## CONCRETE, FORMWORK AND REINFORCEMENT

## PREAMBLES

## SUPPLEMENTARY PREAMBLES

### Cost of tests

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

## Breeze concrete

Breeze concrete shall consist of twelve parts clean dry furnace ash, free from coal or other foreign matter, to one part cement (12:1), the ash graded up to particles which will pass a 16,5mm ring from a minimum which fails to pass a 4,75mm mesh. The finer materials from the screening are to be first mixed with the cement into a mortar and the ash added afterwards and thoroughly incorporated

**Carried to Collection**

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**Section No. 3**  
**NEW WORK**  
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**CONCRETE, FORMWORK AND REINFORCEMENT,ETC**

# ALTERATIONS AND ADDITIONS TO THE EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA

## 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

The vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without damage and shall remain in position until the newly constructed work is able to support itself

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

Formwork to soffits of slabs, beams, etc shall be deemed to be propped up exceeding 1,5m and not exceeding 3,5m high unless otherwise described

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

## Concrete curing before propping

All concrete will be allowed to cure for 14 days before allowing for propping. The contractor will not prop until they have submitted concrete tests result to the Engineers for approval

## Concrete mixing

All concrete to be in line with SABS1200

All site mixed concrete to have mix design approved and tested before casting

All concrete to be vibrated

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CONCRETE, FORMWORK AND REINFORCEMENT,ETC

R

**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

No 50/50 slag cement may be used without the Engineer's approval

**Reinforcement**

Reinforcement steel to be supported on spacer blocks and not broken bricks or tiles

**LIGHTWEIGHT CONCRETE**

**Breeze concrete**

- 1 Grading 50mm maximum thickness to falls for waterproofing (e/m)

m2 109

**REINFORCED CONCRETE CAST AGAINST  
EXCAVATED SURFACES**

**30MPa/19mm concrete**

- 2 Ramps
- 3 Surface beds cast in panels on waterproofing
- 4 Extra over for concrete thickening in surface beds size approximately 100mm deep, 300mm at top and tapering both sides to 200mm at bottom, including all excavations, cart away, etc.

m3 4

m3 54

m 85

**REINFORCED CONCRETE**

**30MPa/19mm concrete**

- 5 Columns
- 6 Lift shaft walls
- 7 Cantilever slabs
- 8 Slabs including beams and inverted beams
- 9 Stairs including landings, beams and inverted beams

m3 8

m3 42

m3 4

m3 175

m3 5

**CONCRETE SUNDRIES**

**Carried to Collection**

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CONCRETE, FORMWORK AND REINFORCEMENT, ETC

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**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

	<u>Finishing top surfaces of concrete smooth with a wood float/steel trowel</u>				
10	Ramps, etc	m2	4		
	<u>Finishing top surfaces of concrete smooth with power float</u>				
11	Surface beds, slabs, etc	m2	1 079		
12	Finishing smooth top surfaces of grading to fall for waterproof	m2	109		
	<b><u>MOVEMENT JOINTS ETC</u></b>				
	<u>Saw cut joints</u>				
13	5 x 50mm Saw cut joints in top of concrete	m	297		
	<u>Expansion joints with bitumen impregnated softboard between concrete and brickwork</u>				
14	10mm Joints not exceeding 300mm high along edges of surface beds	m	388		
	<u>"Abe Construction chemicals"</u>				
15	225mm Wide two (2) layers three (3) ply malthoid between horizontal concrete and brickwork	m	123		
	<b><u>TEST CUBES</u></b>				
16	Allow for preparing a set of three (3) concrete strength test cubes, each size 150 x 150 x 150mm, sending them to an approved Testing Laboratory for testing and paying all charges in connection therewith.	No	40		
	<b><u>SMOOTH FORMWORK (DEGREE OF ACCURACY II)</u></b>				
	<u>Smooth formwork to sides</u>				
17	Beams	m2	102		
18	Stairs with sloping soffits	m2	14		
	<b>Carried to Collection</b>			R	
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**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

19	Inverted beams above concrete	m2	27
20	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	176
21	Sloping and stepped outer edges of stairs not exceeding 300mm high extreme	m	8
	<u>Smooth formwork to soffits</u>		
22	Slabs exceeding 250mm and not exceeding 500mm thick propped up not exceeding 3,5m high	m2	572
	<b><u>SMOOTH FORMWORK (DEGREE OF ACCURACY III)</u></b>		
	<u>Smooth formwork to sides</u>		
23	Inner face of shaft walls	m2	103
24	Outer face of shaft walls	m2	129
25	Rectangular columns propped n.e 3,5m high	m2	50
	<u>Smooth formwork to soffits</u>		
26	Cantilever slabs propped up exceeding 1,5m and not exceeding 3,5m high	m2	26
27	Slabs exceeding 250mm and not exceeding 500mm thick propped up exceeding 5m high and not exceeding 6,5m high	m2	58
	<u>Special formwork to circular columns</u>		
28	500mm Diameter circular columns 2,89m high	No	4
29	500mm Diameter circular columns 4,1m high	No	2

**REINFORCEMENT**

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**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

	<u>Mild steel reinforcement to structural concrete work</u>		
30	8mm Diameter bars	t	4.05
31	10mm Diameter bars	t	7.31
	<u>High tensile steel reinforcement to structural concrete work</u>		
32	16mm Diameter bars	t	17.28
	<u>Fabric reinforcement</u>		
33	Steeledale Mesh standard square fabric mesh, nominal mass 2,45 kg/m <sup>2</sup> with nominal 5,6mm thick wires and 200 x 200mm pitch (Ref 245), complying with SANS 1024/2006 requirements, in sheets 2,4 x 6m long.	m2	547
	<b><u>LIFT SUSPENSION HOOKS, ETC.</u></b>		
34	Set and cast lift suspension hooks on to concrete slab (PC Amount R300-00 each VAT excl supplied)	No	2

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**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

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Bill No. 2

CONCRETE, FORMWORK AND REINFORCEMENT, ETC

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**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.3</u></b>			
	<b><u>BILL NO. 3</u></b>			
	<b><u>MASONRY</u></b>			
	<b><u>PREAMBLES</u></b>			
	For Preambles refer to "Department of Public Works: Specification of material and methods to be used - PW371"			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	<b><u>BRICKWORK</u></b>			
	<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>Linings to concrete</u>			
	Descriptions of linings to concrete, unless otherwise described, shall be deemed to include wire ties			
	<u>Hollow walls etc</u>			
	Descriptions of hollow walls shall be deemed to include 250mm long stainless steel or galvanized wire ties three (3) every square meter			
	<u>Reinforced brick lintels</u>			
	Lintels shall bear at least 160mm onto adjacent walling. Where such bearing cannot be obtained due to the proximity of adjacent openings the lintel shall be continuous			
	<b>Carried to Collection</b>			R
	Section No. 3 NEW WORK Bill No. 3 MASONRY			

# ALTERATIONS AND ADDITIONS TO THE EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA

## Face bricks

Bricks shall be ordered timeously to obtain uniformity in size and colour

## Pointing

Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc

## Brickwork

All brickwork to comply with SABS 0164

All bricks to have compressive strength of 7Mpa and are to be at least six (6) weeks old before being built into the walls

Sand to comply with SABS 1090

Mortar mix to be 1:6 with 10 litres of lime added per sack of cement. Alternatively masonry cement may be used

## Joints

Brickwork to be provided with flush joints

All longitudinal joints to be 10mm wide and solidly caulked with mortar. Failure to comply will mean mandatory demolition

## SAMPLES

Samples of all masonry building units, shall consist of a minimum of 6 units

## SUPERSTRUCTURE

Brickwork of NFX bricks (7MPa nominal compressive strength) in class I mortar

1	Half brick walls	m2	266
2	One brick walls	m2	1 230

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Section No. 3  
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MASONRY

# ALTERATIONS AND ADDITIONS TO THE EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA

3	One brick walls in beamfilling	m2	17
4	One and half brick walls	m2	26
<b><u>BRICKWORK SUNDRIES</u></b>			
<u>Holes</u>			
5	Leave or form opening through one brickwall for pipe n.e 100mm diameter	No	27
<u>Brickwork reinforcement</u>			
6	75mm Wide reinforcement built in horizontally	m	1 312
7	150mm Wide reinforcement built in horizontally	m	4 916
8	230mm Wide reinforcement built in horizontally	m	76
<u>"Allied Concrete" prestressed fabricated lintels</u>			
9	100 x 75mm Lintels in lengths not exceeding 3m	m	100
<u>Turning pieces</u>			
10	230mm Wide turning piece to lintels, etc.	m	29
<u>Galvanised hoop iron cramps, ties, etc</u>			
11	30 x 1,6mm Roof tie 1,5m long with one end fixed to timber and other end built into brickwork	No	103
<b><u>FACE BRICKWORK</u></b>			
<u>Face bricks ( Purchase price of R9 000,00/thousand VAT excl. delivered to site) pointed with recessed horizontal and vertical joints</u>			
12	Half brick wall faced both sides	m2	26
13	Half brick wall in beamfilling faced both sides (jointed and pointed one side)	m2	23
14	Extra over brickwork for face brickwork	m2	820
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**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

15	Fair cutting and fitting around pipe not exceeding 100mm diameter	No	19		
16	Extra over brickwork for brick-on-edge header course lintel	m	172		
	<u>Brick-on-edge header course copings, sills, etc of face bricks (PC Amount R9 000.00/thousand VAT excl. delivered to site) pointed with recessed joints on all exposed faces</u>				
17	220mm Wide sill set level and slightly projecting	m	120		

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**ALTERATIONS AND ADDITIONS TO THE  
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**ALTERATIONS AND ADDITIONS TO THE  
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**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.3</u></b>			
	<b><u>BILL NO. 5</u></b>			
	<b><u>CARPENTRY AND JOINERY</u></b>			
	<b><u>PREAMBLES</u></b>			
	For Preambles refer to "Department of Public Works: Specification of material and methods to be used - PW371"			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	<u>Joinery</u>			
	Descriptions of frames shall be deemed to include frames, transomes, mullions, rails, etc			
	Descriptions of hardwood joinery shall be deemed to include pelleting of screw and bolt holes			
	<u>Fixing</u>			
	Items described as "nailed" shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete			
	<b><u>DOORS ETC</u></b>			
	<u>Solid flush doors with concealed hardwood edges and 4mm thick masonite covering on both side hung to steel frame</u>			
1	Door 762 x 2400mm high (D01,D02)	No	38	
2	Door 813 x 2400mm high (D1a,D03,D07,D08)	No	71	
3	Door 900 x 2400mm high (D05)	No	1	
4	Double door size 1206 x 2400mm high formed of two unequal leaves with rebated meeting stiles (D9)	No	6	
	<b>Carried to Collection</b>			R
	Section No. 3 NEW WORK Bill No. 5 CARPENTRY & JOINERY			

5	Double door size 1614 x 2400mm high formed of two equal leaves with rebated meeting stiles (D10)	No	17
	<u>44mm Wrought meranti framed, ledged, braced and battened door of 44 x 150mm top rails and stiles, 22 x 150mm middle legde and braces and 22 x 220mm bottom rail filled in with 22mm V-jointed one side boarding</u>		
6	Door size 813 x 2400mm high with standard weather bar (D11)	No	1
7	Door size 1614 x 2400mm high with standard weather bar (D12)	No	1
	<u>"Bitcon Industries" fire doors with masonite veneer</u>		
8	"Rubidor" class D fire door 900 x 2400mm high including pressed steel frame for 230mm brick wall (locks e/m)	No	3
	<b><u>SUNDRIES</u></b>		
9	Cut opening in 40mm meranti door for louvre opening 400 x 300mm high	No	1
10	Cut opening in 40mm solid door for louvre opening 450 x 450mm high	No	31

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**ALTERATIONS AND ADDITIONS TO THE  
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CARPENTRY &amp; JOINERY

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NEW WORK

Bill No. 5

CARPENTRY &amp; JOINERY

**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.3</u></b>			
	<b><u>BILL NO. 6</u></b>			
	<b><u>IRONMONGERY</u></b>			
	<b><u>PREAMBLES</u></b>			
	For Preambles refer to "Department of Public Works: Specification of material and methods to be used - PW371"			
	<b><u>LOCKSETS, ETC.</u></b>			
	<b><u>THE FOLLOWING IN LOCKSETS</u></b>			
	Note: For essier reference to door schedules the following items have been grouped per door			
	<b><u>TYPE 1 (D1 - STORES)</u></b>			
1	Dormakaba Tubular Stainless Steel 155mm long spring loaded lever handle in Stainless Steel finish (Code: TH120BP cylinder) on 170 x 170mm plate	No	17	
2	Dormakaba Stainless Steel cylinder sash lock (Code: D036S) with 57mm backset.	No	17	
3	Dormakaba Satin Nickel 63mm - 31.5 + 31.5mm Grand master keyed E-SP 5 Pin double cylinder (Code: DDC206301GMK).	No	17	
4	Dormakaba M4 patent male/female fixing screws	No	68	
5	Dormakaba Nickel Plated floor mounted door stop (Code: DDS-NP-018), size 24 x 45mm fixed in accordance with the manufacturer's recommendations.	No	17	
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**ALTERATIONS AND ADDITIONS TO THE  
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TYPE 2 (D3,D7,D8,D11)

6	Dormakaba Tubular Stainless Steel 155mm long spring loaded lever handle in Stainless Steel finish (Code: TH120BP cylinder) on 170 x 170mm plate	No	57
7	Dormakaba Stainless Steel cylinder sash lock (Code: D036S) with 57mm backset.	No	57
8	Dormakaba M4 patent male/female fixing screws	No	220
9	Dormakaba Satin Nickel 63mm - 31.5 + 31.5mm Grand master keyed E-SP 5 Pin double cylinder (Code: DDC206301GMK).	No	57
10	Dormakaba Nickel Plated floor mounted door stop (Code: DDS-NP-018), size 24 x 45mm fixed in accordance with the manufacturer's recommendations.	No	57

TYPE 2 (D8 - PARTITION DOORS)

11	Dormakaba Tubular Stainless Steel 155mm long spring loaded lever handle in Stainless Steel finish (Code: TH120BP cylinder) on 170 x 170mm plate	No	54
12	Dormakaba Stainless Steel cylinder sash lock (Code: D036S) with 57mm backset.	No	54
13	Dormakaba M4 patent male/female fixing screws	No	216
14	Dormakaba Satin Nickel 63mm - 31.5 + 31.5mm Grand master keyed E-SP 5 Pin double cylinder (Code: DDC206301GMK).	No	54

