

	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<u>KWABULUWAYO PRIMARY SCHOOL</u> <u>SECTION 1 - PRELIMINARIES</u> <u>BILL NO. 1</u> <u>PRELIMINARIES</u> <u>PRELIMINARIES NOTES</u> i) The agreement is to be the JBCC Series 2000 Principal Building Agreement, Edition 4.1 March 2005, and other contract documents that together form the contract between the employer and contractor. ii) The preliminaries are to be the JBCC Series 2000 Code 2103 Preliminaries prepared by the Joint Building Contracts Committee, May 2005 edition and shall be deemed to be incorporated herein. iii) Tenderers are referred to the abovementioned documents for the full intent and meaning of each clause thereof (hereinafter referred to by heading and clause number only) for which such allowance must be made as may be considered necessary. iv) 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. v) Where any item is not relevant to this specific contract such item is marked N/A (signifying "not applicable"). vi) If Alternative A as set out in clause B10.3 hereinafter is to be used for the adjustment of the preliminaries then each item priced is to be allocated to one or more of the three categories, by insertion of the letter "F", "V" or "T", as the case may be, against the price in the rate column, where "F" denotes a fixed amount (amount not to be varied), "V" denotes an amount variable in proportion to value and "T" denotes an amount in proportion to time. <u>SECTION A: PRINCIPAL BUILDING AGREEMENT</u> <u>Definitions (A1)</u> 1 Definitions and interpretation (clause 1) F:..... V:..... T:..... Item <u>Objective and Preparation (A2 to A14)</u> 2 Offer acceptance and performance (clause 2) F:..... V:..... T:..... Item 3 Documents (clause 3) Clause 3 will be deemed to be amended by the addition of the following: The Bills of Materials may not be used for the purposes of ordering materials F:..... V:..... T:..... Item 4 Design responsibility (clause 4) F:..... V:..... T:..... Item 5 Employer's agents (clause 5) F:..... V:..... T:..... Item 6 Site representative (clause 6) F:..... V:..... T:..... Item 7 Compliance with regulations (clause 7) F:..... V:..... T:..... Item 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				
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	<u>NO CLAUSE 13.</u>	N/A		
13	Security (clause 14) F:..... V:..... T:..... <u>Execution (A15-A23)</u>	Item		
14	Preparation for and execution of the works (clause 15) F:..... V:..... T:.....	Item		
15	Access to the works (clause 16) F:..... V:..... T:.....	Item		
16	Contract instructions (clause 17) F:..... V:..... T:.....	Item		
17	Setting out of the works (clause 18) Clause 18.1 will be deemed to be ammended by the addition of the following: "The contractor shall notify the principal agent if any encroachments of adjoining foundations, buildings, structures, pavements, boundries, etc. exist, in order that the necessary arrangements may be made for the rectification of any such encroachments" F:..... V:..... T:.....	Item		
18	Assignment (clause 19) F:..... V:..... T:.....	Item		
19	Nominated subcontractors (clause 20) F:..... V:..... T:.....	Item		
20	Selected subcontractors (clause 21) F:..... V:..... T:.....	Item		
21	Employer's Direct Contractors (clause 22) F:..... V:..... T:.....	Item		
22	Contractor's Domestic Sub-Contractors (Clause 23) F:..... V:..... T:.....	Item		
	<u>Completion (A24-A30)</u>			
23	Practical completion (clause 24) F:..... V:..... T:.....	Item		
24	Works completion (clause 25) F:..... V:..... T:.....	Item		
25	Final completion (clause 26) F:..... V:..... T:.....	Item		
26	Latent defects liability period (clause 27) F:..... V:..... T:.....	Item		
27	Sectional completion (clause 28) F:..... V:..... T:.....	Item		
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28	Revision of date of practical completion (clause 29) Clauses 29.1 & 29.2 will be deemed to be amended by the addition of the following: "In assessing the request to a revision of the date of practical completion, the principal agent will only grant an extension of time when the work on the critical path of the programme of the works is effected" Clauses 29.1.1 will be deemed to be amended by the addition of the following: "Exceptionally inclement weather, which shall only relate to weather with a degree of inclemency which is materially greater than or is materially beyond the average inclemency experienced in past years and/or recorded, in terms of available records or otherwise, at or for the area in which the site is situated, for the period(s) in question. Any revision of date for practical completion which may, in terms of this clause be allowed for exceptionally inclement weather, shall be related only to those periods of exceptionally inclement weather by which the average periods of time, during which exceptionally inclement weather is experienced and/or recorded in the area in which the site is situated, is exceeded. The contractor is therefor to make allowance for normal vagaries of the weather. In addition, the principal agent will regularly review the actual recorded on site monthly inclement rain weather records and will determine, together with the contractor, such credits due against previously granted extensions on the critical path due to inclement rain weather, for subsequent weather less severe than average" F:..... V:..... T:.....	Item		
29	Penalty for non-completion (clause 30) F:..... V:..... T:.....	Item		
	<u>Payment (A31 - A35)</u>			
30	Interim payment to the contractor (clause 31) Clause 31.6 is deemed to be amended by the addition of the following: "The value of materials and goods shall not be included in payment certificates unless a certificate of ownership and a cession of rights in favour of the employer from the contractor and each applicable sub-contractor is submitted. An approved form, to this extent, will be supplied." Clause 31.6.5# is deemed to be amended by replacing "No clause" with the following: "The inclusion of materials and goods stored off site shall only be considered upon the provision, by the contractor, of an approved guarantee issued by a registered commercial bank." F:..... V:..... T:.....	Item		
30	Adjustment to the contract value (clause 32) F:..... V:..... T:.....	Item		
31	Recovery of expense and loss (clause 33) F:..... V:..... T:.....	Item		
32	Final account and final payment (clause 34) F:..... V:..... T:.....	Item		
33	Payment to other parties (clause 35) F:..... V:..... T:.....	Item		
	<u>Cancellation (A36-A39)</u>			
34	Cancellation by employer - contractor's default (clause 36) F:..... V:..... T:.....	Item		
35	Cancellation by employer - loss and damage (clause 37) F:..... V:..... T:.....	Item		
36	Cancellation by contractor - employer's default (clause 38) F:..... V:..... T:.....	Item		
37	Cancellation - cessation of the works (clause 39) F:..... V:..... T:.....	Item		
	<u>Dispute (A40)</u>			
38	Dispute Settlement (clause 40) F:..... V:..... T:.....	Item		
	<u>Substitute Provisions (A41)</u>			
39	State clauses (Clause 41) F:..... V:..... T:.....	Item		
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THE SCHEDULE

