

Item No		Quantity	Rate	Amount
	<u>SECTION 1</u>			
	<u>BILL NO. 1</u>			
	<u>PRELIMINARIES</u>			
	<u>BUILDING AGREEMENT AND PRELIMINARIES</u>			
	The JBCC Series 2000 Principal Building Agreement (JBCC Edition 4.1 March 2005 PBA and May 2005) prepared by the Joint Building Contracts Committee, shall be the agreement, amended as hereinafter described in the Notes. The Preliminaries for use with the JBCC Series 2000 Principal Building Agreement (May 2005 edition) prepared by the Joint Building Contracts Committee, shall be deemed to be incorporated in these bills of quantities Contractors are referred to the above-mentioned documents for the full intent and meaning of each clause thereof These clauses are hereinafter referred to by clause number and heading only. Where standard clauses or alternatives are not entirely applicable to this contract such modifications, corrections or supplements as will apply are given under each relevant clause heading and such modifications, corrections or supplements shall take precedence notwithstanding anything contrary contained in the above-mentioned documents Where any item is not relevant to this specific contract such item is marked N/A, signifying "not applicable" Notwithstanding anything to the contrary contained in any of the contract documents including the Principal Building Agreement and the Preliminaries, the provision of the "Preliminaries" as hereinafter set forth shall prevail and shall take precedence			
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PREAMBLES FOR TRADES

The Model Preambles for Trades (1999 edition) as published by the Association of South African Quantity Surveyors shall be deemed to be incorporated in these bills of quantities and no claim arising from brevity of description of items fully described in the said Model Preambles for Trades will be entertained

Supplementary preambles to the Model Preambles covering clauses of a general nature, clauses pertaining to specific materials and amendments to clauses in the Model Preambles are incorporated in these bills of quantities to satisfy the requirements of this project

The contractor's prices for all items throughout these bills of quantities must take account of and include for all of the obligations, requirements and specifications given in the Model Preambles and in any supplementary preambles

GENERAL

If Alternative A as set out in clause B10.3 hereinafter is to be used for the adjustment of the preliminaries each item priced is to be allocated to one or more of the three categories "**F**", "**T**" or "**V**" as the case may be below such item, where "**F**" denotes a fixed amount (amount not to be varied), "**T**" denotes an amount variable in proportion to time and "**V**" denotes an amount variable in proportion to value

SECTION A - PRINCIPAL BUILDING AGREEMENT

Definitions (A1)

- 1 Definitions and interpretation (clause
1)F:..... V:.....
T:.....

Item

Objective and Preparation (A2 to A14)

- 2 Offer acceptance and performance (clause
2)F:..... V:.....
T:.....

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3	Documents (clause 3)F:..... V:..... T:.....	Item		
4	Design responsibility (clause 4)F:..... V:..... T:.....	Item		
5	Employer's agents (clause 5)F:..... V:..... T:.....	Item		
	The principal agent shall: - monitor and control progress and scheduling - monitor all contract conditions, and - coordinate the efforts of the employer's agents, the contractor and subcontractors The powers conferred on the principal agent in terms of this clause and/or the exercising of these powers shall not be construed as removing or diminishing any of the obligations of the Contractor in terms of the Principal Building Agreement, whether financial, contractual or otherwise, nor shall the exercising of these powers create any privity of contract as between the Employer or his agents on the one part and the Contractor or subcontractors or suppliers on the other part The principal agent reserves the right to attend and participate in all contractor/subcontractor's meetings, to invite other employer's agents to attend such meetings at his discretion and to converse and chair any such meetings if the contractor is derelict in his duty in arranging such meetings to the degree of frequency and comprehensiveness dictated in the opinion of the project manager by the circumstances and exigencies of the construction process			
6	Site representative (clause 6)F:..... V:..... T:.....	Item		
7	Compliance with regulations (clause 7)F:..... V:..... T:.....	Item		
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8	Works risk (clause 8) F:..... V:..... T:.....	Item		
9	Indemnities (clause 9)F:..... V:..... T:.....	Item		
10	Works insurances (clause 10) F:..... V:..... T:.....	Item		
11	Liability insurances (clause 11)F:..... V:..... T:.....	Item		
12	Effecting insurance (clause 12)F:..... V:..... T:.....	Item		
13	NO CLAUSE	N/A		
14	Security (clause 14)F:..... V:..... T:.....	Item		
<u>Execution (A15-A23)</u>				
15	Preparation for and execution of the works (clause 15) F:..... V:..... T:.....	Item		
16	Access to the works (clause 16)F:..... V:..... T:.....	Item		
17	Contract instructions (clause 17)F:..... V:..... T:.....	Item		
18	Setting out of the works (clause 18)F:..... V:..... T:..... The contractor shall notify the principal agent if any encroachments of adjoining foundations, buildings, structures, pavements, boundaries, etc exist in order that the necessary arrangements may be made for the rectification of any such encroachments	Item		
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19	Assignment (clause 19)F:..... V:..... T:..... The contractor shall not cede his rights or delegate his obligations in terms of this agreement unless specifically called for by the employer	Item		
20	Nominated subcontractors (clause 20)F:..... V:..... T:.....	Item		
21	Selected subcontractors (clause 21)F:..... V:..... T:..... Written proof is required from subcontract tenderers at tendering that they can meet the JBCC Selected Subcontract Agreement or other tender agreements and provide security in terms of the agreement. If the above is not provided the tender may not be accepted All amounts allowed under Provisional Amounts are intended to be awarded to Selected and Nominated Subcontractors	Item		
22	Employer's Direct Contractors (clause 22) F:..... V:..... T:.....	Item		
23	Contractor's Domestic Sub-Contractors (Clause 23) F:..... V:..... T:..... <u>Completion (A24-A30)</u>	Item		
24	Practical completion (clause 24)F:..... V:..... T:.....	Item		
25	Works completion (clause 25)F:..... V:..... T:.....	Item		
26	Final completion (clause 26)F:..... V:..... T:.....	Item		
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27	Latent defects liability period (clause 27)F:..... V:..... T:.....	Item		
28	Sectional completion (clause 28)F:..... V:..... T:.....	Item		
29	Revision of date of practical completion (clause 29)F:..... V:..... T:.....	Item		
	The removal and replacement of materials and/or workmanship that do not conform to specification or drawings shall not constitute grounds for an extension of the construction period nor for an adjustment to the contract sum (clause 29.3)			
30	Penalty for non-completion (clause 30)F:..... V:..... T:.....	Item		
	<u>Payment (A31 - A35)</u>			
31	Interim payment to the contractor (clause 31)F:..... V:..... T:.....	Item		
32	Adjustment to the contract value (clause 32)F:..... V:..... T:.....	Item		
	Where prices are submitted by the contractor or nominated/selected subcontractors during the progress of the works in respect of contract instructions or in regard to a claim under the terms of the contract and notwithstanding the fact that such prices may be used in an interim payment certificate, there is to be no presumption of acceptance. Should the principal agent wish to accept any such prices prior to the issue of the final certificate, it will be in writing			
33	Recovery of expense and loss (clause 33)F:..... V:..... T:.....	Item		
34	Final account and final payment (clause 34)F:..... V:..... T:.....	Item		
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The employer shall not pay any interest on amounts payable to the contractor for one hundred and forty two (142) days after the date of issue of the certificate of practical completion

The employer shall, however, pay interest to the contractor at the rate stipulated in clause 34.11 on any amounts payable to the contractor more than one hundred and forty two (142) days after the date of issue of the certificate of practical completion but only for such period as the settlement of the final account is delayed by the non-performance of the principal agent or the employer or his agents. In evaluating non-performance for purposes of this clause a reasonable time shall be allowed to the employer or his agents to respond to any matter brought to his/their attention and which may affect the settlement of the final account

35 Payment to other parties (clause 35)

F:..... V:.....
T:.....

Item

Cancellation (A36-A39)

36 Cancellation by employer - contractor's default (clause 36)

F:..... V:.....
T:.....

Item

37 Cancellation by employer - loss and damage (clause 37)

F:..... V:.....
T:.....

Item

38 Cancellation by contractor - employer's default (clause 38)

F:..... V:.....
T:.....

Item

39 Cancellation - cessation of the works (clause 39)

F:..... V:.....
T:.....

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Dispute (A40)

40 Dispute Settlement (clause 40)

F:..... V:.....
T:.....

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Substitute Provisions (A41)

41 State clauses (Clause 41)

F:..... V:.....
T:.....

Information necessary for the completion of those clauses contained in the schedule which are necessary for tender purposes is given hereunder

THE SCHEDULE

Information necessary for completion of those clauses contained in the schedule which are necessary for tender purposes is given hereunder

42 Pre-tender information (clause 42)

F:..... V:.....
T:.....

42.1 CONTRACTING AND OTHER PARTIES

42.1.1

Employer:

Independent Development Trust

Postal address:PO Box 55386
Polokwane
0700

Tel : (015) 295 0000
Fax: (015) 295 6559

Physical Address:

22 Hans van Rensburg Street
2nd Floor
Polokwane
0700

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42.1.2

Principal Agent:

ZETHU CONSULTING SERVICES

Postal Address:

Private Bag X9703

Postnet Suite 90, Polokwane, 0700

Physical Address:

Stand 56 Broederstroomdrift,

Deerpark, Tzaneen

Tel 086 110 6521

Fax 086 605 7523

Email admin@zethucs.co.za

42.1.3

Architect: Phenomenal Architects

Postal Address: PO Box 68438

Highveld

0169

Physical Address:

199 Doreen Street

Colbyn

0083

Tel: 086 111 2431

Fax: 012 430 5291

Email: admin@pheno.co.za

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42.1.4

Quantity Surveyor:

ZETHU CONSULTING SERVICES

Postal address:

Physical Address:

Tel

Fax

42.1.5

Agents service: Civil and Structural Engineer

Consultant: Aurecon

Postal Address:

PO Box 3518

Polokwane

0699

Physical Address

8 Watermelon Street

Platinum Park, Bendor

Polokwane

0699

Tel: 015 287 3802

Fax: 086 604 2744

Email: polokwane@aurecongroup.com

42.1.5

Agents service:

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42.1.6
Electrical Engineer: Estrisec (Pty) Ltd

Postal Address:

Physical Address
5B Aanveil Street
Tzaneen
0850

Tel: 015 307 3250
Fax: 086 537 9519
Email: estrisec@gmail.com

42.1.6
Agents service: Mechanical Engineer

N/A

42.2 CONTRACT DETAILS

42.2.1 Works Description:

Additions and Renovations at Monyong Secondary School

42.2.2 Site Description:

Ga-Makgaga Village, Polokwane, Limpopo

23°52'32.53"S 29°39'6.19"E

42.2.3 Work or installations by direct contractors:

N/A

42.2.4 This agreement is for a government contract where there are specific options that are applicable to a **State** organ only

Yes

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42.2.5 Date on which possession of the site is intended to be given:

To be confirmed

42.2.6 Period for the commencement of the works after the contractor takes possession of the site

10 days

42.2.7 For the works **as a whole**. Intended date of practical completion and the penalty per calendar day

9 months after contractual commencement date Date

Penalty Amount
0,01c per R100 of Contract Amount per day

42.2.8 For the works in **sections**: Intended date of practical completion and the penalty per calendar day

Section 1
N/A Date

N/A Penalty Amount

42.2.9 The **law** applicable to this **agreement** shall be that of

South Africa (country)

42.3 INSURANCES

42.3.1 Contract works insurance to be effected by:

Contractor:

For the Sum of R Contract Sum + 20%

With a deductible of - to be determined by the contractor

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42.3.2 Supplementary insurance is required

No

42.3.3 Public liability insurance to be effected by:
Contractor:

For the Sum of R10,000,000.00

With a deductible of - to be determined by the contractor

42.4 DOCUMENTS

42.4.1 Waivers of **contractors lien** or right of continuing possession is required

No

42.4.2 Number of construction document copies to be supplied to the **contractor** free of charge:

3 Number of

42.4.3 **Bills of Quantities/Lump sum document** schedule of rates drawn up in accordance with:

"Standard System of Measuring Builders' Work"

42.4.4 On acceptance of the tender the bills of quantities/lump sum document is to be submitted within **working days**

The priced bills of quantities must be handed in with the tender

42.4.5 JBCC Engineering General Conditions are to be included in the **contract documents**:

No

42.4.6 The contract value is to be adjusted using escalation adjustment indices

No

Where **JBCC CPAP** is to be used

Base Month

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42.4.7 Details of changes made to the provision of JBCC standard documentation:

Refer to standard notes attached to this document in Section C1.2

SECTION B: PRELIMINARIES

Definitions and interpretation (B1)

43 Definition and interpretation (B1.1 - B1.4.6)

F:..... V:.....
T:.....

Item

Documents (B2)

44 Checking of documents (B2.1)F:.....
V:..... T:.....

Item

45 Provisional bills of quantities (B2.2)F:.....
V:..... T:.....

N/A

46 Availability of construction documentation (B2.3)

F:..... V:.....
T:.....

Item

47 Interests of agents (B2.4)F:.....
V:..... T:.....

Item

48 Priced documents (B2.5)F:.....
V:..... T:.....

Item

49 Tender submission (B2.6)F:.....
V:..... T:.....

Item

The site (B3)

50 Defined works area (B3.1)F:.....
V:..... T:.....

Item

51 Geotechnical investigation (B3.2)F:.....
V:..... T:.....

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52	Inspection of the site (B3.3)F:..... V:..... T:..... Existing premises occupied (B3.4)F:..... V:..... T:..... Previous work - dimensional accuracy (B3.5)F:..... V:..... T:..... Previous work - defects (B3.6)F:..... V:..... T:.....	Item		
53	Services - known (B3.7)F:..... V:..... T:.....	Item		
54	Services - unknown (B3.8)F:..... V:..... T:.....	Item		
55	Protection of trees etc (B3.9)F:..... V:..... T:.....	Item		
56	Articles of value (B3.10)F:..... V:..... T:.....	Item		
57	Inspection of adjoining properties etc (B3.11)F:..... V:..... T:.....	Item		
<u>Management of contract (B4)</u>				
58	Management of the works (B4.1) F:..... V:..... T:	Item		
59	Programme for the works (B4.2) F:..... V:..... T:.....	Item		
60	Progress meetings (B4.3)F:..... V:..... T:.....	Item		
61	Technical meetings (B4.4)F:..... V:..... T:.....	Item		
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62	Labour and Plant records (B4.5) F:..... V:..... T:.....	Item		
	<u>Samples, Shop Drawings and Manufacturer's Instructions (B5)</u>			
63	Samples of materials (B5.1)F:..... V:..... T:.....	Item		
64	Workmanship samples (B5.2)F:..... V:..... T:.....	Item		
65	Shop drawings (B5.3) F:..... V:..... T:.....	Item		
66	Compliance with Manufacturer's Instructions (B5.4) F:..... V:..... T:.....	Item		
	<u>Temporary works and plant (B6)</u>			
67	Deposits and fees (B6.1)F:..... V:..... T:.....	Item		
68	Enclosure of the works (B6.2)F:..... V:..... T:.....	Item		
69	Advertising (B6.3)F:..... V:..... T:.....	Item		
70	Plant, equipment, sheds and offices (B6.4) F: V:..... T:	Item		
71	Main notice board (B6.5)F:..... V:..... T:.....	Item		
72	Subcontractors' notice board (B6.6) F:..... V:..... T:.....	Item		
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Temporary services (B7)

73 Location (B7.1) F:..... V:.....
T:.....

Item

74 Water (B7.2)

Option [A] shall apply

F:..... V:.....
T:.....

Item

75 Electricity (B7.3)

Option [A] shall apply

F:..... V:.....
T:.....

Item

76 Telecommunication facilities (B7.4)

F:..... V:.....
T:.....

Item

77 Ablution facilities (B7.5)

Option [A] shall apply

F:..... V:.....
T:.....

Item

Prime cost amounts (B8)

78 Responsibility for prime cost amounts
(B8.1) F:..... V:.....
T:.....

Item

Attendance on N/S Subcontractors (B9)

79 General attendance (B9.1) F:.....
V:..... T:.....

Item

80 Special attendance (B9.2) F:.....
V:..... T:.....

Item

81 Commissioning - Fuel, water and power
(B9.3) F:..... V:.....
T:.....

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Financial aspects (B10)

Statutory taxes, duties and levies
(B10.1)F:..... V:.....
T:.....

Item

- 82 Payment of preliminaries (B10.2)
Option [B] shall apply

F:..... V:.....
T:.....

Item

- 83 Adjustment of preliminaries (B10.3)
Option [A] shall apply

F:..... V:.....
T:.....

Item

- 84 Payment certificate cash flow
(B10.4)F:..... V:.....
T:.....

Item

General (B11)

- 85 Protection of works (B11.1)F:.....
V:..... T:.....

Item

- 86 Protection/isolation of existing/sectionally occupied
works (B11.2)F:..... V:.....
T:.....

N/A

- 87 Security of the Works (B11.3)

F:..... V:.....
T:.....

Item

- 88 Notice before covering work (B11.4)F:.....
V:..... T:.....

Item

- 89 Disturbance (B11.5)

F:..... V:.....
T:.....

Item

- 90 Environmental Disturbance (B11.6)

F:..... V:.....
T:.....

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91	Works cleaning and clearing (B11.7) F:..... V:..... T:.....	Item		
92	Vermin (B11.8) F:..... V:..... T:.....	Item		
93	Overhand work (B11.9) F:..... V:..... T:.....	Item		
94	Instruction manuals and guarantees (B11.10) F:..... V:..... T:.....	Item		
95	As built information (B11.11) F:..... V:..... T:.....	Item		
96	Tenant Installations (B11.12) F:..... V:..... T:.....	Item		
	<u>Schedule of variables (B12)</u>			
97	Pre-tender information (B12.1)F:..... V:..... T:.....	Item		
	12.1.1 Provisional bills of quantities (B2.2) The quantities are provisional:			No
	12.1.2 Availability of construction documentation (B2.3) Construction documentation is not complete			No
	12.1.3 Interest of agents (B2.4)			
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12.1.4 Defined works area (B3.1)			
12.1.5 Geotechnical investigation (B3.2)			
N/A			
12.1.6 Existing premises occupied (B3.4)			
The Tenderer is notified that the school will remain functional during the works. All construction activities are to be programmed around the functioning of the school, and in a manner that does not pose risks to learners, teachers and school staff.			
12.1.7 Previous work - dimensional accuracy (B3.4)			
12.1.8 Previous work - defects (B3.5)			
12.1.9 Services - known (B3.7)			
12.1.10 Protection of trees (B3.9)			
All trees should be protected and only on instruction of the Principal Agent may any trees be removed			
12.1.11 Inspection of adjoining properties (B3.11)			
12.1.12 Enclosure of the works (B6.2)			
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12.1.13 Offices (B6.4.3) An office for the clerck of works should be provided 12.1.14 Main notice board (B6.5) <i>No</i> 12.1.15 Subcontractors notice board (B6.6) A notice board is required <i>No</i> 12.1.16 Water (B7.2) Alternative Selected: A 12.1.17 Electricity (B7.3) Alternative selected: A 12.1.18 Telecommunications (B7.4) 12.1.19 Ablution facilities (B7.5) Alternative selected: A 12.1.20 Protection of existing/sectionally occupied works (B11.2) 12.1.21 Special attendance (B9.2) Subcontractor (1) details: N/A 12.1.22 Protection of the works (B11.1) N/A 12.1.23 Disturbance (B11.5) N/A 12.1.24 Environmental Disturbance (B11.6) N/A Carried to Collection					

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Post tender information (B12.2)

12.2.1 Payment of preliminaries
Alternative selected: B

12.2.2 Adjustment of preliminaries
Alternative selected: A

12.2.3 Additional agreed preliminaries items
N/A

SECTION C: SPECIFIC PRELIMINARIES

Any special items to meet the particular circumstances of a specific project are embodied in this section. Where required for an aspect of the works to be executed according to a design by a consulting engineer, a recital of the headings to the individual clauses of the JBCC Engineering General Conditions are included

98 Black economic empowerment and training

F:..... V:.....
T:.....

Item

99 Proprietary branded products

F:..... V:.....
T:.....

Item

The contractor shall take delivery of, handle, store, use, apply and/or fix all proprietary branded products in strict accordance with the manufacturers' instructions after consultation with the manufacturer's authorised representative

100 Contract instructions

F:..... V:.....
T:.....

Item

Contract instructions issued on site are to be recorded in triplicate in a contract instruction book which is to be supplied and maintained on site by the contractor

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101	Labour record F:..... V:..... T:..... At the end of each week the contractor shall provide the principal agent with a written record, in schedule form, reflecting the number and descriptions of tradesmen and labourers employed by him and all subcontractors on the works each day of that week	Item		
102	Plant record F:..... V:..... T:..... At the end of each week the contractor shall provide the principal agent with a written record, in schedule form, reflecting the number, type and capacity of all plant, excluding hand tools used on the works each day of that week	Item		
103	Guarantees F:..... V:..... T:..... Where guarantees are called for, the contractor shall obtain a written guarantee, addressed to the employer, from the firm supplying the materials and/or doing the work and shall deliver same to the principal agent on the certified completion of the contract. The guarantee shall state that workmanship, materials and installation are guaranteed for a specified period from the date of certified completion of the contract, and that any defects that may arise during the specified period shall be made good at the expense of the firm supplying the materials and/or doing the work, upon written notice from the principal agent to do so. This guarantee will not be enforced if the work is damaged by defects in the construction of the building in which case the responsibility for replacement shall rest entirely with the contractor. The principal agent shall be the sole judge of the cause responsible for defects in the work and his decision shall be final and binding in terms of clause 40.2 of the agreement	Item		
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104	Overtime F:..... V:..... T:..... Should overtime be required to be worked for any reason whatsoever, the costs of such overtime are to be borne by the contractor unless the principal agent has specifically authorised, in writing, prior to execution thereof, that costs for such overtime are to be borne by the employer	Item		
105	Co-operation of contractor for cost management F:..... V:..... T:..... It is specifically agreed that the contractor accepts the obligation of assisting the professional consultants in implementing proper cost management. The contractor will be advised by the principal agent of all cost management procedures which will be implemented to ensure that the final building cost does not exceed the budget. The quantity surveyor undertakes to make available to the contractor all budgetary allowances and cost assessments/reports to enable the proper procedures to be implemented and the contractor will attend all cost plan review and cost management meetings. The contractor undertakes to extend these procedures in regard to all subcontractors	Item		
106	Occupational Health and Safety Specification F:..... V:..... T: Any Principal Contractor entering into a contract with The Developer must achieve an acceptable level of Occupational Health and Safety performance. Refer to "Project Specification" and "Safety, Health and Environmental Evaluation Questionnaire" The contractor to comply with all provisions of the above and to be enforced on all selected and or other sub-contractors, as no claim afterwards will be entertained	Item		
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Section No. 1

PRELIMINARIES

Bill No. 1

Preliminaries

Zethu Consulting Services

Item No			Quantity	Rate	Amount
	<u>SECTION 1</u>				
	<u>BILL NO. 2</u>				
	<u>OCCUPATIONAL HEALTH AND SAFETY</u>				
1	UI19 Registrations	Person	22		
2	Permit Applications with Dept. of Labor e.g. blasting (if applicable)		Item		
3	Economics/ Health/ Hygiene Assessment (Per Employee)	No	22		
4	Training & awareness (non accredited) per employee	No	22		
5	Safety Office (Per Month)	MNTH	12		
6	SHE Rep (Per Month)	MNTH	12		
7	Certification /Compliance (e.g. OHAS 18001)				
		No	1		
8	Insurance Premium & Public indemnity	MNTH	12		
9	Fines and Penalties (if applicable)		Item		
10	Insurance Excess (if applicable)		Item		
11	Legal fees (e.g. contracts)	Person	22		
12	Risk Assessment (internal)		Item		
13	Medical fitness surveillance	Person	22		
14	UIF 2% of salary per employee per month		Item		
15	Welfare facilities in terms of Facilities Regulations	MNTH	12		
16	Signage		Item		
17	Safety barricades		Item		
	Carried to Collection			R	
	Section No. 1 PRELIMINARIES Bill No. 2 Occupational Health and Safety Preliminaries Zethu Consulting Services				

18	Site Hoarding & Fencing		Item	
19	First Aid Box	No	1	
20	Fire fighter	MNTH	12	
21	First Aider	MNTH	12	
22	Supervisor in terms of Electrical Installation	MNTH	12	
	<u>PPE:</u>			
23	Hi- Visibility T-Shirts		Item	50,000.00
24	Steel Toe-Capped Safety Boots		Item	50,000.00
25	Hi-Visibility Safety Vest		Item	50,000.00
26	SABS Approved Hard Hat		Item	80,000.00
27	Steel Toe Capped Gumboots		Item	50,000.00
28	Dust Masks (Stipulate FFP):		Item	25,000.00
29	Safety Glasses		Item	10,000.00
30	Gloves (Stipulate Type):		Item	10,000.00
31			Item	15,000.00
32	Issue of Covid -19 compliant face masks		Item	25,000.00
33	Issue of disposable gloves		Item	25,000.00
	Carried to Collection			
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34	Issue of face shields	Item	50,000.00
<u>H&S Salaries:</u>			
35	Covid control officer	Item	50,000.00
<u>Safety Documentation:</u>			
36	Covid Plan and procedures	Item	5,000.00
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Section No. 1

Bill No. 2

Occupational Health and Safety Preliminaries

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Section No. 1

PRELIMINARIES

Bill No. 2

Occupational Health and Safety Preliminaries

Zethu Consulting Services

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1	Preliminaries	26	
2	Occupational Health and Safety Preliminaries	30	
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Section No. 1 PRELIMINARIES Zethu Consulting Services			

Demolitions

1	Remove existing sand cement screed 100mm thick and prepare concrete slab to receive new screed	m2	47
2	Remove door size 813 x 2032 from door frame and prepare to receive new door	No	6
3	Remove pin-board from walls	No	4
4	Remove defective plaster in isolated positions and prepare to receive new sand cement plaster	m2	47
5	Remove plasterboard ceilings and brandering	m2	56
6	Remove existing rainwater goods	m	66
7	Carefully disconnect electrical installation and electrical fittings, under the supervision of a qualified electrician and in consultation with the Electrical Engineer	No	8
8	Remove existing skirting	m	102

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Section No. 2
ALTERATIONS - ADMINISTRATION BLOCK
Bill No. 1
Alterations
Zethu Consulting Services

Section No. 2

Bill No. 1

Alterations

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Section No. 2
ALTERATIONS - ADMINISTRATION BLOCK
Bill No. 1
Alterations
Zethu Consulting Services

Item No		Quantity	Rate	Amount
	<u>SECTION 2</u>			
	<u>BILL NO. 2</u>			
	<u>MASONRY (PROVISIONAL)</u>			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:</u>			
1	Form opening 813 x 2032 in existing brickwork where door was demolished for new door frame	No	6	
	<u>Brickwork reinforcement:</u>			
2	75mm Wide reinforcement built in horizontally.	m	307	
3	150mm Wide reinforcement built in horizontally.	m	403	
	<u>Prestressed fabricated precast lintels including necessary temporary supports:</u>			
4	110 x 70mm Lintels in lengths not exceeding 3m.	m	54	
	<u>Turning pieces to lintels, etc:</u>			
5	150mm Wide turning piece to lintels etc.	m	48	
6	220mm Wide turning piece to lintels etc.	m	48	
	<u>FIBRE CEMENT WINDOW CILLS</u>			
	<u>15mm Thick natural grey cills in single length bedded in 4:1 sand cement mortar including metal lugs, etc:</u>			
7	140mm Wide cills set flat and slightly projecting.	m	12	
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	Section No. 2			
	ALTERATIONS - ADMINISTRATION BLOCK			
	Bill No. 2			
	Masonry			
	Zethu Consulting Services			

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Item No		Quantity	Rate	Amount
	<u>SECTION 2</u>			
	<u>BILL NO. 4</u>			
	<u>CARPENTRY AND JOINERY (PROVISIONAL)</u>			
	The Tenderer is referred to the relevant Clauses in the separate document "Model Preambles for Trades" (2008 Edition) and to the Supplementary Preambles incorporated hereunder.			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	Prefabricated trusses shall be fabricated in a factory by a truss fabricator who has been awarded a Certificate of Competence by the Institute of Timber Construction and is approved by the Principal Agent.			
	All trusses shall be designed by a registered Professional Engineer in accordance with SABS Code of Practice for Design of Timber Structures.			
	The complete structure shall be inspected by the truss designer to ensure that the manufacture and erection details have been complied with.			
	<u>EAVES, VERGES, ETC.</u>			
	<u>Medium density plain fibre-cement fascial and barge boards:</u>			
1	12 x 225mm Fascia and barge boards, including galvanised steel H-profile joiners, etc.	m	68	
	<u>SKIRTINGS</u>			
	<u>Wrought meranti:</u>			
2	19 x 76mm Skirtings including 19mm quadrant bead, nailed.	m	102	
3	19 x 50mm Cornice laid flat.	m	105	
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	ALTERATIONS - ADMINISTRATION BLOCK			
	Bill No. 4			
	Carpentry and Joinery			
	Zethu Consulting Services			

FRAMED DOORS, ETC.

Wrought meranti doors hung to steel frames:

- 4 40mm Framed batten door 813 x 2032mm high of top rail and stiles, middle ledge and braces and bottom rail filled in with V-jointed one side boarding.