**Carried to Collection**

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IRONMONGERY

**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

15	Dormakaba Nickel Plated floor mounted door stop (Code: DDS-NP-018), size 24 x 45mm fixed in accordance with the manufacturer's recommendations.	No	54	
	<u>TYPE 3 (KITCHENS)</u>			
16	Dormakaba mechanical hold open TS 91B HO-SL cam action slide channel door closer (Code: TS 91B HO-SL) with a closing force of EN 3 for maximum 950mm wide door. Door closer compliant with EN 1154, and CERTI FIRE approved (Certificate No.CF 119) for door types ITT 120, MM/IMM 240 (ISO 9001)	No	2	
17	Dormakaba Tubular straight Stainless Steel bolt through pull handle (Code: DPH210BT), size 30mm diameter x 300mm long.	No	2	
18	Dormakaba grade 430 Stainless Steel plate (Code: DPP-430-BL), size 150 x 300 x 1,2mm with 6 (six) counter-sunk fixing holes plugged and screwed with aluminium screws.	No	2	
19	Dormakaba Stainless Steel cylinder deadlock (Code: D037D) with 57mm backset.	No	2	
20	Dormakaba Brass 40.5mm grand master keyed E-SP 5 pin single cylinder (Code: DSC204101GMK).	No	2	
21	Dormakaba M4 patent male/female fixing screws	No	12	
22	Dormakaba 52mm diameter Stainless Steel cylinder escutcheon set (Code: DCE-002).	No	2	
23	Dormakaba "Tea Cup" engraved grade 304 Stainless Steel sign (Code: DSS-135), size 150 x 150 x 1,2mm with counter-sunk fixing holes plugged and screwed with aluminium screws.	No	2	
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**ALTERATIONS AND ADDITIONS TO THE  
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24	Dormakaba Nickel Plated floor mounted door stop (Code: DDS-NP-018), size 24 x 45mm fixed in accordance with the manufacturer's recommendations.	No	2		
	<u>TYPE 4 AND 5 (D1-ABLUTIONS)</u>				
25	Dormakaba mechanical hold open TS 91B HO-SL cam action slide channel door closer (Code: TS 91B HO-SL) with a closing force of EN 3 for maximum 950mm wide door. Door closer compliant with EN 1154, and CERTI FIRE approved (Certificate No.CF 119) for door types ITT 120, MM/IMM 240 (ISO 9001)	No	12		
26	Dormakaba Tubular straight Stainless Steel bolt through pull handle (Code: DPH210BT), size 30mm diameter x 300mm long.	No	12		
27	Dormakaba grade 430 Stainless Steel plate (Code: DPP-430-BL), size 150 x 300 x 1,2mm with 6 (six) counter-sunk fixing holes plugged and screwed with aluminium screws.	No	12		
28	Dormakaba Stainless Steel cylinder deadlock (Code: D037D) with 57mm backset.	No	12		
29	Dormakaba Brass 40.5mm grand master keyed E-SP 5 pin single cylinder (Code: DSC204101GMK).	No	12		
30	Dormakaba M4 patent male/female fixing screws	No	72		
31	Dormakaba 52mm diameter Stainless Steel cylinder escutcheon set (Code: DCE-002).	No	12		
32	Dormakaba Nickel Plated floor mounted door stop (Code: DDS-NP-018), size 24 x 45mm fixed in accordance with the manufacturer's recommendations.	No	12		
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**ALTERATIONS AND ADDITIONS TO THE  
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33	Dormakaba "Male " engraved grade 304 Stainless Steel sign (Code: DSS-130), size 150 x 150 x 1,2mm with counter-sunk fixing holes plugged and screwed with aluminium screws.	No	6		
34	Dormakaba "Female" engraved grade 304 Stainless Steel sign (Code: DSS-131), size 150 x 150 x 1,2mm with counter-sunk fixing holes plugged and screwed with aluminium screws.	No	6		
<u>TYPE 6 - (D2 TOILET CUBICLES)</u>					
35	Dormakaba grade 430 Stainless Steel plate (Code: DPP-430-BL), size 150 x 300 x 1,2mm with 6 (six) counter-sunk fixing holes plugged and screwed with aluminium screws.	No	18		
36	Dormakaba Tubular straight Stainless Steel bolt through pull handle (Code: DPH301CBT), size 19mm diameter x 149mm long.	No	18		
37	Dormakaba M4 patent male/female fixing screws	No	216		
38	Dormakaba Stainless Steel bathroom deadlock (Code: DMWC-SS-008) with 55mm backset.	No	18		
39	Dormakaba 52 x 52mm Stainless Steel square bathroom WC bolt set (Code: DWC-006).	No	18		
40	Dormakaba Stainless Steel hat and coat hook with rubber buffer (Code: DHC-SS-031), size 70 x 25 x 80mm fixed in accordance with the manufacturer's recommendations.	No	18		
<u>TYPE 7 - (D05 -DISABLED)</u>					
41	Dormakaba non hold open code TS 73V PA DC-PAB-SL rack and pinion projecting arm door closer with a closing force of EN 2-4 for maximum 1 100mm wide door.	No	1		
42	Dormakaba Tubular straight Stainless Steel bolt through pull handle (Code: DPH301BBT), size 25mm diameter x 325mm long.	No	1		
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**ALTERATIONS AND ADDITIONS TO THE  
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43	Dormakaba M4 patent male/female fixing screws	No	28		
44	Dormakaba Stainless Steel bathroom deadlock (Code: D032D) with 57mm backset.	No	1		
45	Dormakaba 52 x 52mm Stainless Steel square bathroom WC bolt set (Code: DWC-006).	No	1		
46	Dormakaba Nickel Plated floor mounted door stop (Code: DDS-NP-018), size 24 x 45mm fixed in accordance with the manufacturer's recommendations.	No	1		
47	Dormakaba grade 430 Stainless kick plate (Code: DKP-430-SF), size 300 x 900 x 1,2mm with 12 (twelve) counter-sunk fixing holes plugged and screwed with aluminium screws.	No	2		
48	Dormakaba "Male & Female" engraved grade 304 Stainless Steel sign (Code: DSS-132), size 150 x 150 x 1,2mm with counter-sunk fixing holes plugged and screwed with aluminium screws.	No	1		
49	Dormakaba "Disabled" engraved grade 304 Stainless Steel sign (Code: DSS-133), size 150 x 150 x 1,2mm with counter-sunk fixing holes plugged and screwed with aluminium screws.	No	1		
	<u>TYPE 8 (D04,AL02,AL03,AL04,D09,D10,D12)</u>				
50	Dormakaba mechanical hold open TS 91B HO-SL cam action slide channel door closer (Code: TS 91B HO-SL) with a closing force of EN 3 for maximum 950mm wide door. Door closer compliant with EN 1154, and CERTI FIRE approved (Certificate No.CF 119) for door types ITT 120, MM/IMM 240 (ISO 9001)	No	60		
51	Dormakaba surface mounted door coordinator (Code: SR392), fitted in accordance with manufacturer's recommendations.	No	30		
52	Dormakaba Tubular offset Stainless Steel back-to-back pull handle (Code: DPH217BTB), size 25mm diameter x 590mm long.	No	60		
	<b>Carried to Collection</b>			R	
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**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

53	Dormakaba Stainless Steel narrow stile dead lock operating with european profile cylinder (Code: D02735) with 35mm backset.	No	30
54	Dormakaba Satin Nickel 63mm - 31.5 + 31.5mm Grand master keyed E-SP 5 Pin Knob cylinder (Code: DKC206301GMK).	No	30
55	Dormakaba 30 x 64mm Stainless Steel narrow style cylinder escutcheon (Code: DCE-105).	No	58
56	Dormakaba Stainless Steel dust proof strike (Code: DPS-SS-032), size 38 x 19mm fixed in accordance with the manufacturer's recommendations.	No	30
57	Dormakaba Satin Chrome flush bolt with heel (Code: DFB-SC-180), size 48 x 19 x 153mm fixed in accordance with with keep let into concrete	No	27
58	Dormakaba Satin Chrome flush bolt with heel (Code: DFB-SC-180), size 48 x 19 x 153mm fixed in accordance with with keep let into metal	No	27
59	Dormakaba Nickel Plated floor mounted door stop (Code: DDS-NP-018), size 24 x 45mm fixed in accordance with the manufacturer's recommendations.	No	60
<b><u>TYPE 8 (D04 ON PARTITIONS)</u></b>			
60	Dormakaba mechanical hold open TS 91B HO-SL cam action slide channel door closer (Code: TS 91B HO-SL) with a closing force of EN 3 for maximum 950mm wide door. Door closer compliant with EN 1154, and CERTI FIRE approved (Certificate No.CF 119) for door types ITT 120, MM/IMM 240 (ISO 9001)	No	4
61	Dormakaba surface mounted door coordinator (Code: SR392), fitted in accordance with manufacturer's recommendations.	No	2
62	Dormakaba Tubular offset Stainless Steel back-to-back pull handle (Code: DPH217BTB), size 25mm diameter x 590mm long.	No	4

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**ALTERATIONS AND ADDITIONS TO THE  
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63	Dormakaba Stainless Steel narrow stile dead lock operating with european profile cylinder (Code: D02735) with 35mm backset.	No	2	
64	Dormakaba Satin Nickel 63mm - 31.5 + 31.5mm Grand master keyed E-SP 5 Pin Knob cylinder (Code: DKC206301GMK).	No	2	
65	Dormakaba 30 x 64mm Stainless Steel narrow style cylinder escutcheon (Code: DCE-105).	No	2	
66	Dormakaba Stainless Steel dust proof strike (Code: DPS-SS-032), size 38 x 19mm fixed in accordance with the manufacturer's recommendations.	No	2	
67	Dormakaba Satin Chrome flush bolt with heel (Code: DFB-SC-180), size 48 x 19 x 153mm fixed in accordance with with keep let into concrete	No	2	
68	Dormakaba Satin Chrome flush bolt with heel (Code: DFB-SC-180), size 48 x 19 x 153mm fixed in accordance with with keep let into metal	No	2	
69	Dormakaba Nickel Plated floor mounted door stop (Code: DDS-NP-018), size 24 x 45mm fixed in accordance with the manufacturer's recommendations.	No	4	
	<u>TYPE 9 -FIRE ESCAPE - D06-1</u>			
70	Dormakaba non hold open TS 91B cam action slide channel door closer (Code: TS 91B) with a closing force of EN 3 for maximum 950mm wide door.	No	2	
71	Dormakaba Brass 40.5mm grand master keyed E-SP 5 pin single cylinder (Code: DSC204101GMK).	No	2	
72	Dormakaba push bar panic hardware components for single door with one point locking (Code: PHA1/S).	No	4	
<b>Carried to Collection</b>				R
Section No. 3 NEW WORK Bill No. 6 IRONMONGERY				

**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

73	Dormakaba exterior access lock lever handle in Satin Chrome finish (Code: PHT3901 ).	No	2		
74	Dormakaba Stainless Steel wall buffer (Code: DDH-SS-020), size 76.5 x 45mm fixed in accordance with the manufacturer's recommendations.	No	2		
<b><u>TYPE 10 - FIRE ESCAPE - D06-2</u></b>					
75	Dormakaba mechanical hold open TS 91B cam action slide channel door closer (Code: TS 91B HO) with a closing force of EN 3 for maximum 950mm wide door.	No	1		
76	Dormakaba Tubular straight Stainless Steel bolt through pull handle (Code: DPH210BT), size 30mm diameter x 300mm long.	No	1		
77	Dormakaba grade 430 Stainless Steel plate (Code: DPP-430-BL), size 150 x 300 x 1,2mm with 6 (six) counter-sunk fixing holes plugged and screwed with aluminium screws.	No	1		
78	Dormakaba Stainless Steel cylinder deadlock (Code: D037D) with 57mm backset.	No	1		
79	Dormakaba Satin Nickel 63mm - 31.5 + 31.5mm Grand master keyed E-SP 5 Pin Knob cylinder (Code: DKC206301GMK).	No	1		
80	Dormakaba 52mm diameter Stainless Steel cylinder escutcheon set (Code: DCE-002).	No	1		
81	Dormakaba Nickel Plated floor mounted door stop (Code: DDS-NP-018), size 24 x 45mm fixed in accordance with the manufacturer's recommendations.	No	1		
<b>Carried to Collection</b>				R	
Section No. 3 NEW WORK Bill No. 6 IRONMONGERY					

**ALTERATIONS AND ADDITIONS TO THE  
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<u>TYPE 11 (D7-DUCT)</u>				
82	Dormakaba Tubular Stainless Steel 155mm long spring loaded lever handle in Stainless Steel finish (Code: TH120BP cylinder) on 170 x 170mm plate	No	4	
83	Dormakaba Stainless Steel cylinder sash lock (Code: D036S) with 57mm backset.	No	4	
84	Dormakaba Satin Nickel 63mm - 31.5 + 31.5mm Grand master keyed E-SP 5 Pin double cylinder (Code: DDC206301GMK).	No	4	
85	Dormakaba M4 patent male/female fixing screws	No	16	
86	Dormakaba Nickel Plated floor mounted door stop (Code: DDS-NP-018), size 24 x 45mm fixed in accordance with the manufacturer's recommendations.	No	4	
<u>TYPE 12 (D10 - DUCT)</u>				
87	Dormakaba Tubular Stainless Steel 155mm long spring loaded lever handle in Stainless Steel finish (Code: TH120BP cylinder).	No	12	
88	Dormakaba Stainless Steel cylinder sash lock (Code: D036S) with 57mm backset.	No	6	
89	Dormakaba Satin Nickel 63mm - 31.5 + 31.5mm Grand master keyed E-SP 5 Pin double cylinder (Code: DDC206301GMK).	No	6	
90	Dormakaba Nickel Plated Rebate conversion kit for Euro Profile locks (Code: D038R).	No	6	
91	Dormakaba Satin Chrome flush bolt with heel (Code: DFB-SC-180), size 48 x 19 x 153mm fixed in accordance with the manufacturer's recommendations.	No	6	
<b>Carried to Collection</b>				R
Section No. 3 NEW WORK Bill No. 6 IRONMONGERY				

**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

92	Dormakaba Stainless Steel dust proof strike (Code: DPS-SS-032), size 38 x 19mm fixed in accordance with the manufacturer's recommendations.	No	6		
93	Dormakaba Nickel Plated floor mounted door stop (Code: DDS-NP-018), size 24 x 45mm fixed in accordance with the manufacturer's recommendations.	No	12		
	<u>TYPE 13 (GENERATOR ROOM)</u>				
94	Padlock (PC Amount R200-00 each Vat excl. supplied)	No	2		
	<b><u>BATHROOM FITTINGS</u></b>				
	<u>"Franke"</u>				
95	Franke CNTXBR 32mm diameter satin finished stainless steel cistern back rail (Code: 2510014), size 750 x 260mm with Franke Fine Grip surface, plugged and screwed to the wall with stainless steel screws.	No	2		
96	Franke CNTXPAR satin finished stainless steel paraplegic grab rail (Code: 2510012), size 300 x 96 x 300mm with Franke Fine Grip surface, plugged and screwed to the wall with stainless steel screws.	No	2		
	<u>Sundries</u>				
97	Stainless steel double towel rail (PC Amount R200.00 each VAT excl. supplied)	No	3		
98	Stainless steel double toilet roll dispenser (PC Amount R1 750.00 each VAT excl. supplied)	No	20		
99	Stainless steel soap dispenser (PC Amount R1 750.00 each VAT excl. supplied)	No	14		
100	Satin finished stainless steel automatic hands free hand dryer (PC Amount R3 750.00 each VAT excl. supplied)	No	14		
	<b><u>SUNDRIES</u></b>				
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	Section No. 3 NEW WORK Bill No. 6 IRONMONGERY				

"Emseal"

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"Trox Technik" natural anodised aluminium finished  
louvres

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**ALTERATIONS AND ADDITIONS TO THE  
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NEW WORK

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IRONMONGERY

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NEW WORK

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IRONMONGERY



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## SECTION NO. 3

## BILL NO. 7

## STRUCTURAL STEELWORK

## PREAMBLES

## SUPPLEMENTARY PREAMBLES

## Descriptions

Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete.

## STEEL COLUMNS AND BEAMS

**Carried to Collection**

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Section No. 3  
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Bill No. 7  
STRUCTURAL STEELWORK

**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

<u>Welded columns in single lengths with flat section base, top, bearer and connection plates bolted to concrete</u>				
1	150 x 100 x 4mm Thick rectangular hollow section columns 1540mm high, with two (2) plates (at both ends) size 305 x 165 x 5mm thick two (2) times drilled for bolts (e/m) (W2a,W4)	No	18	
2	150 x 100 x 4mm Thick rectangular hollow section columns 2106mm high, with two (2) plates (at both ends) size 305 x 165 x 5mm thick two (2) times drilled for bolts (e/m) (W7)	No	2	
<u>Welded beams in single lengths with flat section bearer and connection plates bolted to columns</u>				
3	305 x 165 x 40kg/m I-section beam in length 7100mm long laid on top brickwork (W2a)	No	4	
4	305 x 165 x 40kg/m I-section beam in length 10600mm long laid on top brickwork (W4)	No	2	
5	305 x 165 x 40kg/m I-section beam in length 10900mm long laid on top brickwork (W7)	No	2	
<u>Bolts</u>				
6	Drill hole through 2,5mm steel for 10mm diameter bolt	No	40	
7	M16 Gr.8.8 Anchor bolt 340mm long with matching nut and two (2) washers	No	40	
8	M12 Bolt Full thread bolt 30mm with two (2) washers and one (1) nut	No	40	
<b>Carried to Collection</b>				
Section No. 3 NEW WORK Bill No. 7 STRUCTURAL STEELWORK				R

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**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

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STRUCTURAL STEELWORK

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NEW WORK

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STRUCTURAL STEELWORK

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## **BILL NO. 8**

## METALWORK

## PREAMBLES

For Preambles refer to "Department of Public Works:  
Specification of material and methods to be used -  
PW371"

## SUPPLEMENTARY PREAMBLES

## Descriptions

Descriptions of bolts shall be deemed to include nuts and washers. Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete. Metalwork described as "holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described.