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

40 Pre-tender information (clause 42) F:..... V:.....
T:.....

Item

42.1 CONTRACTING AND OTHER PARTIES

42.1.1 Employer : DBSA
Postal address: PO Box 1234
Halfway House
Midrand
Code: 1658
Tel: (011) 313 3423
Fax: (011) 313 3423
E-mail: khutso@dbsa.org
Physical Address: 1258 Lever Road
Headway Hill
Midrand

42.2 CONTRACT DETAILS

42.2.1 Works Description :

Removal of asbestos and repairs & renovations to existing classroom. The work generally comprises replacement of asbestos roof sheeting, gutters & downpipes, repairs to concrete surface beds, walkways, carpentry & joinery, ironmongery, ceilings, painting, etc.

42.2.2 Site Description :

The site on the existing Kwabuluway High School property in Hlabisa, Mgangatho Reserve area.

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

42.2.5 Date on which possession of the site is intended to be given:
To be finalised prior to the signing of the contract but no later than
.....?

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

5 Working days

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

Date : 8 Months after site handover

Penalty Amount : 0.05% of the contract sum rounded up to the nearest R10

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

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

42.3 INSURANCES

42.3.1 Contract works insurance to be effected by:
Contractor
For the sum of : **Contract sum plus 30%**
With a deductible of : R 0

42.3.2 Supplementary insurance is required: **Yes**

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42.3.3 Public liability insurance to be effected by :
Contractor
For the sum of : **R 5 000 000.00**
With a deductible of : **R 0**

42.4 DOCUMENTS

42.4.1 Waiver of contractors lien or right of continuing possession is required: **Yes**

42.4.2 Number of construction document copies to be supplied to the **contractor** free of charge : **Number of : 3**

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

Standard System of Measuring Building Work

42.4.4 On acceptance of the tender the bills of quantities/lump sum document is to be submitted **with the tender document at tender closing.**

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: **Yes**

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

A. Principal Building Agreement :

Clause 3	Addition
Clause 18.1	Addition
Clause 29.1 and 2	Addition
Clause 29.1.1	Addition
Clause 31.6	Addition

B. Preliminaries :

Clause B 3.11	Addition
Clause B 8.1	Amended
Clause B 11.2	Amended

SECTION B: PRELIMINARIES

Definitions and interpretation (B1)

41 Definition and interpretation (B1.1 - B1.4.6) F:..... V:.....
T:.....

Item

Documents (B2)

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

Item

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

Item

44 Availability of construction documentation (B2.3) F:.....
V:..... T:.....

Item

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

Item

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

Item

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

Item

The site (B3)