No

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Section No. 2
ALTERATIONS - ADMINISTRATION BLOCK
Bill No. 4
Carpentry and Joinery
Zethu Consulting Services

Section No. 2

Bill No. 4

Carpentry and Joinery

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ALTERATIONS - ADMINISTRATION BLOCK

Bill No. 4

Carpentry and Joinery

Zethu Consulting Services

Item No		Quantity	Rate	Amount
	<u>SECTION 2</u>			
	<u>BILL NO. 5</u>			
	<u>CEILING, PARTITIONS AND ACCESS FLOORING</u>			
	NOTE : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 129 for CPAP formula purposes			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	The Tenderer is referred to the relevant Clauses in the separate document "Model Preambles for Trades" (2008 Edition).			
	<u>NAILED UP AND SCREW UP CEILINGS</u>			
	<u>6,4mm Gypsum plasterboards with H-profile galvanised steel jointing strips:</u>			
1	Ceilings including 38 x 38mm sawn softwood brander at 450mm centres with cross brander at 450mm centres and at joints, ends of sheets and at light fittings, etc.	m2	56	
2	Extra over ceiling for 600 x 600mm hinged trap door of wrought softwood rebated framing with one sawn softwood cross brander covered with ceiling board and fitted flush in opening, including necessary trimmers all around.	No	1	
	<u>INSULATION</u>			
	<u>Non-combustible lightweight fibreglass insulation blanket:</u>			
3	100mm Insulation closely fitted between tie beams and laid loose on top of brander.	m2	56	
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	Section No. 2 ALTERATIONS - ADMINISTRATION BLOCK Bill No. 5 Ceilings, Partitions and Access Flooring Zethu Consulting Services			

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Approved

5 Vandal Proof toilet roll holder

No

5

STAINLESS STEEL

6 600 x 19mm Stainless steel chrome plated towel rail complete with end brackets and screwed to walls

No

4

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Section No. 2
ALTERATIONS - ADMINISTRATION BLOCK
Bill No. 6
Ironmongery
Zethu Consulting Services

Section No. 2

Bill No. 6

Ironmongery

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ALTERATIONS - ADMINISTRATION BLOCK

Bill No. 6

Ironmongery

Zethu Consulting Services

Item No	Quantity	Rate	Amount
<u>SECTION 2</u>			
<u>BILL NO. 7</u>			
<u>TILING</u>			
<u>PREAMBLES</u>			
<u>For preambles see "Model Preambles for Trades" (2008 Edition) and Supplementary preambles as specified in the Trades</u>			
<u>SUPPLEMENTARY PREAMBLES</u>			
Supplementary preambles are incorporated in this schedule of quantities to satisfy the requirements of this project. Such supplementary preambles shall take precedence over the provisions of the said Model Preambles			
The contractor's prices for all items throughout this schedule of quantities must take account of and include for all of the obligations, requirements and specifications given in the said Model Preambles and in any supplementary preambles			
This bill is measured provisionally and will be subject to re-measure when the work or a portion thereof is complete. It is expected of the contractor to be able to demonstrate how he derived at the quantities and in cases where it is not possible to measure the work on completion due to cover up; the contractor must provide signed off site records proving such claims			
<u>Descriptions</u>			
Unless described as "fixed with adhesive to plaster (plaster elsewhere)" descriptions of tiling on brick or concrete walls, columns, etc shall be deemed to include 1:4 cement plaster backing and descriptions of tiling on concrete floors etc shall be deemed to include 1:3 plaster bedding			
<u>WALL TILING</u>			
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Section No. 2 ALTERATIONS - ADMINISTRATION BLOCK Bill No. 7 Tiling Zethu Consulting Services			

200 x 200 x 6mm "Cercisa Tinte Unite" White glazed ceramic tiles fixed with adhesive to plaster (plaster elsewhere)

1	On walls	m2	60
2	On narrow widths	m2	4
3	Fair exposed cutting and fitting around pipe not exceeding 110mm internal diameter	No	3

FLOOR TILING

300 x 300mm x 8mm Ceramic tiles (PC Amount R150.00/m2) fixed with adhesive to bedding (bedding elsewhere) and flush pointed with tinted waterproof jointing compound

4	On floors and landings	m2	60
5	Skirting 75mm high	m	42

WALL TILING

152 x 152 x 5mm Thick white glazed tiles fixed to plaster (elsewhere measured) with and approved tile adhesive to and pointed with white cement to:

6	Walls in splashbacks.	m2	20
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ALTERATIONS - ADMINISTRATION BLOCK
Bill No. 7
Tiling
Zethu Consulting Services

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Bill No. 7

Tiling

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ALTERATIONS - ADMINISTRATION BLOCK

Bill No. 7

Tiling

Zethu Consulting Services

Item No		Quantity	Rate	Amount
	<u>SECTION 2</u>			
	<u>BILL NO. 9</u>			
	<u>PLUMBING AND DRAINAGE</u> <u>(PROVISIONAL)</u>			
	NOTE : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 146 for CPAP formula purposes.			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>uPVC pipes and fittings:</u>			
	Soil, waste and vent pipes and fittings shall be solvent weld jointed			
	<u>uPVC pressure pipes and fittings:</u>			
	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			
	<u>Copper pipes:</u>			
	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			
	Carried to Collection		R	
	Section No. 2 ALTERATIONS - ADMINISTRATION BLOCK Bill No. 9 Plumbing and Drainage Zethu Consulting Services			

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

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

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

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ALTERATIONS - ADMINISTRATION BLOCK
Bill No. 9
Plumbing and Drainage
Zethu Consulting Services

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

Waste unions

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

(CPAP FORMULA WORK GROUP 148)

SANITARY FITTINGS

"Franke" stainless steel

- 1 "WB 001" or other similar approved hand wash basin range with one piece pressed steel bowl in grade 304 (18/8) 0,9mm stainless steel size 520mm long x 430mm wide x 140mm deep with 25mm splashback and tiling key, basin with one taphole including fixing complete on and including 25mm square mild steel gallow brackets bolted to walls and including expansion bolts

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Section No. 2
ALTERATIONS - ADMINISTRATION BLOCK
Bill No. 9
Plumbing and Drainage
Zethu Consulting Services

2	"P1" or other similar approved double centre bowl sink with one piece pressed steel bowl in grade 304 (18/10) 1,2mm stainless steel size 1 850mm long x 650mm wide x 915mm high with 150mm splashback and tiling key, 50 x 10mm turndown all round, stainless steel slatted undershelf and basin with one taphole including fixing complete on and including 41mm diameter detachable legs	No	1		
3	Stainless steel pot wash single bowl sink 1850 x 625 x 915mm high in 1.2mm thick Grade 304 (18/10) stainless steel detachable legs with two cobra watertech 15mm "106 CP" star biptaps with '059" extence pause with sliding wall flange, 10mm marley pars trap	No	1		
4	Swift viterous china sit-on white vanity basin (code 70440101) size 590 x 395mm with one tap hole including intergrated overflow and chainstay hole, fitted onto top (elsewhere)	No	1		
	<u>Geyser with nominal input of 78 000BTU/H flow rate of 91/Min rising the temperature to 40 centigrade and maximum working pressure of six bar complete with 10mm x 6mm diameter gas pipe and clamps supplied and installed by specialist</u>				
5	100 Litre geyser	No	1		
	<u>WASTE UNIONS, ETC</u>				
6	32mm "301CP" Basin waste union	No	2		
7	40mm "316CP" Sink waste union with anti-theft plug and spindle	No	2		
	<u>TRAPS, ETC</u>				
	<u>"Marley"</u>				
8	32 x 50mm Deep seal "P" or "S" trap	No	2		
9	40 x 50mm Deep seal "P" or "S" trap	No	2		
10	40 x 300mm Sink combination for double bowl with deepseal "P" trap	No	1		
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	<u>Class 0 copper pipes</u>				
26	15 mm Pipes	m	23		
27	15mm Pipes chased in walls	m	18		
28	22mm Pipes	m	9		
	<u>Extra over class 0 copper pipes for capillary fittings</u>				
29	15mm Fittings	No	3		
30	22mm Fittings	No	2		
	<u>Copper overflow and service pipes</u>				
31	15mm Service pipe 350mm girth	No	2		
	<u>TESTING</u>				
32	Provide all necessary apparatus, water, etc for and test the whole of the Sanitary Plumbing and Water Supply installation to the satisfaction of the Project Manager, replace any defective work free of charge and leave perfect			Item	
	<u>FIRE APPLIANCES ETC</u>				
	<u>"Chubb"</u>				
33	4,5kg Carbon dioxide fire extinguisher	No	2		
	<u>Water Harvesting</u>				
34	5000 Litre jojo tank complete with lid including concrete plinth as per engineers details	No	2		
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Section No. 2 ALTERATIONS - ADMINISTRATION BLOCK Bill No. 9 Plumbing and Drainage Zethu Consulting Services					

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Bill No. 9

Plumbing and Drainage

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ALTERATIONS - ADMINISTRATION BLOCK

Bill No. 9

Plumbing and Drainage

Zethu Consulting Services

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Item No		Quantity	Rate	Amount
	<u>SECTION 2</u>			
	<u>BILL NO. 11</u>			
	<u>PAINTWORK (PROVISIONAL)</u>			
	The Tenderer is referred to the relevant clauses in the separate document Model Preambles for Trades (2008 Edition).			
	<u>ON EXISTING FLOATED PLASTER SURFACES</u>			
	<u>Prepare existing surfaces and remove all loose material, apply one coat alkaline resistant primer, one universal undercoat two coats eggshell enamel paint on:</u>			
1	Interior walls.	m2	252	
	<u>ON METAL</u>			
	<u>Prepare, spot primer defects in pre-primed surfaces with red oxide primer and apply one coat synthetic metal primer, one universal undercoat and one finishing coat of high gloss enamel paint on:</u>			
2	Doors frames.	m2	18	
3	Windows including burglar bars (both sides measured).	m2	78	
4	On rainwater goods	m2	29	
	<u>ON WOOD</u>			
	<u>Prepare and apply two coats carbolineum on:</u>			
5	Roof timbers at eaves and verges.	m2	22	
	<u>Stop, sand down, prepare and apply two coats polyurethane varnish on:</u>			
6	Exterior doors.	m2	7	
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Section No. 2
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Bill No. 11
Paintwork
Zethu Consulting Services

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Bill No. 11

Paintwork

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ALTERATIONS - ADMINISTRATION BLOCK

Bill No. 11

Paintwork

Zethu Consulting Services

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6	Ironmongery	43	
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9	Plumbing and Drainage	54	
10	Glazing	55	
11	Paintwork	58	
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Demolitions

1	Remove existing sand cement screed 100mm thick and prepare concrete slab to receive new screed	m2	1,134
2	Break out steel door frame 813 x 2032 from brickwork and prepare to receive new door	No	16
3	Remove chalkboard from walls	No	16
4	Remove pin-board from walls	No	16
5	Remove defective plaster in isolated positions and prepare to receive new sand cement plaster	m2	302
6	Remove plasterboard ceilings and brandering	m2	882
7	Carefully disconnect electrical installation and electrical fittings, under the supervision of a qualified electrician and in consultation with the Electrical Engineer	No	16
8	Remove existing skirting	m	504

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Section No. 3
 ALTERATIONS - 4 NO X 4 CLASSROOM
 Bill No. 1
 Alterations
Zethu Consulting Services

Section No. 3

Bill No. 1

Alterations

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Section No. 3
ALTERATIONS - 4 NO X 4 CLASSROOM
Bill No. 1
Alterations
Zethu Consulting Services

Item No		Quantity	Rate	Amount
	<u>SECTION 3</u>			
	<u>BILL NO. 2</u>			
	<u>MASONRY (PROVISIONAL)</u>			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:</u>			
1	Half brick walls.	m2	63	
2	Ditto, but in beamfilling.	m2	34	
3	One brick walls.	m2	252	
4	Ditto, but in firewall.	m2	189	
	<u>BRICKWORK SUNDRIES</u>			
5	Form opening 813 x 2032 in existing brickwork where door was demolished for new door frame	No	16	
	<u>Brickwork reinforcement:</u>			
6	75mm Wide reinforcement built in horizontally.	m	360	
7	150mm Wide reinforcement built in horizontally.	m	360	
	<u>Prestressed fabricated precast lintels including necessary temporary supports:</u>			
8	110 x 70mm Lintels in lengths not exceeding 3m.	m	302	
	<u>Turning pieces to lintels, etc:</u>			
9	150mm Wide turning piece to lintels etc.	m	259	
10	220mm Wide turning piece to lintels etc.	m	14	
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	Section No. 3 ALTERATIONS - 4 NO X 4 CLASSROOM Bill No. 2 Masonry Zethu Consulting Services			

Galvanised wire ties etc:

11	4mm Diameter roof tie 2m girth bent double with one end fixed to timber and other end built into brickwork.	No	288
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Air bricks etc:

12	229 x 152mm Clay vermin proof air brick.	No	72
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FACE BRICKWORK

Face bricks (Allow a P.C. Amount of R4 000.00 per 1 000 supplied and delivered to site) pointed with 6mm square recessed horizontal and vertical joints:

13	Extra over brickwork for face brickwork.	m2	441
14	Extra over brickwork for facing beamfilling.	m2	34
15	230mm Wide sill set sloping and slightly projecting.	m	194
16	Face brick-on-edge header course lintel.	m	209
17	Fair raking cutting.	m	211

FIBRE CEMENT WINDOW CILLS

15mm Thick natural grey cills in single length bedded in 4:1 sand cement mortar including metal lugs, etc:

18	140mm Wide cills set flat and slightly projecting.	m	194
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Water Harvesting

19	5000 Litre jojo tank complete with lid including concrete plinth as per engineers details	No	8
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Section No. 3
ALTERATIONS - 4 NO X 4 CLASSROOM
Bill No. 2
Masonry
Zethu Consulting Services

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Bill No. 2

Masonry

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ALTERATIONS - 4 NO X 4 CLASSROOM

Bill No. 2

Masonry

Zethu Consulting Services

Item No		Quantity	Rate	Amount
	<u>SECTION 3</u>			
	<u>BILL NO.3</u>			
	<u>WATERPROOFING</u>			
	<u>PREAMBLES</u>			
	<u>For preambles see "Model Preambles for Trades" (2008 Edition) and Supplementary preambles as specified in the Trades</u>			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Waterproofing</u>			
	Waterproofing of roofs, basements, etc shall be laid under a ten year guarantee. Waterproofing to roofs shall be laid to even falls to outlets etc with necessary ridges, hips and valleys. Descriptions of sheet or membrane waterproofing shall be deemed to include additional labour to turn-ups and turn-downs			
	<u>DAMPPROOFING OF WALLS AND FLOORS</u>			
	<u>One layer of 375 micron embossed polyethylene dampproof course (SANS 952-1985 type B)</u>			
1	In walls, under cills, etc.	m2	31	
	<u>One layer of 250 micron green polyethylene waterproof sheeting (SANS 952-1985 type C) sealed at laps with PVC self-adhesive tape:</u>			
2	Under surface beds.	m2	124	
	<u>JOINT SEALANTS, ETC.</u>			
	<u>Two-part grey polysulphide sealing compound including backing cord, bond breaker, primer,etc.</u>			
3	3 x 50mm In saw cut joints in floors.	m	37	
	Carried to Collection			
			R	
	Section No. 3			
	ALTERATIONS - 4 NO X 4 CLASSROOM			
	Bill No. 3			
	Waterproofing			
	Zethu Consulting Services			

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Section No. 3

Bill No. 3

Waterproofing

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ALTERATIONS - 4 NO X 4 CLASSROOM

Bill No. 3

Waterproofing

Zethu Consulting Services

Item No		Quantity	Rate	Amount
	<u>SECTION 3</u>			
	<u>BILL NO.4</u>			
	<u>ROOF COVERINGS, ETC. (PROVISIONAL)</u>			
	The Tenderer is referred to the relevant clauses in the separate document Model Preambles for Trades (2008 Edition).			
	<u>RAINWATER DISPOSAL</u>			
	<u>Seamless aluminium gutters.</u>			
1	100x 75mm Eaves gutters.	m	252	
2	Extra over gutter for stopped end.	No	36	
3	Extra over 100 x 75mm eaves gutter for outlet for 75mm diameter pipe.	No	36	
4	75mm Diameter rainwater pipes.	m	126	
5	Extra over rainwater pipe for shoe.	No	36	
6	Extra over rainwater pipe for eaves offset 500mm projection.	No	36	
	<u>ROOF INSULATION</u>			
	<u>'Sisalation 420' or similar approved heavy industrial grade aluminium foil based insulation.:</u>			
7	Insulation laid taut over battens (at approximately 380mm centres) and fixed concurrent with roof covering including galvanised steel straining wires, laps, etc.	m2	45	
	Carried Forward to Summary of Section No. 3		R	
	Section No. 3 ALTERATIONS - 4 NO X 4 CLASSROOM Bill No. 4 Roof Covering Zethu Consulting Services			

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Section No. 3
ALTERATIONS - 4 NO X 4 CLASSROOM
Bill No. 5
Carpentry and Joinery
Zethu Consulting Services

<u>"Everite" pressed nutec-cement</u>		
1	12 x 225mm Fascias and barge boards including galvanised steel H-profile jointing strips	m 365
<u>SKIRTINGS</u>		
<u>Wrought meranti</u>		
2	19 x 76mm Skirting including 19mm quadrant bead nailed	m 504
<u>DOORS ETC</u>		
<u>Wrought hardwood flushback doors with sapele veneer hung to steel frames</u>		
3	44mm "TDM" Framed and ledged door 813 x 2032mm high	No 16
Carried to Collection		
Section No. 3 ALTERATIONS - 4 NO X 4 CLASSROOM Bill No. 5 Carpentry and Joinery Zethu Consulting Services		

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Bill No. 5

Carpentry and Joinery

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ALTERATIONS - 4 NO X 4 CLASSROOM

Bill No. 5

Carpentry and Joinery

Zethu Consulting Services

Item No		Quantity	Rate	Amount
	<u>SECTION 3</u>			
	<u>BILL NO. 6</u>			
	<u>CEILING, PARTITIONS AND ACCESS FLOORING (PROVISIONAL)</u>			
	NOTE : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 129 for CPAP formula purposes			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	The Tenderer is referred to the relevant Clauses in the separate document "Model Preambles for Trades" (2008 Edition).			
	<u>NAILED UP AND SCREW UP CEILINGS</u>			
	<u>6,4mm Gypsum plasterboards with H-profile galvanised steel jointing strips:</u>			
1	Extra over ceiling for 600 x 600mm hinged trap door of wrought softwood rebated framing with one sawn softwood cross brander covered with ceiling board and fitted flush in opening, including necessary trimmers all around.	No	16	
	<u>INSULATION</u>			
	<u>Non-combustible lightweight fibreglass insulation blanket:</u>			
2	100mm Insulation closely fitted between tie beams and laid loose on top of brandering.	m2	882	
3	Ceilings including 38 x 38mm sawn softwood brandering at 450mm centres with cross brandering at 450mm centres and at joints, ends of sheets and at light fittings, etc.	m2	882	
	Carried Forward to Summary of Section No. 3		R	
	Section No. 3 ALTERATIONS - 4 NO X 4 CLASSROOM Bill No. 6 Ceilings, Partitions & Access Flooring Zethu Consulting Services			

Item No		Quantity	Rate	Amount
	<u>SECTION 3</u>			
	<u>BILL NO. 7</u>			
	<u>IRONMONGERY (PROVISIONAL)</u>			
	The Tenderer is referred to the relevant Clauses in the separate document "Model Preambles for Trades" (2008 Edition).			
	<u>IRONMONGERY FIXED TO DOORS, ETC.</u>			
	<u>LOCKS:</u>			
1	75mm Four lever security lockset with satin chrome furniture.	No	16	
	<u>SUNDRIES</u>			
2	38mm Rubber stop plugged and screwed to wall or floor.	No	16	
3	3 x 25mm Brass dividing strip between different floor finishes.	m	16	
	<u>PINNING BOARDS, WRITING BOARDS, PROJECTION SCREENS, ETC.</u>			
	<u>Carpet pinning boards in aluminium frame with round plastic corners, pen tray and fixing component all fixed according to manufacturer's instruction.</u>			
4	Pinning board size 2400 x 1200mm high plugged.	No	16	
5	Ditto, but size 4200 x 1200mm high plugged.	No	16	
	<u>Swing type green chalkboard to comply with CKS-36-1980 or equivalent code of practice, complete with chalk rail as one unit fixed to wall strictly according to manufacturers instruction:</u>			
6	Chalk board size overall 1140mm high x 3600mm wide consisting of 1 x chalkboard 1800mm wide, 2 x chalkboard 900mm wide, 2 x swing type chalkboard 900mm wide.	No	16	
	Carried Forward to Summary of Section No. 3		R	
	Section No. 3 ALTERATIONS - 4 NO X 4 CLASSROOM Bill No. 7 Ironmongery Zethu Consulting Services			

Item No		Quantity	Rate	Amount
	<u>SECTION 3</u>			
	<u>BILL NO. 8</u>			
	<u>TILING</u>			
	<u>PREAMBLES</u>			
	<u>For preambles see "Model Preambles for Trades" (2008 Edition) and Supplementary preambles as specified in the Trades</u>			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	Supplementary preambles are incorporated in this schedule of quantities to satisfy the requirements of this project. Such supplementary preambles shall take precedence over the provisions of the said Model Preambles			
	The contractor's prices for all items throughout this schedule of quantities must take account of and include for all of the obligations, requirements and specifications given in the said Model Preambles and in any supplementary preambles			
	This bill is measured provisionally and will be subject to re-measure when the work or a portion thereof is complete. It is expected of the contractor to be able to demonstrate how he derived at the quantities and in cases where it is not possible to measure the work on completion due to cover up; the contractor must provide signed off site records proving such claims			
	<u>Descriptions</u>			
	Unless described as "fixed with adhesive to plaster (plaster elsewhere)" descriptions of tiling on brick or concrete walls, columns, etc shall be deemed to include 1:4 cement plaster backing and descriptions of tiling on concrete floors etc shall be deemed to include 1:3 plaster bedding			
	<u>FLOOR TILING</u>			
	Carried to Collection		R	
	Section No. 3 ALTERATIONS - 4 NO X 4 CLASSROOM Bill No. 8 Tiling Zethu Consulting Services			

300 x 300mm x 8mm Ceramic tiles (PC Amount R150.00/m2) fixed with adhesive to bedding (bedding elsewhere) and flush pointed with tinted waterproof jointing compound

1	On floors and landings	m2	882
2	Skirting 75mm high	m	665

Carried to Collection

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 ALTERATIONS - 4 NO X 4 CLASSROOM
 Bill No. 8
 Tiling
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Section No. 3

Bill No. 8

Tiling

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Bill No. 8

Tiling

Zethu Consulting Services

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Item No		Quantity	Rate	Amount
	<u>SECTION 3</u>			
	<u>BILL NO. 10</u>			
	<u>PLASTERING (PROVISIONAL)</u>			
	The Tenderer is referred to the relevant Clauses in the separate document "Model Preambles for Trades" (2008 Edition).			
	<u>SCREEDS</u>			
1	30mm average thick sand cement screed laid to existing floors, finished with a steel float and prepared to receive vinyl tiles (elsewhere measured).	m2	1,134	
	<u>GRANOLITHIC</u>			
	<u>Untinted granolithic on existing prepared concrete</u>			
2	35mm Thick on floors and walkways	m2	43	
	<u>INTERNAL PLASTER</u>			
	<u>One coat cement plaster steel trowelled on prepared existing brickwork.</u>			
3	On walls in isolated positions.	m2	23	
4	On narrow widths.	m2	16	
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	Section No. 3 ALTERATIONS - 4 NO X 4 CLASSROOM Bill No. 10 Plastering Zethu Consulting Services			

Item No		Quantity	Rate	Amount
	<u>SECTION 3</u> <u>BILL NO. 11</u> <u>GLAZING (PROVISIONAL)</u> The Tenderer is referred to the relevant clauses in the separate document Model Preambles for Trades (2008 Edition). <u>GLAZING TO STEEL WITH PUTTY</u> <u>4mm Clear float glass:</u>			
1	Panes exceeding 0,1m² and not exceeding 0,5m².	m2	175	
	Carried Forward to Summary of Section No. 3		R	
	Section No. 3 ALTERATIONS - 4 NO X 4 CLASSROOM Bill No. 11 Glazing Zethu Consulting Services			

Item No		Quantity	Rate	Amount
	<u>SECTION 3</u>			
	<u>BILL NO. 12</u>			
	<u>PAINTWORK (PROVISIONAL)</u>			
	The Tenderer is referred to the relevant clauses in the separate document Model Preambles for Trades (2008 Edition).			
	<u>ON EXISTING FLOATED PLASTER SURFACES</u>			
	<u>Prepare existing surfaces and remove all loose material, apply one coat alkaline resistant primer, one universal undercoat two coats eggshell enamel paint on:</u>			
1	Interior walls.	m2	1,512	
	<u>ON METAL</u>			
	<u>Prepare, spot primer defects in pre-primed surfaces with red oxide primer and apply one coat synthetic metal primer, one universal undercoat and one finishing coat of high gloss enamel paint on:</u>			
2	Doors frames.	m2	38	
3	Windows including burglar bars (both sides measured).	m2	350	
4	On steel gate	m2	67	
	<u>ON WOOD</u>			
	<u>Prepare and apply two coats carbolineum on:</u>			
5	Roof timbers at eaves and verges.	m2	126	
6	Wall plate.	m2	76	
	<u>Stop, sand down, prepare and apply two coats polyurethane varnish on:</u>			
7	Exterior doors.	m2	53	
	Carried to Collection			
	Section No. 3			
	ALTERATIONS - 4 NO X 4 CLASSROOM			
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	Paintwork			
	Zethu Consulting Services			

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Section No. 3

Bill No. 12

Paintwork

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ALTERATIONS - 4 NO X 4 CLASSROOM

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Paintwork

Zethu Consulting Services

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11	Glazing	80			
12	Paintwork	83			
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Item No		Quantity	Rate	Amount
	<u>SECTION 4</u>			
	<u>BILL NO. 1</u>			
	<u>EARTHWORKS (PROVISIONAL)</u>			
	NOTE :			
	Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 104 for CPAP formula purposes			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Nature of ground</u>			
	The nature of the ground is assumed to be loose sandy material, therefore "earth", but possibly interspersed with "hard rock" or "soft rock".			
	<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>EARTHWORKS</u>			
	<u>Site clearance</u>			
1	Stripping average 150mm thick layer of top soil and stockpiling	m2	416	
	<u>Excavation in earth not exceeding 2m deep</u>			
2	Trenches	m3	86	
3	Pit	m3	2	
	<u>Extra over trench and hole excavations in earth for excavation in</u>			
4	Soft rock	m3	18	
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5	Hard rock	m3	8		
	<u>Risk of collapse of excavations</u>				
6	Sides of trench and hole excavations not exceeding 1,5m deep	m2	288		
	<u>Extra over all excavations for carting away</u>				
7	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	100		
	<u>Keeping excavations free of water</u>				
8	Keeping excavations free of water		Item		
	<u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO density in 150mm layers</u>				
9	Trenches	m3	50		
	<u>Earth filling supplied by the contractor, compacted to 93% Mod AASHTO density with G7 material in accordance with SABS 1200DM in 150mm layers</u>				
10	Under surface beds	m3	128		
	<u>Compaction of surfaces</u>				
11	Levelling and compaction of bottom of trench excavation in foundations, etc including scarifying for a depth of 150mm, breaking down oversize material and adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	102		
12	Levelling and compaction of ground surface under surface beds, Aprons, etc including scarifying for a depth of 150mm, breaking down oversize material and adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	428		
	<u>Prescribed density tests on filling</u>				
13	"Modified AASHTO Density" test	No	20		
	<u>SOIL POISONING</u>				
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Section No. 4 4 CLASSROOM BLOCK Bill No. 1 Earthworks Zethu Consulting Services					

Soil insecticide

14	Under floors, Aprons etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m2	428
15	To bottoms and sides of trenches etc	m2	390

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4 CLASSROOM BLOCK
Bill No. 1
Earthworks
Zethu Consulting Services

Section No. 4

Bill No. 1

Earthworks

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Earthworks

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	<u>SECTION 4</u>			
	<u>BILL NO. 2</u>			
	<u>CONCRETE, FORMWORK AND REINFORCEMENT</u>			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	For preambles see "Specifications of materials and methods to			
	be used - PW 371"			
	<u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u>			
	<u>15MPa/12mm concrete</u>			
1	50mm Blinding bed under Strip footings	m3	6	
	<u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u>			
	<u>25Mpa/19mm Concrete</u>			
2	Strip footings	m3	24	
3	Surface bed including thickening	m3	30	
4	Ramp	m3	2	
5	Steps	m3	2	
6	Aprons cast in panels including thickening	m3	16	
	<u>CONCRETE SUNDRIES</u>			
	<u>Finishing top surfaces of concrete smooth with a wood float</u>			
7	Suface beds, Apron, slabs, etc.	m2	440	
	Carried to Collection			
	Section No. 4			
	4 CLASSROOM BLOCK			
	Bill No. 2			
	Concrete, Formwork & Reinforcement			
	Zethu Consulting Services			

TEST CUBES

- 8 Allow for preparing a set of three test cubes each size 150x150x150mm, sending them to an approved testing laboratory for testing and paying all charges in connection therewith.