### Drawings

Tenderers are referred to architect's drawings annexed to this document for full details of the windows, doors, etc

## ALUMINIUM WINDOWS, DOORS, ETC

## AAAMSA guide

**All windows, doors, etc shall comply with and meet the minimum recommended performance requirements as set out in the General Specification for Architectural Aluminium and Glass Products (Third Edition) as published by the Association of Architectural Aluminium Manufacturers of South Africa (AAAMSA)**

**Carried to Collection**

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Section No. 3  
NEW WORK  
Bill No. 8  
METALWORK

**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

Finish

The windows, doors, etc shall be natural anodised to a thickness of 25 micron and shall comply with SABS 999 and 1407

Glass

Glazing to be with patent rubber gaskets with glazing beads and comply with BS 952. Thickness of glass shall be in accordance with table 1 (Part N : Glazing ). Safety glass shall comply with SABS 1263. The National Building Regulations shall be observed with regard to the specification of safety glass

Design indemnity

The contractor is to submit with his tender the "Form of Indemnity", annexed to this document, fully completed and signed

Drawings

Tenderers are referred to architect's drawings annexed to these bills of quantities for full details of windows, doors, etc

Pricing.

All window prices should include aluminium louvres as shown

General

Workshop drawings to be approved by the architect before manufacture

Hinges, etc.

All door frames are to have three (3) heavy duty hinges

**WELDED SCREENS, GATES, ETC**Screens and gates

1	Double gate 1600 x 2100mm high (PC Amount R2 000-00 Vat excl. supplied and installed by Specialists)
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No

1

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METALWORK

**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

**SUNDRY METALWORK**

Welded columns in single lengths with flat section base, top, bearer and connection plates bolted to concrete

2	Two (2) x 150 x 100 x 10kg/m Hot dipped galvanised angle section welded back to back laid in brickwork as lintels above openings	m	143.20
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**PRESSED STEEL DOOR FRAMES**

1,2mm Double rebated frames suitable for half brick walls

3	Frame for door size 762 x 2400mm high (D01, D02)	No	29
4	Frame for door size 762 x 2400mm high set in created openings (openings e/m) (D01)	No	4
5	Frame for door size 813 x 2400mm high (D03,D08)	No	5

1,2mm Double rebated frames suitable for one brick walls

6	Frame for door size 762 x 2400mm high (D01)	No	5
7	Frame for door size 813 x 2400mm high (D03,D08)	No	3
8	Frame for door size 900 x 2400mm high (D05)	No	1
9	Frame for door size 1614 x 2400mm high (D10)	No	2

**ALUMINIUM WINDOWS, DOORS ETC.**

Powder coated aluminium doors and windows (inclusive of locksets):

10	Purpose made window size 600 x 900mm high (W1) (PC Amount R1 470-00 each VAT excl. supplied, delivered and installed on site by an approved specialist)	No	23
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**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

11	Purpose made window size 500 x 3910mm high (AL11) (PC Amount R2 000-00 each VAT excl. supplied, delivered and installed on site by an approved specialist)	No	8		
12	Purpose made window size 1022 x 949mm high (W08) (PC Amount R2 300-00 each VAT excl. supplied, delivered and installed on site by an approved specialist)	No	1		
13	Purpose made window size 906 x 2400mm high (AL01) (PC Amount R3 475-00 each VAT excl. supplied, delivered and installed on site by an approved specialist)	No	8		
14	Purpose made window size 1022 x 1559mm high (ExW04) (PC Amount R3 945-00 each VAT excl. supplied, delivered and installed on site by an approved specialist)	No	3		
15	Purpose made window size 1455 x 1559mm high (ExW03) (PC Amount R3 950-00 each VAT excl. supplied, delivered and installed on site by an approved specialist)	No	1		
16	Purpose made window size 1200 x 1540mm high (ExW05) (PC Amount R4 245-00 each VAT excl. supplied, delivered and installed on site by an approved specialist)	No	1		
17	Purpose made window size 1760 x 1540mm high (ExW01) (PC Amount R4 500-00 each VAT excl. supplied, delivered and installed on site by an approved specialist)	No	116		
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**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

18	Purpose made window size 2104 x 1559mm high (ExW02) (PC Amount R5 200-00 each VAT excl. supplied, delivered and installed on site by an approved specialist)	No	6	
19	Purpose made window size 2400 x 1500mm high (AL08) (PC Amount R5 460-00 each VAT excl. supplied, delivered and installed on site by an approved specialist)	No	1	
20	Purpose made window size 1760 x 1540mm high (W05) (PC Amount R5 900-00 each VAT excl. supplied, delivered and installed on site by an approved specialist)	No	3	
21	Purpose made window size 7100 x 1540mm high (W02A) (PC Amount R6 000-00 each VAT excl. supplied, delivered and installed on site by an approved specialist)	No	4	
22	Purpose made window size 2450 x 2380mm high (AL07) (PC Amount R9 200-00 each VAT excl. supplied, delivered and installed on site by an approved specialist)	No	2	
23	Purpose made window size 3520 x 1540mm high (W03) (PC Amount R11 250-00 each VAT excl. supplied, delivered and installed on site by an approved specialist)	No	2	
24	Purpose made window size 5280 x 1540mm high (W02) (PC Amount R16 600-00 each VAT excl. supplied, delivered and installed on site by an approved specialist)	No	4	
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Section No. 3 NEW WORK Bill No. 8 METALWORK				



**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

25	Purpose made window size 4025 x 2880mm high (AL09) (PC Amount R17 600-00 each VAT excl. supplied, delivered and installed on site by an approved specialist)	No	1		
26	Purpose made door size 4025 x 2390mm high (AL02) (PC Amount R21 750-00 each VAT excl. supplied, delivered and installed on site by an approved specialist)	No	1		
27	Purpose made door size 2805 x 3410mm high (AL03) (PC Amount R21 350-00 each VAT excl. supplied, delivered and installed on site by an approved specialist)	No	1		
28	Purpose made window size 5593 x 2106mm high (W06) (PC Amount R22 500,00 each VAT excl. supplied, delivered and installed on site by an approved specialist)	No	2		
29	Purpose made door size 4617 x 2598mm high (AL04) (PC Amount R26 290-00 each VAT excl. supplied, delivered and installed on site by an approved specialist)	No	1		
30	Purpose made door size 1500 x 2400mm high (D04) (PC Amount R7 000-00 each VAT excl. supplied, delivered and installed on site by an approved specialist)	No	9		
31	Purpose made window size 5248 x 3910mm high (AL12) (PC Amount R31 800-00 each VAT excl. supplied, delivered and installed on site by an approved specialist)	No	1		
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Section No. 3 NEW WORK Bill No. 8 METALWORK					

ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA

32	Purpose made window size 10559 x 1540mm high (W04) (PC Amount R32 600-00 each VAT excl. supplied, delivered and installed on site by an approved specialist)	No	2	
33	Purpose made window size 10899 x 12106mm high (W07) (PC Amount R38 400-00 each VAT excl. supplied, delivered and installed on site by an approved specialist)	No	2	
34	Purpose made window size 4500 x 6545mm high (AL05) (PC Amount R54 700-00 each VAT excl. supplied, delivered and installed on site by an approved specialist)	No	1	
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**ALTERATIONS AND ADDITIONS TO THE  
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METALWORK

**ALTERATIONS AND ADDITIONS TO THE  
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Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.2</u></b>			
	<b><u>BILL NO.9</u></b>			
	<b><u>PLASTERING</u></b>			
	<b><u>PREAMBLES</u></b>			
	For Preambles refer to "Department of Public Works: Specification of material and methods to be used - PW371"			
	<b><u>SCREEDS</u></b>			
	<u>Screeds on concrete</u>			
1	30mm Thick screed on floors and landings	m2	1 101	
	<b><u>INTERNAL PLASTER</u></b>			
	<u>Prepare surfaces, by hacking or cutting, fill low areas by applying undercoats of plaster not exceeding 15mm thick, apply one coat plaster, leave to stiffen, strike off with stricker board, and wood float to an even surface and to a thickness of 10-15mm thick</u>			
2	On walls	m2	2 137	
3	On narrow widths	m2	40	
	<u>Prepare surfaces, by hacking or cutting, fill low areas by applying undercoats of plaster not exceeding 15mm thick, apply one coat plaster, leave to stiffen, strike off with stricker board, and wood float to an even surface and to a thickness of 10-15mm thick and finished with 6mm Rhinolite Gypsum Skim plaster in strict accordance of the manufacturer's instructions</u>			
4	On walls	m2	115	
5	On narrow widths	m2	25	
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	Section No. 3			
	NEW WORK			
	Bill No. 9			
	PLASTERING			

**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.3</u></b>			
	<b><u>BILL NO. 10</u></b>			
	<b><u>TILING</u></b>			
	<b><u>PREAMBLES</u></b>			
	For Preambles refer to "Department of Public Works: Specification of material and methods to be used - PW371"			
	<b><u>WALL TILING</u></b>			
	<u>200 x 200 x 5mm Porcelain wall tiles on walls fixed with PRO GRIP Super Bond Adhesive (code EZAD103) and flush pointed with PRO GRIP waterproof jointing compound (Code EZGR 559) all to strict manufacturer's instructions (PC Amount R300,00/m2 VAT excl. supplied)</u>			
1	On walls	m2	986	
2	On narrow widths	m2	10	
3	Fair exposed cutting and fitting around pipe exceeding 100mm and not exceeding 200mm diameter	No	20	
4	Fair exposed cutting and fitting around pipe not exceeding 100mm diameter	No	26	
	<b><u>FLOOR TILING</u></b>			
	<u>400 x 400 x 11,5mm Non-slip porcelain floor tiles (PC R300,00/m2 VAT excl. supplied) laid in stretcher bond with TAL adhesive with 6mm joints in both direction flush pointed with tinted waterproof jointing compound</u>			
5	On floors and landings	m2	3 281	
	<b>Carried to Collection</b>			
	Section No. 3 NEW WORK Bill No. 10 TILING		R	

**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

6	Skirting 400 x 100mm high of cut skirting tiles	m	2 540
7	Skirting 400 x 100mm high of cut skirting tiles stepped over treads and risers	m	11
8	On risers 170mm high of stretcher course tiles	m	45
9	On treads 250mm wide nosing tiles with stretcher course tiles behind	m	45
	<u>240 x 240 x 11,5mm Terracotta ceramic tiles flush pointed with tinted jointing compound on brickwork including cement (PC R300-00/m2 Vat excl. supplied)</u>		
10	External window sills formed of cut tiles to size 110mm wide	m	30
	<b><u>TOILET PAPER HOLDERS ETC</u></b>		
	<u>Sundries</u>		
11	Aluminium edge strip on top of cut skirting (PC Amount R55-00/m Vat excl. supplied and delivered to site)	m	2 540
12	Aluminium edge strip on top of cut skirting stepped over treads and risers (PC Amount R55-00/m Vat excl. supplied)	m	11
13	Aluminium corner edge strip on top of tiles (PC Amount R55-00/m Vat excl. supplied and delivered to site)	m	45
14	Aluminium edge strip on top of sloping cut edges of stairs (PC Amount R55-00/m Vat excl. supplied)	m	8

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**ALTERATIONS AND ADDITIONS TO THE  
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**ALTERATIONS AND ADDITIONS TO THE  
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**SECTION NO.3**

**BILL NO. 12**

**PAINTING**

**PREAMBLES**

For Preambles refer to "Department of Public Works:  
Specification of material and methods to be used -  
PW371"

**SUPPLEMENTARY PREAMBLES**

**PREPARATORY WORK TO EXISTING  
WORK**

Previously painted plastered surfaces

Surfaces shall be thoroughly washed down and allowed  
to dry completely before any paint is applied. Blistered  
or peeling paint shall be completely removed and cracks  
shall be opened, filled with a suitable pollyfiller, primed  
and finished smooth

Previously painted metal surfaces

Surfaces shall be thoroughly rubbed and cleaned down.  
Blistered or peeling paint shall be completely removed  
down to bare metal

Previously painted wood surfaces

Surfaces shall be thoroughly cleaned down. Blistered or  
peeling paint shall be completely removed and cracks  
and crevices shall be primed, filled with suitable filler  
and finished smooth

Anti fungal solutions will be mixed as follows:

5 Litres on "Velvagro" will be mixed 100ml "Plascon Ref  
502 antifungal solution" all as per Manufacturer  
instructions

**Carried to Collection**

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Section No. 3  
NEW WORK  
Bill No. 12  
PAINTWORK

# ALTERATIONS AND ADDITIONS TO THE EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA

## PAINTWORK

### ON FLOATED PLASTER

Plascon Professional Superior Matt to interior new cement plaster.

Surface to be dry, sound and clean and cured for a minimum of 14 days, with a moisture content measured with a Doser Hygrometer (or equivalent), of BD 2 scale - 8% or less. Prime with two coat Professional Plaster Primer (PP700) with an overcoating time of 16 hours and finish with two coats Professional Superior Matt (PEM 950) with 2 hours drying time between coats, for a maintenance cycle of 7 years in a C1 - inland environment.

- Environment : C1 - inland
- Topcoat : Professional Superior Matt
- Number of coats of topcoat : two coats
- Overcoating time for topcoat : 2.00 hour
- Primer/Base coat : Professional Plaster Primer
- Overcoating time for primer/base coat : 16.00 hour
- Specification document : NW107t.

1 On internal walls

m2

1 514

### ON SMOOTH CONCRETE

Carried to Collection

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Section No. 3  
NEW WORK  
Bill No. 12  
PAINTWORK

**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

Plascon Professional Rippled Texture Low Sheen to interior new off-shutter concrete.

Surface to be dry, sound and clean and cured for a minimum of 28 days, with a moisture content measured with a Doser Hygrometer (or equivalent), of BD 4 scale - 5% or less. Prime with one coat Professional Plaster Primer (PP700) with an overcoating time of 16 hours and finish with two coats Professional Rippled Texture Low Sheen (PTX 1400) with 4 hours drying time between coats, for a maintenance cycle of 5 years in a C1 - inland environment.

- Environment : C1 - inland
- Topcoat : Professional Rippled Texture Low Sheen
- Number of coats of topcoat : two coats
- Overcoating time for topcoat : 4,00 hour
- Primer/Base coat : Professional Plaster Primer
- Overcoating time for primer/base coat : 16,00 hour
- Specification document : NW156t.

2 On concrete soffits

m2

136

**ON FIBRE-CEMENT**

Plascon Polvin Super Acrylic to exterior new fibre cement (NW 105). Surface to be dry, sound and clean, with a moisture content, measured with a Doser Hygrometer (or equivalent), of BD 2 scale - 8% or less. Prime with one coat Plascon Plaster Primer (UC 56) with an overcoating time of 16 hours and finish with two coats Polvin Super Acrylic (EPL) with 1 hour drying time between coats, for a maintenance cycle of 3 years in a C1 - inland environment.