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48	Defined works area (B3.1) F:..... V:..... T:.....	Item		
49	Geotechnical investigation (B3.2) F:..... V:..... T:.....	Item		
50	Inspection of the site (B3.3) F:..... V:..... T:.....	Item		
51	Existing premises occupied (B3.4) F:..... V:..... T:.....	Item		
52	Previous work - dimensional accuracy (B3.5) F:..... V:..... T:.....	Item		
53	Previous work - defects (B3.6) F:..... V:..... T:.....	Item		
54	Services - known (B3.7) F:..... V:..... T:.....	Item		
55	Services - unknown (B3.8) F:..... V:..... T:.....	Item		
56	Protection of trees etc (B3.9) F:..... V:..... T:.....	Item		
57	Articles of value (B3.10) F:..... V:..... T:.....	Item		
58	Inspection of adjoining properties etc (B3.11) The contractor is to acquaint himself with all adjoining properties. F:..... V:..... T:.....	Item		
	<u>Management of contract (B4)</u>			
59	Management of the works (B4.1) F:..... V:..... T:.....	Item		
60	Programme for the works (B4.2) F:..... V:..... T:.....	Item		
61	Progress meetings (B4.3) F:..... V:..... T:.....	Item		
62	Technical meetings (B4.4) F:..... V:..... T:.....	Item		
63	Labour and Plant records (B4.5) F:..... V:..... T:.....	Item		
	<u>Samples, Shop Drawings and Manufacturer's Instructions (B5)</u>			
64	Samples of materials (B5.1) F:..... V:..... T:.....	Item		
65	Workmanship samples (B5.2) F:..... V:..... T:.....	Item		
66	Shop drawings (B5.3) F:..... V:..... T:.....	Item		
67	Compliance with Manufacturer's Instructions (B5.4) F:..... V:..... T:.....	Item		
	<u>Temporary works and plant (B6)</u>			
68	Deposits and fees (B6.1) F:..... V:..... T:.....	Item		
69	Enclosure of the works (B6.2) F:..... V:..... T:.....	Item		
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70	Advertising (B6.3) F:..... V:..... T:.....	Item		
71	Plant, equipment, sheds and offices (B6.4) F:..... V:..... T:.....	Item		
72	Main notice board (B6.5) F:..... V:..... T:.....	Item		
73	Subcontractors' notice board (B6.6) F:..... V:..... T:.....	Item		
	<u>Temporary services (B7)</u>			
74	Location (B7.1) F:..... V:..... T:.....	Item		
75	Water (B7.2) Option "A" shall apply F:..... V:..... T:.....	Item		
78	Electricity (B7.3) Option "A" shall apply F:..... V:..... T:.....	Item		
79	Telecommunication facilities (B7.4) F:..... V:..... T:.....	Item		
80	Ablution facilities (B7.5) Option "A" shall apply F:..... V:..... T:.....	Item		
	<u>Prime cost amounts (B8)</u>			
81	Responsibility for prime cost amounts (B8.1) Clause B8.1 is amended by the omission in the first sentence of "The contract documents shall make provision for the contractor to separately price" and replacing with "The contractor shall include in the rate of the relevant item" F:..... V:..... T:.....	Item		
	<u>Attendance on N/S Subcontractors (B9)</u>			
82	General attendance (B9.1) F:..... V:..... T:.....	Item		
83	Special attendance (B9.2) F:..... V:..... T:.....	Item		
84	Commissioning - Fuel, water and power (B9.3) F:..... V:..... T:.....	Item		
	<u>Financial aspects (B10)</u>			
85	Statutory taxes, duties and levies (B10.1) F:..... V:..... T:.....	Item		
86	Payment of preliminaries (B10.2) F:..... V:..... T:.....	Item		
87	Adjustment of preliminaries (B10.3) F:..... V:..... T:.....	Item		
88	Payment certificate cash flow (B10.4) F:..... V:..... T:.....	Item		
	<u>General (B11)</u>			
89	Protection of works (B11.1) F:..... V:..... T:.....	Item		
90	Protection/isolation of existing/sectionally occupied works (B11.2) Protection is required : No F:..... V:..... T:.....	Item		
91	Security of the Works (B11.3) F:..... V:..... T:.....	Item		
92	Notice before covering work (B11.4) F:..... V:..... T:.....	Item		
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93	Disturbance (B11.5) F:..... V:..... T:.....	Item		
94	Environmental Disturbance (B11.6) F:..... V:..... T:.....	Item		
95	Works cleaning and clearing (B11.7) F:..... V:..... T:.....	Item		
96	Vermin (B11.8) F:..... V:..... T:.....	Item		
97	Overhand work (B11.9) F:..... V:..... T:.....	Item		
98	Instruction manuals and guarantees (B11.10) F:..... V:..... T:.....	Item		
99	As built information (B11.11) F:..... V:..... T:.....	Item		
100	Tenant Installations (B11.12) F:..... V:..... T:.....	Item		
	<u>Schedule of variables (B12)</u>			
101	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 complete : Yes			
	12.1.3 Interest of agents (B2.4) N/A			
	12.1.4 Defined works area (B3.1) The defined works area will be pointed out to the contractor on the handover of the site.			
	12.1.5 Geo-technical investigation (B3.2) There is no site soil investigation report available. The contractor is to allow for digging of all necessary trial holes, that will be inspected by the Engineer prior to the commencement of any foundation work.			
	12.1.6 Existing premises occupied (B3.4) The contractor is reminded that the existing building on the premises will be occupied and is to allow for fencing of the construction site from the rest of the school as required by the National Health & Safety Act.			
	12.1.7 Previous work - dimensional accuracy (B3.4)			
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12.1.8 Previous work - defects (B3.5)