No 8

FORMWORK

Rough formwork to sides:

- 9 Edges, risers, ends and reveals not exceeding 300mm high or wide

m 12

MOVEMENT JOINTS ETC

Expansion joints between vertical concrete and brick surfaces

- 10 12mm Jointex expanded board not exceeding 300mm high

m 414

Saw cut joints

- 11 5 x 20mm Saw cut joints in top of concrete

m 104

REINFORCEMENT

High tensile steel reinforcement to structural concrete work

- 12 8mm to 16mm Diameter bars in all class of concrete

t 1.94

Mesh Reinforcement (measure nett)

- 13 Mesh ref. No. 193 fabric reinforcement fixed horizontal in surface beds

m2 326

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4 CLASSROOM BLOCK
Bill No. 2
Concrete, Formwork & Reinforcement
Zethu Consulting Services

Section No. 4

Bill No. 2

Concrete, Formwork & Reinforcement

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4 CLASSROOM BLOCK

Bill No. 2

Concrete, Formwork & Reinforcement

Zethu Consulting Services

Item No	Quantity	Rate	Amount
<u>SECTION 4</u>			
<u>BILL NO.3</u>			
<u>MASONRY</u>			
<u>SUPPLEMENTARY PREAMBLES</u>			
For preambles see "Specifications of materials and methods to be used - PW 371"			
<u>BRICKWORK</u>			
Sizes in descriptions Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick Hollow walls etc Descriptions of hollow walls shall be deemed to include leaving every fifth perpend of the bottom course of the external skin open as a weep hole. Walls in two skins described as "bagged and sealed" shall be deemed to include having the outer face of the inner skin bagged with 1:6 cement and sand mixture and sealed with two coats "Brixal" bitumen emulsion waterproofing coating. User note: The above preamble generally applies for works in hot and humid coastal areas Face bricks Bricks shall be ordered timeously to obtain uniformity in size and colour			
Carried to Collection			R
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Pointing

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

SAMPLES

Samples of all masonry building units, except those for walls units. Samples of building units to be used in walls described as "load bearing" shall consist of 30 units from every 30 000 units delivered to site described as "load bearing", shall consist of a minimum of 6

FOUNDATIONS

Brickwork of NFX bricks (14 MPa nominal compressive strength) in class I mortar

1	One brick walls	m2	148
---	-----------------	----	-----

FACE BRICKWORK

Face bricks (purchase price of R 4000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints

2	Extra over brickwork for face brickwork in foundation	m2	60
---	---	----	----

3	Face brick on edge	m	54
---	--------------------	---	----

BRICKWORK SUNDRIES

Brick reinforcement

4	150mm Wide reinforcement built in horizontally	m	666
---	--	---	-----

SUPERSTRUCTURE

Brickwork of NFX bricks (14 MPa nominal compressive strength) in class I mortar

5	Half brick wall in beamfilling	m2	74
---	--------------------------------	----	----

6	One brick walls	m2	162
---	-----------------	----	-----

FACE BRICKWORK

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4 CLASSROOM BLOCK
Bill No. 3
Masonry
Zethu Consulting Services

	<u>Face bricks (purchase price of R 4500.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints</u>				
7	Extra over brickwork for face brickwork	m2	174		
8	One brickwork face brick walls pointed both sides	m2	134		
	<u>Brick-on-edge header course coping, sills, etc. of face bricks (purchase price of R 3 500.00/1000 delivered to site excluding VAT) pointed with recessed joints on all exposed faces</u>				
9	Extra over brickwork for brick-on-edge header course lintels pointed on two sides	m	54		
10	Face brick-on-edge window cill 150mm wide pointed on two side and on top and set slightly sloping and protruding.	m	44		
11	Face brick-on-edge window cill 110mm wide pointed on side and top and set flat	m	26		
	<u>BRICKWORK SUNDRIES</u>				
	<u>Brick reinforcement</u>				
12	75mm Wide reinforcement built in horizontally	m	296		
13	150mm Wide reinforcement built in horizontally	m	1,184		
	<u>Turning pieces</u>				
14	220mm Wide turning piece to lintel etc	m	54		
	<u>Ventillation bricks</u>				
15	Set of two 22 x 155mm high terra cotta clay vermin proof air bricks including making good reveals and gauze	No	32		
	<u>Water Harvesting</u>				
16	5000 Litre jojo tank complete with lid including concrete plinth as per engineers details	No	2		
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Masonry

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4 CLASSROOM BLOCK

Bill No. 3

Masonry

Zethu Consulting Services

Item No		Quantity	Rate	Amount
	<u>SECTION 4</u>			
	<u>BILL NO. 4</u>			
	<u>WATERPROOFING</u>			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<u>DAMP-PROOFING OF WALLS AND FLOORS</u>			
	<u>One layer 375mm micron embossed damp proof course</u>			
1	In walls	m2	40	
	<u>One layer of 250 micron waterproof sheeting and sealed at overlaps with pressure sensitive tape</u>			
2	Under surface beds	m2	440	
	<u>FLOOR AND WALLS SEALERS</u>			
	<u>"Secomastic" non setting mastic sealant applied cold with a hand pressure caulking gun and leave perfectly watertight:</u>			
3	Around steel windows and door frames.	m	150	
	<u>Polyurethane Sealant</u>			
4	10 x 10mm sealant on top of expansion joint and in saw cut joints	m	466	
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	4 CLASSROOM BLOCK			
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	Waterproofing			
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Item No		Quantity	Rate	Amount
	<u>SECTION 4</u>			
	<u>BILL NO. 5</u>			
	<u>ROOF COVERINGS</u>			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<u>PROFILED METAL SHEETING AND ACCESSORIES</u>			
	<u>0,6mm IBR galvanised roof sheeting in chromadek finish fixed to timber trusses (Trusses elsewhere measured)</u>			
1	Roof covering with pitch not exceeding 25 degrees	m2	400	
2	450mm wide ridge capping	m	36	
3	Roof closure cut to profile of roof covering	m	68	
	<u>RAINWATER DISPOSAL</u>			
	<u>Approved seamless metal gutters:</u>			
4	100 x 100 x 0.6mm Standard rainwater gutters fixed with gutters brackets	m	68	
5	Extra over gutter for closed ends	No	8	
6	Extra over gutter for 75mm diameter pipe outlets	No	8	
7	75mm Diameter x 0.6mm Thick galvanised rainwater downpipes fixed to wall	m	24	
8	Extra over rainwater pipe for eaves offset	No	8	
9	Extra over rainwater pipe for bend	No	8	
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	Bill No. 5			
	Roof Coverings			
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Rainwater Goods Painting

Three Coats of oil paint to:

10	Gutter	m2	48
11	Down Pipes 75mm diameter	m	24

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Roof Coverings

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Roof Coverings
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	<u>Pressed fibre-cement</u>				
7	12 x 225mm Fascias boards including galvanised steel H-profile jointing strips	m	72		
	<u>SKIRTINGS</u>				
	<u>Wrought meranti</u>				
8	13 x 100mm high with 19 x 19 quadrant	m	116		
	<u>DOORS, ETC.</u>				
	<u>Wrought meranti doors hung to steel frames</u>				
9	44mm thick Meranti framed, ledged, braced and battered door size 813 x 2032mm high	No	4		
	<u>NOTICE BOARDS, KEYBOARDS, DUCKBOARDS, ETC</u>				
10	Timber framed Pin board overall size 7000 x 1200mm high in three equal section with one end rebated 19 x 75mm high meranti timber top, bottom and end rails and 19 x 75mm wide double side rebated intermediate rail with 12mm thick soft-board infill panels	No	4		
11	Fibre cement Green chalk board size 2400 x 1140mm high	No	4		
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Section No. 4 4 CLASSROOM BLOCK Bill No. 6 Carpentry and Joinery Zethu Consulting Services					

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Bill No. 6

Carpentry and Joinery

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	<u>BILL NO. 7</u>			
	<u>CEILINGS, PARTITIONS AND ACCESS FLOORING</u>			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Descriptions:</u>			
	Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins or shot pinned to brickwork or concrete			
	Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres, and where described as "bolted" the bolts have been given elsewhere			
	<u>CEILINGS ETC</u>			
	<u>"Approved" insulation</u>			
1	40mm glass fibre Insulation closely fitted and laid on top of brandering between timber roof trusses etc	m2	440	
	<u>NAILED UP CEILINGS</u>			
	<u>6,4mm "Rhino" gypsum plasterboard ceiling with H-type pressed steel jointing strips</u>			
2	Ceilings including 50 x 38mm sawn softwood brandering at 400mm centres	m2	440	
3	Extra over ceiling for 650 x 650mm trap door of 38 x 50mm wrought softwood rebated framing with one 38 x 50mm sawn softwood cross brander covered with ceiling board and fitted flush in opening	No	4	
	<u>"Rhino" gypsum plasterboard cornices</u>			
4	75mm Coved cornices	m	240	
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	Section No. 4			
	4 CLASSROOM BLOCK			
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4 CLASSROOM BLOCK
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300 x 300mm x 8mm Ceramic tiles (PC Amount R150.00/m2) fixed with adhesive to bedding (bedding elsewhere) and flush pointed with tinted waterproof jointing compound

1	On floors and landings	m2	440
2	Skirting 75mm high	m	127

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4 CLASSROOM BLOCK

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Tiling

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Steel Gates

- 4 Purpose made security steel gate overall size 813 x 2032mm high comprising of 40 x 60 x 2mm rectangular tubing gate surround with 6 No vertical middle rails of 12mm HT steel rods at 99mm centres between steel surround and 2 No horizontal middle rails of 40 x 6mm steel flat bar at 647mm from top and bottom steel surround with and including 3 No 100mm Pin type hinged welded to pressed steel frame and 5 lever security door lock

No

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4 CLASSROOM BLOCK
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Metalwork
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Bill No. 10

Metalwork

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4 CLASSROOM BLOCK
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Metalwork
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Item No		Quantity	Rate	Amount
	<u>SECTION 4</u>			
	<u>BILL NO. 13</u>			
	<u>PAINTWORK</u>			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<u>PAINTWORK ETC TO NEW WORK</u>			
	<u>ON FLOATED PLASTER</u>			
	<u>One coat alkali resistant primer and two coats acrylic PV A paint</u>			
1	On internal walls	m2	172	
	<u>ON PLASTER BOARD</u>			
	<u>One coat alkali resistant primer and two coats acrylic PV A paint</u>			
2	On ceiling soffit	m2	224	
	<u>ON FIBRE-CEMENT</u>			
	<u>One coat alkali resistant primer and two coats acrylic PVA paint</u>			
3	On ceiling soffit	m2	134	
4	On fascias and barge boards	m2	54	
	<u>ON WOOD</u>			
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One coat zinc chromate primer, 1 coat universal under coat and 2 coats gloss enamel on

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Bill No. 13

Paintwork

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4 CLASSROOM BLOCK

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Paintwork

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4	Waterproofing	96	
5	Roof Coverings	99	
6	Carpentry and Joinery	102	
7	Ceilings, Partitions & Access Flooring	103	
8	Ironmongery	104	
9	Tiling	107	
10	Metalwork	110	
11	Plastering	111	
12	Glazing	112	
13	Paintwork	115	
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Section No. 4 4 CLASSROOM BLOCK Zethu Consulting Services			

Item No		Quantity	Rate	Amount
	<u>SECTION 5</u>			
	<u>BILL NO. 1</u>			
	<u>FOUNDATIONS (PROVISIONAL)</u>			
	NOTE : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 104 for CPAP formula purposes			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Nature of ground</u>			
	The nature of the ground is assumed to be loose sandy material, therefore "earth", but possibly interspersed with "hard rock" or "soft rock"			
	<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>SITE CLEARANCE ETC</u>			
	<u>Site clearance</u>			
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc	m2	78	
2	Stripping average 150mm thick layer of top soil and stockpiling on site	m2	78	
	<u>EXCAVATION, FILLING, ETC</u>			
	<u>Excavation in earth not exceeding 2m deep</u>			
3	Reduced levels under floors	m3	50	
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	Section No. 5 LIBRARY Bill No. 1 Earthworks Zethu Consulting Services			

4	Trenches	m3	86	
	<u>Extra over trench and hole excavations in earth for excavation in</u>			
5	Soft rock	m3	9	
6	Hard rock	m3	4	
	<u>Extra over all excavations for carting away</u>			
7	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	72	
	<u>Risk of collapse of excavations</u>			
8	Sides of trench and hole excavations not exceeding 1,5m deep	m2	241	
	<u>Keeping excavations free of water</u>			
9	Keeping excavations free of all water other than subterranean water		Item	
	<u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 95% Mod AASHTO density</u>			
10	Under floors, steps, pavings, etc	m3	25	
11	Backfilling to trenches, holes, etc	m3	46	
	<u>Earth filling supplied by the contractor compacted to 95% Mod AASHTO density</u>			
12	Under floors, steps, pavings, etc	m3	50	
	<u>Coarse river sand filling supplied by the contractor</u>			
13	Under floors etc	m3	8	
	<u>Garden soil filling obtained from the excavations and/or prescribed stockpiles on site (not compacted)</u>			
14	Over site	m3	35	
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Section No. 5 LIBRARY Bill No. 1 Earthworks Zethu Consulting Services				

SOIL POISONING

Soil insecticide

15	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m2	167
16	To bottoms and sides of trenches	m2	298

CONCRETE

(CPAP FORMULA WORK GROUP NO. 110)

REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES

15MPa/19mm concrete

17	Surface blinding under footings and bases	m3	3
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REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES

25MPa/19mm concrete

18	Strip footings	m3	14
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Mild steel reinforcement to structural concrete work

19	8mm Diameter bars	t	0.95
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High tensile steel reinforcement to structural concrete work

20	12mm Diameter bars	t	0.63
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BRICKWORK

(CPAP FORMULA WORK GROUP NO. 116)

Brickwork of NFX bricks (14 MPa nominal compressive strength) in class I mortar

21	One brick walls	m2	123
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Earthworks

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	<u>SECTION 5</u>			
	<u>BILL NO. 2</u>			
	<u>CONCRETE, FORMWORK AND REINFORCEMENT</u>			
	NOTE : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 110 for CPAP formula purposes			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Cost of tests</u>			
	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 Principal Agent. The testing shall be undertaken by an independent firm or institution nominated by the contractor to the approval of the Principal Agent. (Test cubes are measured separately)			
	<u>Formwork</u>			
	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.			
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	Section No. 5 LIBRARY Bill No. 2 Concrete, Formwork & Reinforcement Zethu Consulting Services			

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

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

UNREINFORCED CONCRETE

25MPa/19mm concrete

1	Ramps including thickenings (Provisional)	m3	1
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REINFORCED CONCRETE

25MPa/19mm concrete

2	Surface beds on waterproofing	m3	15
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TEST BLOCKS

3	Making and testing 150 x 150 x 150mm concrete strenght test cube (Provisional)	No	10
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CONCRETE SUNDRIES

Finishing top surfaces of concrete smooth with a wood float

4	Ramps, etc to falls (Provisional)	m2	3
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ROUGH FORMWORK (DEGREE OF ACCURACY II)

(CPAP FORMULA WORK GROUP NO. 111)

Rough formwork to sides

5	Edges, risers, ends and reveals not exceeding 300mm high or wide (Provisional)	m	5
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MOVEMENT JOINTS ETC

Expansion joints with closed cell expanded polystyrene joint filler between vertical concrete and/or brick surfaces

6	10mm Joints not exceeding 300mm high	m	109
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REINFORCEMENT (PROVISIONAL)

(CPAP FORMULA WORK GROUP NO. 114)

Fabric reinforcement

7	Type 193 fabric reinforcement in concrete surface beds, slabs, etc	m2	167
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Concrete, Formwork & Reinforcement

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	<u>SECTION 5</u>			
	<u>BILL NO. 3</u>			
	<u>MASONRY</u>			
	NOTE : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 116 for CPAP formula purposes			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>BRICKWORK</u>			
	<u>Sizes in descriptions</u>			
	Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick			
	<u>Face bricks</u>			
	Bricks shall be ordered timeously to obtain uniformity in size and colour			
	<u>Pointing</u>			
	Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc.			
	<u>SUPERSTRUCTURE</u>			
	<u>Brickwork of NFP bricks in class II mortar</u>			
1	Piers	m3	1	
2	Half brick walls in beamfilling	m2	11	
3	One brick walls	m2	109	
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	Section No. 5 LIBRARY Bill No. 3 Masonry Zethu Consulting Services			

BRICKWORK SUNDRIES

Brickwork reinforcement

4	150mm Wide reinforcement built in horizontally	m	230
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Prestressed fabricated lintels

5	110 x 75mm Lintels in lengths not exceeding 3m	m	53
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6	110 x 75mm Lintels in lengths exceeding 3m and not exceeding 4,5m	m	35
---	---	---	----

Galvanised hoop iron cramps, ties, etc

7	30 x 1,6mm Roof tie 1,5m long with one end fixed to timber and other end built into brickwork	No	35
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FACE BRICKWORK

External face bricks (Prime Cost Amount R 4 500.00/1000) pointed with flush horizontal and vertical joints

8	Extra over brickwork for face brickwork	m2	115
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Internal face bricks (Prime Cost Amount R 4 500.00/1000) pointed with flush horizontal and vertical joints

9	Extra over brickwork for face brickwork	m2	49
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Brick-on-edge header course copings, sills, etc of external face bricks (Prime Cost Amount R 3 500.00/1000) pointed with flush joints on all exposed faces

10	220mm Wide sill set sloping and slightly projecting	m	12
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NUTEC-CEMENT WINDOW SILLS

Natural grey sills in single lengths bedded in class I mortar including metal fixing lugs etc

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Masonry
Zethu Consulting Services

11	<u>15mm Thick natural grey cills in single length bedded in 4:1 sand cement mortar including metal lugs, etc:</u> 140mm Wide cills set flat and slightly projecting. m	12		
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Bill No. 3

Masonry

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Bill No. 3

Masonry

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<u>SECTION 5</u>				
<u>BILL NO. 5</u>				
<u>ROOF COVERINGS ETC</u>				
NOTE : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 124 for CPAP formula purposes				
<u>PROFILED METAL SHEETING AND ACCESSORIES</u>				
<u>0.6mm IBR galvanised roof sheeting in chromadek finish fixed to timber trusses (Trusses elsewhere measured)</u>				
1	Roof covering with pitch not exceeding 25 degrees	m2	158	
2	Head wall flashings 308mm girth	m	18	
3	Cover flashing 154mm girth	m	18	
<u>ROOF AND WALL INSULATION</u>				
<u>"Sisalation 410" housing grade glass fibre reinforced aluminium foil bonded insulation</u>				
4	Insulation laid taut over purlins (at approximately 1 000mm centres) and fixed concurrent with roof covering including galvanised steel straining wires	m2	158	
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Item No		Quantity	Rate	Amount
	<u>SECTION 5</u>			
	<u>BILL NO. 6</u>			
	<u>CARPENTRY AND JOINERY</u>			
	NOTE : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No.126 for CPAP formula purposes			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Particle board:</u>			
	Particle board shall comply with the following specifications:			
	a) SABS 1300 Particle board: exterior and flooring type			
	b) SABS 1301 Particle board: interior type			
	<u>Joinery:</u>			
	Descriptions of frames shall be deemed to include frames, transoms, mullions, rails, etc			
	Descriptions of hardwood joinery shall be deemed to include pelleting of bolt holes			
	<u>Fixing</u>			
	Items described as "nailed" shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete			
	<u>Decorative laminate finish:</u>			
	Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish			
	<u>ROOFS, ETC</u>			
	Carried to Collection		R	
	Section No. 5 LIBRARY Bill No. 6 Carpentry and Joinery Zethu Consulting Services			

Plate nailed timber roof truss construction

The following is applicable in respect of roof trusses:

Trusses are at maximum 1,10m centres

Roof covering is galvanised "IBR" roof sheeting with "Globalcoat" finish on one side on 50 x 75mm purlins at 1,0m maximum centres.

Ceilings are generally 6,4mm gypsum plasterboard on 38 x 38mm branderling.

All timber to be sawn softwood in accordance with V4 or M4 as defined in SABS 563 or SABS 1245.

Metal connector plates shall have a minimum yield strength of 228 MPa and a minimum ultimate tensile strength of 330 Mpa with hot-dip galvanised finish.

All joints to be close fitted butt joints.

Trusses shall be designed by a registered supplier of prefabricated trusses who shall issue an Engineers Certificate upon completion of the installation.

The dimensions in the descriptions of the trusses are nominal and actual measurements are to be obtained on site before design or fabricaton commences.

Tenderers must study the roof plan and sections as attached to the back of these bills of quantities (refer drawing No.'s LIB -001 to 002) and must obtain prices from a qualified and registered roof truss supplier as no claims in this regard will be entertained.

Sawn softwood

1	38 x 114mm Wall plates	m	54
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2	Design, manufacture and deliver on site, plate nailed roof truss construction to Library, size 8 155 x 10 060mm overall on plan consisting of seventeen mono pitched trusses, each truss 10 060 x 1 355mm high overall with 800mm eaves overhang projecting both sides, including all necessary purlins, runners, bracing and cross bracing (wall plates elsewhere)	No	1		
3	Take delivery, temporary store, hoist in position and erect plate nailed timber roof trusses, purlins, gangboarding, temporary and permanent bracing, etc (measured on slope of roof)	m2	88		
	<u>Sundries</u>				
4	Two coats creosote on sawn timbers	m2	76		
	<u>EAVES , VERGES , ETC</u>				
	<u>"Everite" pressed nutec-cement</u>				
5	12 x 225mm Fascias and barge boards including galvanised steel H-profile jointing strips	m	44		
	<u>SKIRTINGS</u>				
	<u>Wrought meranti</u>				
6	19 x 76mm Skirting including 19mm quadrant bead nailed	m	66		
	<u>DOORS ETC</u>				
	<u>Wrought hardwood flushback doors with sapele veneer hung to steel frames</u>				
7	44mm "TDM" Framed and ledged door 813 x 2 032mm high	No	1		
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Carpentry and Joinery

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	<u>BILL NO. 7</u>			
	<u>CEILINGS, PARTITIONS AND ACCESS FLOORING</u>			
	NOTE : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 129 for CPAP formula purposes			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Descriptions:</u>			
	Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins or shot pinned to brickwork or concrete			
	Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres, and where described as "bolted" the bolts have been given elsewhere			
	<u>CEILINGS ETC</u>			
	<u>"Aerolite" insulation</u>			
1	75mm Insulation closely fitted and laid on top of brandering between roof timbers etc	m2	150	
	<u>NAILED UP CEILINGS</u>			
	<u>6,4mm "Rhino" gypsum plasterboard with H-type pressed steel jointing strips</u>			
2	Ceilings including 38 x 38mm sawn softwood brandering at 400mm centres	m2	150	
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Ceilings, Partitions & Access Flooring

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LIBRARY

Bill No. 7

Ceilings, Partitions & Access Flooring

Zethu Consulting Services

<u>"Dorma"</u>					
2	"dkp-ss-161" Stainless steel kickplate plate size 813 x 300mm high fixed to timber	No	1		
<u>LETTERS, NAMEPLATES, ETC</u>					
3	60 x 3mm Thick perspex plate with two 40mm high engraved and painted numerals	No	1		
<u>"Union"</u>					
4	"AL5066-06ASE06" 152 x 152mm anodised aluminium plate with fire extinguisher pictogram	No	1		
5	"AL5066-06ASE15" 152 x 152mm anodised aluminium plate with fire escape pictogram	No	1		
6	"AL5066-06ASE08" 152 x 152mm anodised aluminium plate with directional pictogram	No	1		
<u>SUNDRIES</u>					
<u>"Union"</u>					
7	"AL8730AS" door stop plugged	No	1		
<u>NOTICE BOARDS, KEYBOARDS, DUCKBOARDS, ETC</u>					
<u>"Parrot Products"</u>					
8	"BDO452" 1200 x 1200mm Aluminium framed carpet bulletin board	No	1		
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Section No. 5 LIBRARY Bill No. 8 Ironmongery Zethu Consulting Services					

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Ironmongery

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Bill No. 8

Ironmongery

Zethu Consulting Services

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	<u>SECTION 5</u>			
	<u>BILL NO. 9</u>			
	<u>TILING</u>			
	<u>PREAMBLES</u>			
	<u>For preambles see "Model Preambles for Trades" (2008 Edition) and Supplementary preambles as specified in the Trades</u>			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	Supplementary preambles are incorporated in this schedule of quantities to satisfy the requirements of this project. Such supplementary preambles shall take precedence over the provisions of the said Model Preambles			
	The contractor's prices for all items throughout this schedule of quantities must take account of and include for all of the obligations, requirements and specifications given in the said Model Preambles and in any supplementary preambles			
	This bill is measured provisionally and will be subject to re-measure when the work or a portion thereof is complete. It is expected of the contractor to be able to demonstrate how he derived at the quantities and in cases where it is not possible to measure the work on completion due to cover up; the contractor must provide signed off site records proving such claims			
	<u>Descriptions</u>			
	Unless described as "fixed with adhesive to plaster (plaster elsewhere)" descriptions of tiling on brick or concrete walls, columns, etc shall be deemed to include 1:4 cement plaster backing and descriptions of tiling on concrete floors etc shall be deemed to include 1:3 plaster bedding			
	<u>FLOOR TILING</u>			
	Carried to Collection		R	
	Section No. 5 LIBRARY Bill No. 9 Tiling Zethu Consulting Services			

300 x 300mm x 8mm Ceramic tiles (PC Amount R150.00/m2) fixed with adhesive to bedding (bedding elsewhere) and flush pointed with tinted waterproof jointing compound

1	On floors and landings	m2	150
2	Skirting 75mm high	m	66

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Bill No. 9
Tiling
Zethu Consulting Services

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Bill No. 9

Tiling

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Bill No. 9

Tiling

Zethu Consulting Services

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

2	Frame for door 813 x 2 032mm high	No	1
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STEEL WINDOWS, DOORS, ETC

Standard residential windows with type "B2" burglar bars to opening sashes

3	Window type E1, 533 x 654mm high (W03)	No	4
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4	Window type E4, 1 511 x 654mm high (W05)	No	4
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Bill No. 10
Metalwork
Zethu Consulting Services

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Bill No. 10

Metalwork

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Bill No. 10

Metalwork

Zethu Consulting Services

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	<u>SECTION 5</u>			
	<u>BILL NO. 11</u>			
	<u>PLASTERING</u>			
	NOTE : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 142 for CPAP formula purposes.			
	<u>SCREEDS</u>			
	<u>Screeds on concrete</u>			
1	25mm Thick on floors and landings	m2	131	
	<u>GRANOLITHIC</u>			
	<u>Untinted granolithic on concrete</u>			
2	35mm Thick on floors and landings	m2	21	
	<u>INTERNAL PLASTER</u>			
	<u>Cement plaster on brickwork</u>			
3	On walls	m2	150	
4	On narrow widths	m2	8	
	<u>EXTERNAL PLASTER</u>			
	<u>Cement plaster on brickwork</u>			
5	On walls	m2	130	
6	On narrow widths	m2	9	
	Carried to Collection			
			R	
	Section No. 5 LIBRARY Bill No. 11 Plastering Zethu Consulting Services			

**CORNER PROTECTORS, DIVIDING STRIPS,
ETC**

7 3 x 32mm Flat section brass dividing strips between
different floor finishes

m

1

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Bill No. 11
Plastering
Zethu Consulting Services

Section No. 5

Bill No. 11

Plastering

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Bill No. 11

Plastering

Zethu Consulting Services

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

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

Exposed concrete surfaces

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

Excavations

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

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

Carried to Collection

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Section No. 5
LIBRARY
Bill No. 12
Plumbing and Drainage
Zethu Consulting Services

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

Waste unions

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

SANITARY FITTINGS

"Vaal"

1	455 x 290mm "Bantam" cloakroom hand basin	No	1
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WASTE UNIONS, ETC

"Cobra Watertech"

2	32mm "301CP" Basin waste union	No	1
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TRAPS, ETC

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Plumbing and Drainage
Zethu Consulting Services

TAPS, VALVES, ETC

"Cobra Watertech"

SANITARY PLUMBING

Extra over uPVC pipes for fittings

Sundries

WATER SUPPLIES

Extra over class 0 copper pipes for capillary fittings

Copper overflow and service pipes

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TESTING

13 Testing water pipe system

Item

FIRE APPLIANCES ETC

"Chubb"

14 4,5kg Carbon dioxide fire extinguisher complete with
520 x 115 x 22mm thick timber backboard plugged to
wall and varnished

No

2

Water Harvesting

15 5000 Litre jojo tank complete with lid including concrete
plinth as per engineers details

No

2

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Plumbing and Drainage

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<u>SECTION 5</u>				
<u>BILL NO. 13</u>				
<u>GLAZING</u>				
NOTE : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 150 for CPAP formula purposes				
<u>GLAZING TO STEEL WITH PUTTY</u>				
<u>6,38mm Normal strength clear laminated safety glass</u>				
1	Panes not exceeding 0,1 m2	m2	4	
2	Panes exceeding 0,1 and not exceeding 0,5m2	m2	9	
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	<u>SECTION 5</u>			
	<u>BILL NO. 14</u>			
	<u>PAINTWORK</u>			
	NOTE : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 152 for CPAP formula purposes			
	<u>ON FLOATED PLASTER</u>			
	<u>One coat alkali resistant primer, one undercoat and two coats eggshell enamel paint</u>			
1	On internal walls	m2	150	
	<u>One coat alkali resistant primer, one undercoat and two coats eggshell enamel paint</u>			
2	On external walls	m2	138	
	<u>ON PLASTERBOARD</u>			
	<u>One coat primer and two coats interior quality PVA emulsion paint</u>			
3	On ceilings and cornices	m2	143	
	<u>ON FIBRE-CEMENT</u>			
	<u>One coat primer and two coats interior quality acrylic PVA paint</u>			
4	On internal window sills not exceeding 300mm wide or girth	m	12	
	<u>One coat primer and two coats exterior quality PVA emulsion paint</u>			
5	On fascias and bargeboards	m2	39	
	Carried to Collection			R
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ON METAL

Spot priming defects in pre primed surfaces with zinc chromate primer and applying one undercoat and two coat high gloss enamel paint on steel

6	On door frames	m2	5
7	On windows with burglar bars	m2	32
8	On gates, grilles, burglar screens, balustrades, etc (both sides measured over the full flat area)	m2	4

ON WOOD

Three coats polyurethane semi-gloss varnish

9	On doors	m2	11
10	On skirtings, rails, etc not exceeding 300mm girth	m	66

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Bill No. 14
Paintwork
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Paintwork

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LIBRARY

Bill No. 14

Paintwork

Zethu Consulting Services

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<u>Excavation in earth not exceeding 2m deep</u>						
3	Reduced levels under floors	m3	45			
4	Trenches	m3	62			
<u>Extra over trench and hole excavations in earth for excavation in</u>						
5	Soft rock	m3	9			
6	Hard rock	m3	4			
<u>Extra over all excavations for carting away</u>						
7	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	71			
<u>Risk of collapse of excavations</u>						
8	Sides of trench and hole excavations not exceeding 1,5m deep	m2	91			
<u>Keeping excavations free of water</u>						
9	Keeping excavations free of all water other than subterranean water			Item		
<u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 95% Mod AASHTO density</u>						
10	Under floors, steps, pavings, etc	m3	25			
11	Backfilling to trenches, holes, etc	m3	45			
<u>Earth filling supplied by the contractor compacted to 95% Mod AASHTO density</u>						
12	Under floors, steps, pavings, etc	m3	49			
<u>Coarse river sand filling supplied by the contractor</u>						
13	Under floors etc	m3	8			
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Section No. 6 COMPUTER LABORATORY Bill No. 1 Earthworks Zethu Consulting Services						

Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming

CONCRETE

(CPAP FORMULA WORK GROUP NO. 110)

UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES

15MPa/19mm concrete

17	Surface blinding under footings and bases	m3	3
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REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES

25MPa/19mm concrete

18	Strip footings	m3	14
----	----------------	----	----

Mild steel reinforcement to structural concrete work

19	8mm Diameter bars	t	0.63
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High tensile steel reinforcement to structural concrete work

20	12mm Diameter bars	t	0.95
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BRICKWORK

(CPAP FORMULA WORK GROUP NO. 116)

Brickwork of NFX bricks (14 MPa nominal compressive strength) in class I mortar

21	One brick walls	m2	109
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Brickwork reinforcement

22	150mm Wide reinforcement built in horizontally	m	943
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External face bricks (Prime Cost Amount R 4 500.00/1000) pointed with flush horizontal and vertical joints

23	Extra over brickwork for face brickwork	m2	27
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Bill No. 1
Earthworks
Zethu Consulting Services

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Bill No. 1

Earthworks

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Bill No. 1

Earthworks

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Item No		Quantity	Rate	Amount
	<u>SECTION 6</u>			
	<u>BILL NO. 2</u>			
	<u>CONCRETE, FORMWORK AND REINFORCEMENT</u>			
	NOTE : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 110 for CPAP formula purposes			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Cost of tests</u>			
	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 Principal Agent. The testing shall be undertaken by an independent firm or institution nominated by the contractor to the approval of the Principal Agent. (Test cubes are measured separately)			
	<u>Formwork</u>			
	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.			
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	Section No. 6 COMPUTER LABORATORY Bill No. 2 Concrete, Formwork & Reinforcement Zethu Consulting Services			

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

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

REINFORCED CONCRETE

25MPa/19mm concrete

1	Ramps including thickenings (Provisional)	m3	1
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REINFORCED CONCRETE

25MPa/19mm concrete

2	Surface beds on waterproofing	m3	15
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TEST BLOCKS

3	Making and testing 150 x 150 x 150mm concrete strenght test cube (Provisional)	No	10
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CONCRETE SUNDRIES

Finishing top surfaces of concrete smooth with a wood float

4	Surface beds, etc to falls (Provisional)	m2	164
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ROUGH FORMWORK (DEGREE OF ACCURACY II)

(CPAP FORMULA WORK GROUP NO. 111)

Rough formwork to sides

5	Edges, risers, ends and reveals not exceeding 300mm high or wide (Provisional)	m	5
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COMPUTER LABORATORY
Bill No. 2
Concrete, Formwork & Reinforcement
Zethu Consulting Services

MOVEMENT JOINTS ETC

Expansion joints with closed cell expanded polystyrene joint filler between vertical concrete and/or brick surfaces

6	10mm Joints not exceeding 300mm high	m	108
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REINFORCEMENT (PROVISIONAL)

(CPAP FORMULA WORK GROUP NO. 114)

Fabric reinforcement

7	Type 193 fabric reinforcement in concrete surface beds, slabs, etc	m2	164
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Bill No. 2

Concrete, Formwork & Reinforcement

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COMPUTER LABORATORY

Bill No. 2

Concrete, Formwork & Reinforcement

Zethu Consulting Services

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	<u>SECTION 6</u>			
	<u>BILL NO. 3</u>			
	<u>MASONRY</u>			
	NOTE : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 116 for CPAP formula purposes			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>BRICKWORK</u>			
	<u>Sizes in descriptions</u>			
	Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick			
	<u>Face bricks</u>			
	Bricks shall be ordered timeously to obtain uniformity in size and colour			
	<u>Pointing</u>			
	Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc.			
	<u>SUPERSTRUCTURE</u>			
	<u>Brickwork of NFP bricks in class II mortar</u>			
1	Piers	m3	1	
2	Half brick walls in beamfilling	m2	14	
3	One brick walls	m2	73	
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	Section No. 6 COMPUTER LABORATORY Bill No. 3 Masonry Zethu Consulting Services			

BRICKWORK SUNDRIES

Brickwork reinforcement

4	150mm Wide reinforcement built in horizontally	m	215
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Prestressed fabricated lintels

5	110 x 75mm Lintels in lengths not exceeding 3m	m	48
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6	110 x 75mm Lintels in lengths exceeding 3m and not exceeding 4,5m	m	27
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Galvanised hoop iron cramps, ties, etc

7	30 x 1,6mm Roof tie 1,5m long with one end fixed to timber and other end built into brickwork	No	20
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FACE BRICKWORK

External face bricks (Prime Cost Amount R 4 500.00/1000) pointed with flush horizontal and vertical joints

8	Extra over brickwork for face brickwork	m2	114
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Internal face bricks (Prime Cost Amount R 4 500.00/1000) pointed with flush horizontal and vertical joints

9	Extra over brickwork for face brickwork	m2	49
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Brick-on-edge header course copings, sills, etc of external face bricks (Prime Cost Amount R 3 500.00/1000) pointed with flush joints on all exposed faces

10	220mm Wide sill set sloping and slightly projecting	m	11
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NUTEC-CEMENT WINDOW SILLS

Natural grey sills in single lengths bedded in class I mortar including metal fixing lugs etc

11	15 x 150mm Wide sills set flat and slightly projecting	m	11
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Masonry

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COMPUTER LABORATORY

Bill No. 3

Masonry

Zethu Consulting Services

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Item No		Quantity	Rate	Amount
	<u>SECTION 6</u>			
	<u>BILL NO. 5</u>			
	<u>ROOF COVERINGS ETC</u>			
	NOTE : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 124 for CPAP formula purposes			
	<u>PROFILED METAL SHEETING AND ACCESSORIES</u>			
	<u>0,6mm IBR galvanised roof sheeting in chromadek finish fixed to timber trusses (Trusses elsewhere measured)</u>			
1	Roof covering with pitch not exceeding 25 degrees	m2	142	
2	Head wall flashings 308mm girth	m	18	
3	Cover flashing 154mm girth	m	18	
	<u>ROOF AND WALL INSULATION</u>			
	<u>"Sisalation 410" housing grade glass fibre reinforced alumnium foil bonded insulation</u>			
4	Insulation laid taut over purlins (at approximately 1 000mm centres) and fixed concurrent with roof covering including galvanised steel straining wires	m2	142	
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	Section No. 6 COMPUTER LABORATORY Bill No. 5 Roof Covering Zethu Consulting Services			

Plate nailed timber roof truss construction

The following is applicable in respect of roof trusses:

Trusses are at maximum 1,10m centres

Roof covering is galvanised "IBR" roof sheeting with "Globalcoat" finish on one side on 50 x 75mm purlins at 1,0m maximum centres.