3 On fascias and barge boards not exceeding 300mm girth

m

384

**ON METAL**

**Carried to Collection**

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NEW WORK  
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PAINTWORK

# ALTERATIONS AND ADDITIONS TO THE EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA

	<u>Duragloss 100 Enamel long oil alkyd paint to interior shop primed mild steel. Surface to be clean, dry and rust free. Prime surface with one coat Dulux Corrocote 1 (Code: D193-0839) with an overcoating time of 4 hours, undercoat with one coat Dulux Universal Undercoat (Code: D196-0763) with an overcoating time of 18 hours and finish with two coats Duragloss 100 Enamel (Code: M371-0734) with an overcoating time of 18 hours.</u>		
4	On door frames	m2	115
5	On gates, grilles, burglar screens, balustrades, etc (both sides measured over the full flat area)	m2	7
6	On steel columns and beams	m2	80

## ON WOOD

	<u>Plascon Professional Eggshell Enamel to interior new wood. Surface to be dry, sound and clean. Wash knots and resinous areas with Lacquer Thinners (ILS 1) and coat with Woodcare Knot Seal (PK 2) and apply one coat of Plascon Woodcare Pretreatment (WWP 1), overcoated within 48 hours with a moisture content, measured with a Doser Hygrometer (or equivalent), of BD 2 scale (A1-A5) &lt; 14% or less. Prime with one coat Professional Wood Primer (PP 800) with an overcoating time of 16 hours and finish with two coats Professional Eggshell Enamel (PSB 700) with 16 hours drying time between coats, for a maintenance cycle of 5 years in a C1 - inland environment.</u>		
7	On doors	m2	845

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# ALTERATIONS AND ADDITIONS TO THE EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA

Plascon Woodcare Coloured Varnish to interior new wood. Surface to be dry, sound and clean. Wash knots and resinous areas with Lacquer Thinners (ILS 1) and coat with Woodcare Knot Seal (PK 2) and apply one coat of Plascon Woodcare Pretreatment (WWP 1), overcoated within 48 hours with a moisture content, measured with a Doser Hygrometer (or equivalent), of BD 2 scale (A1-A5) < 14% or less. Prime with one coat Woodcare Coloured Varnish (VSN) with an overcoating time of 16 hours and finish with two coats Woodcare Coloured Varnish (VSN) with 16 hours drying time between coats, for a maintenance cycle of 3 years in a C1 - inland environment.

8 On doors m2 26

## **PAINTWORK ETC TO PREVIOUSLY PAINTED WORK**

### **ON FLOATED PLASTER**

Surface to be assessed and the appropriate surface preparation clauses selected for remedial procedure. Prime with two coats Professional Plaster Primer (PP700) with an overcoating time of 16 hours and finish with two coats Professional Super Matt (PEM 900) with 1 hour drying time between coats, for a maintenance cycle of 5 years in a C1 - inland environment.

- Environment : C1 - inland
- Topcoat : Professional Super Matt
- Number of coats of topcoat : two coats
- Overcoating time for topcoat : 1,00 hour
- Primer/Base coat : Professional Plaster Primer
- Overcoating time for primer/base coat : 16,00 hour
- Specification document : RD115t.

9 On internal walls m2 5 355

### **ON SMOOTH CONCRETE**

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# ALTERATIONS AND ADDITIONS TO THE EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA

	<p><u>Surface to be assessed and the appropriate surface preparation clauses selected for remedial procedure.</u></p> <p><u>Prime with one coat Professional Plaster Primer (PP700) with an overcoating time of 16 hours and finish with two coats Professional Superior Matt (PEM 950) with 2 hours drying time between coats, for a maintenance cycle of 7 years in a C1 - inland environment.</u></p> <ul style="list-style-type: none"> <li>• <u>Environment : C1 - inland</u></li> <li>• <u>Topcoat : Professional Superior Matt</u></li> <li>• <u>Number of coats of topcoat : two coats</u></li> <li>• <u>Overcoating time for topcoat : 2,00 hour</u></li> <li>• <u>Primer/Base coat : Professional Plaster Primer</u></li> <li>• <u>Overcoating time for primer/base coat : 16,00 hour</u></li> <li>• <u>Specification document : RD107t.</u></li> </ul>		
10	Concrete columns, etc.	m2	115
	<b><u>ON METAL</u></b>		
	<p><u>Plascon Professional Eggshell Enamel to previously painted mild steel.</u></p> <p><u>Surface to be assessed and the appropriate surface preparation clauses selected for remedial procedure.</u></p> <p><u>Prime with one coat Plascoprime 170 Primer (UC170) with an overcoating time of 16 hours and finish with two coats Professional Eggshell Enamel (PSB 700) with 16 hours drying time between coats, for a maintenance cycle of 5 years in a C1 - inland environment.</u></p> <ul style="list-style-type: none"> <li>• <u>Environment : C1 - inland</u></li> <li>• <u>Topcoat : Professional Eggshell Enamel</u></li> <li>• <u>Number of coats of topcoat : two coats</u></li> <li>• <u>Overcoating time for topcoat : 16,00 hour</u></li> <li>• <u>Primer/Base coat : Plascoprime 170 Primer</u></li> <li>• <u>Overcoating time for primer/base coat : 36,00 hour</u></li> <li>• <u>Specification document : RD289t.</u></li> </ul>		
11	On door frames	m2	179
12	On gates, grilles, burglar screens, balustrades, etc (both sides measured over the full flat area)	m2	4

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**ALTERATIONS AND ADDITIONS TO THE  
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3	MASONRY	60		
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7	STRUCTURAL STEELWORK	80		
8	METALWORK	88		
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## **SECTION 4: PLUMBING & DRAINAGE**

**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO. 4</u></b>			
	<b><u>BILL NO. 1</u></b>			
	<b><u>RAINWATER DISPOSAL</u></b>			
	<b><u>PREAMBLES</u></b>			
	For Preambles refer to "Department of Public Works: Specification of material and methods to be used - PW371"			
	<b><u>RAINWATER DISPOSAL</u></b>			
	<u>0.5mm Thick seamless aluminium gutters</u>			
1	100 x 150 x 100mm Eaves gutters with beaded front edge	m	350	
2	Extra over eaves gutter for stopped end	No	4	
3	Extra over eaves gutter for angle	No	26	
4	Extra over eaves gutter for outlet for 100 x 100mm downpipe	No	34	
5	100 x 100mm Rectangular rainwater pipes	m	204	
6	Extra over 100 x 100mm rainwater pipe for eaves offset 450mm projection	No	34	
7	Extra over rainwater pipe for shoe	No	34	
	<u>Cast iron pipes</u>			
8	100mm Diameter x 500mm long overflow pipe through upstand concrete beam (core drilling e/m)	No	4	
	<b>Carried Forward to Summary of Section No. 4</b>			
	Section No. 4			
	PLUMBING AND DRAINAGE			
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	RAINWATER DISPOSAL			
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**Item  
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Quantity

### Rate

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# ALTERATIONS AND ADDITIONS TO THE EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA

Branch tees shall include flanged and bolted joints to "Polycop" branch pipes in addition and for brass compression male iron to copper straight couplers

Reducers shall include jointing to pipes with PVC rubber ring double Z joint couplers and reducers shall be of sufficient overall length to accommodate same

All pipes shall be jointed and fixed strictly in accordance with the manufacturer's instructions

All pipe diameters are nominal external

## **Concrete pipes:**

Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rings

## **Vitrified clay pipes:**

Pipes shall rest on solid ground and, where necessary, pockets of sufficient size shall be cut around joints to enable the jointing to be properly performed or, alternatively, pipes shall be bedded full length on and including unreinforced concrete laid in a semi-dry state immediately before pipes are laid

Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings

## **uPVC pipes and fittings:**

Soil, waste and vent pipes and fittings shall be solvent weld jointed

## **uPVC pressure pipes and fittings:**

Pipes for water supply shall be of the class stated

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

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**ALTERATIONS AND ADDITIONS TO THE  
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**Copper pipes:**

Pipes shall be hard drawn and half-hard pipes of the class stated. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), class 2 (half-hard) and class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings and compression fittings shall be "Cobra Watertech" type. Capillary solder fittings shall comply with ISO 2016. Only compression fittings shall be used in walls or in ground

**Fixing of pipes**

**Unless specifically otherwise stated, descriptions of pipes shall be deemed to include fixing to walls etc, casting in, building in or suspending not exceeding 1m below suspension level**

**Lead pipes and fittings**

All soldered joints shall be wiped and brass unions shall be used for jointing lead to steel

**Reducing fittings**

Where fittings have reducing ends or branches they are described as "reducing". In the case of pipes with diameters not exceeding 60mm only the largest end or branch size is given. Should the contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained. In the case of pipes with diameters exceeding 60mm all sizes are given and no claim for extra bushes, reducers, etc will be entertained

**Wire gratings**

Descriptions of gutter outlets etc shall be deemed to include wire balloon gratings

**Septic tanks**

Descriptions of septic tanks shall be deemed to include excavation, bedding and jointing, concrete base slabs, jointing to drains and backfilling, compaction, etc all in accordance with the manufacturer's instructions

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# ALTERATIONS AND ADDITIONS TO THE EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA

## **Exposed concrete surfaces**

Exposed surfaces of concrete stormwater channels, cover slabs, inspection eye marker slabs, gulley tops, cleaning eye tops, catchpits, inspection chambers, etc shall be finished smooth with plaster

## **Excavations**

No claim for rock excavation will be entertained unless the contractor has timeously notified the quantity surveyor thereof prior to backfilling

"Soft rock" and "hard rock" shall be as defined in "Earthworks"

## **Laying, backfilling, bedding, etc. of pipes**

Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions

Where no manufacturers' instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following: SABS 1200 L : Medium-pressure pipelines LD : Sewers LE : Stormwater drainage Pipe trenches etc shall be backfilled in accordance with clauses 3, 5.5, 5.6, 5.7 and 7 of SABS 1200 DB : Earthworks (Pipe trenches) Pipes shall be bedded in accordance with clauses 3.1 to 3.4.1, 5.1 to 5.3 and 7 of SABS 1200 LB : Bedding (Pipes). Unless otherwise described bedding of rigid pipes shall be class B bedding

## **Flush pans**

Flush pans shall have straight or side outlets and "P" or "S" traps as necessary

## **Stainless steel basins, sinks, wash troughs, urinals, etc.**

Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable

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**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

**Waste unions**

Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings

**Steel sectional water tanks**

Tanks shall comply with SABS CKS 114

**"Densyl" petrolatum anti-corrosion tape as manufactured by Denso SA (Pty) Ltd.**

Pipes to be taped shall be coated with the appropriate primer and the tape shall be applied with minimum 15mm lap per spiral unless otherwise described

Couplings and fittings to pipes shall be taped in strict accordance with the manufacturer's instructions including all mastic, tape, "Layflat" sheeting, securing of same, etc

**User note:**

Dependent on soil or environmental conditions laps may require to be increased to a maximum of 55% (which results in a double layer)

**SANITARY FITTINGS****"Franke"**

- |   |   |
|---|---|
| 1 | Franke Cascade Model CDX651 Grade 304 18/10 polished stainless steel single bowl and tidy inset sink (Code: 1990033), overall size 925 x 500mm with one 343 x 410 x 171mm deep bowl and one 160 x 280 x 139mm deep bowl, fitted onto cupboard (elsewhere specified).  |
| 2 | Franke Trendline Model 1800x535 Grade 304 18/10 polished stainless steel double centre bowl drop on sink (Code: 313852), overall size 1800 x 535mm wide with two 343 x 410 x 146mm deep bowls, fitted onto cupboard (elsewhere specified) including 38mm waste fitting and PVC traps (traps elsewhere specified). |

No

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**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

<u>"Vaal"</u>					
3	Vaal Sanitaryware vitreous china Bantam ceramic basin colour White (code: 703003), size 455 x 290mm with two tapholes including chainstay hole	No	2		
4	Vaal Sanitaryware Hibiscus vitreous china wall hung basin colour White (Code: 702303WH) with Classic floor mounted pedestal (Code: 715000WH), overall size 510 x 405mm with one taphole including integrated overflow and chainstay hole(basin waste text)(basin waste code prefix)(basin waste code)(basin waste code suffix), bolted to wall with 2No.10mm bolts (Code: 8448Z000) and sealed with silicone sealant where basin meets wall.	No	16		
5	Vaal Sanitaryware Protea Paraplegic vitreous china floor mounted paraplegic washdown suite colour White (Code: 750246WH), comprising 90° outlet pan (Code: 750202WH) and matching 9 litre cistern, including lid, fitments and purpose-made chromium plated side flush lever (Code: 7100LLWH).	No	2		
6	Vaal Sanitaryware 600 x 385 x 380mm Lavatera top inlet white vitreous china wall mounted urinal (Code: 705426WH) including 38mm chromium plated domical grating and chromium plated top inlet spreader (Code: 8542Z000), flush valve (by others - Recommended: Cobra FJ6000), fixed on and including two hanger brackets (Code: 8127Z000).	No	7		
7	Vaal Sanitaryware vitreous china Parktown 90° outlet top inlet colour White (Code: 431500) close rim back-to-wall pan complete with Jazz thermoset toilet seat (code 8531Z0)	No	18		
<b><u>WASTE UNIONS ETC</u></b>					
<u>"Cobra Watertech"</u>					
8	"Cobra Ref. 316" sink waste with 70mm diameter flange, 45mm long shank, backnut, plug and chain	No	5		
9	Cobra Watertech 32mm chrome plated anti-theft plug with spindle (Code: 309-32).	No	18		
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**ALTERATIONS AND ADDITIONS TO THE  
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10	Cobra Watertech 32mm chrome plated slotted basin waste union (no chain or stay) (Code: 303)	No	18		
	<b><u>TRAPS ETC</u></b>				
	<b><u>"Marley"</u></b>				
11	40mm Deep seal "P" or "S" trap	No	1		
12	40 x 300mm Sink combination for double bowl with deepseal "P" trap	No	2		
	<b><u>"Cobra Watertech"</u></b>				
13	Cobra Watertech 40mm chrome plated bottle trap (Code: 365-50) with 75mm deep re-seal, adjustable telescopic pipe and 50mm outlet.	No	25		
	<b><u>TAPS, VALVES, ETC</u></b>				
	<b><u>"Cobra Watertech"</u></b>				
14	Cobra Watertech 15mm compression type angle regulating valve with 10mm bendable copper outlet tube service connection (Code: 232/350).	No	56		
15	Cobra Watertech 15mm MI x FI x 75mm long extension piece with sliding wall flange (Code: 059-15).	No	6		
16	Cobra Watertech chrome plated 15mm diameter outlet x 215mm long with 27mm offset offset urinal flush pipe (Code: FJT5-5).	No	7		
17	Cobra Watertech Chrome Slimline Junior Flushmaster exposed flush valve (Code: FJS6-000), installed in accordance with the manufacturer's recommendations.	No	7		
18	Cobra Watertech 15mm chrome plated pillar tap (Code: 503-21B) with blue indice and elbow action lever, manufactured in accordance with SANS 226:2009 Type 2 (BS 5412).	No	2		
19	Cobra Watertech "Carina" Ref. 214CA pillar tap	No	16		
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**ALTERATIONS AND ADDITIONS TO THE  
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20	Cobra Watertech 15mm BSPT stub taper threaded FI x FI cast brass heavy duty fullway gate valve with non-blowout, non rising spindle, non-asbestos gland packing, guided wedge and red pressed steel hand wheel (Code: 1001-125-15mm).	No	2		
21	Cobra Watertech Chrome Toilet Flushvalve exposed flush valve (Code: FJ2-000), installed in accordance with the manufacturer's recommendations.	No	18		
22	Cobra Watertech chrome plated flush connector (Code: C-FM8.20).	No	18		
23	Cobra Watertech chrome plated offset flush pipe (Code: FJT5.7).	No	18		
24	Cobra Watertech Star 15mm chrome plated sink mixer (Code: 266-041-10) with aerated swivel spout and concealed connections, manufactured in accordance with SANS 226:2009 Type 1 (BS 5412).	No	3		
25	Cobra Watertech 22mm C x C cast brass heavy duty fullway gate valve with non-blowout, non rising spindle, non-asbestos gland packing, guided wedge and red pressed steel hand wheel (Code: 1002-125-20mm).	No	4		
26	Cobra Watertech 32mm C x C cast brass heavy duty fullway gate valve with non-blowout, non rising spindle, non-asbestos gland packing, guided wedge and red pressed steel hand wheel (Code: 1002-125-32mm).	No	3		
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**ALTERATIONS AND ADDITIONS TO THE  
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**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