Ceilings are generally 6,4mm gypsum plasterboard on 38 x 38mm brandering.

All timber to be sawn softwood in accordance with V4 or M4 as defined in SABS 563 or SABS 1245.

Metal connector plates shall have a minimum yield strength of 228 MPa and a minimum ultimate tensile strength of 330 Mpa with hot-dip galvanised finish.

All joints to be close fitted butt joints.

Trusses shall be designed by a registered supplier of prefabricated trusses who shall issue an Engineers Certificate upon completion of the installation.

The dimensions in the descriptions of the trusses are nominal and actual measurements are to be obtained on site before design or fabricaton commences.

Tenderers must study the roof plan and sections as attached to the back of these bills of quantities (refer drawing No.'s COMP - 001 to 002) and must obtain prices from a qualified and registered roof truss supplier as no claims in this regard will be entertained.

Sawn softwood

1	38 x 114mm Wall plates	m	53
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Bill No. 6
Carpentry & Joinery
Zethu Consulting Services

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2	Design, manufacture and delivered on site, plate nailed roof truss construction to Computer room, size 19 460 x 10 060mm overall on plan consisting of seventeen mono pitched trusses, each truss 10 060 x 1 335mm high overall with 800mm eaves overhang projecting both sides, including all necessary purlins, runners, bracing and cross bracing (wall plates elsewhere)	No	1		
3	Take delivery, temporary store, hoist in position and erect plate nailed timber roof trusses, purlins, gangboarding, temporary and permanent bracing, etc (measured on slope of roof)	m2	251		
	<u>Sundries</u>				
4	Two coats creosote on sawn timbers	m2	84		
	<u>EAVES , VERGES , ETC</u>				
	<u>"Everite" pressed nutec-cement</u>				
5	12 x 225mm Fascias and barge boards including galvanised steel H-profile jointing strips	m	84		
	<u>SKIRTINGS</u>				
	<u>Wrought meranti</u>				
6	19 x 76mm Skirting including 19mm quadrant bead nailed	m	65		
	<u>DOORS ETC</u>				
	<u>Wrought hardwood flushback doors with sapele veneer hung to steel frames</u>				
7	44mm "TDM" Framed and ledged door 813 x 2 032mm high	No	1		
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Carpentry & Joinery

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Bill No. 6
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Item No		Quantity	Rate	Amount
	<u>SECTION 6</u>			
	<u>BILL NO. 7</u>			
	<u>CEILINGS, PARTITIONS AND ACCESS FLOORING</u>			
	NOTE : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 129 for CPAP formula purposes			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Descriptions:</u>			
	Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins or shot pinned to brickwork or concrete			
	Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres, and where described as "bolted" the bolts have been given elsewhere			
	<u>CEILINGS ETC</u>			
	<u>"Aerolite" insulation</u>			
1	75mm Insulation closely fitted and laid on top of brandering between roof timbers etc	m2	142	
	<u>NAILED UP CEILINGS</u>			
	<u>6,4mm "Rhino" gypsum plasterboard with H-type pressed steel jointing strips</u>			
2	Ceilings including 38 x 38mm sawn softwood brandering at 400mm centres	m2	66	
3	Sloping ceilings including 38 x 38mm sawn softwood brandering at 400mm centres	m2	76	
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	Section No. 6 COMPUTER LABORATORY Bill No. 7 Ceilings, Partitions & Access Flooring Zethu Consulting Services			
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Bill No. 7

Ceilings, Partitions & Access Flooring

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Section No. 6

COMPUTER LABORATORY

Bill No. 7

Ceilings, Partitions & Access Flooring

Zethu Consulting Services

	<u>"Dorma"</u>				
2	"dkp-ss-161" Stainless steel kickplate plate size 813 x 300mm high fixed to timber	No	1		
	<u>LETTERS, NAMEPLATES, ETC</u>				
3	60 x 3mm Thick perspex plate with two 40mm high engraved and painted numerals	No	1		
	<u>"Union"</u>				
4	"AL5066-06ASE06" 152 x 152mm anodised aluminium plate with fire extinguisher pictogram	No	1		
5	"AL5066-06ASE15" 152 x 152mm anodised aluminium plate with fire escape pictogram	No	1		
6	"AL5066-06ASE08" 152 x 152mm anodised aluminium plate with directional pictogram	No	1		
	<u>SUNDRIES</u>				
	<u>"Union"</u>				
7	"AL8730AS" door stop plugged	No	1		
	<u>STEEL LOCKERS</u>				
	<u>"Greenfield Baseline Guardsman" Steel lockers with standard baked enamel finish</u>				
8	"GB002" locker 300 x 450 x 1 800mm high	No	6		
	<u>WRITING BOARDS, PINNING BOARDS, ETC</u>				
	<u>"Virtrex" vitreous enamelled writing boards, etc to SABS CSK-36-1980</u>				
9	Green writing board 4 800 x 1 140mm high consisting of two fixed panels each 2 400 x 1 140mm high complete with aluminium chalk rail, etc, plugged	No	1		
	<u>"Parrot products"</u>				
10	"BD0476" 2 400 x 1 200mm Aluminium framed carpet bulletin board	No	2		
	Carried to Collection			R	
	Section No. 6 COMPUTER LABORATORY Bill No. 8 Ironmongery Zethu Consulting Services				

Section No. 6

Bill No. 8

Ironmongery

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Section No. 6

COMPUTER LABORATORY

Bill No. 8

Ironmongery

Zethu Consulting Services

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

2	Frame for door 813 x 2 032mm high	No	1
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STEEL WINDOWS, DOORS, ETC

Standard residential windows with type "B2" burglar bars to opening sashes

3	Window type E1, 533 x 654mm high	No	4
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4	Window type E4, 1 511 x 654mm high	No	4
---	------------------------------------	----	---

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Section No. 6
COMPUTER LABORATORY
Bill No. 9
Metalworks
Zethu Consulting Services

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Bill No. 9

Metalworks

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COMPUTER LABORATORY

Bill No. 9

Metalworks

Zethu Consulting Services

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	<u>SECTION 6</u>			
	<u>BILL NO. 10</u>			
	<u>PLASTERING</u>			
	NOTE : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 142 for CPAP formula purposes.			
	<u>SCREEDS</u>			
	<u>Screeds on concrete</u>			
1	25mm Thick on floors and landings	m2	142	
	<u>GRANOLITHIC</u>			
	<u>Untinted granolithic on concrete</u>			
2	35mm Thick on floors and landings	m2	35	
	<u>INTERNAL PLASTER</u>			
	<u>Cement plaster on brickwork</u>			
3	On walls	m2	181	
4	On narrow widths	m2	6	
	<u>EXTERNAL PLASTER</u>			
	<u>Cement plaster on brickwork</u>			
5	On walls	m2	129	
6	On narrow widths	m2	9	
	Carried to Collection			
	Section No. 6 COMPUTER LABORATORY Bill No. 10 Plastering Zethu Consulting Services			
			R	

**CORNER PROTECTORS, DIVIDING STRIPS,
ETC**

7 3 x 32mm Flat section brass dividing strips between
different floor finishes

m

1

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Section No. 6
COMPUTER LABORATORY
Bill No. 10
Plastering
Zethu Consulting Services

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Bill No. 10

Plastering

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COMPUTER LABORATORY

Bill No. 10

Plastering

Zethu Consulting Services

Item No		Quantity	Rate	Amount
	<u>SECTION 8</u>			
	<u>BILL NO. 11</u>			
	<u>TILING</u>			
	<u>PREAMBLES</u>			
	<u>For preambles see "Model Preambles for Trades" (2008 Edition) and Supplementary preambles as specified in the Trades</u>			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	Supplementary preambles are incorporated in this schedule of quantities to satisfy the requirements of this project. Such supplementary preambles shall take precedence over the provisions of the said Model Preambles			
	The contractor's prices for all items throughout this schedule of quantities must take account of and include for all of the obligations, requirements and specifications given in the said Model Preambles and in any supplementary preambles			
	This bill is measured provisionally and will be subject to re-measure when the work or a portion thereof is complete. It is expected of the contractor to be able to demonstrate how he derived at the quantities and in cases where it is not possible to measure the work on completion due to cover up; the contractor must provide signed off site records proving such claims			
	<u>Descriptions</u>			
	Unless described as "fixed with adhesive to plaster (plaster elsewhere)" descriptions of tiling on brick or concrete walls, columns, etc shall be deemed to include 1:4 cement plaster backing and descriptions of tiling on concrete floors etc shall be deemed to include 1:3 plaster bedding			
	<u>WALL TILING</u>			
	Carried to Collection		R	
	Section No. 6 COMPUTER LABORATORY Bill No. 11 Tiling Zethu Consulting Services			

200 x 200 x 6mm "Cercisa Tinte Unite" White glazed ceramic tiles fixed with adhesive to plaster (plaster elsewhere)

1	On walls	m2	240
2	On narrow widths	m2	15
3	Fair exposed cutting and fitting around pipe not exceeding 110mm internal diameter	No	10

FLOOR TILING

300 x 300mm x 8mm Ceramic tiles (PC Amount R150.00/m2) fixed with adhesive to bedding (bedding elsewhere) and flush pointed with tinted waterproof jointing compound

4	On floors and landings	m2	142
5	Skirting 75mm high	m	86

WALL TILING

152 x 152 x 5mm Thick white glazed tiles fixed to plaster (elsewhere measured) with and approved tile adhesive to and pointed with white cement to:

6	Walls in splashbacks.	m2	20
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COMPUTER LABORATORY
Bill No. 11
Tiling
Zethu Consulting Services

Section No. 6

Bill No. 11

Tiling

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COMPUTER LABORATORY

Bill No. 11

Tiling

Zethu Consulting Services

Item No		Quantity	Rate	Amount
	<u>SECTION 6</u>			
	<u>BILL NO. 12</u>			
	<u>PLUMBING AND DRAINAGE</u>			
	NOTE : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 146 for CPAP formula purposes.			
	<u>FIRE APPLIANCES ETC</u>			
	<u>"Chubb"</u>			
1	4,5kg Carbon dioxide fire extinguisher complete with 520 x 115 x 22mm thick timber backboard plugged to wall and varnished	No	2	
	<u>Water Harvesting</u>			
2	5000 Litre jojo tank complete with lid including concrete plinth as per engineers details	No	2	
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	Section No. 6 COMPUTER LABORATORY Bill No. 12 Plumbing and Drainage Zethu Consulting Services			

Item No		Quantity	Rate	Amount
<u>SECTION 6</u>				
<u>BILL NO. 13</u>				
<u>GLAZING</u>				
NOTE : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 150 for CPAP formula purposes				
<u>GLAZING TO STEEL WITH PUTTY</u>				
<u>6,38mm Normal strength clear laminated safety glass</u>				
1	Panes not exceeding 0,1 m2	m2	4	
2	Panes exceeding 0,1 and not exceeding 0,5m2	m2	8	
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Section No. 6 COMPUTER LABORATORY Bill No. 13 Glazing Zethu Consulting Services				

Item No		Quantity	Rate	Amount
	<u>SECTION 6</u>			
	<u>BILL NO. 14</u>			
	<u>PAINTWORK</u>			
	NOTE : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 152 for CPAP formula purposes			
	<u>ON FLOATED PLASTER</u>			
	<u>One coat alkali resistant primer, one undercoat and two coats eggshell enamel paint</u>			
1	On internal walls	m2	59	
	<u>One coat alkali resistant primer, one undercoat and two coats eggshell enamel paint</u>			
2	On external walls	m2	137	
	<u>ON PLASTERBOARD</u>			
	<u>One coat primer and two coats interior quality PVA emulsion paint</u>			
3	On ceilings and cornices	m2	142	
	<u>ON FIBRE-CEMENT</u>			
	<u>One coat primer and two coats interior quality acrylic PVA paint</u>			
4	On internal window sills not exceeding 300mm wide or girth	m	11	
	<u>One coat primer and two coats exterior quality PVA emulsion paint</u>			
5	On fascias and bargeboards	m2	39	
	Carried to Collection			R
	Section No. 6 COMPUTER LABORATORY Bill No. 14 Paintwork Zethu Consulting Services			

ON METAL

Spot priming defects in pre primed surfaces with zinc chromate primer and applying one undercoat and two coat high gloss enamel paint on steel

6	On door frames	m2	5
7	On windows with burglar bars	m2	28
8	On gates, grilles, burglar screens, balustrades, etc (both sides measured over the full flat area)	m2	4

ON WOOD

Three coats polyurethane semi-gloss varnish

9	On doors	m2	11
10	On skirtings, rails, etc not exceeding 300mm girth	m	65

Carried to Collection

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Section No. 6
COMPUTER LABORATORY
Bill No. 14
Paintwork
Zethu Consulting Services

Section No. 6

Bill No. 14

Paintwork

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COMPUTER LABORATORY

Bill No. 14

Paintwork

Zethu Consulting Services

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Item No		Quantity	Rate	Amount
	<u>SECTION 7</u>			
	<u>BILL NO 1</u>			
	<u>EARTHWORKS (PROVISIONAL)</u>			
	The Tenderer is referred to the relevant Clauses in the separate document Model Preambles for Trades (2008 Edition) and the Supplementary Preambles hereunder.			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Nature of ground:</u>			
	The nature of the ground is assumed to be gravel, therefore earth, but possibly interspersed with soft rock.			
	<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>BULK EXCAVATION, FILLING, ETC.</u>			
	<u>Open face excavation in earth over flat site:</u>			
1	Open face excavation.	m3	547	
	<u>Extra over bulk excavation in earth for excavation in:</u>			
2	Soft rock.	m3	60	
3	Hard rock.	m3	30	
	<u>FILLING</u>			
	<u>Filling with approved material supplied and carted onto site by the Contractor, compacted to a density of at least 95% Mod. AASHTO maximum density:</u>			
4	Over site to form platforms.	m3	463	
	Carried to Collection		R	
	Section No. 7 SCIENCE AND LIFE SCIENCE LABORATORY Bill No. 1 Earthworks Zethu Consulting Services			

EXCAVATION OTHER THAN BULK

Excavation in earth not exceeding 2m deep:

5	Trenches for trenches foundation.	m3	113
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CARTING AWAY

Extra over all excavations for carting away:

6	Surplus material from excavation and/or stockpile on site to a dumping site to be allocated by the contractor.	m3	463
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7	Surplus material from excavation to spoil heaps where directed on site.	m3	112
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Risk of collapse of excavations:

8	Sides of trenches not exceeding 1,5m deep.	m2	660
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9	Sides of bulk excavations not exceeding 1,5m deep.	m2	152
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Keeping excavations free of water:

10	Keeping excavations free of all water other than subterranean water.		Item
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Soil insecticide:

11	Under floors, etc. Including forming and poisoning shallow furrows against foundation walls etc., filling in furrows and ramming.	m2	662
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12	To bottoms and sides of trenches etc.	m2	952
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CONCRETE

(CPAP FORMULA WORK GROUP NO. 110)

UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES

20MPa/19mm concrete

13	Strip footings	m3	142
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Carried to Collection

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Section No. 7
SCIENCE AND LIFE SCIENCE LABORATORY
Bill No. 1
Earthworks
Zethu Consulting Services

REINFORCED CONCRETE

30MPa/19mm concrete

14	Columns in foundations	m3	8
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High tensile steel reinforcement to structural concrete work:

15	10mm Diameter bars.	t	3.51
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16	8mm Diameter bars.	t	3.96
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BRICKWORK IN FOUNDATIONS

The Tenderer is referred to the relevant Clauses in the separate document Model Preambles for Trades (2008 Edition) and the Supplementary Preambles hereunder.

Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:

17	Piers	m3	7
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18	Half brick linings to concrete.	m2	10
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19	One brick walls	m2	48
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Brickwork reinforcement

20	150mm Wide reinforcement built in horizontally	m	1,244
----	--	---	-------

External face bricks (Prime Cost Amount R 3 500.00/1000) pointed with flush horizontal and vertical joints

21	Extra over brickwork for face brickwork	m2	104
----	---	----	-----

22	Fair cutting at squint quoin or birdsmouth angle	m	331
----	--	---	-----

DAMPPROOFING OF WALLS AND FLOORS

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SCIENCE AND LIFE SCIENCE LABORATORY
Bill No. 1
Earthworks
Zethu Consulting Services

One layer of 150 micron green polyethylene waterproof sheeting (SANS 952-1985 type C) sealed at lap with PVC self adhesive tape:

The Tenderer is referred to the relevant Clauses in the separate document Model Preambles for Trades (2008 Edition) and the Supplementary Preambles hereunder.

23	Under surface beds	m2	662
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Bill No. 1

Earthworks

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SCIENCE AND LIFE SCIENCE LABORATORY

Bill No. 1

Earthworks

Zethu Consulting Services

Item No		Quantity	Rate	Amount
	<u>SECTION 7</u>			
	<u>BILL NO. 2</u>			
	<u>CONCRETE, FORMWORK AND REINFORCEMENT</u>			
	The Tenderer is referred to the relevant clauses in the separate document Model Preambles for Trades (2008 Edition) and the following supplementary preambles.			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Cost of tests:</u>			
	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 to the approval of the Architect. (Test cubes are measured separately).			
	<u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u>			
	<u>20 MPa/19mm Concrete:</u>			
1	In trenches	m3	41	
2	Surface beds on waterproofing	m3	17	
3	Slabs including beams and inverted beams	m3	9	
4	Aprons cast in panels to falls	m3	19	
	<u>Finishing top surfaces of concrete smooth with a wood float</u>			
5	Aprons to falls	m2	39	
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	Section No. 7 SCIENCE AND LIFE SCIENCE LABORATORY Bill No. 2 Concrete, Formwork & Reinforcement Zethu Consulting Services			

6	Forming 250mm wide segmental channel to falls in concrete including finishing smooth	m2	39		
<u>TEST BLOCKS</u>					
<u>Test blocks:</u>					
7	Making and testing set of three 150 x 150 x 150mm concrete strength test cubes.	Sets	16.0		
<u>FINISHING TOP SURFACE OF CONCRETE</u>					
<u>Finishing top surfaces of concrete smooth with a steel trowel:</u>					
8	Surface beds, slabs, etc.	m2	662		
<u>ROUGH FORMWORK (DEGREE OF ACCURACY III) (CPAP Work Group No 111)</u>					
<u>Rough Formwork to Sides:</u>					
9	Edges, risers, ends and reveals not exceeding 300mm high or wide.	m	292		
10	Slabs propped up exceeding 1,5m and not exceeding 3,5m high	m2	142		
<u>MOVEMENT JOINTS, ETC.</u>					
<u>Two layers of 375 micron dampproof course in slip joints between horizontal concrete and brick surfaces including cement mortar bed.:</u>					
11	Not exceeding 300mm wide.	m	362		
<u>REINFORCEMENT (CPAP Work Group No 114)</u>					
<u>Fabric reinforcement:</u>					
12	Type 193 fabric reinforcement in concrete surface beds, etc.	m2	662		
Carried to Collection				R	
Section No. 7 SCIENCE AND LIFE SCIENCE LABORATORY Bill No. 2 Concrete, Formwork & Reinforcement Zethu Consulting Services					

High tensile steel reinforcement to structural concrete work:

13	10mm Diameter bars.	t	3.40
14	8mm Diameter bars.	t	4.10

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SCIENCE AND LIFE SCIENCE LABORATORY
Bill No. 2
Concrete, Formwork & Reinforcement
Zethu Consulting Services

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Bill No. 2

Concrete, Formwork & Reinforcement

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SCIENCE AND LIFE SCIENCE LABORATORY

Bill No. 2

Concrete, Formwork & Reinforcement

Zethu Consulting Services

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	<u>SECTION 7</u>			
	<u>BILL NO. 3</u>			
	<u>MASONRY</u>			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:</u>			
1	Half brick walls.	m2	63	
2	Ditto, but in beamfilling.	m2	16	
3	Ditto, but in firewall.	m2	49	
4	One brick walls.	m2	50	
5	Ditto, but in firewall.	m2	30	
6	One brick walls of two half brick skins.	m2	599	
7	One brick walls of two half brick skins in gable walls.	m2	38	
8	Piers.	m3	6	
	<u>BRICKWORK SUNDRIES</u>			
9	Closing 120mm cavities of hollow walls horizontally with one course of brickwork.	m	524	
	<u>Brickwork reinforcement:</u>			
10	75mm Wide reinforcement built in horizontally.	m	174	
11	150mm Wide reinforcement built in horizontally.	m	1,130	
	<u>Prestressed fabricated precast lintels including necessary temporary supports:</u>			
12	110 x 70mm Lintels in lengths not exceeding 3m.	m	32	
	Carried to Collection		R	
	Section No. 7 SCIENCE AND LIFE SCIENCE LABORATORY Bill No. 3 Masonry Zethu Consulting Services			

13	110 x 70mm Lintels in lengths exceeding 3m and not exceeding 4.5m.	m	15		
14	Pair of 110 x 70mm Lintels in lengths not exceeding 3m.	m	12		
	<u>Turning pieces to lintels, etc:</u>				
15	150mm Wide turning piece to lintels etc.	m	24		
16	220mm Wide turning piece to lintels etc.	m	34		
	<u>Galvanised wire ties etc:</u>				
17	4mm Diameter roof tie 2m girth bent double with one end fixed to timber and other end built into brickwork.	No	100		
	<u>Air bricks etc:</u>				
18	229 x 152mm Clay vermin proof air brick.	No	8		
	<u>FACE BRICKWORK</u>				
	<u>Face bricks (Allow a P.C. Amount of R4 000.00 per 1 000 supplied and delivered to site) pointed with 6mm square recessed horizontal and vertical joints:</u>				
19	Extra over brickwork for face brickwork.	m2	360		
20	Extra over brickwork for facing 220 x 220mm piers.	m2	4		
21	Extra over brickwork for facing 330 x 330mm piers.	m2	24		
22	Extra over brickwork for facing gable walls.	m2	38		
23	Extra over brickwork for facing beamfilling.	m2	16		
24	230mm Wide sill set sloping and slightly projecting.	m	24		
25	Face brick-on-edge header course lintel.	m	34		
26	Extra over brickwork for face brick-on-edge header course plinth.	m	90		
27	Cut face brick-on-edge header course lintel 110mm wide.	m	24		
	Carried to Collection				
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Bill No. 3

Masonry

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SCIENCE AND LIFE SCIENCE LABORATORY

Bill No. 3

Masonry

Zethu Consulting Services

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Item No		Quantity	Rate	Amount
	<u>SECTION 7</u>			
	<u>BILL NO 5</u>			
	<u>ROOF COVERINGS, ETC.</u>			
	The Tenderer is referred to the relevant clauses in the separate document Model Preambles for Trades (2008 Edition).			
	<u>CORRUGATED METAL SHEETING AND ACCESSORIES</u>			
	<u>0,6mm IBR Colomate finished steel sheeting and accessories fixed to timber purlins (elsewhere):</u>			
1	Roof covering with pitch not exceeding 25 degrees.	m2	921	
	<u>0,6mm Colomate flashings:</u>			
2	Ridge capping to suit roof profile.	m	73	
3	Hip capping to suit roof profile.	m	65	
	<u>RAINWATER DISPOSAL</u>			
	<u>Seamless aluminium gutters.</u>			
4	100x 75mm Eaves gutters.	m	226	
5	Extra over gutter for stopped end.	No	16	
6	Extra over gutter for angle.	No	16	
7	Extra over 100 x 75mm eaves gutter for outlet for 75mm diameter pipe.	No	16	
8	75mm Diameter rainwater pipes.	m	44	
9	Extra over rainwater pipe for bend.	No	16	
10	Extra over rainwater pipe for eaves offset 500mm projection.	No	16	
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	Section No. 7 SCIENCE AND LIFE SCIENCE LABORATORY Bill No. 5 Roof Covering Zethu Consulting Services			

ROOF INSULATION

'Sisalation 420' or similar approved heavy industrial grade aluminium foil based insulation.:

11	Insulation laid taut over battens (at approximately 380mm centres) and fixed concurrent with roof covering including galvanised steel straining wires, laps, etc.	m2	761
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Roof Covering
Zethu Consulting Services

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Roof Covering

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SCIENCE AND LIFE SCIENCE LABORATORY

Bill No. 5

Roof Covering

Zethu Consulting Services

Medium density plain fibre-cement fascial and barge boards:

3	12 x 225mm Fascia and barge boards, including galvanised steel H-profile joiners, etc.	m	117
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SKIRTINGS

Wrought meranti:

4	19 x 76mm Skirtings including 19mm quadrant bead, nailed.	m	441
5	19 x 50mm Cornice laid flat.	m	504
6	16 x 150mm dado rail.	m	214

FRAMED DOORS, ETC.

Wrought meranti doors hung to steel frames:

7	40mm Framed batten door 813 x 2032mm high of top rail and stiles, middle ledge and braces and bottom rail filled in with V-jointed one side boarding.	No	2
8	44mm "TDM" Framed and ledged double door 1 678 x 2 032mm high with rebated meeting stiles and 500 x 1 395mm high glass panel in each leaf rebated all round including glazing beads on one side (D05 & D06)	No	2

SOLID LAMINATED FLUSH DOORS

40mm solid laminated flush doors with hardwood veneer and two concealed edges hung to steel frames:

9	40mm Door 813 x 2032mm high.	No	1
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Section No. 7
SCIENCE AND LIFE SCIENCE LABORATORY
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Carpentry & Joinery
Zethu Consulting Services

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Bill No. 6

Carpentry & Joinery

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Section No. 7

SCIENCE AND LIFE SCIENCE LABORATORY

Bill No. 6

Carpentry & Joinery

Zethu Consulting Services

- 5 Extra over ceiling for 600 x 600mm hinged trap door of wrought softwood rebated framing with one sawn softwood cross brander covered with ceiling board and fitted flush in opening, including necessary trimmers all around.

No

1

INSULATION

Non-combustible lightweight fibreglass insulation blanket:

- 6 100mm Insulation closely fitted between tie beams and laid loose on top of brandering.

m2

654

"Donn" cornices to suspended ceilings

- 7 "SM25" pre-painted cornices, nailed to walls

m

154

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Section No. 7
SCIENCE AND LIFE SCIENCE LABORATORY
Bill No. 7
Ceilings, Partitions & Access Flooring
Zethu Consulting Services

Section No. 7

Bill No. 7

Ceilings, Partitions & Access Flooring

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SCIENCE AND LIFE SCIENCE LABORATORY

Bill No. 7

Ceilings, Partitions & Access Flooring

Zethu Consulting Services

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	<u>BILL NO. 8</u>			
	<u>IRONMONGERY</u>			
	The Tenderer is referred to the relevant Clauses in the separate document "Model Preambles for Trades" (2008 Edition).			
	<u>IRONMONGERY FIXED TO DOORS, ETC.</u>			
	<u>LOCKS:</u>			
1	75mm Four lever security lockset with satin chrome furniture.	No	17	
	<u>DOOR CLOSERS</u>			
	<u>Dorma:</u>			
2	TS 68 door closer with parallel arm, bracket fixed to metal.	No	2	
	<u>NUMERAL AND NAMEPLATES, ETC.</u>			
	<u>Clear perspex name plate reverse engraved and enamelled in white lettering 25mm high to suit, twice countersunk holed for and tapscrewed to steel door frames or gate framing with chromium plated dome-headed selftapping screws:</u>			
3	Ditto, but with letters "EQUIPMENT STORE".	No	1	
4	Ditto, but with letters "CHEMICAL STORE".	No	1	
5	Ditto, but with letters "STORE ROOM".	No	1	
6	Ditto, but with letters "TEACHER'S WORK ROOM".	No	1	
	Carried to Collection		R	
	Section No. 7 SCIENCE AND LIFE SCIENCE LABORATORY Bill No. 8 Ironmongery Zethu Consulting Services			

Indicator plates countersunk holed for and screwed to door or brickwork with chromium plated dome-headed screws:

7	190 x 190 x 3mm Thick white perspex international FB2 sign plate with red fire extinguisher symbol plugged to brickwork.	No	5
8	75 x 150mm High aluminium toilet sign with MALE,DISABLED and/or FEMALE figure screwed to door.	No	7

SUNDRIES

9	Rubber tipped coathook.	No	8
10	38mm Rubber stop plugged and srewed to wall or floor.	No	23
11	Nickel plated steel leaf spring door holder with rubber door stop plugged and screwed to floor.	No	6
12	19mm Stainless steel chromium plated towel rail, 600mm long, with end brackets plugged to plastered or tiled wall.	No	8
13	3 x 25mm Brass dividing strip between different floor finishes.	m	35

PINNING BOARDS, WRITING BOARDS, PROJECTION SCREENS, ETC.

Carpet pinning boards in aluminium frame with round plastic corners, pen tray and fixing component all fixed according to manufacturer's instruction.

14	Pinning board size 2400 x 1200mm high plugged.	No	2
15	Chalk board size overall 1140mm high x 3600mm wide consisting of 1 x chalkboard 1800mm wide, 2 x chalkboard 900mm wide, 2 x swing type chalkboard 900mm wide.	No	2

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<u>White board marker board surface wall mounted complete with integrated pen tray according to manufacturers instruction:</u>			
16	White board size 2 x 2400 x 1140mm high.	No	1
<u>Standard wall mounted white built in type medicine cabinet complete with mirrors on doors, shelves, etc., all as approved and to manufacturer's instruction:</u>			
17	Medicine cabinet size 380mm wide x 610mm high.	No	1
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Ironmongery

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SCIENCE AND LIFE SCIENCE LABORATORY

Bill No. 8

Ironmongery

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Item No		Quantity	Rate	Amount
	<u>SECTION 7</u>			
	<u>BILL NO. 9</u>			
	<u>METALWORK</u>			
	The Tenderer is referred to the relevant clauses in the separate document Model Preambles for Trades (2008 Edition).			
	<u>STEEL WINDOWS, DOORS, ETC.</u>			
	<u>Standard residential windows:</u>			
1	Window type E1, 533 x 654mm high with one opening light.	No	4	
2	Window type 14BH, 889 x 457mm high with one opening light.	No	4	
3	Window type 14BH, 889 x 1248mm high with one opening light	No	9	
	<u>PRESSED STEEL DOOR FRAMES</u>			
	<u>1,2mm Rebated frames suitable for half brick walls:</u>			
4	Frame for door 813 x 2032mm high.	No	2	
	<u>1,2mm Double rebated frames suitable for one brick walls:</u>			
5	Frame for door 813 x 2032mm high.	No	1	
6	Frame for double door 1 678 x 2 032mm high	No	2	
	<u>SECURITY GATES</u>			
	<u>Steel security gates:</u>			
7	Size 1678mm x 2082mm high, as per door schedule. (G07)	No	2	
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	Section No. 7 SCIENCE AND LIFE SCIENCE LABORATORY Bill No. 9 Metalworks Zethu Consulting Services			

8 Size 813mm x 2032mm high, as per door schedule.
 (G12)

No

3

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Bill No. 9

Metalworks

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Bill No. 9

Metalworks

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Item No		Quantity	Rate	Amount
	<u>SECTION 7</u>			
	<u>BILL NO. 10</u>			
	<u>PLASTERING</u>			
	The Tenderer is referred to the relevant Clauses in the separate document "Model Preambles for Trades" (2008 Edition).			
	<u>SCREEDS</u>			
1	22,5mm thick sand cement screed, finished with a steel float and prepared to receive vinyl tiles (elsewhere measured).	m2	403	
	<u>GRANOLITHIC</u>			
	<u>Untinted granolithic on concrete</u>			
2	35mm Thick on floors and walkways	m2	135	
	<u>INTERNAL PLASTER</u>			
	<u>One coat cement plaster steel trowelled on brickwork.</u>			
3	On walls.	m2	1,996	
4	On narrow widths.	m2	17	
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152 x 152 x 5mm Thick white glazed tiles fixed to plaster (elsewhere measured) with and approved tile adhesive to and pointed with white cement to:

7 Walls in splashbacks.

m2

20

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Bill No. 11
Tiling
Zethu Consulting Services

Section No. 7

Bill No. 11

Tiling

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Bill No. 11

Tiling

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Item No		Quantity	Rate	Amount
	<u>SECTION 7</u>			
	<u>BILL NO. 12</u>			
	<u>PLUMBING AND DRAINAGE</u>			
	<u>(PROVISIONAL)</u>			
	The Tenderer is referred to the relevant clauses in the separate document Model Preambles for Trades (2008 Edition).			
	<u>SANITARY PLUMBING</u>			
	<u>Unplasticised polyvinyl chloride (uPVC) pipes:</u>			
1	50mm Pipes fixed to walls, etc.	m	15	
2	110mm Pipes fixed to walls, etc.	m	10	
	<u>Extra over uPVC pipes for:</u>			
3	50mm BSP Adaptor.	No	2	
4	110mm Straight pan connector.	No	10	
5	50mm Bend.	No	4	
6	110mm Bend.	No	2	
7	110mm Junction.	No	3	
8	50mm Access bend.	No	6	
9	110mm Access bend.	No	5	
10	50mm Access junction.	No	2	
11	110mm Access junction.	No	4	
12	110mm Access reducing junction.	No	2	
13	110mm Access rodding eye.	No	2	
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	SCIENCE AND LIFE SCIENCE LABORATORY			
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	Plumbing and Drainage			
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14	110mm P-trap.	No	2		
15	110mm Two-way vent valve.	No	2		
	<u>Testing:</u>				
16	Allow for testing sanitary plumbing system.		Item		
	<u>WATER SUPPLIES</u>				
	<u>Internal water supplies:</u>				
	Prices for all piping laid in ground, inspection chambers, etc. shall include for excavations, keeping free of water, distributing surplus material on site (carting away has been separately measured) and backfilling in selected material (imported fill where required will be separately measured).				
	Holes, chases, etc., are deemed to be included in the descriptions of the pipework.				
	<u>Class O copper pipes:</u>				
17	15mm Pipes fixed to walls, etc.	m	7		
18	Ditto, but 22mm pipes.	m	4		
19	Ditto, but 28mm pipes.	m	5		
	<u>Extra over class O copper pipes for copper to copper capillary fittings:</u>				
20	15mm Pipe fittings.	No	16		
21	22mm Pipe fittings.	No	13		
22	28mm Pipe fittings.	No	7		
	<u>Extra over class O copper pipes for brass capillary fittings:</u>				
23	15mm Brass pipe fittings.	No	13		
24	22mm Brass pipe fittings.	No	6		
25	28mm Brass pipe fittings.	No	6		
	Carried to Collection			R	
	Section No. 7 SCIENCE AND LIFE SCIENCE LABORATORY Bill No. 12 Plumbing and Drainage Zethu Consulting Services				

	<u>Testing:</u>				
26	Allow for testing water supply system.		Item		
	<u>SANITARY FITTINGS AND GEYSERS</u>				
	<u>Supply and fix the following sanitary fittings, geysers and equipment together with loose ancillary fittings supplied therewith, including unloading, storing, unpacking, hoisting or lowering as required, fixing and building into position, cutting all mortices and chases as required for fixing and building in position, cutting, brackets, clamps, etc., and connecting up pipework and handing over in perfect working order at completion:</u>				
	<u>'Vaal':</u>				
27	"Hibiscus" Ref 7023 white vitreous china wall hung basin, size 510 x 405mm, with stopper to one taphole and fixed to wall.	No	10		
28	"Junior" Code 751358 WC suite comprising a white vitreous china pan with trap, matching 6 litre white cistern, Code 712035 complete with lid, fitments and a junior seat fixed to wall.	No	4		
29	"Afsan" Code 750100 WC suite comprising a white vitreous china pan with trap, matching Aquasave low level white cistern, Code 712035 complete with lid, fitments and white matching seat fixed to wall.	No	8		
30	"Protea Paraplegig" Code 750246 WC suite comprising a white vitreous china pan with trap, matching 9 litre white cistern, Code 710361 complete with lid, fitments and white matching seat fixed to wall.	No	2		
31	'Code 234500' white ceramic fireclay laboratory basinl, size 435 x 335 x 180mm deep, including 'Code 8790z0' acid resistant waste.	No	4		
	<u>'Franke' - grade 304 (18/10) polished stainless steel:</u>				
32	"Curveline Model CVN611" drop-on single end bowl sink, size 800 x 435mm, fixed to cupboard (cupboard by others) with securing clips and sealed with silicone adhesive along edges.	No	2		
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33	'Model ET 102' double washtrough, size 1030 x 440mm.	No	4		
34	'Model WB 001' wash hand basin, size 520 x 432mm, fixed to wall on one pair mild steel eagle brackets.	No	2		
35	'Model TU101' wall mounted curved back urinal, size 1220 x 290 x 780mm high, sound-deadened back, tiling keys, two inlets and one right hand outlet, complete with built-in automatic flushing tank and 15mm adjustable drip cock fixed to wall .	No	2		
36	415 x 315 x 275mm "Flatback" wall hung bowl urinal with spreader (flushing valve should be included)	No	4		
	<u>Precast concrete:</u>				
37	'Vanstone Product No 1411' precast concrete basin, size 1050 x 650 x 340mm high, complete on and including two pedestals.	No	1		
	<u>ELECTRIC WATER HEATERS</u>				
	<u>'Kwikot':</u>				
38	5 Litre 'Hydroboil' 2kw underbasin electrical water heater.	No	1		
	<u>TAPS, VALVES, ETC.</u>				
	<u>'Cobra-Watertech':</u>				
39	15mm "Cobra 108" brass hose bibtap with hose union.	No	4		
40	15mm 'Star 106-CP' bibtap.	No	16		
41	15mm Type '505-21 CP' elbow action pillartap.	No	2		
42	15mm 'Capstan CSS-115/044-CP' pillar tap.	No	4		
43	15mm Type '1090 Ball-o-flo' ballcock.	No	4		
44	Ditto, but 25mm ballcock.	No	2		
45	15mm Type 'P-832 CP' angle regulating valve.	No	10		
46	15mm Type '350F CP' flexible connection.	No	5		
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47	15mm Type '057 CP' cast brass extension piece.	No	5		
48	40mm Float valve.	No	5		
<u>WASTE UNIONS, TRAPS, ETC.</u>					
<u>'Marley':</u>					
49	32 x 40mm 'Flexitrap' butyl rubber deep seal 'P' or 'S' trap jointed to waste outlet fitting and to PVC pipe including coupling clamps, etc.	No	2		
50	40 x 40mm 'Flexitrap' butyl rubber deep seal 'P' or 'S' trap jointed to waste outlet fitting and to PVC pipe including coupling clamps, etc.	No	4		
51	Ditto, but combination trap.	No	2		
<u>'Cobra Watertech':</u>					
52	40mm Chromium plated '316CP' sink waste union complete with plug and chain.	No	2		
53	40mm 360 CP bottle trap	No	10		
54	32mm Chromium plated '303-CP' slotted basin waste union complete with plug only.	No	2		
<u>Floor drains, etc:</u>					
55	'Herbish HB 200 V (H) NW 100' stainless steel grade 304 floor drain with vertical bottom outlet size 240 x 240 x 210mm deep fitted and connected complete.	No	2		
<u>FIRE APPLIANCES, ETC.</u>					
<u>Fire hose reels, etc.:</u>					
56	"Everyway" hose reel complete with 30m plastic hose, chromium plated stopcock, shut-off nozzle and wall bracket	No	2		
57	4,5kg Dry chemical powder fire extinguisher fixed to wall with meranti backboard, size 520 x 100 x 22mm thick, plugged and screwed to wall complete with hook.	No	3		
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Section No. 7 SCIENCE AND LIFE SCIENCE LABORATORY Bill No. 12 Plumbing and Drainage Zethu Consulting Services					

Water Harvesting

58 5000 Litre jojo tank complete with lid including concrete
plinth as per engineers details

No

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Bill No. 12

Plumbing and Drainage

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SCIENCE AND LIFE SCIENCE LABORATORY

Bill No. 12

Plumbing and Drainage

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Item No		Quantity	Rate	Amount
<u>SECTION 7</u>				
<u>BILL NO. 13</u>				
<u>GLAZING</u>				
The Tenderer is referred to the relevant clauses in the separate document Model Preambles for Trades (2008 Edition).				
<u>GLAZING TO STEEL WITH PUTTY</u>				
<u>4mm Clear float glass:</u>				
1	Panes exceeding 0,1m ² and not exceeding 0,5m ² .	m2	55	
<u>4mm Opaque float glass:</u>				
2	Panes exceeding 0,1m ² and not exceeding 0,5m ² .	m2	4	
<u>TOPS, SHELVES, DOORS, MIRRORS, ETC.</u>				
<u>6mm 'GG' quality polished silvered float glass</u> <u>copper backed mirrors with polished edges holed</u> <u>for and fixed with round rose chromium plated</u> <u>mirror screws with rubber buffers to plugs in</u> <u>brickwork or concrete:</u>				
3	Mirror 450 x 600mm high with four screws.	No	2	
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	<u>SECTION 7</u>			
	<u>BILL NO. 14</u>			
	<u>PAINTWORK</u>			
	The Tenderer is referred to the relevant clauses in the separate document Model Preambles for Trades (2008 Edition).			
	<u>ON FLOATED PLASTER SURFACES</u>			
	<u>Prepare surfaces and remove all loose material, apply one coat alkaline resistant primer, one universal undercoat two coats eggshell enamel paint on:</u>			
1	Interior walls.	m2	1,060	
	<u>Prepare surfaces and remove all loose material, apply one coat alkaline resistant pure acrylic filler coat and two coats acrylic PVA paint on:</u>			
2	Interior walls.	m2	936	
	<u>ON METAL</u>			
	<u>Prepare, spot primer defects in pre-primed surfaces with red oxide primer and apply one coat synthetic metal primer, one universal undercoat and one finishing coat of high gloss enamel paint on:</u>			
3	Doors.	m2	68	
4	Windows (both sides measured).	m2	46	
5	Door frames.	m2	15	
6	Burglar gates.	m2	8	
7	Burglar bars to windows.	m2	12	
	<u>ON WOOD</u>			
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Prepare and apply two coats carbolineum on:

8	Roof timbers at eaves and verges.	m2	19
9	Wall plate.	m2	18

Stop, sand down, prepare and apply two coats polyurethane varnish on:

10	Exterior doors.	m2	8
11	Skirtings and quadrant bead, rails, etc., not exceeding 300 mm girth.	m	112

Prepare and apply one coat pink wood primer, stop and apply two finishing coats of non-drip semi-gloss polyurethane enamel on:

12	Interior doors.	m2	14
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ON FIBRE-CEMENT

Prepare and apply one coat zinc chromate to nail heads and H-spline strips, one universal undercoat, stop and apply two finishing coats of eggshell enamel on:

13	General surfaces of ceilings.	m2	56
14	Fascias, bargeboards, etc.	m2	54

PLASTERBOARD

Prepare, prime nail heads and strips with zinc chromate primer, one universal undercoat and two finishing coats of semi-gloss PVA on:

15	General surfaces of ceilings.	m2	210
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Paintwork
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Paintwork

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NUTRITION CENTRE
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Nature of ground:

The nature of the ground is assumed to be gravel, therefore earth, but possibly interspersed with soft rock.

Carting away of excavated material:

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

BULK EXCAVATION, FILLING, ETC.

Open face excavation in earth over flat site:

1	Open face excavation.	m3	86
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Extra over bulk excavation in earth for excavation in:

2	Soft rock.	m3	11
3	Hard rock.	m3	6

FILLING

Filling with approved material supplied and carted onto site by the Contractor, compacted to a density of at least 95% Mod. AASHTO maximum density:

4	Under surface beds	m3	86
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EXCAVATION OTHER THAN BULK

Excavation in earth not exceeding 2m deep:

5	Trenches for strip footings	m3	31
6	Holes	m3	5

CARTING AWAY

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Extra over all excavations for carting away:

7	Surplus material from excavation and/or stockpile on site to a dumping site to be allocated by the contractor.	m3	43
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Risk of collapse of excavations:

8	Sides of trenches not exceeding 1,5m deep.	m2	124
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9	Sides of bulk excavations not exceeding 1,5m deep.	m2	50
---	--	----	----

Keeping excavations free of water:

10	Keeping excavations free of all water other than subterranean water.		Item
----	--	--	------

Soil insecticide:

11	Under floors, etc. Including forming and poisoning shallow furrows against foundation walls etc., filling in furrows and ramming.	m2	124
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12	To bottoms and sides of trenches etc.	m2	187
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CONCRETE

(CPAP FORMULA WORK GROUP NO. 110)

REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES

25MPa/19mm concrete

13	Strip footings	m3	13
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High tensile steel reinforcement to structural concrete work:

14	10mm Diameter bars.	t	0.54
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15	8mm Diameter bars.	t	0.85
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Foundations
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BRICKWORK IN FOUNDATIONS

The Tenderer is referred to the relevant Clauses in the separate document Model Preambles for Trades (2008 Edition) and the Supplementary Preambles hereunder.

Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:

16	One brick walls	m2	36
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Brickwork reinforcement

17	150mm Wide reinforcement built in horizontally	m	280
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External face bricks (Prime Cost Amount R 4000.00/1000) pointed with flush horizontal and vertical joints

18	Extra over brickwork for face brickwork	m2	9
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19	Fair cutting at squint quoin or birdsmouth angle	m	9
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NUTRITION CENTRE

Bill No. 1

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

Formwork to sides of bases, pile caps, ground beams, etc will only be measured where it is prescribed by the engineer for design reasons.

Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in "Earthworks"

REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES

25 MPa/19mm Concrete:

1	Surface beds on waterproofing	m3	12
2	Slabs including beams and inverted beams	m3	2
3	Aprons cast in panels to falls	m3	5

Finishing top surfaces of concrete smooth with a wood float

4	Aprons to falls	m2	55
5	Forming 250mm wide segmental channel to falls in concrete including finishing smooth	m2	55

TEST BLOCKS

Test blocks:

6	Making and testing set of three 150 x 150 x 150mm concrete strength test cubes.	Sets	4.0
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FINISHING TOP SURFACE OF CONCRETE

Finishing top surfaces of concrete smooth with a steel trowel:

7	Surface beds, slabs, etc.	m2	124
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Section No. 8
NUTRITION CENTRE
Bill No. 2
Concrete, Formwork and Reinforcement
Zethu Consulting Services

ROUGH FORMWORK (DEGREE OF ACCURACY III) (CPAP Work Group No 111)

Rough Formwork to Sides:

8	Edges, risers, ends and reveals not exceeding 300mm high or wide.	m	71
9	Slabs propped up exceeding 1,5m and not exceeding 3,5m high	m2	8

MOVEMENT JOINTS, ETC.

Two layers of 375 micron dampproof course in slip joints between horizontal concrete and brick surfaces including cement mortar bed.:

10	Not exceeding 300mm wide.	m	143
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REINFORCEMENT (CPAP Work Group No 114) (MEASURED PROVISIONALLY)

Fabric reinforcement:

11	Type 193 fabric reinforcement in concrete surface beds, etc.	m2	125
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High tensile steel reinforcement to structural concrete work:

12	10mm Diameter bars.	t	1.15
13	8mm Diameter bars.	t	1.76

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Bill No. 2
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Bill No. 2

Concrete, Formwork and Reinforcement

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NUTRITION CENTRE

Bill No. 2

Concrete, Formwork and Reinforcement

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<u>BILL NO 3</u>			
<u>MASONRY</u>			
<u>SUPPLEMENTARY PREAMBLES</u>			
<u>For preambles see "Model Preambles for Trades" (2008 Edition) and Supplementary preambles as specified in the Trades</u>			
<u>SUPPLEMENTARY PREAMBLES</u>			
<u>BRICKWORK</u>			
<u>Sizes in descriptions</u>			
Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick			
<u>Hollow walls etc</u>			
Descriptions of hollow walls shall be deemed to include leaving every fifth perpend of the bottom course of the external skin open as a weep hole.			
Walls in two skins described as "bagged and sealed" shall be deemed to include having the outer face of the inner skin bagged with 1:6 cement and sand mixture and sealed with two coats "Brixal" bitumen emulsion waterproofing coating.			
<u>User note:</u>			
The above preamble generally applies for works in hot and humid coastal areas			
<u>Face bricks</u>			
Bricks shall be ordered timeously to obtain uniformity in size and colour			
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Pointing

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

BLOCKWORK

Concrete masonry units

Blocks are to be either solid or hollow modular dense concrete masonry units having a compressive strength of 7 MPa

Wall ties for blockwork

Wall ties shall be polypropylene "Permaties" complying with BS 76377. Ties for hollow walls shall be of sufficient length to allow not less than 75mm of each end to be built into the blockwork. Ties are to be spaced at intervals of not more than 1m in the horizontal direction and not more than 400mm staggered in the vertical direction except at openings, vertical joints or ends of walls where they are to be placed vertically above each other

Blockwork shall comply with SABS 0145 "Concrete Masonry Construction"

Blockwork

Surfaces to be plastered shall have joints raked out to a depth of at least 10mm to provide a key. Cavities of hollow walls shall be kept free of mortar droppings or other undesirable matter. Every second perpend of the bottom course of the external skin of hollow walls shall be left open as a weep hole

Standard complementary blocks

Descriptions of blockwork shall be deemed to include standard complementary blocks such as corner, three-quarter, half and quarter blocks required in the construction of corners, reveals, jambs, ends, etc to solid and hollow walls and for bonding as necessary

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DECORATIVE BLOCKS

Blocks shall be of approved manufacture, sound, well burnt or cured and uniform and true in size, shape and colour

SAMPLES

Samples of all masonry building units, except those for walls described as "load bearing", shall consist of a minimum of 6 units. Samples of building units to be used in walls described as "load bearing" shall consist of 30 units from every 30 000 units delivered to site

Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:

1	Half brick walls.	m2	21
2	Ditto, but in beamfilling.	m2	12
3	One brick walls.	m2	45
4	Ditto, but in firewall.	m2	12
5	One brick walls of two half brick skins.	m2	150
6	One brick walls of two half brick skins in gable walls.	m2	31
7	Piers.	m3	3

BRICKWORK SUNDRIES

8	Closing 120mm cavities of hollow walls horizontally with one course of brickwork.	m	171
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Brickwork reinforcement:

9	75mm Wide reinforcement built in horizontally.	m	188
10	150mm Wide reinforcement built in horizontally.	m	919

Prestressed fabricated precast lintels including necessary temporary supports:

11	110 x 70mm Lintels in lengths not exceeding 3m.	m	37
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12	110 x 70mm Lintels in lengths exceeding 3m and not exceeding 4.5m.	m	4		
13	Pair of 110 x 70mm Lintels in lengths not exceeding 3m.	m	12		
	<u>Turning pieces to lintels, etc:</u>				
14	150mm Wide turning piece to lintels etc.	m	33		
15	220mm Wide turning piece to lintels etc.	m	22		
	<u>Galvanised wire ties etc:</u>				
16	4mm Diameter roof tie 2m girth bent double with one end fixed to timber and other end built into brickwork.	No	76		
	<u>Air bricks etc:</u>				
17	229 x 152mm Terracota airbricks	No	6		
	<u>FACE BRICKWORK</u>				
	<u>Face bricks (Allow a P.C. Amount of R4 000.00 per 1 000 supplied and delivered to site) pointed with 6mm square recessed horizontal and vertical joints:</u>				
18	Extra over brickwork for face brickwork.	m2	322		
19	Extra over brickwork for facing 330 x 330mm piers.	m2	9		
20	Extra over brickwork for facing gable walls.	m2	31		
21	Extra over brickwork for facing beamfilling.	m2	12		
22	230mm Wide sill set sloping and slightly projecting.	m	22		
23	Face brick-on-edge header course lintel.	m	22		
24	Extra over brickwork for face brick-on-edge header course plinth.	m	80		
25	Cut face brick-on-edge header course lintel 110mm wide.	m	33		
26	Fair raking cutting.	m	35		
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FIBRE CEMENT WINDOW CILLS

**15mm Thick natural grey cills in single length
bedded in 4:1 sand cement mortar including metal
lugs, etc:**

27	140mm Wide cills set flat and slightly projecting.	m	22
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	<u>SECTION 8</u>			
	<u>BILL NO. 4</u>			
	<u>WATERPROOFING</u>			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>For preambles see "Model Preambles for Trades" (2008 Edition) and Supplementary preambles as specified in the Trades</u>			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Waterproofing</u>			
	Waterproofing of roofs, basements, etc shall be laid under a ten year guarantee. Waterproofing to roofs shall be laid to even falls to outlets etc with necessary ridges, hips and valleys. Descriptions of sheet or membrane waterproofing shall be deemed to include additional labour to turn-ups and turn-downs			
	<u>DAMPPROOFING OF WALLS AND FLOORS</u>			
	<u>One layer of 375 micron embossed polyethylene dampproof course (SANS 952-1985 type B)</u>			
1	In walls, under cills, etc.	m2	31	
	<u>One layer of 250 micron green polyethylene waterproof sheeting (SANS 952-1985 type C) sealed at laps with PVC self-adhesive tape:</u>			
2	Under surface beds.	m2	124	
	<u>JOINT SEALANTS, ETC.</u>			
	<u>Two-part grey polysulphide sealing compound including backing cord, bond breaker, primer,etc.</u>			
3	3 x 50mm In saw cut joints in floors.	m	37	
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4 15 x 10mm In isolation joints including raking out
isolation joint filler.

m

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Waterproofing

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	<u>SECTION 8</u>			
	<u>BILL NO 5</u>			
	<u>ROOF COVERINGS, ETC.</u>			
	<u>PREAMBLES</u>			
	<u>For preambles see "Model Preambles for Trades" (2008 Edition) and Supplementary preambles as specified in the Trades</u>			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>CORRUGATED METAL SHEETING AND ACCESSORIES</u>			
	<u>0,6mm IBR Colomate finished steel sheeting and accessories fixed to timber purlins (elsewhere):</u>			
1	Roof covering with pitch not exceeding 25 degrees.	m2	155	
	<u>0,6mm Colomet flashings:</u>			
2	Ridge capping to suit roof profile.	m	13	
3	Hip capping to suit roof profile.	m	7	
	<u>RAINWATER DISPOSAL</u>			
	<u>Seamless aluminium gutters.</u>			
4	100x 75mm Eaves gutters.	m	26	
5	Extra over gutter for stopped end.	No	8	
6	Extra over gutter for angle.	No	8	
7	Extra over 100 x 75mm eaves gutter for outlet for 75mm diameter pipe.	No	8	
8	75mm Diameter rainwater pipes.	m	22	
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Bill No. 5

Roof Covering

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Item No	Quantity	Rate	Amount
<u>SECTION 8</u>			
<u>BILL NO. 6</u>			
<u>CARPENTRY AND JOINERY</u>			
<u>PREAMBLES</u>			
<u>For preambles see "Model Preambles for Trades" (2008 Edition) and Supplementary preambles as specified in the Trades</u>			
<u>SUPPLEMENTARY PREAMBLES</u>			
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<u>Joinery:</u>			
Descriptions of frames shall be deemed to include frames, transomes, mullions, rails, etc			
Descriptions of hardwood joinery shall be deemed to include pelleting of bolt holes			
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Fixing

Items described as "nailed" shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete

PREFABRICATED ROOF TRUSSES, ETC.

Sawn softwood:

1	114 x 38mm Wall plates.	m	57
---	-------------------------	---	----

Prefabricated timber roof construction complete including purlins, runners, bracing hips, valleys, cleats, purlins, etc., supplied and fixed complete:

2	Trusses for rectangular shaped building, size overall 12.53 x 12.43m on plan (Nutrition)	No	1
---	--	----	---

EAVES, VERGES, ETC.

Medium density plain fibre-cement fascial and barge boards:

3	12 x 225mm Fascia and barge boards, including galvanised steel H-profile joiners, etc.	m	48
---	--	---	----

SKIRTINGS

Wrought meranti:

4	19 x 76mm Skirtings including 19mm quadrant bead, nailed.	m	143
---	---	---	-----

5	19 x 50mm Cornice laid flat.	m	156
---	------------------------------	---	-----

6	16 x 150mm dado rail.	m	75
---	-----------------------	---	----

FRAMED DOORS, ETC.

Wrought meranti doors hung to steel frames:

7	40mm Framed batten door 1 626 x 2032mm high of top rail and stiles, middle ledge and braces and bottom rail filled in with V-jointed one side boarding.	No	1
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SOLID LAMINATED FLUSH DOORS

40mm solid laminated flush doors with hardwood veneer and two concealed edges hung to steel frames:

8	40mm Door 813 x 2032mm high.	No	2
9	40mm Door 936 x 2032mm high.	No	3

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Carpentry and Joinery

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<u>SECTION 8</u>			
<u>BILL NO. 7</u>			
<u>CEILINGS, PARTITIONS AND ACCESS FLOORING</u>			
<u>PREAMBLES</u>			
<u>For preambles see "Model Preambles for Trades" (2008 Edition) and Supplementary preambles as specified in the Trades</u>			
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<u>Descriptions:</u>			
Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins or shot pinned to brickwork or concrete			
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Ceilings, Partitions and Access Flooring			
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Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres, and where described as "bolted" the bolts have been given elsewhere

Electrical light fittings, diffusers, panels, etc generally are "lay in" units of the same dimensions as the suspension grid described and allowance must be made accordingly for their support inclusive of any flexibility inseting out that may be required (ceiling panels have not been deducted and pricing is to take cognisance thereof)

NAILED UP AND SCREW UP CEILINGS

6,4mm Gypsum plasterboards with H-profile galvanised steel jointing strips:

- | | | | |
|---|---|----|-----|
| 1 | Ceilings including 38 x 38mm sawn softwood brandering at 450mm centres with cross brandering at 450mm centres and at joints, ends of sheets and at light fittings, etc. | m2 | 124 |
| 2 | Extra over ceiling for 600 x 600mm hinged trap door of wrought softwood rebated framing with one sawn softwood cross brander covered with ceiling board and fitted flush in opening, including necessary trimmers all around. | No | 3 |

INSULATION

Non-combustible lightweight fibreglass insulation blanket:

- | | | | |
|---|--|----|-----|
| 3 | 100mm Insulation closely fitted between tie beams and laid loose on top of brandering. | m2 | 124 |
|---|--|----|-----|

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Item No	Quantity	Rate	Amount
<u>SECTION 8</u>			
<u>BILL NO. 8</u>			
<u>IRONMONGERY</u>			
<u>PREAMBLES</u>			
<u>For preambles see "Model Preambles for Trades" (2008 Edition) and Supplementary preambles as specified in the Trades</u>			
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<u>Finishes to ironmongery</u>			
Where applicable finishes to ironmongery are indicated by suffixes in accordance with the following list: BS Satin bronze lacquered CH Chromium plated SC Satin chromium plated SE Silver enamelled GE Grey enamelled AS Anodised silver AB Anodised bronze AG Anodised gold ABL Anodised black PB Polished brass PL Polished and lacquered PT Epoxy coated SD Sanded			
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<u>"Union"</u>					
<u>IRONMONGERY FIXED TO DOORS, ETC.</u>					
<u>Bolts and latches:</u>					
1	WC mortice indicator bolt with emergency release.	No	4		
<u>LOCKS:</u>					
2	75mm Four lever security lockset with satin chrome furniture.	No	8		
<u>DOOR CLOSERS</u>					
<u>Dorma:</u>					
3	TS 68 door closer with parallel arm, bracket fixed to metal.	No	5		
<u>NUMERAL AND NAMEPLATES, ETC.</u>					
<u>Clear perspex name plate reverse engraved and enamelled in white lettering 25mm high to suit, twice countersunk holed for and tapscrewed to steel door frames or gate framing with chromium plated dome-headed selftapping screws:</u>					
4	3mm Thick x 32mm high plate with letters "KITCHEN".	No	1		
5	Ditto, but with letters "STATIONARY STORE".	No	1		
6	Ditto, but with letters "EQUIPMENT STORE".	No	1		
7	Ditto, but with letters "STORE ROOM".	No	1		
<u>Indicator plates countersunk holed for and screwed to door or brickwork with chromium plated dome-headed screws:</u>					
8	190 x 190 x 3mm Thick white perspex international FB2 sign plate with red fire extinguisher symbol plugged to brickwork.	No	1		
9	75 x 150mm High aluminium toilet sign with MALE,DISABLED and/or FEMALE figure screwed to door.	No	2		
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SUNDRIES

10	Rubber tipped coathook.	No	4
11	38mm Rubber stop plugged and screwed to wall or floor.	No	5
12	Nickel plated steel leaf spring door holder with rubber door stop plugged and screwed to floor.	No	5
13	19mm Stainless steel chromium plated towel rail, 600mm long, with end brackets plugged to plastered or tiled wall.	No	4
14	3 x 25mm Brass dividing strip between different floor finishes.	m	6

BATHROOM FITTINGS

Toilet roll holders

15	Lockable Stainless steel toilet roll holder plugged to wall.	No	4
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Soap dispensers:

16	Wall mounted soap dispenser plugged.	No	4
----	--------------------------------------	----	---

PINNING BOARDS, WRITING BOARDS, PROJECTION SCREENS, ETC.