10	50mm BSP adaptor	No	35
11	50mm Bend	No	2
12	50mm Access bend	No	2
13	50mm x 50 x 50mm Access junction	No	2
14	110mm x 110 x 110mm Junction	No	1
15	110mm Pan connector	No	20
16	110mm Access bend	No	1
17	110 x 50 x 50mm Double access reducing junction	No	1
18	110 x 50mm Access reducing junction	No	1
19	110mm x 110 x 110mm Access junction	No	1
20	110mm x 50 x 110mm Reducing junction	No	1
21	110mm x 50 x 110mm Reducing access junction	No	1
22	110mm Bend	No	1
23	110mm Access bend with anti-syphon horn	No	1
24	100mm "GI Two-way" vent valve	No	4
<u>uPVC gulleys</u>			
25	110mm Gully not exceeding 750mm deep, incl of pre-cast concrete surround, excavation etc.	No	3
<u>Sundries</u>			
26	Cutting into existing 50mm waste pipe and join with 50mm uPVC pipe	No	4.00
27	Cutting into existing 110mm waste pipe and join with 110mm uPVC pipe	No	2.00

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**ALTERATIONS AND ADDITIONS TO THE  
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**ALTERATIONS AND ADDITIONS TO THE  
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Item No		Quantity	Rate	Amount
	<b><u>SECTION NO 4</u></b>			
	<b><u>BILL NO. 4</u></b>			
	<b><u>WATER SUPPLIES</u></b>			
	<b><u>PREAMBLES</u></b>			
	For Preambles refer to "Department of Public Works: Specification of material and methods to be used - PW371"			
	<b><u>WATER SUPPLIES</u></b>			
	<u>The following in trenches for pipes (pipes e/m)</u>			
1	Excavation not exceeding 2m deep	m3	53	
2	Extra over trench and hole excavations in earth for excavation in soft rock	m3	1	
3	Extra over trench and hole excavations in earth for excavation in hard rock	m3	1	
4	Rip and scarify ground level to a depth of 150mm and consolidate to 90% mod. AASHTO density (minimum CBR 3)	m2	98	
5	Risk of collapse to sides of trench and hole excavations not exceeding 1,5m deep	m2	176	
6	Backfilling to trenches, holes, with materials obtained from excavations compacted in 150mm layers to 90% Mod AASHTO density	m3	16	
7	Backfilling to trenches, holes, with selected materials supplied by the contractor compacted in 150mm layers to 90% Mod AASHTO density to form fill blanket	m3	16	
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**ALTERATIONS AND ADDITIONS TO THE  
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8	Backfilling to trenches, holes, with selected granular supplied by the contractor materials compacted in 150mm layers to 90% Mod AASHTO density to form bedding cradle	m3	21
9	Extra over all excavations for carting away surplus material from excavations and/or stock piles on site to a dumping site n.e 1km from site	m3	37
10	Keeping excavations free of water	Item	
	<u>Class 12 black HDPE high density polyethylene pipes with and including "Plasson" compression fittings</u>		
11	22mm Pipes laid in and including trenches not exceeding 1m deep (pipes e/m)	m	33
12	32mm Pipes laid in and including trenches not exceeding 1m deep (pipes e/m)	m	55
	<u>Extra over class 2 black HDPE high density polyethylene pipes for "Plasson" compression fittings</u>		
13	22mm Fittings	No	12
14	32mm Bend	No	4
15	32mm Tee	No	6
16	32 x 22 x 32mm Reducing junction	No	1
17	32 x 22mm Reducer	No	4
18	32 x 22mm Reducing elbow	No	4
	<u>Class 0 copper pipes with capillary couplings</u>		
19	15mm Pipes	m	92
20	22mm Pipes	m	67
21	28mm Pipes	m	38

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PLUMBING AND DRAINAGE  
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WATER SUPPLIES



**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

Extra over class 0 copper pipes for capillary fittings

22	15mm Fittings	No	104
23	22mm Fittings	No	10
24	28mm Fittings	No	9

**ELECTRIC WATER HEATERS**

"Kwikot"

25	Kwikot Prisma point of use 30 litre electric thermostat regulated overbasin water heater size 445 x 445 x 360mm with mixer (Code: PMX 72), fixed on mounting bracket plugged and screwed to wall (Code: PRX 30 OB). Electrical connection elsewhere specified.	No	3
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**WATER SUPPLIES TO FIRE APPLIANCES**

The following in trenches for pipes (pipes e/m)

26	Excavation not exceeding 2m deep	m3	45
27	Risk of collapse to sides of trench and hole excavations not exceeding 1,5m deep	m2	150
28	Backfilling to trenches, holes, with earth filling obtained from the excavations supplied by the contractor compacted in 150mm layers to 90% Mod AASHTO density to form fill blanket	m3	14
29	Backfilling to trenches, holes, with selected materials supplied by the contractor compacted in 150mm layers to 90% Mod AASHTO density to form fill blanket	m3	14
30	Backfilling to trenches, holes, with selected granular supplied by the contractor materials compacted in 150mm layers to 90% Mod AASHTO density to form bedding cradle	m3	18

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WATER SUPPLIES

**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

31	Extra over all excavations for carting away surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	32
32	Keeping excavations free of water		Item
	<u>Class 12 black HDPE high density polyethylene pipes with and including "Plasson" compression fittings</u>		
33	32mm Pipes laid in trenches n.e 1000mm deep (trenches e/m)	m	33
34	50mm Pipes laid in trenches not exceeding 1m deep (trenches e/m)	m	42
	<u>Extra over Class 12 black HDPE high density polyethylene pipes for "Plasson" compression fittings</u>		
35	32mm Bend	No	2
36	32mm Junction	No	3
37	50mm Elbow	No	1
38	50mm Junction	No	2
39	50mm Union	No	2
40	50 x 32mm Reducing bush	No	3
41	50 x 32 x 50mm Reducing junction	No	3
	<u>Galvanised steel pipes</u>		
42	22mm Pipes	m	3
43	50mm Pipes	m	3

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PLUMBING AND DRAINAGE  
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WATER SUPPLIES

**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

	<u>Extra over galvanised steel pipes for steel fittings</u>				
44	22mm Fittings	No	4		
45	50mm Elbow	No	2		
46	50mm Junction	No	1		
47	50mm Union	No	1		
48	50 x 22mm Reducing bush	No	1		
49	50 x 22 x 50mm Reducing junction	No	1		
	<u>"Cobra Watertech"</u>				
50	Cobra Watertech 22mm C x C cast brass heavy duty fullway gate valve with non-blowout, non rising spindle, non-asbestos gland packing, guided wedge and red pressed steel hand wheel (Code: 1002-125-20mm).	No	1		
51	Cobra Watertech 50mm BSPT stub taper threaded FI x FI cast brass heavy duty fullway gate valve with non-blowout, non rising spindle, non-asbestos gland packing, guided wedge and red pressed steel hand wheel (Code: 1001-125-50mm).	No	1		
	<b><u>FIRE APPLIANCES ETC</u></b>				
	<u>"Chubb"</u>				
52	4,5kg Dry chemical powder fire extinguisher, including standard hard wood backing plugged and backing finished with one coat dark stain and two coats clear suede polyurethane varnish	No	4		
53	"Everyway" hose reel complete with 30m plastic hose, chromium plated stopcock, shut-off nozzle and wall bracket	No	1		
	<b><u>SUNDRIES</u></b>				
54	Cutting into existing 110mm HDPE water pipe for and forming junction with 32mm HDPE pipe, including all excavations, cart away, cutting and joining, etc.	No	1		
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**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

55 Cutting into existing 110mm HDPE water pipe for and forming junction with 50mm HDPE pipe, including all excavations, cart away, cutting and joining, etc.

No

1

56 Cutting into existing 50mm HDPE water pipe for and forming junction with 50mm HDPE pipe, including all excavations, cart away, cutting and joining, etc.

No

1

57 Cutting into existing 50mm HDPE water pipe for and forming junction with 32mm HDPE pipe, including all excavations, cart away, cutting and joining, etc.

No

1

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**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

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	<b><u>SECTION NO. 4</u></b>			
	<b><u>BILL NO. 5</u></b>			
	<b><u>SOIL DRAINAGE</u></b>			
	<b><u>PREAMBLES</u></b>			
	For Preambles refer to "Department of Public Works: Specification of material and methods to be used - PW371"			
	<b><u>SOIL DRAINAGE</u></b>			
	<u>The following in trenches for pipes (pipes e/m)</u>			
1	Excavation not exceeding 2m deep	m3	12	
2	Risk of collapse to sides of trench and hole excavations not exceeding 1,5m deep	m2	40	
3	Backfilling to trenches, holes, with materials obtained from excavations compacted in 150mm layers to 90% Mod AASHTO density	m3	4	
4	Rip and scarify ground level to a depth of 150mm and consolidate to 90% mod. AASHTO density (minimum CBR 3)	m2	12	
5	Backfilling to trenches, holes, with selected materials supplied by the contractor compacted in 150mm layers to 90% Mod AASHTO density to form fill blanket	m3	5	
6	Backfilling to trenches, holes, with selected granular supplied by the contractor materials compacted in 150mm layers to 90% Mod AASHTO density to form bedding cradle	m3	4	
	<b>Carried to Collection</b>			R
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**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

7	Extra over all excavations for carting away surplus material from excavations and/or stock piles on site to a dumping site n.e 1km from site	m3	8		
8	Keeping excavations free of water		Item		
	<u>uPVC Underground drain pipes including couplings in the running lengths</u>				
9	110mm Pipes (no excavations	m	1		
10	110mm Pipes laid in trenches (trenches e/m)	m	20		
	<u>Extra over uPVC pipes for fittings</u>				
11	110mm Bend	No	2		
12	110 x 110 x 110mm Junction	No	2		
13	110 x 110 x 110mm Side junction	No	1		
	<u>Precast concrete circular inspection chambers, with and including manhole cover and frame</u>				
14	Inspection chamber 1000mm diameter and exceeding 1000mm and not exceeding 2000mm deep internally. inclusive of all excavations, backfilling, cart away etc. complete	No	1		
	<u>Covers, etc</u>				
15	Saint Gobain Pipelines South Africa (Besaans-du Plessis foundries) medium duty Type 1B circular pavement manhole and frame (Code: 02240), size 650mm Ø x 135kg.	No	1		
	<b><u>SUNDRIES</u></b>				
16	110mm "ABC" cleaning eye end of pipe	No	1		
17	Cutting into existing 110mm drain pipe for and forming junction with 110mm pipe	No	1		
18	Cutting into existing 110mm drain pipe for and forming junction with 160mm pipe	No	1		
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Item No		Quantity	Rate	Amount
	<b><u>SECTION NO 4</u></b>			
	<b><u>BILL NO. 6</u></b>			
	<b><u>WORK IN CONNECTION WITH SECTION BILL 2 TO 5</u></b>			
	<b><u>PREAMBLES</u></b>			
	For Preambles refer to "Department of Public Works: Specification of material and methods to be used - PW371"			
	<b><u>WORK IN CONNECTION WITH SECTION BILL 2 TO 5</u></b>			
	<b><u>BUILDER'S WORK</u></b>			
	<b><u>SLEEVES</u></b>			
	<u>Plastic sleeves for pipes not exceeding 100mm diameter</u>			
1	Sleeve not exceeding 250mm long	No	2	
2	Sleeve exceeding 250mm and not exceeding 500mm long	No	1	
	<u>Plastic sleeves for pipes exceeding 100mm diameter and not exceeding 200mm diameter</u>			
3	Sleeve not exceeding 250mm long	No	3	
4	Sleeve exceeding 250mm and not exceeding 500mm long	No	2	
	<b><u>HOLES ETC</u></b>			
	<u>Core drilling of hole for pipe not exceeding 50mm diameter through:</u>			
5	200mm Reinforced concrete slab, beam, wall, etc	No	1	
	<b>Carried to Collection</b>			
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**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

Core drilling of hole for pipe exceeding 50mm and not exceeding 100mm diameter through:

6	200mm Reinforced concrete slab, beam, wall, etc	No	2
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**TESTING**

7	Provide all necessary water, etc., for and test the whole of the plumbing services, sanitary fittings, pumps, etc., and in stages as deemed necessary, including chlorination, complete to the satisfaction of the architect and the local authority, replace any defective work free of charge, including any necessary re-testing and leave in perfect condition upon completion	No	1
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8	Allow for testing and commissioning the whole of the plumbing services, sanitary fittings, pumps, etc., including any necessary re-setting, etc., for optimal performance of the entire system to duration of the contract, maintenance and guarantee period	No	1
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**ALTERATIONS AND ADDITIONS TO THE  
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3 SANITARY PLUMBING

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4 WATER SUPPLIES

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5 SOIL DRAINAGE

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6 WORK ICW BILLS 2 TO 5

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PLUMBING AND DRAINAGE

## **SECTION 5: SITE WORKS**

**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

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<b><u>BILL NO 1</u></b>			
<b><u>EARTHWORKS</u></b>			
<b><u>PREAMBLES</u></b>			
For Preambles refer to "Department of Public Works: Specification of material and methods to be used - PW371"			
<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
<b><u>Nature of ground</u></b>			
The nature of the ground is assumed to be sandy weathered granite, therefore "earth", but possibly interspersed with "hard rock"			
<b><u>Excavation for working space in rock</u></b>			
Notwithstanding clause 11 page 8 of the Standard System of Measuring Building Work, excavation for working space in rock will be measured in cubic metres to the extent executed and given as "extra over" bulk excavation or trench and hole excavation as the case may be			
<b><u>Carting away of excavated material</u></b>			
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			
<b><u>Filling</u></b>			
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			
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**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

## **EARTHWORKS**

### **BULK EXCAVATION, FILLING, ETC**

#### Open face excavation in earth over sloping site

1	Open face excavation	m3	1 728
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2	Rip and scarify ground level to a depth of 150mm and consolidate to 93% mod. AASHTO density at -2% to 1% OMC at bottom of holes not exceeding 2350 x 2350mm wide	m2	886
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#### Extra over bulk excavation in earth for excavation in

3	Soft rock	m3	13
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4	Hard rock	m3	26
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#### Extra over all excavations for carting away

5	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	1 462
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#### Risk of collapse of excavations

6	Sides of bulk excavations not exceeding 1,5m deep	m2	355
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7	Sides of bulk excavations exceeding 1,5m deep	m2	107
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#### Keeping excavations free of water

8	Keeping excavations free of all water other than subterranean water	Item	
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#### Earth filling obtained from the excavations and/or prescribed stock piles on site, compacted to 93% Mod AASHTO density (compaction e/m)

9	Over site to form platforms laid in 150mm thick layers (compaction e/m)	m3	266
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**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

	<u>Earth filling of G6 material supplied by the contractor (not compacted)</u>		
10	Over site to form platforms laid in 150mm thick layers (compaction e/m)	m3	1 063
11	Over site to form platform laid in 150mm thick layers and stabilized with 3% cement (cement and compaction e/m)	m3	399
	<u>Stabilization agent</u>		
12	Ordinary Portland Cement (CEM 1)	t	33.31
	<u>Compaction of surfaces</u>		
13	Compaction of ground surface under floors etc, including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density at -2% to 1% OMC (Layer 1)	m2	886
14	Compaction of ground surface under floors etc, including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density at -2% to 1% OMC (Layer 2)	m2	886
15	Compaction of ground surface under floors etc, including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density at -2% to 1% OMC (Layer 3)	m2	886
16	Compaction of ground surface under floors etc, including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density at -2% to 1% OMC (Layer 4)	m2	886