Carpet pinning boards in aluminium frame with round plastic corners, pen tray and fixing component all fixed according to manufacturer's instruction.

17	Pinning board size 2400 x 1200mm high plugged.	No	2
18	Ditto, but size 4200 x 1200mm high plugged.	No	2

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Ironmongery

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<u>BILL NO. 9</u>			
<u>METALWORK</u>			
<u>PREAMBLES</u>			
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<u>Descriptions</u>			
Descriptions of bolts shall be deemed to include nuts and washers			
Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete			
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Metalwork described as "holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described

STEEL WINDOWS, DOORS, ETC.

Standard residential windows with steel burglar bars to fixed lights and opening sashes:

1	Window type 14BH, 889 x 854mm high with one opening light.	No	10
2	Window type 14BH, 889 x 1248mm high with one opening light	No	4
3	Window type D2F, 1022 x 1245mm high with two opening and one fixed light.	No	10

Standard residential windows with steel burglar bars to fixed lights and opening sashes:

PRESSED STEEL DOOR FRAMES

1,2mm Rebated frames suitable for half brick walls:

4	Frame for door 813 x 2032mm high.	No	5
---	-----------------------------------	----	---

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

5	Frame for double door 1255 x 2032mm high.	No	1
---	---	----	---

STEEL ROLLER SHUTTERS, ETC.

Galvanised steel roller shutters, guides, canopy cover(s), etc., fixed to brick jambs and concrete lintel over:

6	Between walls push-up roller shutter for 1510 x 990mm high opening with 75 x 0,8mm thick slats, 75mm wide side guides, ratchet for spring winder, neoprene weather strip to bottom edge and two barrel bolts and with pressed metal canopy cover.	No	1
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7	Between walls push-up roller shutter for 3195 x 990mm high opening, with 75 x 0,8mm thick slats, 75mm wide side guides, ratchet for spring winder, neoprene weather strip to bottom edge and two barrel bolts and with pressed metal canopy cover.	No	4
<u>STEEL STRONGROOM DOORS, VENTILATORS, ETC.</u>			
<u>Steel Louvres</u>			
8	Steel louvre unit according to NTY	No	2
<u>SECURITY GATES</u>			
<u>Steel security gates:</u>			
9	Size 925mm x 1800mm high, as per door schedule. (G12)	No	2

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Metalworks

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	<u>BILL NO. 10</u>			
	<u>PLASTERING</u>			
	<u>PREAMBLES</u>			
	<u>For preambles see "Model Preambles for Trades" (2008 Edition) and Supplementary preambles as specified in the Trades</u>			
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	<u>SCREEDS</u>			
1	22,5mm thick sand cement screed, finished with a steel float and prepared to receive vinyl tiles (elsewhere measured).	m2	101	
2	Ditto, but 30mm Thick.	m2	25	
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<u>SECTION 8</u>			
<u>BILL NO. 11</u>			
<u>TILING</u>			
<u>PREAMBLES</u>			
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<u>Descriptions</u>			
Unless described as "fixed with adhesive to plaster (plaster elsewhere)" descriptions of tiling on brick or concrete walls, columns, etc shall be deemed to include 1:4 cement plaster backing and descriptions of tiling on concrete floors etc shall be deemed to include 1:3 plaster bedding			
<u>WALL TILING</u>			
Carried to Collection		R	
Section No. 8 NUTRITION CENTRE Bill No. 11 Tiling Zethu Consulting Services			

200 x 200 x 6mm "Cercisa Tinte Unite" White glazed ceramic tiles fixed with adhesive to plaster (plaster elsewhere)

1	On walls	m2	240
2	On narrow widths	m2	15
3	Fair exposed cutting and fitting around pipe not exceeding 110mm internal diameter	No	10

FLOOR TILING

300 x 300mm x 8mm Ceramic tiles (PC Amount R150.00/m2) fixed with adhesive to bedding (bedding elsewhere) and flush pointed with tinted waterproof jointing compound

4	On floors and landings	m2	173
5	Skirting 75mm high	m	430

WALL TILING

152 x 152 x 5mm Thick white glazed tiles fixed to plaster (elsewhere measured) with and approved tile adhesive to and pointed with white cement to:

6	Walls in splashbacks.	m2	20
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Tiling
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Bill No. 11

Tiling

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Tiling

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Item No	Quantity	Rate	Amount
<u>SECTION 8</u>			
<u>BILL NO. 12</u>			
<u>PLUMBING AND DRAINAGE</u>			
<u>(PROVISIONAL)</u>			
<u>PREAMBLES</u>			
<u>For preambles see "Model Preambles for Trades" (2008 Edition) and Supplementary preambles as specified in the Trades</u>			
<u>SUPPLEMENTARY PREAMBLES</u>			
Supplementary preambles are incorporated in this schedule of quantities to satisfy the requirements of this project. Such supplementary preambles shall take precedence over the provisions of the said Model Preambles			
The contractor's prices for all items throughout this schedule of quantities must take account of and include for all of the obligations, requirements and specifications given in the said Model Preambles and in any supplementary preambles			
This bill is measured provisionally and will be subject to re-measure when the work or a portion thereof is complete. It is expected of the contractor to be able to demonstrate how he derived at the quantities and in cases where it is not possible to measure the work on completion due to cover up; the contractor must provide signed off site records proving such claims			
<u>uPVC pipes and fittings:</u>			
Soil, waste and vent pipes and fittings shall be solvent weld jointed			
Carried to Collection		R	
Section No. 8 NUTRITION CENTRE Bill No. 12 Plumbing and Drainage Zethu Consulting Services			

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

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

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

Waste unions

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

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SANITARY PLUMBING

Unplasticised polyvinyl chloride (uPVC) pipes:

1	50mm Pipes fixed to walls, etc.	m	24
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2	110mm Pipes fixed to walls, etc.	m	24
---	----------------------------------	---	----

Extra over uPVC pipes for:

3	50mm BSP Adaptor.	No	3
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4	110mm Straight pan connector.	No	2
---	-------------------------------	----	---

5	50mm Bend.	No	4
---	------------	----	---

6	110mm Bend.	No	2
---	-------------	----	---

7	110mm Junction.	No	3
---	-----------------	----	---

8	50mm Access bend.	No	4
---	-------------------	----	---

9	110mm Access bend.	No	3
---	--------------------	----	---

10	50mm Access junction.	No	3
----	-----------------------	----	---

11	110mm Access junction.	No	3
----	------------------------	----	---

12	110mm Access reducing junction.	No	2
----	---------------------------------	----	---

Testing:

13	Allow for testing sanitary plumbing system.		Item
----	---	--	------

WATER SUPPLIES

Internal water supplies:

Prices for all piping laid in ground, inspection chambers, etc. shall include for excavations, keeping free of water, distributing surplus material on site (carting away has been separately measured) and backfilling in selected material (imported fill where required will be separately measured).

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Holes, chases, etc., are deemed to be included in the descriptions of the pipework.

Class O copper pipes:

14	15mm Pipes fixed to walls, etc.	m	11
15	Ditto, but 22mm pipes.	m	9
16	Ditto, but 28mm pipes.	m	2

Extra over class O copper pipes for copper to copper capillary fittings:

17	15mm Pipe fittings.	No	10
18	22mm Pipe fittings.	No	11
19	28mm Pipe fittings.	No	5

Extra over class O copper pipes for brass capillary fittings:

20	15mm Brass pipe fittings.	No	9
21	22mm Brass pipe fittings.	No	3
22	28mm Brass pipe fittings.	No	3

Testing:

23	Allow for testing water supply system.	Item	
----	--	------	--

SANITARY FITTINGS AND GEYSERS

Supply and fix the following sanitary fittings, geysers and equipment together with loose ancillary fittings supplied therewith, including unloading, storing, unpacking, hoisting or lowering as required, fixing and building into position, cutting all mortices and chases as required for fixing and building in position, cutting, brackets, clamps, etc., and connecting up pipework and handing over in perfect working order at completion:

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'Vaal':

24	"Hibiscus" Ref 7023 white vitreous china wall hung basin, size 510 x 405mm, with stopper to one taphole and fixed to wall.	No	2
25	"Afsan" Code 750100 WC suite comprising a white vitreous china pan with trap, matching Aquasave low level white cistern, Code 712035 complete with lid, fitments and white matching seat fixed to wall.	No	2
26	"Protea Paraplegig" Code 750246 WC suite comprising a white vitreous china pan with trap, matching 9 litre white cistern, Code 710361 complete with lid, fitments and white matching seat fixed to wall.	No	1

'Franke' - grade 304 (18/10) polished stainless steel:

27	"Curveline Model CVN611" drop-on single end bowl sink, size 800 x 435mm, fixed to cupboard (cupboard by others) with securing clips and sealed with silicone adhesive along edges.	No	2
28	'Model ET 102' double washtrough, size 1030 x 440mm.	No	2
29	'Model WB 001' wash hand basin, size 520 x 432mm, fixed to wall on one pair mild steel eagle brackets.	No	2
30	415 x 315 x 275mm "Flatback" wall hung bowl urinal with spreader (flushing valve should be included)	No	1

Precast concrete:

31	'Vanstone Product No 1411' precast concrete basin, size 1050 x 650 x 340mm high, complete on and including two pedestals.	No	2
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ELECTRIC WATER HEATERS

'Kwikot':

32	5 Litre 'Hydroboil' 2kw underbasin electrical water heater.	No	1
33	Drip tray	No	1

TAPS, VALVES, ETC.

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TANKS

JOJO tanks

34	5000 Litre jojo tank complete with lid including concrete plinth as per engineers details	No	2
<u>'Cobra-Watertech':</u>			
35	15mm "Cobra 108" brass hose bibtap with hose union.	No	3
36	15mm 'Star 106-CP' bibtap.	No	4
37	15mm 'Star 111-CP' raised nose pillartap.	No	4
38	15mm Type '505-21 CP' elbow action pillartap.	No	4
39	15mm 'Capstan CSS-115/044-CP' pillar tap.	No	4
40	15mm Type '1090 Ball-o-flo' ballcock.	No	2
41	Ditto, but 20mm ballcock.	No	7
42	Ditto, but 25mm ballcock.	No	1
43	15mm Type 'P-832 CP' angle regulating valve.	No	3
44	15mm Type '350F CP' flexible connection.	No	40
45	40mm Float valve.	No	14

WASTE UNIONS, TRAPS, ETC.

'Marley':

46	32 x 40mm 'Flexitrap' butyl rubber deep seal 'P' or 'S' trap jointed to waste outlet fitting and to PVC pipe including coupling clamps, etc.	No	3
47	40 x 40mm 'Flexitrap' butyl rubber deep seal 'P' or 'S' trap jointed to waste outlet fitting and to PVC pipe including coupling clamps, etc.	No	4
48	Ditto, but combination trap.	No	2

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'Cobra Watertech':

49	40mm Chromium plated '316CP' sink waste union complete with plug and chain.	No	5
50	40mm 360 CP bottle trap	No	2
51	32mm Chromium plated '303-CP' slotted basin waste union complete with plug only.	No	36

Floor drains, etc:

52	'Herbish HB 200 V (H) NW 100' stainless steel grade 304 floor drain with vertical bottom outlet size 240 x 240 x 210mm deep fitted and connected complete.	No	3
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FIRE APPLIANCES, ETC.

Fire hose reels, etc.:

53	"Everyway" hose reel complete with 30m plastic hose, chromium plated stopcock, shut-off nozzle and wall bracket	No	1
54	4,5kg Dry chemical powder fire extinguisher fixed to wall with meranti backboard, size 520 x 100 x 22mm thick, plugged and screwed to wall complete with hook.	No	2

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Plumbing and Drainage

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Item No		Quantity	Rate	Amount
	<u>SECTION 8</u>			
	<u>BILL NO. 13</u>			
	<u>GLAZING</u>			
	<u>PREAMBLES</u>			
	<u>For preambles see "Model Preambles for Trades" (2008 Edition) and Supplementary preambles as specified in the Trades</u>			
	<u>SUPPLEMENTARY PREAMBLES</u>			
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	<u>GLAZING TO STEEL WITH PUTTY</u>			
	<u>4mm Clear float glass:</u>			
1	Panes exceeding 0,1m ² and not exceeding 0,5m ² .	m2	25	
	<u>4mm Opaque float glass:</u>			
2	Panes exceeding 0,1m ² and not exceeding 0,5m ² .	m2	7	
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	Glazing			
	Zethu Consulting Services			

TOPS, SHELVES, DOORS, MIRRORS, ETC.

**6mm 'GG' quality polished silvered float glass
copper backed mirrors with polished edges holed
for and fixed with round rose chromium plated
mirrror screws with rubber buffers to plugs in
brickwork or concrete:**

3 Mirror 450 x 600mm high with four screws.

No

2

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Glazing

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NUTRITION CENTRE

Bill No. 13

Glazing

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Item No		Quantity	Rate	Amount
	<u>SECTION 8</u>			
	<u>BILL NO. 14</u>			
	<u>PAINTWORK</u>			
	<u>For preambles see "Model Preambles for Trades" (2008 Edition) and Supplementary preambles as specified in the Trades</u>			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	The contractor's prices for all items throughout this schedule of quantities must take account of and include for all of the obligations, requirements and specifications given in the said Model Preambles and in any supplementary preambles			
	<u>PREPARATORY WORK TO EXISTING WORK</u>			
	This bill is measured provisionally and will be subject to re-measure when the work or a portion thereof is complete. It is expected of the contractor to be able to demonstrate how he derived at the quantities and in cases where it is not possible to measure the work on completion due to cover up; the contractor must provide signed off site records proving such claims			
	<u>Previously painted plastered surfaces</u>			
	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 filler and finished smooth			
	<u>Previously painted wood surfaces</u>			
	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			
	Carried to Collection		R	
	Section No. 8 NUTRITION CENTRE Bill No. 14 Paintwork Zethu Consulting Services			

Previously painted metal surfaces

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

Supplementary preambles are incorporated in this schedule of quantities to satisfy the requirements of this project. Such supplementary preambles shall take precedence over the provisions of the said Model Preambles

ON CONCRETE

Prepare substrate and apply "Prostruct 639" primer or similar approved and two coats "Prostruct 623" high build epoxy enamel or similar approved (colour to architects approval) all in accordance with the manufacturer's instructions:

1	On floors.	m2	61
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ON FLOATED PLASTER SURFACES

Prepare surfaces and remove all loose material, apply one coat alkaline resistant pure acrylic filler coat and two coats acrylic PVA paint on:

2	Interior walls.	m2	529
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ON METAL

Prepare, spot primer defects in pre-primed surfaces with red oxide primer and apply one coat synthetic metal primer, one universal undercoat and one finishing coat of high gloss enamel paint on:

3	Windows (both sides measured).	m2	47
4	Door frames.	m2	9
5	Burglar gates.	m2	23
6	Burglar bars to windows.	m2	31
7	Structural steel beams and columns.	m2	13

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Section No. 8
NUTRITION CENTRE
Bill No. 14
Paintwork
Zethu Consulting Services

ON WOOD

Prepare and apply two coats carbolineum on:

8	Roof timbers at eaves and verges.	m2	12
9	Wall plate.	m2	14

Stop, sand down, prepare and apply two coats polyurethane varnish on:

10	Exterior doors.	m2	16
11	Skirtings and quadrant bead, rails, etc., not exceeding 300 mm girth.	m	130

Prepare and apply one coat pink wood primer, stop and apply two finishing coats of non-drip semi-gloss polyurethane enamel on:

12	Interior doors.	m2	11
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ON FIBRE-CEMENT

Prepare and apply one coat zinc chromate to nail heads and H-spline strips, one universal undercoat, stop and apply two finishing coats of eggshell enamel on:

13	General surfaces of ceilings.	m2	24
14	Fascias, bargeboards, etc.	m2	42

PLASTERBOARD

Prepare, prime nail heads and strips with zinc chromate primer, one universal undercoat and two finishing coats of semi-gloss PVA on:

15	General surfaces of ceilings.	m2	218
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Bill No. 14

Paintwork

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NUTRITION CENTRE

Bill No. 14

Paintwork

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Item No		Quantity	Rate	Amount
	<u>SECTION 9</u>			
	<u>BILL NO. 1</u>			
	<u>EARTHWORKS (PROVISIONAL)</u>			
	NOTE :			
	Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 104 for CPAP formula purposes			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Nature of ground</u>			
	The nature of the ground is assumed to be loose sandy material, therefore "earth", but possibly interspersed with "hard rock" or "soft rock".			
	<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>EARTHWORKS</u>			
	<u>Site clearance</u>			
1	Stripping average 150mm thick layer of top soil and stockpiling	m2	117	
	<u>Excavation in earth not exceeding 2m deep</u>			
2	Trenches	m3	43	
3	Pit	m3	1	
	<u>Extra over trench and hole excavations in earth for excavation in</u>			
4	Soft rock	m3	9	
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	Section No. 9 MULTIPURPOSE CENTRE Bill No. 1 Earthworks Zethu Consulting Services			

5	Hard rock	m3	4	
	<u>Risk of collapse of excavations</u>			
6	Sides of trench and hole excavations not exceeding 1,5m deep	m2	144	
	<u>Extra over all excavations for carting away</u>			
7	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	50	
	<u>Keeping excavations free of water</u>			
8	Keeping excavations free of water		Item	
	<u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO density in 150mm layers</u>			
9	Trenches	m3	25	
	<u>Earth filling supplied by the contractor, compacted to 93% Mod AASHTO density with G7 material in accordance with SABS 1200DM in 150mm layers</u>			
10	Under surface beds	m3	64	
	<u>Compaction of surfaces</u>			
11	Levelling and compaction of bottom of trench excavation in foundations, etc including scarifying for a depth of 150mm, breaking down oversize material and adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	51	
12	Levelling and compaction of ground surface under surface beds, Aprons, etc including scarifying for a depth of 150mm, breaking down oversize material and adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	214	
	<u>Prescribed density tests on filling</u>			
13	"Modified AASHTO Density" test	No	10	
	<u>SOIL POISONING</u>			
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Section No. 9 MULTIPURPOSE CENTRE Bill No. 1 Earthworks Zethu Consulting Services				

Soil insecticide

14	Under floors, Aprons etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m2	79
15	To bottoms and sides of trenches etc	m2	22

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MULTIPURPOSE CENTRE
Bill No. 1
Earthworks
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Section No. 9

Bill No. 1

Earthworks

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MULTIPURPOSE CENTRE

Bill No. 1

Earthworks

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Item No		Quantity	Rate	Amount
	<u>SECTION 9</u>			
	<u>BILL NO. 2</u>			
	<u>CONCRETE, FORMWORK AND REINFORCEMENT</u>			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	For preambles see "Specifications of materials and methods to			
	be used - PW 371"			
	<u>UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u>			
	<u>15MPa/12mm concrete</u>			
1	50mm Blinding bed under Strip footings	m3	3	
	<u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u>			
	<u>25Mpa/19mm Concrete</u>			
2	Strip footings	m3	12	
3	Surface bed including thickening	m3	15	
4	Ramp	m3	1	
5	Steps	m3	1	
6	Aprons cast in panels including thickening	m3	8	
	<u>CONCRETE SUNDRIES</u>			
	<u>Finishing top surfaces of concrete smooth with a wood float</u>			
7	Suface beds, Apron, slabs, etc.	m2	72	
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	Section No. 9			
	MULTIPURPOSE CENTRE			
	Bill No. 2			
	Concrete, Formwork & Reinforcement			
	Zethu Consulting Services			

TEST CUBES

- 8 Allow for preparing a set of three test cubes each size 150x150x150mm, sending them to an approved testing laboratory for testing and paying all charges in connection therewith.

No

4

FORMWORK

Rough formwork to sides:

- 9 Edges, risers, ends and reveals not exceeding 300mm high or wide

m

6

MOVEMENT JOINTS ETC

Expansion joints between vertical concrete and brick surfaces

- 10 12mm Jointex expanded board not exceeding 300mm high

m

207

Saw cut joints

- 11 5 x 20mm Saw cut joints in top of concrete

m

52

REINFORCEMENT

High tensile steel reinforcement to structural concrete work

- 12 8mm to 16mm Diameter bars in all class of concrete

t

1.00

Mesh Reinforcement (measure nett)

- 13 Mesh ref. No. 193 fabric reinforcement fixed horizontal in surface beds

m2

72

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Section No. 9
MULTIPURPOSE CENTRE
Bill No. 2
Concrete, Formwork & Reinforcement
Zethu Consulting Services

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Bill No. 2

Concrete, Formwork & Reinforcement

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MULTIPURPOSE CENTRE

Bill No. 2

Concrete, Formwork & Reinforcement

Zethu Consulting Services

Item No	Quantity	Rate	Amount
<u>SECTION 9</u>			
<u>BILL NO. 3</u>			
<u>MASONRY</u>			
<u>SUPPLEMENTARY PREAMBLES</u>			
For preambles see "Specifications of materials and methods to be used - PW 371"			
<u>BRICKWORK</u>			
Sizes in descriptions			
Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick			
Hollow walls etc			
Descriptions of hollow walls shall be deemed to include leaving every fifth perpend of the bottom course of the external skin open as a weep hole.			
Walls in two skins described as "bagged and sealed" shall be deemed to include having the outer face of the inner skin bagged with 1:6 cement and sand mixture and sealed with two coats "Brixal" bitumen emulsion waterproofing coating.			
User note: The above preamble generally applies for works in hot and humid coastal areas			
Face bricks			
Bricks shall be ordered timeously to obtain uniformity in size and colour			
<u>Pointing</u>			
Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc			
Carried to Collection		R	
Section No. 9 MULTIPURPOSE CENTRE Bill No. 3 Masonry Zethu Consulting Services			

SAMPLES

Samples of all masonry building units, except those for walls units. Samples of building units to be used in walls described as "load bearing" shall consist of 30 units from every 30 000 units delivered to site described as "load bearing", shall consist of a minimum of 6

FOUNDATIONS

Brickwork of NFX bricks (14 MPa nominal compressive strength) in class I mortar

1	One brick walls	m2	74
---	-----------------	----	----

FACE BRICKWORK

Face bricks (purchase price of R 4000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints

2	Extra over brickwork for face brickwork in foundation	m2	30
---	---	----	----

3	Face brick on edge	m	27
---	--------------------	---	----

BRICKWORK SUNDRIES

Brick reinforcement

4	150mm Wide reinforcement built in horizontally	m	333
---	--	---	-----

SUPERSTRUCTURE

Brickwork of NFX bricks (14 MPa nominal compressive strength) in class I mortar

5	Half brick wall in beamfilling	m2	37
---	--------------------------------	----	----

6	One brick walls	m2	81
---	-----------------	----	----

FACE BRICKWORK

Face bricks (purchase price of R 4000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints

7	Extra over brickwork for face brickwork	m2	87
---	---	----	----

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MULTIPURPOSE CENTRE
Bill No. 3
Masonry
Zethu Consulting Services

8	One brickwork face brick walls pointed both sides	m2	67	
	<u>Brick-on-edge header course coping, sills, etc. of face bricks (purchase price of R 3 500.00/1000 delivered to site excluding VAT) pointed with recessed joints on all exposed faces</u>			
9	Extra over brickwork for brick-on-edge header course lintels pointed on two sides	m	27	
10	Face brick-on-edge window cill 150mm wide pointed on two side and on top and set slightly sloping and protruding.	m	22	
11	Face brick-on-edge window cill 110mm wide pointed on side and top and set flat	m	13	
	<u>BRICKWORK SUNDRIES</u>			
	<u>Brick reinforcement</u>			
12	75mm Wide reinforcement built in horizontally	m	148	
13	150mm Wide reinforcement built in horizontally	m	592	
	<u>Turning pieces</u>			
14	220mm Wide turning piece to lintel etc	m	27	
	<u>Ventillation bricks</u>			
15	Set of two 22 x 155mm high terra cotta clay vermin proof air bricks including making good reveals and gauze	No	16	
	Carried to Collection			R
Section No. 9 MULTIPURPOSE CENTRE Bill No. 3 Masonry Zethu Consulting Services				

Section No. 9

Bill No. 3

Masonry

COLLECTION

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MULTIPURPOSE CENTRE
Bill No. 3
Masonry
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	<u>SECTION 9</u>			
	<u>BILL NO. 4</u>			
	<u>WATERPROOFING</u>			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<u>DAMP-PROOFING OF WALLS AND FLOORS</u>			
	<u>One layer 375mm micron embossed damp proof course</u>			
1	In walls	m2	10	
	<u>One layer of 250 micron waterproof sheeting and sealed at overlaps with pressure sensitive tape</u>			
2	Under surface beds	m2	72	
	<u>FLOOR AND WALLS SEALERS</u>			
	<u>"Secomastic" non setting mastic sealant applied cold with a hand pressure caulking gun and leave perfectly watertight:</u>			
3	Around steel windows and door frames.	m	75	
	<u>Polyurethane Sealant</u>			
4	10 x 10mm sealant on top of expansion joint and in saw cut joints	m	233	
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	Section No. 9 MULTIPURPOSE CENTRE Bill No. 4 Waterproofing Zethu Consulting Services			

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<u>SECTION 9</u>				
<u>BILL NO. 5</u>				
<u>ROOF COVERINGS</u>				
<u>SUPPLEMENTARY PREAMBLES</u>				
For preambles see "Specifications of materials and methods to be used - PW 371"				
<u>PROFILED METAL SHEETING AND ACCESSORIES</u>				
<u>0,6mm IBR galvanised roof sheeting in chromadek finish fixed to timber trusses (Trusses elsewhere measured)</u>				
1	Roof covering with pitch not exceeding 25 degrees	m2	110	
2	450mm wide ridge capping	m	18	
3	Roof closure cut to profile of roof covering	m	34	
<u>RAINWATER DISPOSAL</u>				
<u>Approved seamless metal gutters:</u>				
4	100 x 100 x 0.6mm Standard rainwater gutters fixed with gutters brackets	m	34	
5	Extra over gutter for closed ends	No	4	
6	Extra over gutter for 75mm diameter pipe outlets	No	4	
7	75mm Diameter x 0.6mm Thick galvanised rainwater downpipes fixed to wall	m	12	
8	Extra over rainwater pipe for eaves offset	No	4	
9	Extra over rainwater pipe for bend	No	4	
<u>Rainwater Goods Painting</u>				
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Section No. 9 MULTIPURPOSE CENTRE Bill No. 5 Roof Covering Zethu Consulting Services				

RAIN WATER HARVESTING

The following in Water Tank Base

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Bill No. 5

Roof Covering

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Section No. 9

MULTIPURPOSE CENTRE

Bill No. 5

Roof Covering

Zethu Consulting Services

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	<u>Pressed fibre-cement</u>				
7	12 x 225mm Fascias boards including galvanised steel H-profile jointing strips	m	36		
8	12 x 225mm barge boards including galvanised steel H-profile jointing strips	m	23		
	<u>SKIRTINGS</u>				
	<u>Wrought meranti</u>				
9	13 x 100mm high with 19 x 19 quadrant	m	58		
	<u>DOORS, ETC.</u>				
	<u>Wrought meranti doors hung to steel frames</u>				
10	44mm thick Meranti framed, ledged, braced and battered door size 813 x 2032mm high	No	1		
	<u>NOTICE BOARDS, KEYBOARDS, DUCKBOARDS, ETC</u>				
11	Timber framed Pin board overall size 7000 x 1200mm high in three equal section with one end rebated 19 x 75mm high meranti timber top, bottom and end rails and 19 x 75mm wide double side rebated intermediate rail with 12mm thick soft-board infill panels	No	1		
12	Fibre cement Green chalk board size 2400 x 1140mm high	No	1		
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	Section No. 9 MULTIPURPOSE CENTRE Bill No. 6 Carpentry and Joinery Zethu Consulting Services				

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Bill No. 6

Carpentry and Joinery

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MULTIPURPOSE CENTRE

Bill No. 6

Carpentry and Joinery

Zethu Consulting Services

Item No		Quantity	Rate	Amount
	<u>SECTION 9</u>			
	<u>BILL NO. 7</u>			
	<u>CEILINGS, PARTITIONS AND ACCESS FLOORING</u>			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Descriptions:</u>			
	Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins or shot pinned to brickwork or concrete			
	Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres, and where described as "bolted" the bolts have been given elsewhere			
	<u>CEILINGS ETC</u>			
	<u>"Approved" insulation</u>			
1	40mm glass fibre Insulation closely fitted and laid on top of brander between timber roof trusses etc	m2	72	
	<u>NAILED UP CEILINGS</u>			
	<u>6.4mm "Rhino" gypsum plasterboard ceiling with H-type pressed steel jointing strips</u>			
2	Ceilings including 50 x 38mm sawn softwood brander at 400mm centres	m2	72	
3	Extra over ceiling for 650 x 650mm trap door of 38 x 50mm wrought softwood rebated framing with one 38 x 50mm sawn softwood cross brander covered with ceiling board and fitted flush in opening	No	1	
	<u>"Rhino" gypsum plasterboard cornices</u>			
4	75mm Coved cornices	m	56	
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	Section No. 9			
	MULTIPURPOSE CENTRE			
	Bill No. 7			
	Ceilings, Partitions and Access Flooring			
	Zethu Consulting Services			

Item No		Quantity	Rate	Amount
	<u>SECTION 9</u>			
	<u>BILL NO. 9</u>			
	<u>TILING</u>			
	<u>PREAMBLES</u>			
	<u>For preambles see "Model Preambles for Trades" (2008 Edition) and Supplementary preambles as specified in the Trades</u>			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	Supplementary preambles are incorporated in this schedule of quantities to satisfy the requirements of this project. Such supplementary preambles shall take precedence over the provisions of the said Model Preambles			
	The contractor's prices for all items throughout this schedule of quantities must take account of and include for all of the obligations, requirements and specifications given in the said Model Preambles and in any supplementary preambles			
	This bill is measured provisionally and will be subject to re-measure when the work or a portion thereof is complete. It is expected of the contractor to be able to demonstrate how he derived at the quantities and in cases where it is not possible to measure the work on completion due to cover up; the contractor must provide signed off site records proving such claims			
	<u>Descriptions</u>			
	Unless described as "fixed with adhesive to plaster (plaster elsewhere)" descriptions of tiling on brick or concrete walls, columns, etc shall be deemed to include 1:4 cement plaster backing and descriptions of tiling on concrete floors etc shall be deemed to include 1:3 plaster bedding			
	<u>FLOOR TILING</u>			
	Carried to Collection		R	
	Section No. 9 MULTIPURPOSE CENTRE Bill No. 9 Tiling Zethu Consulting Services			

300 x 300mm x 8mm Ceramic tiles (PC Amount R150.00/m2) fixed with adhesive to bedding (bedding elsewhere) and flush pointed with tinted waterproof jointing compound

1	On floors and landings	m2	59
2	Skirting 75mm high	m	31

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Bill No. 9
Tiling
Zethu Consulting Services

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Bill No. 9

Tiling

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MULTIPURPOSE CENTRE

Bill No. 9

Tiling

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Item No		Quantity	Rate	Amount
	<u>SECTION 9</u>			
	<u>BILL NO. 10</u>			
	<u>METALWORK</u>			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<u>PRESSED STEEL DOOR FRAMES</u>			
	<u>1.6mm Double rebated frames suitable for one brickwalls</u>			
1	Frame for door 813 x 2032mm high	No	1	
	<u>STEEL WINDOWS, DOORS, ETC</u>			
	<u>Standard steel window for School with burglar bars and brass fittings to opening sashes</u>			
2	Window size 1616 x 1445mm high	No	8	
	<u>WELDED SCREENS, GATES, ETC</u>			
	<u>Steel Gates</u>			
3	Purpose made security steel gate overall size 813 x 2032mm high comprising of 40 x 60 x 2mm rectangular tubing gate surround with 6 No vertical middle rails of 12mm HT steel rods at 99mm centres between steel surround and 2 No horizontal middle rails of 40 x 6mm steel flat bar at 647mm from top and bottom steel surround with and including 3 No 100mm Pin type hinged welded to pressed steel frame and 5 lever security door lock	No	1	
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Item No		Quantity	Rate	Amount
	<u>SECTION 9</u>			
	<u>BILL NO. 13</u>			
	<u>PAINTWORK</u>			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<u>PAINTWORK ETC TO NEW WORK</u>			
	<u>ON FLOATED PLASTER</u>			
	<u>One coat alkali resistant primer and two coats acrylic PV A paint</u>			
1	On internal walls	m2	110	
	<u>ON PLASTER BOARD</u>			
	<u>One coat alkali resistant primer and two coats acrylic PV A paint</u>			
2	On ceiling soffit	m2	72	
	<u>ON FIBRE-CEMENT</u>			
3	On fascias and barge boards	m2	27	
	<u>ON WOOD</u>			
	<u>Three coats of Polyurethane semi gloss vanish on</u>			
4	On doors	m2	5	
5	Skirting not exceeding 100mm high	m	58	
	Carried to Collection			R
	Section No. 9 MULTIPURPOSE CENTRE Bill No. 13 Paintwork Zethu Consulting Services			

ON METAL

One coat zinc chromate primer, 1 coat universal under coat and 2 coats gloss enamel on

6	On door frames	m2	3
7	Steel windows with burglar bars (Measured over the full flat area of both sides)	m2	50
8	Steel doors and security gates (Measured over the full flat area of both sides)	m2	5

Carried to Collection

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MULTIPURPOSE CENTRE
Bill No. 13
Paintwork
Zethu Consulting Services

Section No. 9

Bill No. 13

Paintwork

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MULTIPURPOSE CENTRE

Bill No. 13

Paintwork

Zethu Consulting Services

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7	Ceilings, Partitions and Access Flooring	323	
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13	Paintwork	333	
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Section No. 9 MULTIPURPOSE CENTRE Zethu Consulting Services			

<u>Excavation in earth not exceeding 2m deep</u>					
3	Reduced levels under floors	m3	63		
4	Trenches	m3	41		
<u>Extra over trench and hole excavations in earth for excavation in</u>					
5	Soft rock	m3	4		
6	Hard rock	m3	2		
<u>Extra over all excavations for carting away</u>					
7	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	29		
<u>Risk of collapse of excavations</u>					
8	Sides of trench and hole excavations not exceeding 1,5m deep	m2	110		
<u>Keeping excavations free of water</u>					
9	Keeping excavations free of all water other than subterranean water			Item	
<u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 95% Mod AASHTO density</u>					
10	Under floors, steps, pavings, etc	m3	1		
11	Backfilling to trenches, holes, etc	m3	4		
<u>Earth filling supplied by the contractor compacted to 95% Mod AASHTO density</u>					
12	Under floors, steps, pavings, etc	m3	22		
<u>Coarse river sand filling supplied by the contractor</u>					
13	Under floors etc	m3	8		
Carried to Collection				R	
Section No. 10 TUCKSHOP Bill No. 1 Earthworks Zethu Consulting Services					

SOIL POISONING

15	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m2	10
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CONCRETE

UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES

17	Surface blinding under footings and bases	m3	138
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18	Strip footings	m3	7
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19	8mm Diameter bars	t	0.32
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20	12mm Diameter bars	t	0.47
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(CPAP FORMULA WORK GROUP NO. 116)

Brickwork of NFX bricks (14 MPa nominal compressive strength) in class I mortar

21	One brick walls	m2	61
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Brickwork reinforcement

22	150mm Wide reinforcement built in horizontally	m	700
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External face bricks (Prime Cost Amount R 4 500.00/1000) pointed with flush horizontal and vertical joints

23	Extra over brickwork for face brickwork	m2	20
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TUCKSHOP
Bill No. 1
Earthworks
Zethu Consulting Services

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Bill No. 1

Earthworks

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Bill No. 1

Earthworks

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Item No		Quantity	Rate	Amount
	<u>SECTION 10</u>			
	<u>BILL NO. 2</u>			
	<u>CONCRETE, FORMWORK AND REINFORCEMENT</u>			
	NOTE : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 110 for CPAP formula purposes			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Cost of tests</u>			
	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 Principal Agent. The testing shall be undertaken by an independent firm or institution nominated by the contractor to the approval of the Principal Agent. (Test cubes are measured separately)			
	<u>Formwork</u>			
	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.			
	Carried to Collection		R	
	Section No. 10 TUCKSHOP Bill No. 2 Concrete, Formwork and Reinforcement Zethu Consulting Services			

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

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

REINFORCED CONCRETE

25MPa/19mm concrete

1	Surface beds on waterproofing	m3	2
2	Vanity slabs, cupboard slabs, cover slabs, etc	m3	0.1

TEST BLOCKS

3	Making and testing 150 x 150 x 150mm concrete strenght test cube (Provisional)	No	10
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CONCRETE SUNDRIES

Finishing top surfaces of concrete smooth with a steel trowel including rounding edges to form a bullnose finish

4	Vanity slabs, cupboard slabs, cover slabs, etc	m2	2
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MOVEMENT JOINTS ETC

(CPAP FORMULA WORK GROUP NO. 111)

Expansion joints with closed cell expanded polystyrene joint filler between vertical concrete and/or brick surfaces

5	10mm Joints not exceeding 300mm high	m	41
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SMOOTH FORMWORK (DEGREE OF ACCURACY II)

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Section No. 10
TUCKSHOP
Bill No. 2
Concrete, Formwork and Reinforcement
Zethu Consulting Services

(CPAP FORMULA WORK GROUP NO. 111)

Smooth formwork to

- 6 Vanity slabs, cupboard slabs, cover slabs, etc. propped up not exceeding 1500mm high

m2

2

Smooth formwork to sides

- 7 Edges, risers, ends and reveals not exceeding 300mm high

m

2

Smooth formwork to form

- 8 Opening not exceeding 1m girth through not exceeding 300mm slab

No

1

REINFORCEMENT (PROVISIONAL)

(CPAP FORMULA WORK GROUP NO. 114)

Fabric reinforcement

- 9 Type 193 fabric reinforcement in concrete surface beds, slabs, etc

m2

24

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TUCKSHOP
Bill No. 2
Concrete, Formwork and Reinforcement
Zethu Consulting Services

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Bill No. 2

Concrete, Formwork and Reinforcement

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TUCKSHOP

Bill No. 2

Concrete, Formwork and Reinforcement

Zethu Consulting Services

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Brickwork reinforcement

4	75 mm Brick reinforcement built-in horizontally	m	5
5	150mm Wide reinforcement built in horizontally	m	322

Turning pieces

6	115mm Wide turning piece to lintels etc	m	9
7	230mm Wide turning piece to lintels etc	m	4

Galvanised hoop iron cramps, ties, etc

8	30 x 1,6mm Roof tie 1,5m long with one end fixed to timber and other end built into brickwork	No	17
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FACE BRICKWORK

External face bricks (Prime Cost Amount R 4 500.00/1000) pointed with flush horizontal and vertical joints

9	Extra over brickwork for face brickwork	m2	123
10	Extra over brickwork for brick-on-edge header course lintel	m	1
11	Extra over brickwork for brick-on-edge header course lintel pointed on face and 115mm soffit	m	4
12	Extra over brickwork for brick-on-edge header course lintel pointed on face and 230mm soffit	m	3
13	Fair raking cutting	m	19

Brick-on-edge header course copings, sills, etc of external face bricks (Prime Cost Amount R 3 500.00/1000) pointed with recessed joints on all exposed faces

14	Coping on top of one brick wall	m	7
15	220mm Wide sill set sloping and slightly projecting	m	4

DECORATIVE SCREEN WALLS AND GRILLES

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TUCKSHOP
Bill No. 3
Masonry
Zethu Consulting Services

**Screen walls of face bricks pointed with flush
horizontal and vertical joints (Prime Cost Amount R
3 500.00/1000)**

16 One brick walls with openings 106mm wide x 1 105mm
high at 294mm centres pointed on both sides and in
openings

m2

7

17 One brick walls with openings 106mm wide x 1 955mm
high at 294mm centres pointed on both sides and in
openings

m2

4

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TUCKSHOP
Bill No. 3
Masonry
Zethu Consulting Services

NUTEC-CEMENT WINDOW SILLS

Natural grey sills in single lengths bedded in class I mortar including metal fixing lugs etc

18	15 x 150mm Wide sills set flat and slightly projecting	m	4
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Zethu Consulting Services

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TUCKSHOP

Bill No. 3

Masonry

Zethu Consulting Services

ROOFS, ETC

Plate nailed timber roof truss construction

The following is applicable in respect of roof trusses:

Trusses are at maximum 1,10m centres

Roof covering is galvanised "IBR" roof sheeting with "Globalcoat" finish on one side on 50 x 75mm purlins at 1,0m maximum centres.

Ceilings are generally 6,4mm gypsum plasterboard on 38 x 38mm branderling.

All timber to be sawn softwood in accordance with V4 or M4 as defined in SABS 563 or SABS 1245.

Metal connector plates shall have a minimum yield strength of 228 MPa and a minimum ultimate tensile strength of 330 Mpa with hot-dip galvanised finish.

All joints to be close fitted butt joints.

Trusses shall be designed by a registered supplier of prefabricated trusses who shall issue an Engineers Certificate upon completion of the installation.

The dimensions in the descriptions of the trusses are nominal and actual measurements are to be obtained on site before design or fabrication commences.

Tenderers must study the roof plan and sections as attached to the back of these bills of quantities (refer drawing No.'s GUARD HOUSE - 001 and 002) and must obtain prices from a qualified and registered roof truss supplier as no claims in this regard will be entertained

Sawn softwood

1	38 x 114mm Wall plates	m	14
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TUCKSHOP
Bill No. 6
Carpentry and Joinery
Zethu Consulting Services

2	Design, manufacture and deliver to site, plate nailed roof truss construction to Gate House, size 6 590 x 4 290mm overall on plan consisting of six mono pitched trusses, each truss 4 290 x 680mm high overall with 800mm eaves overhang projecting both sides, including all necessary purlins, runners, bracing and cross bracing (wall plates elsewhere)	No	1		
3	Design, manufacture and deliver to site, plate nailed roof truss construction to Bin and Collection Area, size 6 060 x 5 530mm overall on plan consisting of seven lean-to rafters with 800mm eave overhang projecting one side and fixed to head wall on other side, including all necessary truss hangers, purlins, runners, bracing and cross bracing (wall plates elsewhere)	No	1		
4	Take delivery, temporary store, hoist in position and erect plate nailed timber roof trusses, purlins, gangboarding, temporary and permanent bracing, etc (measured on slope of roof)	m2	54		
	<u>Sundries</u>				
5	Two coats creosote on sawn timbers	m2	19		
	<u>EAVES , VERGES , ETC</u>				
	<u>"Everite" pressed nutec-cement</u>				
6	12 x 225mm Fascias and barge boards including galvanised steel H-profile jointing strips	m	37		
	<u>SKIRTINGS</u>				
	<u>Wrought meranti</u>				
7	19 x 76mm Skirting including 19mm quadrant bead nailed	m	15		
	<u>DOORS ETC</u>				
	<u>Wrought hardwood flushback doors with sapele veneer hung to steel frames</u>				
8	44mm "TDM" Framed and ledged door 813 x 2 032mm high	No	3		
	Carried to Collection			R	
	Section No. 10 TUCKSHOP Bill No. 6 Carpentry and Joinery Zethu Consulting Services				

DUCT COVERS

Wrought meranti

9	38 x 38mm Framed frames	m	10
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"Everite Nutec" pressed fibre-cement building planks

10	10 x 225mm "Classic" building planks concealed fixed to timber frame with minimum 25mm overlaps	m2	4
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Bill No. 6
Carpentry and Joinery
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Carpentry and Joinery

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TUCKSHOP

Bill No. 6

Carpentry and Joinery

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Item No		Quantity	Rate	Amount
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	<u>BILL NO. 7</u>			
	<u>CEILINGS, PARTITIONS AND ACCESS FLOORING</u>			
	NOTE : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 129 for CPAP formula purposes			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Descriptions:</u>			
	Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins or shot pinned to brickwork or concrete			
	Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres, and where described as "bolted" the bolts have been given elsewhere			
	<u>CEILINGS ETC</u>			
	<u>"Aerolite" insulation</u>			
1	75mm Insulation closely fitted and laid on top of brandering between roof timbers etc	m2	8	
	<u>NAILED UP CEILINGS</u>			
	<u>6,4mm "Rhino" gypsum plasterboard with H-type pressed steel jointing strips</u>			
2	Ceilings including 38 x 38mm sawn softwood brandering at 400mm centres	m2	8	
3	Extra over ceiling for 650 x 650mm trap door of 38 x 50mm wrought softwood rebated framing with one 38 x 50mm sawn softwood cross brander covered with ceiling board and fitted flush in opening	No	1	
	Carried to Collection			R
	Section No. 10 TUCKSHOP Bill No. 7 Ceilings, Partitions and Access Flooring Zethu Consulting Services			

Section No. 10

Bill No. 7

Ceilings, Partitions and Access Flooring

COLLECTION

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Section No. 10

TUCKSHOP

Bill No. 7

Ceilings, Partitions and Access Flooring

Zethu Consulting Services

LETTERS, NAMEPLATES, ETC

"Union"

7	"AL5066-06ASE08" 152 x 152mm anodised aluminium plate with directional pictogram	No	4
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BATHROOM FITTINGS

"Stiebel Eltron"

9	"SDSS" Soap dispenser plugged	No	1
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"Nampak"

10	"TR2" lockable toilet roll holder plugged	No	1
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SUNDRIES

"Union"

12	"AL8722AS" rubber tipped hat and coat hook	No	2
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Section No. 10

Bill No. 8

Ironmongery

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Section No. 10

TUCKSHOP

Bill No. 8

Ironmongery

Zethu Consulting Services

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

2	Frame for door 813 x 2 032mm high	No	3
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STEEL WINDOWS, DOORS, ETC

Standard industrial windows with type "B1" burglar bars to opening sashes

3	Window type SS21, 673 x 511mm high	No	2
4	Window type SS22, 673 x 978mm high	No	2
5	Window type SS53, 1 616 x 1 445mm high	No	1

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Section No. 10
TUCKSHOP
Bill No. 9
Metalwork
Zethu Consulting Services

Section No. 10

Bill No. 9

Metalwork

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Section No. 10

TUCKSHOP

Bill No. 9

Metalwork

Zethu Consulting Services

Item No		Quantity	Rate	Amount
	<u>SECTION 10</u>			
	<u>BILL NO. 10</u>			
	<u>PLASTERING</u>			
	NOTE :			
	Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 142 for CPAP formula purposes.			
	<u>GRANOLITHIC</u>			
	<u>Untinted granolithic on concrete</u>			
1	35mm Thick on floors and landings	m2	10	
2	Average 45mm thick on floors to falls	m2	18	
	<u>INTERNAL PLASTER</u>			
	<u>Cement plaster on brickwork</u>			
3	On walls	m2	41	
4	On narrow widths	m2	2	
	<u>CORNER PROTECTORS, DIVIDING STRIPS, ETC</u>			
5	3 x 32mm Flat section brass dividing strips between different floor finishes	m	2	
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	TUCKSHOP			
	Bill No. 10			
	Platering			
	Zethu Consulting Services			

Item No		Quantity	Rate	Amount
	<u>SECTION 10</u>			
	<u>BILL NO. 11</u>			
	<u>TILING</u>			
	NOTE : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 144 for CPAP formula purposes.			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Descriptions</u>			
	Unless described as "fixed with adhesive to plaster (plaster elsewhere)" descriptions of tiling on brick or concrete walls, columns, etc shall be deemed to include 1:4 cement plaster backing and descriptions of tiling on concrete floors etc shall be deemed to include 1:3 plaster bedding			
	<u>WALL TILING</u>			
	<u>200 x 200 x 6mm Glazed ceramic tiles (Prime Cost Amount R150.00 / m2) fixed with adhesive to plaster (plaster elsewhere)</u>			
1	On walls in isolated panels, splashbacks, etc	m2	44	
	<u>FLOOR TILING</u>			
	<u>300 x 300mm x 8mm Ceramic tiles (PC Amount R150.00/m2) fixed with adhesive to bedding (bedding elsewhere) and flush pointed with tinted waterproof jointing compound</u>			
2	On floors and landings	m2	28	
3	Skirting 75mm high	m	10	
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Item No		Quantity	Rate	Amount
	<u>SECTION 10</u>			
	<u>BILL NO. 12</u>			
	<u>PLUMBING AND DRAINAGE</u>			
	<u>(PROVISIONAL)</u>			
	NOTE : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 146 for CPAP formula purposes.			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>uPVC pipes and fittings:</u>			
	Soil, waste and vent pipes and fittings shall be solvent weld jointed			
	<u>uPVC pressure pipes and fittings:</u>			
	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			
	<u>Copper pipes:</u>			
	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			
	Carried to Collection		R	
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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

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

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

Carried to Collection

R

Section No. 10
TUCKSHOP
Bill No. 12
Plumbing and Drainage
Zethu Consulting Services

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

Waste unions

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

Carried to Collection

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Section No. 10
TUCKSHOP
Bill No. 12
Plumbing and Drainage
Zethu Consulting Services

SANITARY FITTINGS

"Vaal"

1	420 x 420 mm "Iceberg" self-rimming drop-in vanity basin	No	1
2	"Klip" low level wc suite comprising pan with double flap heavy duty plastic seat and matching 9 litre cistern with flush pipe	No	1

WASTE UNIONS, ETC

"Cobra Watertech"

3	32mm "301CP" Basin waste union	No	1
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TRAPS, ETC

"Marley"

4	32 x 50mm Deep seal "P" or "S" trap	No	1
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"Rofo Sales"

5	240mm Diameter "RO 200 V(H) NW 100" stainless steel floor trap	No	1
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TAPS, VALVES, ETC

Brass

6	22mm Stopcock	No	2
7	22mm Bibcock with hose union	No	1

"Cobra Watertech"

8	15mm "111CP" Pillartap	No	1
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SANITARY PLUMBING

uPVC pipes

9	50mm Pipes	m	2
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Section No. 10
TUCKSHOP
Bill No. 12
Plumbing and Drainage
Zethu Consulting Services

10	110mm Pipes	m	4
<u>Extra over uPVC pipes for fittings</u>			
11	50mm Bend	No	2
12	110mm Bend	No	2
13	110mm Pan connector	No	2
14	110mm Access bend with anti-syphon horn	No	1
15	50mm "GI Two-way" vent valve	No	1
<u>Sundries</u>			
16	Testing waste pipe system		Item
<u>WATER SUPPLIES</u>			
<u>Class 0 copper pipes</u>			
17	15mm Pipes	m	1
18	22mm Pipes	m	1
19	15mm Pipes chased into brick walls	m	2
20	22mm Pipes chased into brick walls	m	4
<u>Extra over class 0 copper pipes for capillary fittings</u>			
21	15mm Fittings	No	4
22	22mm Fittings	No	7
<u>Copper overflow and service pipes</u>			
23	15mm Service pipe 500mm girth	No	2
<u>TESTING</u>			
24	Testing water pipe system		Item
<u>FIRE APPLIANCES ETC</u>			
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Section No. 10 TUCKSHOP Bill No. 12 Plumbing and Drainage Zethu Consulting Services			

"Chubb"

25 4,5kg Carbon dioxide fire extinguisher complete with
520 x 115 x 22mm thick timber backboard plugged to
wall and varnished

No

2

Water Harvesting

26 5000 Litre jojo tank complete with lid including concrete
plinth as per engineers details

No

2

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Plumbing and Drainage
Zethu Consulting Services

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Bill No. 12

Plumbing and Drainage

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Section No. 10

TUCKSHOP

Bill No. 12

Plumbing and Drainage

Zethu Consulting Services

One coat primer and two coats exterior quality PVA emulsion paint

5	On duct covers	m2	4
6	On fascias and bargeboards	m2	17

ON METAL

Spot priming defects in pre primed surfaces with zinc chromate primer and applying one undercoat and two coat high gloss enamel paint on steel

7	On door frames	m2	5
8	On windows with burglar bars	m2	9
9	On gates, grilles, burglar screens, balustrades, etc (both sides measured over the full flat area)	m2	13

ON WOOD

Three coats polyurethane semi-gloss varnish

10	On doors	m2	11
11	On skirtings, rails, etc not exceeding 300mm girth	m	15

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TUCKSHOP
Bill No. 14
Paintwork
Zethu Consulting Services

Section No. 10

Bill No. 14

Paintwork

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Section No. 10

TUCKSHOP

Bill No. 14

Paintwork

Zethu Consulting Services

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7	Ceilings, Partitions and Access Flooring	358	
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10	Platering	365	
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	<u>SECTION 11</u>			
	<u>BILL NO. 1</u>			
	<u>WATER RETICULATION (PROVISIONAL)</u>			
	<u>STANDARD PREAMBLES</u>			
	The contractor is referred to the Model Preambles for Trades (2008 edition) as issued the Association of South African Quantity Surveyors before pricing this bill			
	<u>WATER SUPPLIES</u>			
	<u>HDPE Type PE100 PN12.5 pipes to comply with SABS ISO 4427 (in minimum 12m lengths) with butt-welded joints</u>			
1	40mm Pipes laid in and including trenches not exceeding 1m deep	m	260	
2	50mm Pipes laid in and including trenches not exceeding 1m deep	m	80	
	<u>Extra over HDPE pipes for butt-welded fittings</u>			
3	40 x 20mm Reducer	No	8	
4	50 x 40mm Reducer	No	8	
5	40mm Elbow	No	4	
6	50mm Elbow	No	4	
7	40mm 90 degree bend	No	4	
8	50mm 90 degree bend	No	4	
9	40mm Tee	No	4	
10	50mm Tee	No	4	
11	40mm Adaptor coupling	No	4	
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	Water reticulation			
	Zethu Consulting Services			

12	50mm Adaptor coupling	No	4	
	<u>HDPE Type PE100 PN10 sleeve pipes to comply with SABS ISO 4427 with butt welded joints</u>			
13	110mm Pipes (no excavation)	m	120	
	<u>Extra over HDPE pipes for butt welded fittings</u>			
14	40mm Elbow	No	10	
15	50mm Elbow	No	10	
	<u>Taps, valves, etc</u>			
16	20mm Brass garden tap with hose connection	No	2	
17	25mm 1001/125RB full way gate valve	No	2	
18	40mm 1001/125RB full way gate valve	No	2	
	<u>Class 9 uPVC pressure pipes</u>			
19	25mm Pipes laid in and including trenches not exceeding 1m deep, bedding, backfilling, compaction and disposal of excavated material	m	50	
20	25mm Pipes laid in and including trenches exceeding 1m and not exceeding 2m deep, bedding, backfilling compaction and disposal of excavated material	m	50	
21	50mm Pipes laid in and including trenches exceeding 1m and not exceeding 2m deep, bedding, backfilling compaction and disposal of excavated material	m	50	
	<u>Extra over uPVC pressure pipes for uPVC solvent welded pressure fittings</u>			
22	25mm x 90 degrees bend	No	6	
23	25mm Tee	No	6	
24	25mm Steel to HDPE adaptor	No	12	
25	25mm Copper to HDPE adaptor	No	12	
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	<u>Galvanized steel pipes</u>				
26	20mm Stand pipes	m	15		
	<u>Sundries</u>				
27	Extra over excavation in earth for pipe trenches, chambers, etc. for excavation in "soft rock"	m ³	11		
28	Extra over excavation in earth for pipe trenches, chambers, etc. for excavation in "hard rock"	m ³	17		
29	Class C (15 MPa/20) concrete in thrust blocks at bends, tees, etc. including necessary extra excavation, formwork, etc	m ³	2		
30	150 x 150mm Cast iron stopcock box, including brick chamber below exceeding 500mm and not exceeding 750mm deep internally	No	2		
31	530 x 530mm Valve chamber exceeding 750mm and not exceeding 1000mm deep internally including cover and frame	No	2		
	<u>Testing</u>				
32	Testing water and fire service pipe system		Item		
	<u>FIRE APPLIANCES, PEDESTALS, ETC.</u>				
	<u>Fire appliances etc</u>				
33	80 x 65mm Brass right angle hydrant valve with cap and chain	No	2		
	<u>Fire hydrant pedestals</u>				
34	25MPa/19mm Reinforced concrete hydrant pedestal 1960mm high cast around vertical pipe with bottom 1260mm below ground, 440 x 440mm square at base and tapering to octagonal shaped top 240 x 240mm overall, including necessary excavation, formwork, reinforcement and two coats of paint to exposed surfaces	No	2		
	<u>MUNICIPAL CONNECTIONS</u>				
	Carried to Collection			R	
Section No. 11 EXTERNAL WORKS Bill No. 1 Water reticulation Zethu Consulting Services					

Connections

- 35 Allow the amount of R25 000 (Twenty Five Thousand Rand) for municipal connections
- 36 Allow for Profit on above if required
- 37 Allow for Attendance on above if required

Item	25,000.00
Item	
Item	

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Bill No. 1
Water reticulation
Zethu Consulting Services

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Bill No. 1

Water reticulation

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EXTERNAL WORKS

Bill No. 1

Water reticulation

Zethu Consulting Services

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

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

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

Carried to Collection

Section No. 11

EXTERNAL WORKS

Bill No. 2

Sewer

Zethu Consulting Services

R

SITE CLEARANCE

1	Clear and grub roots along sewer pipeline 1.5m wide	m	2,590
2	Remove top soil to ditto nominal depth 150mm and stockpile	m	2,590

SOIL DRAINAGE

Class 34 uPVC pipes

3	110mm Pipes vertically or ramped to cleaning eyes etc (no excavations)	m	160
4	110mm Pipes laid in and including trenches not exceeding 1m deep	m	50
5	160mm Pipes laid in and including trenches exceeding 1m and not exceeding 2m deep	m	50

Extra over

6	Extra over excavation for soft rock material	m3	26
7	Ditto to hard rock material	m3	13

Backfilling

8	Backfilling to ancillaries with material from excavations	m3	110
9	Ditto material from commercial source selected by the contractor	m3	55

Bedding

10	Bedding to pipe with selected fill material from excavations	m3	150
11	Ditto with material from commercial source selected by the contractor	m3	70
12	Bedding pipe with 6-9mm crushed stone supplied by the contractor	m3	70

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Section No. 11
EXTERNAL WORKS
Bill No. 2
Sewer
Zethu Consulting Services

	<u>Extra over uPVC pipes for fittings</u>				
13	110mm Bend	No	30		
14	160mm x 110mm Reducing Junction	No	15		
15	110mm Access junction	No	6		
	<u>MANHOLES, ETC</u>				
	<u>'Manhole with concrete base ,benching,starter ring and complete</u>				
16	Manhole not exceeding 1000mm deep	No	4		
17	Ditto exceeding 1000mm but no exceeding 2000mm deep	No	1		
18	Ditto exceeding 2000mm but no exceeding 3000mm deep	No	1		
	<u>Sundries</u>				
19	100mm Cast iron "ABC" cleaning eye	No	6		
	<u>SEPTIC TANKS</u>				
	<u>Site clearance</u>				
20	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc	m2	145		
21	Stripping average 150mm thick layer of top soil and stockpiling on site	m2	145		
	<u>Excavation,etc</u>				
22	Excavate in earth exceeding 2m deep and not exceeding 4m deep	m3	63		
	<u>Extra over all excavations for carting away</u>				
23	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	45		
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	EXTERNAL WORKS				
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	Sewer				
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<u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO density</u>					
24	Backfilling to trenches, holes, etc	m3	25		
<u>Keeping excavations free of water</u>					
25	Keeping excavations free of all water other than subterranean water		Item		
<u>Risk of collapse of excavations</u>					
26	Sides of trench and hole excavations not exceeding 1,5m deep	m2	50		
27	Sides of trench and hole excavations exceeding 1,5m deep but not exceeding 3m deep	m2	16		
<u>Unreinforced concrete</u>					
28	10Mpa/20mm blinding	m3	1		
<u>Reinforced concrete</u>					
29	25Mpa/20mm concrete cast in slabs	m3	4		
30	Ditto in strip footings	m3	23		
<u>Formwork to sides</u>					
31	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	13		
<u>Permanent formwork</u>					
32	0.6mm Corrugated iron to soffits of slabs	m2	50		
33	Box out holes in walls and slabs not exceeding 0.5m2	No	8		
<u>Finishing</u>					
34	Wood float finish	m2	13		
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Section No. 11 EXTERNAL WORKS Bill No. 2 Sewer Zethu Consulting Services					

BRICKWORK

Brickwork of NFX bricks (14 MPa nominal compressive strength) in class I mortar

37	Half brick walls	m2	5
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39	150mm Wide reinforcement built in horizontally	m	64
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40	On walls	m2	25
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41	110mm Pipes	m	105
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42	110mm Tee	No	105
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43	600 x 600mm x 117kg (M2324) cast iron double seal manhole cover and frame	No	6
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FRENCH DRAIN

R

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<u>Site clearance</u>					
45	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc	m2	65		
46	Stripping average 150mm thick layer of top soil and stockpiling on site	m2	65		
<u>Excavation,etc</u>					
47	Excavtion not exceeding 2m deep	m3	160		
<u>Extra over all excavations for carting away</u>					
48	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	50		
<u>Earth filling supplied by the contractor</u>					
49	9mm to 25mm graded stone filling to trenches	m3	150		
50	200-300mm Diameter clean washed stone filling or similar approved by engineer	m3	72		
51	Earth filling to top of french drain (not compacted)	m3	30		
52	Geofilter blanket wrapped around stone with 150mm side and 300mm end laps,including stitching	m2	50		
<u>PLUMBING</u>					
53	110mm uPVC perforated pipes laid in stone	m	16		
54	Ditto inspection pipe ditto	m	4		
55	Extra over for 110mm uPVC capped end	No	4		
56	Ditto 45 deg access double junction	No	2		
57	Ditto 45 deg Bend	No	6		
<u>Covers etc</u>					
58	Lifting key for manhole cover	No	6		
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59 300 x 300 x 50mm precast concrete inspection eye
marker slab set in ground

No

6

TESTING, CONNECTIONS, ETC

Testing

60 Testing the whole of the soil drainage system

Item

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EXTERNAL WORKS
Bill No. 2
Sewer
Zethu Consulting Services

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Bill No. 2

Sewer

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Section No. 11

EXTERNAL WORKS

Bill No. 2

Sewer

Zethu Consulting Services

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

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

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

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SUB-SOIL DRAINAGE

"Netlon" Slotted drainage pipes

1	110mm Slotted uPVC pipes laid in and including trenches not exceeding 1m deep, including 19mm crushed stone encasing size 300 x 300mm and Bidum Type U24 filter fabric blanket wrapped around encasing with 150mm side and 300mm end laps including stitching, complete with excavations and carting away of excavated material and backfilling of trenches with clean river sand	m	200
2	Extra over 110mm slotted uPVC pipe for end cap	No	2

STORMWATER DRAINAGE

25MPa/19mm unreinforced concrete with rounded salient edges and finished on exposed surfaces with 2:1 cement mortar, laid to falls in panels not exceeding 2m long with 12mm bitumen impregnated softboard movement joints with exposed edges raked out for a depth of 10mm and sealing with "Sikaflex-1a" joint sealant including all necessary formwork, excavations, compaction, etc

3	Surface channel size 1500mm wide x average 120mm thick with 50mm deep V-shaped waterway (concrete = 0,18 m3/m)	m	240
4	Extra over 1200mm wide channel for closed ends, angle intersection, tee intersections, etc	No	2

Class 34 uPVC Stormwater Pipes

5	250mm Diameter uPVC stormwater pipe Class 34 laid in trenches to falls on suitable bedding material as per manufacturers instructions including all excavations, filling and compaction	m	120
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Class 75D reinforced precast concrete pipes with ogee joints and rubber collars, etc. laid to falls in ground, on class B imported bedding including excavations, backfilling in 150mm thick layers, compaction to 95% Modified AASHTO dry density at OHC and all necessary risk of collapse, dewatering of trenches, etc.