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**ALTERATIONS AND ADDITIONS TO THE  
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17	Compaction of ground surface under floors etc, including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density at -2% to 1% OMC (Layer 5)	m2	886	
18	Compaction of ground surface under floors etc, including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density at -2% to 1% OMC (Layer 6)	m2	886	
19	Compaction of ground surface under floors etc, including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density at -2% to 1% OMC (Layer 7)	m2	886	
20	Compaction of ground surface under floors etc, including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density at -2% to 1% OMC (Layer 8)	m2	886	
21	Compaction of ground surface under floors etc, including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density at -2% to 1% OMC (Layer 9)	m2	886	
22	Compaction of ground surface under floors etc, including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density at -2% to 1% OMC (Layer 10)	m2	886	
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**ALTERATIONS AND ADDITIONS TO THE  
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23	Compaction of ground surface under floors etc, including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density at -2% to 1% OMC (Layer 11)	m2	886
24	Compaction of ground surface under floors etc, including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density at -2% to 1% OMC (Layer 12)	m2	886
25	Compaction of ground surface under floors etc, including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density at -2% to 1% OMC (Layer 13)	m2	886
<u>Prescribed density tests on filling</u>			
26	"Mod. AASHTO Density" test	No	100

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**ALTERATIONS AND ADDITIONS TO THE  
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	<b><u>BILL NO.2</u></b>			
	<b><u>APRONS AROUND BUILDINGS</u></b>			
	<b><u>PREAMBLES</u></b>			
	For Preambles refer to "Department of Public Works: Specification of material and methods to be used - PW371"			
	<b><u>EARTHWORKS</u></b>			
	<b><u>SITE CLEARANCE ETC</u></b>			
	<u>Site clearance</u>			
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc	m2	393	
	<b><u>EXCAVATION, FILLING, ETC</u></b>			
	<u>Excavation in earth not exceeding 2m deep</u>			
2	Excavate in pickable earth to reduce ground level below aprons and cart away excavated material to a dumping place not exceeding 1000mm from site	m3	118	
3	Rip and scarify ground level to a depth of 150mm and consolidate and compacting to 93% Mod AASHTO density at -2% to 1% OMC	m2	393	
	<b>Carried to Collection</b>			
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	STORMWATER APRONS AND CHANNELS			

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**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

Paving layers

The following to be natural selected gravel layers evenly spread and consolidated in layers and dimensions as specified and on the drawings. All thicknesses to be consolidated thicknesses.

Where described as "imported" the gravel to be supplied and carted on by the contractor from an approved borrow pit

4	150mm Imported G6 material including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density at -2% to 1% OMC	m3	118
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Prescribed density tests on filling

5	"Modified AASHTO Density"	No	3
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**SOIL POISONING**

Soil insecticide to be executed with SABS compliance by a firm of specialists under a 5 year guarantee

6	Under floors etc, including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m2	393
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Weedkiller mixed in accordance to supplier's specifications

7	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m2	393
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**CONCRETE, FORMWORK AND REINFORCEMENT**

**REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES**

25MPa/20 mm concrete

8	Aprons cast in panels to falls	m3	26
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STORMWATER APRONS AND CHANNELS

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# ALTERATIONS AND ADDITIONS TO THE EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA

9	Stormwater channel cast in panels	m3	13
<b><u>CONCRETE SUNDRIES</u></b>			
<u>Grooves, channels, mortices, sinkings, etc. in concrete</u>			
10	Segmental channel with radius 290mm and minimum depth of 100mm on top of concrete, incl. all excavations, cart away etc.	m	262
<u>Finishing top surfaces of concrete smooth with a wood float</u>			
11	Aprons to falls	m2	262
<b><u>TEST CUBES</u></b>			
12	Allow for preparing a set of three concrete strength test cubes, each size 150 x 150 x 150mm, sending them to an approved Testing Laboratory for testing and paying all charges in connection therewith.	Sets	6
<b><u>SMOOTH FORMWORK (DEGREE OF ACCURACY II)</u></b>			
<u>Smooth formwork to sides</u>			
13	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	524
<b><u>MOVEMENT JOINTS ETC</u></b>			
<u>Silicone sealing compound including backing cord, bond breaker, primer, etc</u>			
14	10 x 15mm In isolation joints including raking out of expansion joint filler as necessary	m	524
<u>Silicone sealing compound including backing cord, bond breaker, primer, etc</u>			
15	10 x 10mm In expansion joints including raking out of expansion joint filler as necessary	m	524

**REINFORCEMENT**

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STORMWATER APRONS AND CHANNELS

**ALTERATIONS AND ADDITIONS TO THE  
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Fabric reinforcement

16	Steeledale Mesh standard square fabric mesh, nominal mass 1,93 kg/m <sup>2</sup> with nominal 5,6mm thick wires and 200 x 200mm pitch (code 193), complying with SANS 1024/2006 requirements cut 1000mm wide	m	262
17	Steeledale Mesh standard square fabric mesh, nominal mass 1,93 kg/m <sup>2</sup> with nominal 5,6mm thick wires and 200 x 200mm pitch (code 193), complying with SANS 1024/2006 requirements cut 500mm wide and shaped to suit storm water channels	m	262

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STORMWATER APRONS AND CHANNELS

**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO. 5</u></b>			
	<b><u>BILL NO. 3</u></b>			
	<b><u>STORMWATER DRAINAGE</u></b>			
	<b><u>PREAMBLES</u></b>			
	For Preambles refer to "Department of Public Works: Specification of material and methods to be used - PW371"			
	<b><u>STORMWATER DRAINAGE</u></b>			
	<u>The following in trenches for pipes (pipes e/m)</u>			
1	Excavation not exceeding 2m deep	m3	45	
2	Extra over trench and hole excavations in earth for excavation in soft rock	m3	2	
3	Extra over trench and hole excavations in earth for excavation in hard rock	m3	1	
4	Rip and scarify ground level to a depth of 150mm and consolidate to 90% mod. AASHTO density (minimum CBR 3)	m2	45	
5	Risk of collapse to sides of trench and hole excavations not exceeding 1,5m deep	m2	120	
6	Backfilling to trenches, holes, with selected materials obtained from excavations compacted in 150mm layers to 90% Mod AASHTO density to form fill blanket	m3	14	
7	Backfilling to trenches, holes, with selected materials supplied by the contractor compacted in 150mm layers to 90% Mod AASHTO density to form fill blanket	m3	14	
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**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

8	Backfilling to trenches, holes, with selected granular supplied by the contractor materials compacted in 150mm layers to 90% Mod AASHTO density to form bedding cradle	m3	18
9	Extra over all excavations for carting away surplus material from excavations and/or stock piles on site to a dumping site n.e 1km from site	m3	32
10	Keeping excavations free of water	Item	
	<u>Class 100D concrete pipes</u>		
11	300mm pipes laid in and including trenches exceeding 1m and not exceeding 2m deep (trenches e/m)	m	60
<b><u>THE FOLLOWING IN CATCHPITS, JUNCTION BOXES AND INLET MANHOLES, ETC.</u></b>			
<b><u>EXCAVATIONS</u></b>			
<u>Excavation in earth not exceeding 2m deep</u>			
12	Excavation not exceeding 2m deep	m3	3
13	Rip and scarify ground level to a depth of 150mm and consolidate and compacting to 93% Mod AASHTO density at -2% to 1% OMC	m2	1
	<u>Extra over all excavations for carting away</u>		
14	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	1
	<u>Risk of collapse of excavations</u>		
15	Sides of trench and hole excavations not exceeding 1,5m deep	m2	7

**Carried to Collection**

**R**

Section No. 5  
EXTERNAL WORKS  
Bill No. 3  
STORMWATER DRAINAGE

**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

	<u>Keeping excavations free of water</u>				
16	Keeping excavations free of water		Item		
	<b><u>FILLING ETC</u></b>				
	<u>Earth filling obtained from the excavations and/or prescribed stock piles on site, compacted to 93% Mod AASHTO density at -2% to 1% OMC</u>				
17	Backfilling to trenches, holes, etc	m3	2		
	<u>Prescribed density tests on filling</u>				
18	"Modified AASHTO Density" test	No	1		
	<b><u>UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></b>				
	<u>15MPa/19mm concrete</u>				
19	Surface blinding under footings and bases	m3	0.04		
	<b><u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></b>				
	<u>30MPa/19mm concrete</u>				
20	Bottoms of catchpits, etc.	m3	0.12		
	<b><u>CONCRETE SUNDRIES</u></b>				
	<u>Finishing top surfaces of concrete smooth with a wood float/steel trowel</u>				
21	Surface beds, slabs, etc	m2	1		
	<b><u>TEST CUBES</u></b>				
22	Allow for preparing a set of three (3) concrete strength test cubes, each size 150 x 150 x 150mm, sending them to an approved Testing Laboratory for testing and paying all charges in connection therewith.	No	1		
	<b>Carried to Collection</b>			R	
	Section No. 5				
	EXTERNAL WORKS				
	Bill No. 3				
	STORMWATER DRAINAGE				

**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

**SMOOTH FORMWORK (DEGREE OF  
ACCURACY I)**

Smooth formwork to sides

23	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	5
----	--	---	---

**REINFORCEMENT**

Fabric reinforcement

24	Steeledale Mesh standard square fabric mesh, nominal mass 1,93 kg/m <sup>2</sup> with nominal 5,6mm thick wires and 200 x 200mm pitch (code 193), complying with SANS 1024/2006 requirements, in sheets 2,4 x 6m long.	m2	1
----	--	----	---

**MASONRY**

Brickwork of NFP bricks in class II mortar

25	One brick walls	m2	4
----	-----------------	----	---

**BRICKWORK SUNDRIES**

Brickwork reinforcement

26	150mm Wide reinforcement built in horizontally	m	15
----	--	---	----

Holes

27	Leave or form opening through one brickwall for pipe exceeding 200mm and n.e 300mm diameter	No	2
----	---	----	---

**INTERNAL PLASTER**

Cement plaster on brickwork

28	On walls	m2	1
29	On narrow widths	m2	1

**COVERS, ETC.**

**Carried to Collection**

**R**

Section No. 5  
EXTERNAL WORKS  
Bill No. 3  
STORMWATER DRAINAGE

### Gratings, covers, etc

**No**

2

No

2

R

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**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

Section No. 5

EXTERNAL WORKS

Bill No. 3

STORMWATER DRAINAGE

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EXTERNAL WORKS

Bill No. 3

STORMWATER DRAINAGE

**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO. 5</u></b>			
	<b><u>BILL NO. 4</u></b>			
	<b><u>PREAMBLES</u></b>			
	For Preambles refer to "Department of Public Works: Specification of material and methods to be used - PW371"			
	<b><u>PAVING</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	<u>Materials and workmanship must be in accordance to the following SABS 1200 specifications:</u>			
	C - Site clearance			
	D - Earthworks			
	DM - Earthworks (Roads, subgrade)			
	M - Roads (General)			
	ME - Sub-base			
	MF - Base			
	MK - Kerb and Channeling			
	MM - Ancillary Roadworks			
	<b><u>EXCAVATION, FILLING, ETC</u></b>			
	<u>Open face excavation in earth over site</u>			
1	Excavate in pickable earth to reduce ground level below paving and but cart away excavated material to a dumping place to be located by the contractor	m3	76	
2	Rip and scarify ground level to a depth of 150mm and consolidate and compacting to 93% Mod AASHTO density at -2% to 1% OMC	m2	253	
	<b>Carried to Collection</b>			
	Section No. 5			
	EXTERNAL WORKS			
	Bill No. 4			
	PAVINGS			

R



**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

Paving layers

The following to be natural selected gravel layers evenly spread and consolidated in layers and dimensions as specified and on the drawings. All thicknesses to be consolidated thicknesses.

Where described as "imported" the gravel to be supplied and carted on by the contractor from an approved borrow pit

- 3 150mm Imported G6 material compacted to 96% mod. AASHTO density, PI  $\leq$  6, Grading Modules = 2,6  $\geq$  GM  $\geq$  1,2

m2 253

- 4 150mm Imported G6 material compacted to 96% mod. AASHTO density, PI  $\leq$  6, Grading Modules = 2,6  $\geq$  GM  $\geq$  1,2

m2 253

Prescribed density tests on filling

- 5 "Mod. AASHTO Density" test

No 4

**PAVING**

Interlocking paving

- 6 Technicrete 35Mpa Double ZigZag 60mm thick Grey paving blocks laid to standard Double ZigZag pattern in accordance with SANS 1200 MJ and CMA Concrete Block Paving Manuals, with a minimum longitudinal fall of 1% on a transverse fall of at least 2% on and including 25mm compacted sand bed with fine jointing sand swept and vibrated into joints, all laid on subgrade conforming to SANS 1200 D Degree Of Accuracy I. Paving to be inspected and re-sanded after three months.

m2 253

- 7 Weed-killing treatment of surface under paving

m2 253

- 8 Straight cutting units to fit edge restraints

m 87

**Carried to Collection**

R

Section No. 5  
EXTERNAL WORKS  
Bill No. 4  
PAVINGS

ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA

Sundries

9 Mass concrete (25MPa) in 60 x 60mm edge filler strip  
finished smooth on top with a wood float, including all  
excavation, formwork, etc

m

87

Carried to Collection

R

Section No. 5  
EXTERNAL WORKS  
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PAVINGS

**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

Section No. 5

EXTERNAL WORKS

Bill No. 4

PAVINGS

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PAVINGS

## Section No. 5

## EXTERNAL WORKS

## SECTION SUMMARY - EXTERNAL WORKS

## Section No. 5

### EXTERNAL WORKS

## **SECTION 6: PROVISIONAL SUMS**

**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO. 6</u></b>			
	<b><u>BILL NO. 1</u></b>			
	<b><u>PROVISIONAL SUMS</u></b>			
	<b><u>PROVISIONAL SUMS</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	<u>General</u>			
	All prime cost amounts and provisional sums are net and include for delivery to site of all articles concerned			
	Sub contractors will be treated as domestic sub contractors for the purpose of this contract. They shall be selected sub contractors and the main contractor will be afforded the opportunity to reject such sub contractors prior to appointment provided reasonable justification is given			
	<u>Profit</u>			
	Where stated, the contractor may allow for profit if required			
	<u>General attendance upon selected sub-contractors</u>			
	The item "Attendance" which follows each provisional sum for selected sub-contractors work, shall be deemed to cover all the contractor's costs incurred in providing free of charge to the selected sub-contractors, the following:			
	1. The services as in terms of the JBCC Contract document			
	2. Making good in all trades and cleaning down and removal of rubbish on completion			
	<b>Carried to Collection</b>			
	Section No. 6			
	PROVISIONAL SUMS			
	Bill No. 1			
	PROVISIONAL SUMS			
			R	

**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

Contingency sums

Work for which contingency sums are allowed will be measured and valued in accordance with the JBCC Contract Document and deducted in whole or in part if not required

**PROVISIONAL SUMS FOR SELECTED SUB-CONTRACT WORKS**Removal of Asbestos Roof Coverings, etc

1	Provide the sum of R600 000,00 (six hundred thousand rand) for safe removal and disposal of asbestos roofs and ceilings and material by and approved Specialists	Item	600 000,00
2	Allow for profit on above if required	Item	
3	Allow for giving every facility to Specialists as described	Item	

Roof Construction

4	Provide a sum of R300 000,00 (three hundred thousand rand) for the supply and installation of Roof Construction by Specialists	Item	300 000,00
5	Allow for profit on above if required	Item	
6	Allow for giving every facility to specialist as described	Item	

Roof Coverings, etc

7	Provide a sum of R950 000,00 (nine hundred and fifty thousand rand) for the supply and installation of Roof Coverings by Specialists	Item	950 000,00
8	Allow for giving every facility to Specialists as described	Item	
9	Allow for profit on above if required	Item	

**Carried to Collection**

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Section No. 6  
PROVISIONAL SUMS  
Bill No. 1  
PROVISIONAL SUMS



### Partitions, etc.

Ceilings, etc.