6 300mm Pipes laid in and including trenches not exceeding 1m deep

m

120

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Catchpits, inspection chambers, etc

Excavate in earth for and build stormwater catch pit internal size 500 x 500mm with one brick sides in extra hard stock bricks in (1:3) cement mortar on 150mm thick concrete class 25/19 base slab projecting 75mm all round, rendered internally in (1:3) cement plaster and including 100mm thick concrete cover slab with slight sloped top surface and with 600 x 600mm rebated opening for steel grating (elsewhere measured) formed with 50 x 50 x 6mm galvanised angle section with lugs cast into internal edge, the bottom benched up in fine mass concrete benching in bottom floated smooth with falls and finished on all exposed surfaces with 25mm thick granolithic all complete as detailed on drawing 22104-TP-02

7	Stormwater sump exceeding 750mm and not exceeding 1000mm deep internally	No	2
8	Stormwater sump exceeding 1500mm and not exceeding 1750mm deep internally	No	2
9	Stormwater sump exceeding 2000mm and not exceeding 2250mm deep internally	No	2

Excavate in earth for and build stormwater catch pit internal size 700 x 700mm with one brick sides in extra hard stock bricks in (1:3) cement mortar on 150mm thick concrete class 25/19 base slab projecting 75mm all round, rendered internally in (1:3) cement plaster and including 100mm thick concrete cover slab with slight sloped top surface and with 600 x 600mm rebated opening for steel grating (elsewhere measured) formed with 50 x 50 x 6mm galvanised angle section with lugs cast into internal edge, the bottom benched up in fine mass concrete benching in bottom floated smooth with falls and finished on all exposed surfaces with 25mm thick granolithic all complete as detailed on drawing 22104-TP-02

10	Stormwater sump exceeding 1250mm and not exceeding 1500mm deep internally	No	4
11	Stormwater sump exceeding 1500mm and not exceeding 1750mm deep internally	No	6

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12	Stormwater sump exceeding 2000mm and not exceeding 2250mm deep internally	No	2		
	<u>Excavate in earth for and build stormwater kerb inlet catch pit (type "S2") internal size 1265 x 805mm with one brick sides in extra hard stock bricks in (1:3) cement mortar on 250mm thick concrete class 25/19mm base slab projecting 258mm all round, 100mm thick concrete class 25/19mm intermediate triangular side base slabs with 75mm thick sloping drains to form overall 1220mm wide kerb inlet rendered internally in (1:3) cement plaster and including 1200mm thick precast concrete cover slabs, supported on one precast concrete support beams in one triangular side panels and centre rectangular panel with 600mm diameter rebated opening for heavy duty precast concrete cover (elsewhere measured), the bottom benched up in fine mass concrete benching in bottom floated smooth with falls and finished on all exposed surfaces with 25mm thick granolithic all complete as detailed on drawing 22104-TP-02</u>				
13	Stormwater kerb inlet catch pit exceeding 1250mm and not exceeding 1500mm deep internally	No	4		
14	Stormwater kerb inlet catch pit exceeding 1500mm and not exceeding 1750mm deep internally	No	2		
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	<u>Excavate in earth for and build stormwater kerb inlet catch pit (type "D3") internal size 1265 x 805mm with one brick sides in extra hard stock bricks in (1:3) cement mortar on 250mm thick concrete class 25/19mm base slab projecting 258mm all round, 100mm thick concrete class 25/19mm intermediate triangular side base slabs with 75mm thick sloping drains to form overall 3660mm wide kerb inlet rendered internally in (1:3) cement plaster and including 1200mm thick precast concrete cover slabs, supported on two precast concrete support beams in two triangular side panels and centre rectangular panel with 600mm diameter rebated opening for heavy duty precast concrete cover (elsewhere measured), the bottom benched up in fine mass concrete benching in bottom floated smooth with falls and finished on all exposed surfaces with 25mm thick granolithic all complete as detailed on drawing 22104-CW-10</u>				
15	Stormwater kerb inlet catch pit exceeding 1250mm and not exceeding 1500mm deep internally <u>Excavate in earth for and build stormwater inspection chamber 920 x 920mm internal size with one brick sides in extra hard stock bricks in (1:3) cement mortar on 150mm thick concrete class 25/19 base slab projecting 75mm all round, rendered internally in (1:3) cement plaster and including 100mm thick precast concrete class 30/19 cover slab bedded on brick walls with 600mm diameter rebated opening for precast concrete cover (elsewhere measured) sealed in tallow, the bottom benched up in fine mass concrete benching in bottom floated smooth with falls and finished on all exposed surfaces with 25mm thick granolithic with angles rounded including all necessary step irons, etc, all complete as detailed on drawing 22104-CW-10</u>	No	2		
16	Inspection chamber exceeding 1250mm and not exceeding 1500mm deep internally	No	2		
17	Inspection chamber exceeding 2000mm and not exceeding 2250mm deep internally	No	2		
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				R	

Covers etc

18	450 x 450mm x 50mm Thick heavy duty hot dipped galvanised banded Mentis Regtagrid RS40 grating with 50 x 4.5mm bearers bars (54.6kg/m ²) fitted in and secure to angle section frame of rebated coverslab.	No	10
19	600 x 600mm x 50mm Thick heavy duty hot dipped galvanised banded Mentis Regtagrid RS40 grating with 50 x 4.5mm bearers bars (54.6kg/m ²) fitted in and secure to angle section frame of rebated coverslab.	No	18

SUNDRIES

Subsoil drainage outlet header walls

20	Subsoil drainage headwall constructed of Class 15/19 concrete wall 500 x 500 x 100mm thick with 100mm diameter outlet pipe connection flush and watertight, with 500 x 500mm stone pitching of approximately 150mm diameter river stones tightly packed in 150mm thick layer and bedded and jointed in 1:4 cement mortar and pointed with hollow recessed joints, including preparation of ground surface under, all excavations, carting away and formwork	No	2
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Header walls

21	Stormwater headwall constructed of Class 20/19 concrete base slab 150mm thick and 1800mm long overall, the slab widening from 760mm at head to 2640mm at base end and with 150 x 600mm deep toe at discharge end and five 250 x 375mm splitters blocks projecting 250mm above slab, the slab and toe reinforced with R10 mild steel reinforcing at 300mm centres in both ways, the splitter blocks reinforced with R10 mild steel reinforcing 1200mm girth four times bent to shape, the headwall 600mm long x 510mm high with 300mm diameter outlet pipe connection flush and watertight, with two sidewalls 2850mm long sloping from 510mm to 250mm high, all of one brick walls in "NFX" extra hard stock bricks in (1:3) cement mortar, all including excavations, compaction, backfilling, formwork and smooth trowelled finish to all exposed surfaces	No	4
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22	Stormwater headwall constructed of Class 20/19 concrete base slab 150mm thick and 1800mm long overall, the slab widening from 840mm at head to 2640mm at base end and with 150 x 600mm deep toe at discharge end and five 250 x 375mm splitters blocks projecting 250mm above slab, the slab and toe reinforced with R10 mild steel reinforcing at 300mm centres in both ways, the splitter blocks reinforced with R10 mild steel reinforcing 1200mm girth four times bent to shape, the headwall 600mm long x 510mm high with 375mm diameter outlet pipe connection flush and watertight, with two sidewalls 2800mm long sloping from 510mm to 250mm high, all of one brick walls in "NFX" extra hard stock bricks in (1:3) cement mortar, all including excavations, compaction, backfilling, formwork and smooth trowelled finish to all exposed surfaces	No	2		
	<u>Reno mattresses</u>				
23	"Reno" mattress size 3 x 2 x 0,3m of 80 x 100mm galvanised mesh with 2.75mm minimum thickness heavy duty PVC coating laid on "Bidim Grade A4" geofabric including necessary excavations, etc	No	2		
	<u>Extra over excavations in soft material for pipe trenches, chambers, etc. for</u>				
24	Intermediate excavations	m3	25		
25	Hard rock	m3	12		
26	Hard rock	m3	12		
	<u>Mass concrete with a coarse aggregate of 19mm and a minimum compressive strength of 15MPa at 28 days</u>				
27	V-shaped channel 500mm wide x 100mm thick with rounded salient edges and finished on exposed surfaces with (2:1) cement mortar, laid to falls in panels not exceeding 1800mm long with 12mm bitumen impregnated softboard movement joints with exposed edges raked out for a depth of 10mm and filled with bituminous compound including all necessary excavation and formwork	m	320		
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Item No		Quantity	Rate	Amount
<u>SECTION 11</u>				
<u>BILL NO. 4</u>				
<u>PARKING, WALKWAYS, APRONS,ETC</u>				
<u>(PROVISIONAL)</u>				
Refer to 'The Preambles to Trades' as issued by the Office of the Chief Director, Department of Public Works, Roads and Transport				
NOTE:				
EPWP: All the work in this trade shall be executed in accordance with the principles of Expanded Public Works Programme , that is, labour intensive methods shall be used (www.epwp.gov.za)				
<u>ROADWORKS</u>				
<u>Excavation in earth not exceeding 2m deep</u>				
1	Reduced levels under roads and paving	m3	1,080	
<u>Extra over all excavations for carting away</u>				
2	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the Contractor	m3	1,110	
<u>Keeping excavations free of water</u>				
3	Keeping excavations free of water other than subterranean water	Item		
<u>SOIL POISONING</u>				
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	<u>Soil Treatment</u>				
4	Weed-killing treatment of surface under paving	m2	2,100		
5	Ant poison treatment ditto	m2	2,100		
	<u>FILLING</u>				
	<u>Earth filling obtained from the excavations and/or prescribed stock piles on site including haulage approximately 150m from perimeter of excavations or stock piles</u>				
6	Rip and scarify 150mm in situ layer, wet and apply heavy rollers or rammers to achieve 93% MOD AASHTO at OMC (Optimum Moisture Content). Perform testing (DCP) to such prepared ground and further wet and compact until minimum CBR (California Bearing Ratio) of 7 is reached throughout 800mm deep soil profile. (Soil tests elsewhere measured)	m2	315		
	<u>Coarse river sand filling supplied by the contractor</u>				
7	Under floors etc	m3	315		
	<u>Imported G7 material, supplied by the contractor and brought onto site, compacted in layers not exceeding 150mm thick to 95% Mod AASHTO density (Density CBR minimum of 15% at 95% Mod AASHTO density)</u>				
8	Sub-base course under paving, roads, etc.	m3	315		
	<u>Imported G5 material, supplied by the contractor and brought onto site, compacted in layers not exceeding 150mm, to 95% Mod AASHTO density (Maximum PI < 12, minimum CBR > 30 at 95% Mod AASHTO density)</u>				
9	150mm Sub-base course under paving, roads, etc.	m3	315		
	<u>Earth filling of C4 material supplied by the contractor, compacted to 97% Mod AASHTO density</u>				
10	Under paving ,roads etc	m3	315		
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<u>Compaction of surfaces</u>					
11	Compaction of ground surface under pavings, etc including scarifying for a depth of 250mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod ASSHTO density	m2	2,100		
<u>Prescribed density tests on filling</u>					
12	Modified AASHTO density test	No	20		
<u>Precast concrete, finished smooth on exposed surfaces including bedding, jointing and pointing</u>					
13	Barrier kerb (SABS 927 fig 7) with 150 x 150 x 300mm unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	1,500		
14	Barrier kerb (SABS 927 fig 7) with 150 x 150 x 300mm unreinforced concrete haunching at back of each joint circular on plan not exceeding 4m radius formed with short lengths of straight kerb including excavation, backfilling, etc	m	350		
<u>60mm "Corobrick Pavers" Clay paving blocks on 25mm thick river sand bed with sand and cement mixture swept into joints and hosed down</u>					
15	Paving in herringbone bond to assembly areas roads ,walkways, etc	m2	2,100		
16	200mm Edging on and including 200 x 150mm thick unreinforced concrete bedding including excavation, formwork, etc	m	180		
<u>80mm "Corobrick Pavers" Clay paving blocks on 25mm thick river sand bed with sand and cement mixture swept into joints and hosed down</u>					
17	Paving in herringbone bond to parking areas, etc	m2	312		
18	200mm Edging on and including 200 x 150mm thick unreinforced concrete bedding including excavation, formwork, etc	m	80		
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	<u>20 MPa/20 mm concrete</u>				
19	Surface beds cast in panels	m3	7		
	<u>Finishing top surfaces of concrete smooth with a wood float</u>				
20	Surface beds	m2	75		
	<u>Fabric reinforcement</u>				
21	Type 193 fabric reinforcement in concrete aprons	m2	11		
	<u>Smooth formwork to sides</u>				
22	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	11		
	<u>Expansion joints with bitumen impregnated softboard between vertical concrete and brick surfaces</u>				
23	12 mm Joints not exceeding 300 mm high	m	11		
	<u>Expansion joints with bitumen impregnated softboard between vertical concrete surfaces</u>				
24	12 mm Joints not exceeding 300 mm high	m	11		
	<u>RAMPS</u>				
	<u>Excavation in earth not exceeding 2m deep</u>				
25	Trenches and holes for thickening under surface beds, etc	m3	47		
	<u>Compaction of surfaces</u>				
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 90% Mod AASHTO density	m2	31		
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	<u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO density</u>				
27	Under floors, steps, pavings, etc	m3	36		
	<u>Earth filling supplied by the contractor compacted to 93% Mod AASHTO density</u>				
28	Under floors, steps, pavings, etc.	m3	20		
	<u>25MPa/19mm concrete</u>				
29	Ramps including thickenings	m3	18		
	<u>Finishing top surfaces of concrete smooth with a wood float</u>				
30	Ramps	m2	34		
	<u>Rough form work to sides</u>				
31	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	20		
	<u>Fabric reinforcement</u>				
32	Type 193 fabric reinforcement in concrete surface beds, slabs, etc	m2	30		
	<u>One layer of 250 micron "Consol Plastics Gunplas USB Green" or other equal and approved waterproof sheeting sealed at laps with "Gunplas Pressure Sensitive Tape"</u>				
33	Under surface beds, ramps, etc	m2	30		
	<u>WALKWAY SLABS</u>				
	<u>Excavation in earth not exceeding 2m deep</u>				
34	Reduced levels under floors	m3	144		
35	Trenches	m3	288		
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	<u>Extra over trench and hole excavations in earth for excavation in</u>				
36	Soft rock	m3	29		
37	Hard rock	m3	14		
	<u>Extra over all excavations for carting away</u>				
38	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	42		
	<u>Risk of collapse of excavations</u>				
39	Sides of trench and hole excavations not exceeding 1,5m deep	m2	101		
	<u>Keeping excavations free of water</u>				
40	Keeping excavations free of all water other than subterranean water		Item		
	<u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO density</u>				
41	Backfilling to trenches, holes, etc	m3	7		
	<u>Earth filling supplied by the contractor compacted to 95% Mod AASHTO density</u>				
42	Under floors, steps, pavings, etc	m3	36		
	<u>Soil insecticide</u>				
43	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m2	30		
44	To bottoms and sides of trenches	m2	17		
	<u>20MPa/19mm concrete</u>				
45	Surface beds	m3	68		
46	Strip footings	m3	38		
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	<u>Fabric reinforcement</u>				
47	Type 193 fabric reinforcement in concrete surface beds, slabs, etc	m2	68		
	<u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in class I mortar</u>				
48	One brick walls	m2	100		
	<u>Brickwork reinforcement</u>				
49	150mm Wide reinforcement built in horizontally	m	1		
	<u>External face bricks (Prime Cost Amount R 4 500.00/1000) pointed with flush horizontal and vertical joints both sides</u>				
50	Extra over brickwork for face brickwork	m2	70		
	<u>Brick-on-edge header course copings, sills, etc of external face bricks (Prime Cost Amount R 3 500.00/1000) pointed with flush joints on all exposed faces</u>				
51	220mm Wide sill set sloping and slightly projecting	m	40		
	<u>COVERED WALKWAYS</u>				
	<u>Excavation in earth not exceeding 2m deep</u>				
52	Reduced levels under floors	m3	300		
53	Trenches	m3	300		
	<u>Extra over trench and hole excavations in earth for excavation in</u>				
54	Soft rock	m3	30		
55	Hard rock	m3	15		
	<u>Extra over all excavations for carting away</u>				
56	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	150		
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	Risk of collapse of excavations				
57	Sides of trench and hole excavations not exceeding 1,5m deep	m2	20		
	Keeping excavations free of water				
58	Keeping excavations free of all water other than subterranean water		Item		
	Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO density				
59	Backfilling to trenches, holes, etc	m3	11		
	Earth filling supplied by the contractor compacted to 95% Mod AASHTO density				
60	Under floors, steps, pavings, etc	m3	6		
	Soil insecticide				
61	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m2	200		
62	To bottoms and sides of trenches	m2	14		
	20MPa/19mm concrete				
63	Surface beds	m3	6		
64	Strip footings	m3	9		
	Fabric reinforcement				
65	Type 193 fabric reinforcement in concrete surface beds, slabs, etc	m2	250		
	Brickwork of NFX bricks (14 MPa nominal compressive strength) in class I mortar				
66	One brick walls	m2	18		
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	<u>Brickwork reinforcement</u>				
67	150mm Wide reinforcement built in horizontally	m	720		
	<u>External face bricks (Prime Cost Amount R 4 500.00/1000) pointed with flush horizontal and vertical joints both sides</u>				
68	Extra over brickwork for face brickwork	m2	60		
	<u>Brick-on-edge header course copings, sills, etc of external face bricks (Prime Cost Amount R 3 500.00/1000) pointed with flush joints on all exposed faces</u>				
69	220mm Wide sill set sloping and slightly projecting	m	30		
	<u>Sundry steelwork to walkways</u>				
70	75 x 75 x 25 x 3mm Lipped channel section purlins welded on	m	120		
71	150 x 75 x 20 x 3mm Lipped channel section purlins welded on cleats	m	30		
72	75 x 75 x 3mm Hollow section coulmns 2475mm long	m	15		
73	75 x 75 x 3mm Hollow section beams and bearers etc	m	20		
74	120mm Long 75 x 75 x 5mm angle section purlin cleat welded on	No	12		
75	100 x 100 x 3mm Thick base plate welded on and casted into base	No	12		
76	M12 x 75mm Expansion bolt	No	120		
	<u>0,6mm "IBR 686" Spelter galvanised ribbed sheet steel with "globalcoat" finish on one side in single lengths fixed to timber/steel purlins and 0,6mm galvanised sheet steel accessories with "globalcoat" finish on one side</u>				
77	Roof covering with pitch not exceeding 25 degrees	m2	100		
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78	<u>Spot priming defects in pre primed surfaces with zinc chromate primer and applying one undercoat and two coat high gloss enamel paint on steel</u> On rails, bars, pipes, etc not exceeding 300 mm girth	m	50	
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Bill No. 4

Aprons, parking and paving

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	<u>SECTION 11</u>			
	<u>BILL NO. 5</u>			
	<u>CARPORTS (PROVISIONAL)</u>			
	PREAMBLESFor Preambles refer to "Standard Preambles To All Trades Rev 2 - January 2009" and "Supplementary Preambles"			
	SUPPLEMENTARY PREAMBLESProprietary items or materialsProprietary items or materials where specified are to be of the brand specified - or other approved - by the Head: Works			
	<u>NEW 15-BAYS COVERED AND 10 UNCOVERED BAYS</u>			
	(WORK GROUP 104)			
	<u>EXCAVATION, FILLING, ETC OTHER THAN BULK</u>			
	<u>Excavation in earth not exceeding 2 m deep</u>			
1	Holes	m3	38	
	<u>Extra over trench and hole excavations in soft material for</u>			
2	Soft rock	m3	4	
3	Hard rock excavation	m3	2	
	<u>Extra over all excavations for carting away</u>			
4	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	10	
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<u>Keeping excavations free of water</u>					
5	Keeping excavations free of water		Item		
<u>SOIL POISONING</u>					
<u>"Chlordane" soil insecticide</u>					
6	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m2	361		
(WORK GROUP 110)					
<u>CONCRETE, FORMWORK AND REINFORCEMENT</u>					
<u>General</u>					
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 to the approval of the architect. (Test cubes are measured separately)					
<u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u>					
<u>25MPa/19mm concrete</u>					
7	Bases	m3	19		
<u>TEST BLOCKS</u>					
8	Allow for necessary concrete test cubes size 150 x 150mm cast from batches of concrete required for the entire contract as specified, made, stored, cured and tested in accordance with SABS Method 861 and 863, including use of approved cube moulds, transporting to an approved testing laboratory for testing, paying all charges and submitting reports to the Representative/Agent		Item		
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CONCRETE SUNDRIES

Class U2 ordinary finish to top surfaces of concrete

9	Surface beds, slabs, etc	m2	361
10	Bedding approximately 25mm thick under 200 x 200mm base plate including chamfered edges all round	No	192

(WORK GROUP 124)

PROFILED METAL SHEETING AND ACCESSORIES

NOTE: The contractor is to submit a certificate signed by the merchant, stating that the roof covering supplied complies with the required thickness specified.

0,55mm Chroma deck C1S IBR 686 White Lion Roof Sheets fixed to steel purlins.

11	Roof covering	m2	188
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(WORK GROUP 134)

STEEL COLUMNS AND BEAMS

Vertical hollow sections columns fixed to flat base plate welded on and bolted to concrete

12	100 x 100 x 3mm Hollow section columns	t	2
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Welded beams, rafter, etc in single lengths with flat section bearer and connection plates bolted to steel columns including hoisting and fixing in position 2,7m above natural ground level

13	100 x 100 x 3mm Hollow section beams welded to columns	t	2
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Bolts to columns, etc

14	M12 x 75mm Expansion bolt	No	150
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PURLINS, GIRTS, BRACING, ETC

Purlins, girts, cleats, etc. bolted to steel

15	125 x 75 x 20 x 2.5 thick steel purlins	t	2.0
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(WORK GROUP 152)

PAINTWORK, ETC TO NEW WORK

**PRIMING OF STRUCTURAL STEELWORK
(CLASS P1)**

Clean surfaces, bring to a bright metallic condition and paint surfaces with one coat red oxide zinc chromate metal primer on steel:

16	On carport steel	m2	188
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ON METAL

Spot priming defects in pre-primed surfaces with 'Plascon Namelcote Synthetic Metal' and apply one coat 'Plascon Merit Universal Undercoat' and two coats 'Plascon Magic Flow Eggshell Enamel' paint on steel

17	On carport steel	m2	96
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Bill No	SECTION SUMMARY - EXTERNAL WORKS	Page No	Amount
1	Water reticulation	383	
2	Sewer	392	
3	Stormwater	402	
4	Aprons, parking and paving	413	
5	Carport	418	
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Item No		Quantity	Rate	Amount
	<u>SECTION 12</u>			
	<u>BILL NO. 1</u>			
	<u>PROVISIONAL SUMS</u>			
	1.The following sums and amounts are NET.			
	2. Under no circumstances may any Provisional Sum be extended at an amount lower than the amount given in the bill.			
	3. Unless a specific percentage mark-up for Attendance is indicated in a rate column, the amount priced by the Contractor for Attendance against each Provisional Sum shall be deemed to be the Lump Sum and shall not be adjusted unless the scope of the sub contract varies significantly.			
	4. Provisional Sums contained here-in may be omitted or reduced at the employer's sole discretion and the Contractor shall not be entitled to claim for any loss by way of reductions or omissions or any discount, or percentage relating to Provisional Sums or PC amounts or any loss of profit related thereto.			
	<u>NEW CLASSROOM FURNITURE (To be carried out by domestic sub-contractor)</u>			
1	Provide the sum of R 661 840.00 (Six Hundred and Sixty One Eight Hundred and Forty Rand) for classroom furniture installed complete	Item		661,840.00
2	Profit on above item.	Item		
3	Attendance on ditto.	Item		
	Carried to Collection		R	
	Section No. 12 PROVISIONAL SUMS Bill No. 1 PROVISIONAL SUMS Zethu Consulting Services			

EXISTING CLASSROOM FURNITURE (To be carried out by domestic sub-contractor)

4 Provide the sum of R 694 682.00 (Six Hundred and Ninety Four Thousand Six Hundred and Eighty Two Rand) for classroom furniture installed complete

Item 694,682.00

5 Profit on above item.

Item

6 Attendance on ditto.

Item

COMPUTER LAB FURNITURE (To be carried out by domestic sub-contractor)

7 Provide the sum of R 156 000.000 (One Hundred and Fifty Six Thousand Rand)

Item 156,000.00

8 Profit on above item.

Item

9 Attendance on ditto.

Item

SCIENCE LAB AND LIFE SCIENCE LAB FURNITURE (To be carried out by domestic sub-contractor)

10 Provide the sum of R 110 000.00 (One Hundred Ten Thousand Rand)

Item 110,000.00

11 Profit on above item.

Item

12 Attendance on ditto.

Item

LIBRARY FURNITURE (To be carried out by domestic sub-contractor)

13 Provide the sum of R 56 000.00 (Fifty Six Thousand Rand)

Item 56,000.00

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14	Profit on above item.	Item		
15	Attendance on ditto.	Item		
<u>SIGNAGE (To be carried out by domestic sub-contractor)</u>				
16	Provide the sum of R20 000.00 (Twenty Thousand Rand) for signage installed complete	Item	20,000.00	
17	Profit on above item	Item		
18	Attendance on ditto.	Item		
<u>ADMINISTRATION BLOCK FURNITURE (To be carried out by domestic sub-contractor)</u>				
19	Provide the sum of R201 200.00 (Two Hundred and One Thousand and Two Hundred Rand)	Item	201,200.00	
20	Profit on above item.	Item		
21	Attendance on ditto.	Item		
<u>BOREHOLE (To be carried out by domestic sub-contractor)</u>				
22	Provide the sum of R 200 000.00 (Two Hundred Thousand Rand) for borehole installed complete	Item	200,000.00	
23	Profit on above item.	Item		
24	Attendance on ditto.	Item		
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Section No. 12 PROVISIONAL SUMS Bill No. 1 PROVISIONAL SUMS Zethu Consulting Services				

WATER TANK AND STAND COMPLETE (To be carried out by domestic sub-contractor)

25 Provide the sum of R200 000.00 (Two Hundred Thousand Rand) water tank and stand complete

Item 200,000.00

26 Profit on above item.

Item

27 Attendance on ditto.

Item

STOVE, EXTRACTOR FAN, GAS BANK AND BOTTLES, FRIDGE (To be carried out by domestic sub-contractor)

28 Provide the amount of R 242 000.00 (Two Hundred and Forty Two Thousand Rand) for nutritional centre equipments installed complete

Item 242,000.00

29 Profit on above item.

Item

30 Attendance on ditto.

Item

NUTRITION CENTRE FURNITURE (To be carried out by domestic sub-contractor)

31 Provide the amount of R190 000.00 (One Hundred and Ninety Thousand Rands) for Nutrition centre equipments installed complete.

Item 190,000.00

32 Profit on above item.

Item

33 Attendance on ditto.

Item

ELECTRICAL INSTALLATION (To be carried out by domestic sub-contractor)

34 Allow the sum of R1 400 000.00 (One Million Four Hundred Rand) for electrical works installed complete

Item 1,400,000.00

35 Profit on above item

Item

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36 Attendance on ditto

COMMUNITY LIASON OFFICER

37 Allow the Budgetary Amount of R 108 000.00 (One Hundred and Eight Thousand Rand)NET for the employment of a community liaisons officer required for labour requirements by the contractor and deducted in whole part if not required.The contractor must issue copies of CLOs payslip to PA and IDT.The CLO will also report on EPWP

Item

Item

108,000.00

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Section No	<u>FINAL SUMMARY</u>	Page No		Amount
1	PRELIMINARIES	31		
2	ALTERATIONS - ADMINISTRATION BLOCK	59		
3	ALTERATIONS - 4 NO X 4 CLASSROOM	84		
4	4 CLASSROOM BLOCK	116		
5	LIBRARY	161		
6	COMPUTER LABORATORY	200		
7	SCIENCE AND LIFE SCIENCE LABORATORY	246		
8	NUTRITION CENTRE	304		
9	MULTIPURPOSE CENTRE	334		
10	TUCKSHOP	378		
11	EXTERNAL WORKS	419		
12	PROVISIONAL SUMS	425		
	SUB TOTAL		R	
	Provide the sum of R 989 000.00 (Nine Hundred and Eighty Nine Thousand Rands) for contingencies to be expended as the Client may direct or deduct			
	<u>ESCALATION</u>			
	Provide the amount of R 742 000.00 (Seven Hundred and Forty Two Thousand Rand) for escalation			
	SUB TOTAL BUILDINGS (VAT excl.)		R	
	Value Added Tax @15%		R	
	TOTAL (VAT INCL) CARRIED TO FORM OF TENDER		R	
	Carried to Form of Tender		R	
	Zethu Consulting Services			