### Air Conditioning and Ventilation Installation - New:

### Air Conditioning and Ventilation Installation - Old:

19	Provide the sum of R2 800 000-00 (two million eight hundred thousand rand) for HVAC Installation by Specialists	Item	2 800 000.00
20	Allow for giving every facility to Specialists as described	Item	
21	Allow for profit on above if required	Item	

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**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

<u>Electrical Installation - New</u>			
22	Provide the sum of R610 000-00 (six hundred and ten thousand rand) for Electrical Installation by Specialists	Item	610 000.00
23	Allow for giving every facility to Specialists as described	Item	
24	Allow for profit on above if required	Item	
<u>Electrical Installation - Old</u>			
25	Provide the sum of R3 300 000-00 (three million three hundred thousand rand) for Electrical Installation by Specialists	Item	3 300 000.00
26	Allow for giving every facility to Specialists as described	Item	
27	Allow for profit on above if required	Item	
<u>Fire Detection and Protection</u>			
28	Provide the sum of R250 000-00 (two hundred and fifty thousand rand) for Fire Detection and Protection System by Specialists	Item	250 000.00
29	Allow for giving every facility to Specialists as described	Item	
30	Allow for profit on above if required	Item	
<u>Fire Detection and Protection</u>			
31	Provide the sum of R250 000-00 (two hundred and fifty thousand rand) for Fire Detection and Protection System by Specialists	Item	250 000.00
32	Allow for giving every facility to Specialists as described	Item	
<b>Carried to Collection</b>			
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PROVISIONAL SUMS			

**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

33	Allow for profit on above if required	Item	
	<u>Bracing and Repairs of Timber Roof construction</u>		
34	Provide the sum of R250 000-00 (two hundred and fifty thousand rand) for the bracing and repair of damaged Timber Roof Construction by Specialists	Item	250 000.00
35	Allow for giving every facility to Specialists as described	Item	
36	Allow for profit on above if required	Item	
	<u>Signage</u>		
37	Provide the sum of R100 000,00 (one hundred thousand rand) for Signage Installation by Specialists	Item	100 000.00
38	Allow for giving every facility to Specialists as described	Item	
39	Allow for profit on above if required	Item	
	<u>Lightning Protection, etc.- New</u>		
40	Provide the sum of R16 000-00 (sixteen thousand rand) for the supply and installation of Lightning Protection by Specialists	Item	16 000.00
41	Allow for giving every facility to Specialists as described	Item	
42	Allow for profit on above if required	Item	
	<u>Lightning Protection, etc.- Old</u>		
43	Provide the sum of R90 000-00 (ninety thousand rand) for the supply and installation of Lightning Protection by Specialists	Item	90 000.00
<b>Carried to Collection</b>			R
Section No. 6 PROVISIONAL SUMS Bill No. 1 PROVISIONAL SUMS			

**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

44	Allow for giving every facility to Specialists as described	Item	
45	Allow for profit on above if required	Item	
	<u>Telkom and Data - New</u>		
46	Provide the sum of R45 000-00 (forty five thousand rand) for supply and installation of Telkom and Data cabling by Specialists	Item	45 000.00
47	Allow for giving every facility to Specialists as described	Item	
48	Allow for profit on above if required	Item	
	<u>Telkom and Data - Old</u>		
49	Provide the sum of R280 000-00 (two hundred and eighty thousand rand) for supply and installation of Telkom and Data cabling by Specialists	Item	280 000.00
50	Allow for giving every facility to Specialists as described	Item	
51	Allow for profit on above if required	Item	
	<u>Servicing of record room doors, etc.</u>		
52	Provide the amount of R20 000.00 (twenty thousand rand) for the servicing of record rooms by Specialists	Item	20 000.00
53	Allow for profit on above if required	Item	
54	Allow for giving every facility to Specialists as described	Item	
	<u>Council Chamber Carpet, etc.</u>		
55	Provide the sum of R300 000-00 (three hundred thousand rand) for Carpet installation by Specialists	Item	300 000.00
<b>Carried to Collection</b>			R
Section No. 6			
PROVISIONAL SUMS			
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PROVISIONAL SUMS			

**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

56	Allow for giving every facility to Specialists as described	Item	
57	Allow for profit on above if required	Item	
	<u>Lift Installation</u>		
58	Provide the sum of R1 800 000-00 (one million eight hundred rand) for the Lift Installation by Specialists	Item	1 800 000,00
59	Allow for giving every facility to Specialists as described	Item	
60	Allow for profit on above if required	Item	
	<u>CCTV, Access Control - New</u>		
61	Provide the amount of R145 000.00 (one hundred and forty five thousand rand) for the supply and installation CCTV, Access Control by Specialists	Item	145 000,00
62	Allow for profit on above if required	Item	
63	Allow for giving every facility to Specialists as described	Item	
	<u>CCTV, Access Control - Old</u>		
64	Provide the amount of R810 000.00 (eight hundred and ten thousand rand) for the supply and installation CCTV, Access Control by Specialists	Item	810 000,00
65	Allow for profit on above if required	Item	
66	Allow for giving every facility to Specialists as described	Item	
	<u>Handrails Installations</u>		
67	Provide the sum of R150 000,00 (one hundred and fifty thousand rand) for supply and installation of handrails by Specialists	Item	150 000,00
68	Allow for giving every facility to Specialists as described	Item	
<b>Carried to Collection</b>			R
Section No. 6 PROVISIONAL SUMS Bill No. 1 PROVISIONAL SUMS			

**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

69	Allow for profit on above if required	Item		
	<u>Waterproofing of Roof Slabs</u>			
70	Provide the sum of R50 000,00 (fifty thousand rand) for waterproofing by Specialists	Item	50 000.00	
71	Allow for giving every facility to Specialists as described	Item		
72	Allow for profit on above if required	Item		
	<u>Fencing, etc</u>			
73	Provide the amount of R500 000.00 (five hundred thousand rand) for the supply of fencing by Specialists	Item	500 000.00	
74	Allow for profit on above if required	Item		
75	Allow for giving every facility to Specialists as described	Item		
	<u>Joinery Installation</u>			
76	Provide a sum of R150 000-00 (one hundred and fifty thousand rand) for the supply and installation of Joinery to the storerooms by Specialists	Item	150 000.00	
77	Allow for profit on above if required	Item		
78	Allow for giving every facility to specialist as described	Item		
	<u>Furniture Removal. etc.</u>			
79	Provide the sum of R200 000-00 (two hundred thousand rand) for the Removal and Safekeeping of furniture under the strict supervision of the Client Representatives	Item	200 000.00	
80	Allow for giving every facility to Specialists as described	Item		
<b>Carried to Collection</b>			R	
Section No. 6 PROVISIONAL SUMS Bill No. 1 PROVISIONAL SUMS				

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**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

81 Allow for profit on above if required

Item

**Carried to Collection**

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Section No. 6  
PROVISIONAL SUMS  
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PROVISIONAL SUMS

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**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

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PROVISIONAL SUMS

Bill No. 1

PROVISIONAL SUMS

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PROVISIONAL SUMS

Bill No. 1

PROVISIONAL SUMS

**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO 6</u></b>			
	<b><u>BILL NO 2</u></b>			
	<b><u>PROVISIONAL AMOUNTS ETC</u></b>			
	<b><u>PROVISIONAL SUMS FOR SELECTED SUB- CONTRACT WORKS</u></b>			
	<b><u>HOLES THROUGH WALLS</u></b>			
	<u>Holes</u>			
1	Leave or form opening through one brickwall for pipe n.e 100mm diameter	No	10	
2	Leave or form opening through one brickwall for pipe exceeding 100mm and n.e 200mm diameter	No	10	
	<b><u>SLEEVES</u></b>			
	<u>Plastic sleeves for pipes not exceeding 100mm diameter</u>			
3	Sleeve not exceeding 250mm long	No	4	
4	Sleeve exceeding 250mm and not exceeding 500mm long	No	6	
	<u>Plastic sleeves for pipes exceeding 100mm and not exceeding 200mm diameter</u>			
5	Sleeve not exceeding 250mm long	No	4	
6	Sleeve exceeding 250mm and not exceeding 500mm long	No	6	
	<b><u>HOLES ETC</u></b>			
	<u>Core drilling of hole for pipe not exceeding 50mm diameter</u>			
7	300mm Reinforced concrete slab, beam, wall, etc	No	12	
	<b>Carried to Collection</b>			
	Section No. 6			
	PROVISIONAL SUMS			
	Bill No. 2			
	BUILDERS WORK			

R



Core drilling of hole for pipe exceeding 50mm and not exceeding 100mm diameter

Core drilling of hole for pipe exceeding 100mm and not exceeding 200mm diameter

R

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**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

Section No. 6

PROVISIONAL SUMS

Bill No. 2

BUILDERS WORK

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BUILDERS WORK

## Section No. 6

## PROVISIONAL SUMS

### SECTION SUMMARY - PROVISIONAL SUMS

**Carried to Final Summary**

Section No. 6  
PROVISIONAL SUMS

## **FINAL SUMMARY**

**ALTERATIONS AND ADDITIONS TO THE  
EXISTING ADMINISTRATION BUILDING AT THE UNIVERSITY OF VENDA**

<b>Section No</b>		<b>Page No</b>	<b>Amount</b>
<b><u>FINAL SUMMARY</u></b>			
1	PRELIMINARIES & GENERAL	28	
2	ALTERATIONS	37	
3	NEW WORK	101	
4	PLUMBING AND DRAINAGE	128	
5	EXTERNAL WORKS	150	
6	PROVISIONAL SUMS	164	
Sub Total 1 - BUILDING COSTS			R
CREDIT FOR ALL REUSABLE MATERIALS REMOVED FROM DEMOLITION WORKS		Item	
Sub-total			R
<b><u>CONTINGENCY SUM</u></b>			
Allow the amount of R700 000-00 (Seven hundred thousand rand) for Contingencies for building work, to be used as directed by the Project Manager and deducted in whole or in part if not required		Item	700 000.00
<b><u>SPECIAL CONDITIONS</u></b>			
Provide the sum of R500 000,00 (Five hundred thousand rand) for fluctuations in cost		Item	500 000.00
<b><u>SPECIAL CONDITIONS</u></b>			
Sub Total (VAT EXCL.) CARRIED TO TENDER FORM			R
Tax			R
Sub Total (VAT INCL.) CARRIED TO TENDER FORM			R
<b>Carried to Form of Tender</b>			R

# ARCHITECT'S DRAWINGS





**GROUND FLOOR LEVEL**  
1:100

A BBA SCHEDULE	
BACHELOR OF BUSINESS ADMINISTRATION	
First semester	18-04-2018
2nd semester	18-05-2018
3rd semester	18-06-2018
4th semester	18-07-2018
5th semester	
6th semester	
7th semester	
8th semester	
9th semester	
10th semester	
11th semester	
12th semester	

[illegible]



[illegible]





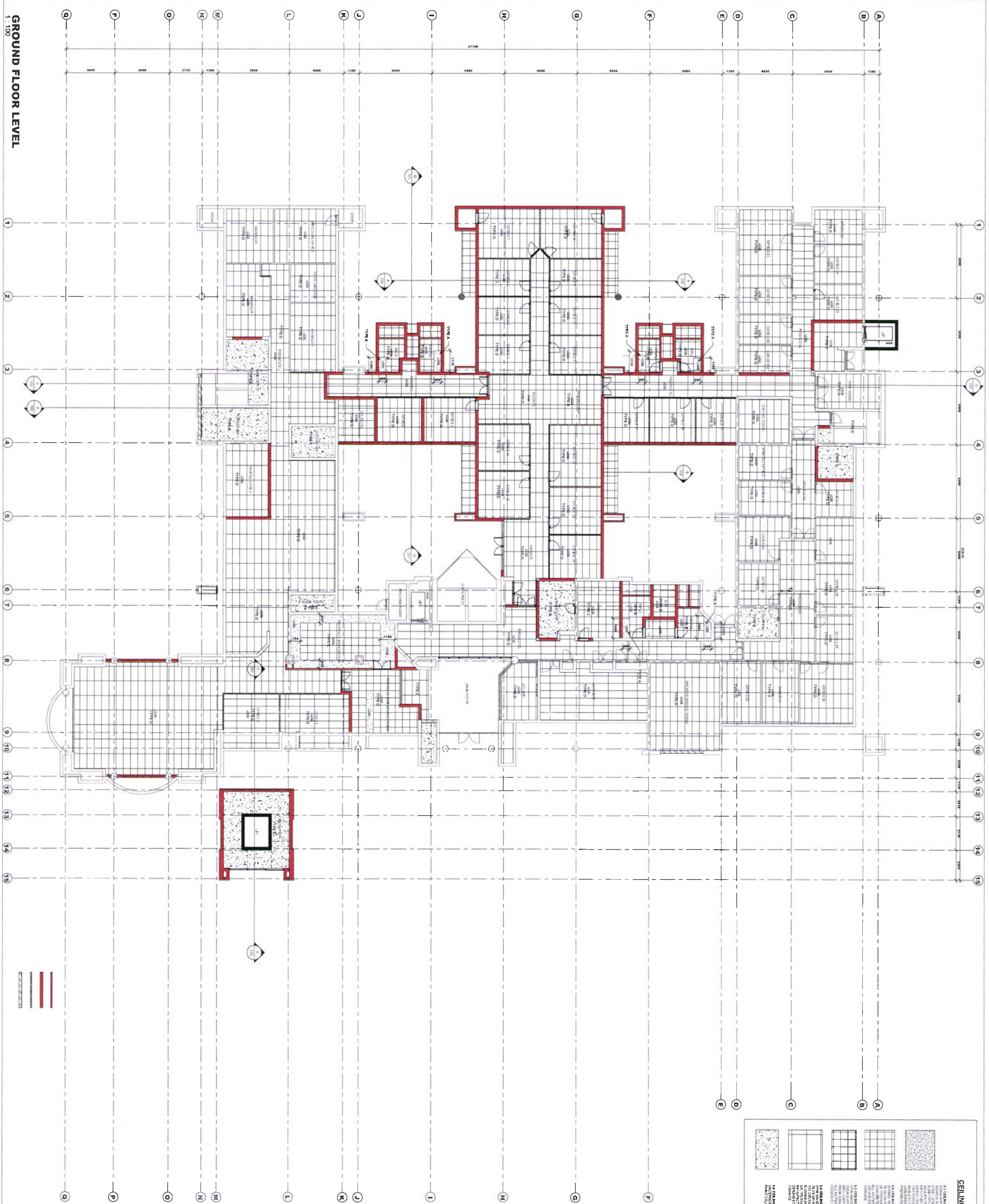




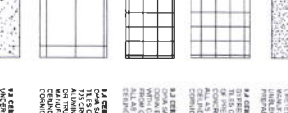








**CEILING LEGEND:**



**1A. CHS-600 TYPE 1**  
 This panel shows a random noise pattern.

**1B. CHS-600 TYPE 2**  
 This panel shows a random noise pattern.

**1C. CHS-600 TYPE 3**  
 This panel shows a random noise pattern.

**1D. CHS-600 TYPE 4**  
 This panel shows a random noise pattern.

**1E. CHS-600 TYPE 5**  
 This panel shows a random noise pattern.

**1F. CHS-600 TYPE 6**  
 This panel shows a random noise pattern.

**1G. CHS-600 TYPE 7**  
 This panel shows a random noise pattern.

**1H. CHS-600 TYPE 8**  
 This panel shows a random noise pattern.

**1I. CHS-600 TYPE 9**  
 This panel shows a random noise pattern.

**1J. CHS-600 TYPE 10**  
 This panel shows a random noise pattern.

**1K. CHS-600 TYPE 11**  
 This panel shows a random noise pattern.

**1L. CHS-600 TYPE 12**  
 This panel shows a random noise pattern.

**1M. CHS-600 TYPE 13**  
 This panel shows a random noise pattern.

**1N. CHS-600 TYPE 14**  
 This panel shows a random noise pattern.

**1O. CHS-600 TYPE 15**  
 This panel shows a random noise pattern.

**1P. CHS-600 TYPE 16**  
 This panel shows a random noise pattern.










**ROOF PLAN**  
1:100



NO	DATE	AMENDMENT

DOOR SCHEDULE 1:50									
LOCATION	RH		OR		RH		OR		
	LH	09	LH	11	LH	05			
DOOR DESCRIPTION	1520X2130XMM SOLID CORE FLUSH PANEL DOOR VENEERED BOTH SIDES SUITABLE FOR PAINTING								
FRAME PARTICULARS	STANDARD 12mm MILD STEEL DOUBLE REINATE PRESSED METAL FINISHES COMPLYING WITH SABS 1179 COMPLETE WITH LUGS AND 15% TOLERANCES								
DOOR FINISH	PAINTED WITH ONE COAT UNIVERSAL UNDERCOAT AND FINISHED WITH TWO COATS EGGSHELL EMERAL TO LATEST SABS SCHEDULE								
FRAME FINISH	WASHABLE EMERAL PAINT FINISH COMPLYING WITH SABS 723 FOR PRIMER, SABS891 FOR UNDERCOAT AND SABS 630 TYPE 2 FOR FINISH COAT.								
GLAZING	NONE								
HINGES	3nos. STAINLESS STEEL MEDIUM DUTY BUTT HINGES								
IRONMONGERY	APPROVED IRONMONGERY TO SPECIALISTS AND IN ACCORDANCE WITH LATEST SABS STANDARDS. ALUM DOOR GRILL TO MECHANICAL ENGINEER DETAILS								
D01									
D02									
D03									
D04									
D05									
D06									
FRAME DOOR	RH		OR		RH		OR		
	LH	01	LH	02	LH	01	LH	02	

DOOR SCHEDULE 1:50		DO7	
LOCATION	OFFICES		
DOOR DESCRIPTION	61X203X244MM SOLID CORN FLUSH PANEL, DOOR VENEERED BOTH SIDES SUITABLE FOR PAINTING.	RM	16
FRAME PARTICULARS	FINISH TO FRAMES POWDER COATED ANTI CORROSION MUST BE APPLIED ACCORDING TO PATENT AND SASS APPROVED SYSTEM LINE ALUODE COLOUR BRONZE	LH	20
DOOR FINISH	PAINTED WITH ONE COAT UNDERCOAT AND FINISHED WITH TWO COATS OF COLOUR. SASS APPROVED SYSTEM LINE ALUODE COLOUR BRONZE STANDARD AND ALL IN ACCORDANCE WITH THE FINISHING SCHEDULE.		
GLAZING	NONE		
HINGES	3mm STAINLESS STEEL, MEDIUM DUTY BUTT HINGES		
IRONMONGERY	APPROVED IRONMONGERY TO SPECULAR'S AND IN ACCORDANCE WITH LATEST SASS STANDARDS		


					
801, MABUTHA STREET, JOHANNESBURG TEL: 011 261 2000/224 MOBILE: 082 934 1234 EMAIL: info@kmsa.co.za		100, MABUTHA STREET, JOHANNESBURG TEL: 011 261 2000/224 MOBILE: 082 934 1234 EMAIL: info@kmsa.co.za		100, MABUTHA STREET, JOHANNESBURG TEL: 011 261 2000/224 MOBILE: 082 934 1234 EMAIL: info@kmsa.co.za	
drawing title DOOR SCHEDULE		drawing no. 101		drawing no. 101	
scale 1:50		scale 1:50		scale 1:50	
date 20/07/2011 11:41 AM		date 20/07/2011 11:41 AM		date 20/07/2011 11:41 AM	
drawing number 700		drawing number 700		drawing number 700	



[illegible]

NO	DATE	AMENDMENT

cad file name  
AUTOCAD 2021



**KMS**  
ARCHITECTS & INTERIORS

100 W. WALSH STREET, SUITE 100  
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Client



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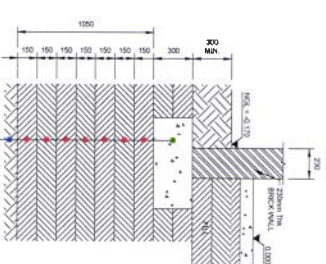
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			2/1/75
date	20/05/75		
drawing number	701		





# **ENGINEER'S DRAWINGS**





### LAYERWORKS DETAIL

**FOUNDATION** 300mm CONCRETE SLAB WITH STRUCTURAL STEELWORK TO  
**SUBGRADE** IMPORT OF MATERIAL COMPACTED IN LAYERS NOT TO  
 EXCEED 150mm THICK TO 95% MOD AASHTO DENSITY  
 AT -2% TO 1% CMC  
**300mm IN-SITU** RPE & RE-COMPACT IN-SITU MATERIAL LAYERS NOT  
 TO EXCEED 150mm THICK CONNECTED TO 90%  
**WATERFALL**

### LEGEND

**LAYERWORKS DETAIL**

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## GENERAL

**ENDECON**

**UBUNTU (PTY) LTD**  
ENGINEERING CONSULTANTS

120 SUD STREET  
P.O. BOX 477, FAUNA PARK,  
POLKWANE 0787  
Tel (015) 291 3363  
Fax (015) 291 3403



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ADMINISTRATION BUILDING

GENERAL EARTHWORKS:  
LAYERWORKS DETAILS LAYOUT

DATE	APRIL 2022
SCALE AS SHOWN	PAPER SIZE A
SCALE REF.	

METER  
CONSULTANT DWG. NO.  
L/3397/G/7/001/Ra

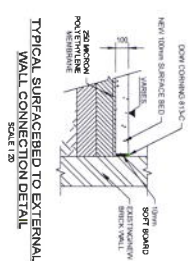
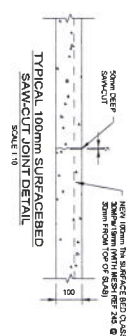
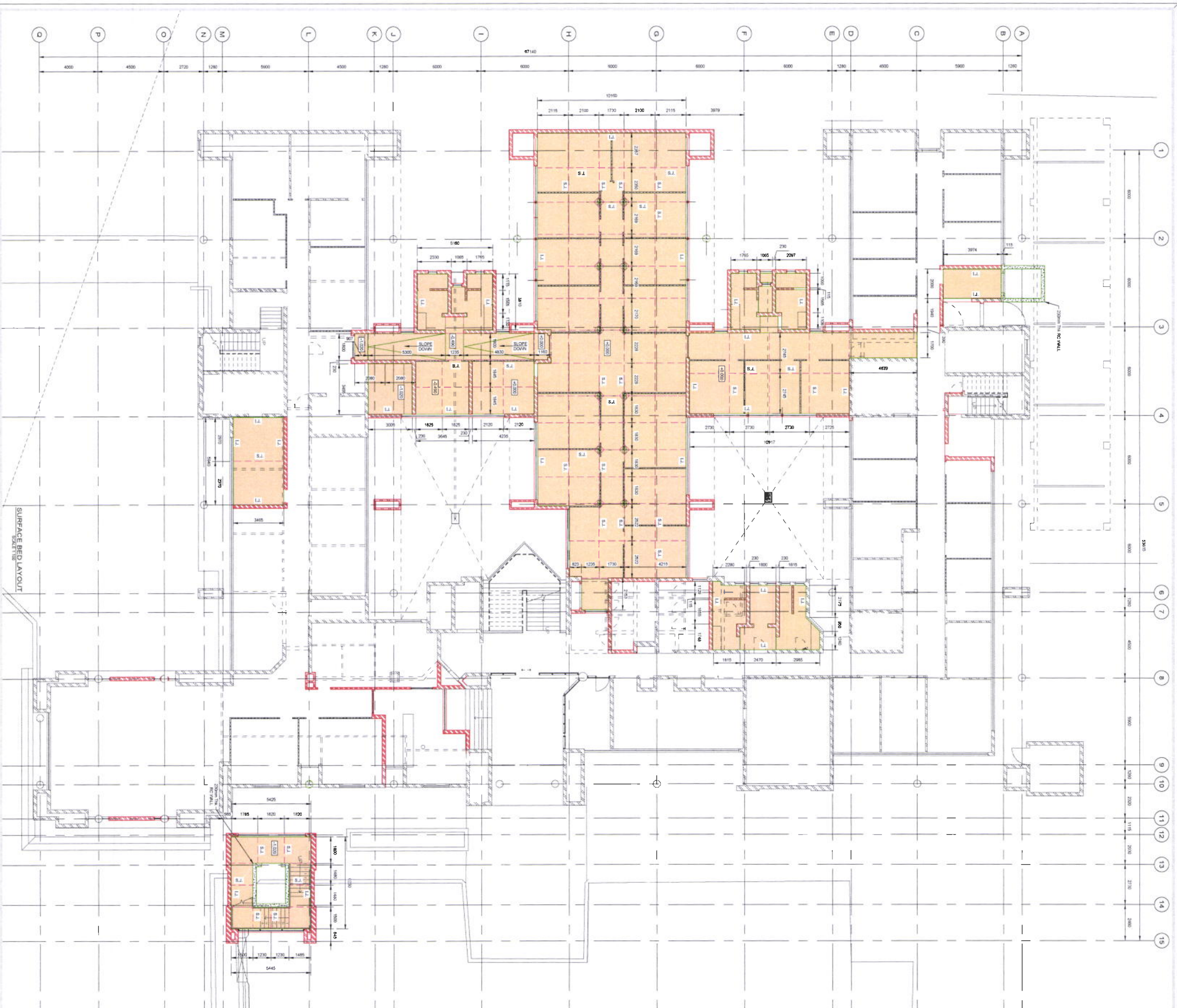
CLIENT DWG NO

(REF FOLDER 2 PROJECTS)P2022L3397-MAIN ADMINISTRATION BUILDING DESIGN PHASEF DRAWINGS2 PRELIM DESIGN STRUCTURESL3397C8601FA.CWG









NOTES / LEGEND

 NEW 100mm THA SURFACE  
(TRAP/THIN CONCRETE)  
IN THE MESH REIN. ZONE

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[illegible]

## GENERAL

DESIGNED	L. DU PRETZ
DRAWN	O. CALAME
CAD FILE NAME	L3397C60028.d
CHECKED	L. DU PRETZ
APPROVED	C. ERASMUS

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PROJECT

ADMINISTRATION BUILDING

### SURFACE BED LAYOUT

DATE	APRIL 2022
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AS SHOWN	PAPER SIZE	A0
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7.5	2.5	2.5	7.5
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TANT DWG. NO. \_\_\_\_\_

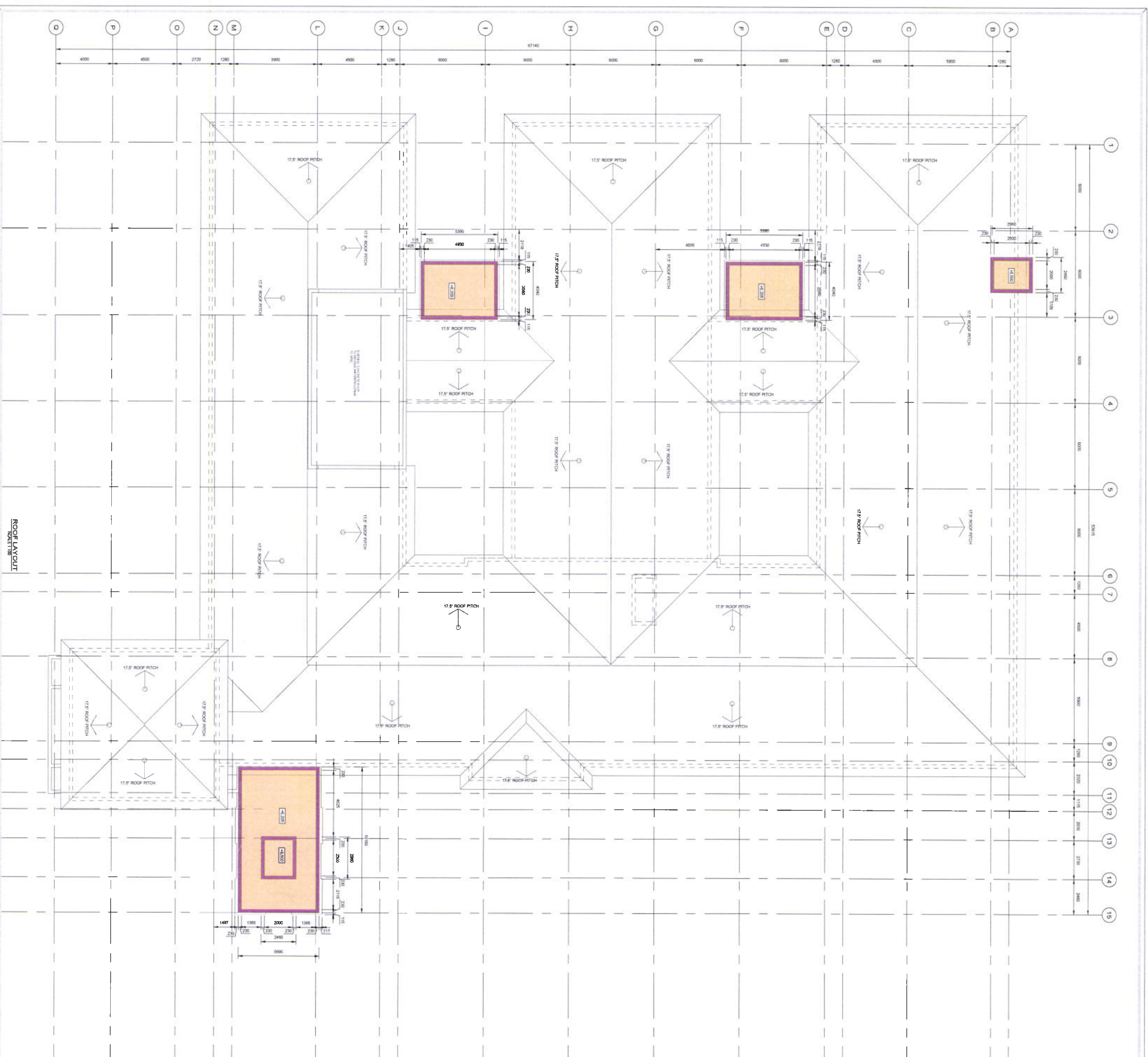
CLIENT DWG. NO.

(REF FOLDER 2 PROJECTS) 2022.03.19 MAIN ADMINISTRATION BUILDING DESIGN PHASE DRAWINGS PRELIM DESIGN STRUCTURES 1397C8001.PA.DWG







[illegible]

## GENERAL

DESIGNED	L. DU PREEZ
DRAWN	O. GALJNE
CAD FILE NAME	L3797CWOOSTA.dwg
CHECKED	L. DU PREEZ
APPROVED	C. ERASMUS

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ADMINISTRATION BUILDING

## ROOF LAYOUT

DATE	APRIL 2022
PAPER SIZE	A0

L/3397/C/8/004/Ra

(REF FOLDER 2\PROJECTS\2022\1397 MAIN ADMINISTRATION BUILDING\1 DESIGN PHASE\ DRAWINGS\ PRELIM DESIGN STRUCTURE\RESULT\33970601\RA.DWG)