12.1.9 Services - known (B3.7)

Existing services to be pointed out to the contractor at site handover. Services are to be exposed by hand before commencing any trench excavations for new work.

Should the Contractor come in contact with any underground cables or pipes during excavations, immediate notification must be made to the Employer and all work in the vicinity of such cables, pipes, etc., shall cease until authority to proceed has been obtained from the Employer. Should the Contractor damage underground cables or pipes resulting in a disruption of services to an existing institution such damage shall be repaired immediately.

12.1.10 Protection of trees (B3.9)

12.1.11 Inspection of adjoining properties (B3.11) No specific requirements.

12.1.12 Enclosure of the works (B6.2)

The **contractor** shall provide, maintain and remove on completion of the works, an office for the exclusive use of the **principal agent and other agents**, suitably insulated, provided with electric lighting and fitted with desk and chairs. The office shall be kept clean and fit for use at all times.

12.1.13 Offices (B6.4.3)

The **contractor** shall provide, maintain and remove on completion of the works, an office for the exclusive use of the **principal agent and other agents**, suitably insulated, provided with electric lighting and fitted with desk and chairs. The office shall be kept clean and fit for use at all times.

12.1.14 Main notice board (B6.5)

The **contractor** shall provide, erect where directed, maintain and remove on completion of the **works** 1 x notice board, size 2,8 x 2,50m high, constructed of chromadek sheet. The board shall be securely fixed to hoarding, where hoarding is provided, or fixed to and including a suitable supporting structure of timber or tubular posts and braces **as per drawing attached to the back of these Bills of Quantities**.

12.1.15 Subcontractors notice board (B6.6)

A notice board is required : **No**

12.1.16 Water (B7.2)

Alternative Selected: **A (By contractor)**

12.1.17 Electricity (B7.3)

Alternative Selected: **A (By contractor)**

12.1.18 Telecommunications (B7.4)

No specific requirements.

12.1.19 Ablution facilities (B7.5)

Alternative selected: **A (By contractor)**

12.1.20 Protection of existing/sectionally occupied works (B11.2)

Protection is required : **No**

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	12.1.21 Special attendance (B9.2)	To be in accordance with clause 9.2			
	12.1.22 Protection of the works (B11.1)	No specific requirements			
	12.1.23 Disturbance (B11.5)	No specific requirements			
	12.1.24 Environmental Disturbance (B11.6)	No specific requirements			
	<u>SECTION C: SPECIFIC PRELIMINARIES</u>				
102	<u>Site instructions</u>				
	The contractor to supply a site instruction book, that is to be maintained on site. Instructions issued on site is to be recorded in triplicate. F:..... V:..... T:.....		Item		
103	<u>Royalties, Patent rights and fees</u>				
	The contractor shall fully indemnify the employer and the employers agents against any action, claim or demand of costs or expenses arising from or incurred by reason of any infringement of letters, patent design, trademark or name copyright or other protected rights in respect of any machine, plant, work, materials or article, system or method of using, fixing or arrangement used or fixed or supplied by the contractor, but such indemnity shall not cover any use of plant or part thereof otherwise than in accordance with the provisions of the specifications. All payments and royalties payable in one sum or by installments or otherwise, shall be included by the contractor in the price named in the tender and shall be paid by him to those to whom they be due or payable.F:..... V:..... T:.....		Item		
104	<u>Lead Time Items</u>				
	The contractor is to be aware of all specialist products and items that require long lead times and ensure that these items are included in his programming of the works and form part of his critical path. No adjustment to the construction period or contract value whatsoever will be entertained due to late orders of said materials and cost thereof will be for the contractor . F:..... V:..... T:.....		Item		
	<u>Occupational Health and Safety</u>				
	Without limiting the generality of the provisions of clause 7 of the Agreement the contractor's attention is drawn to the provisions of the Occupational Health and Safety Act 1993 : Construction Regulations, 2003. The contractor shall comply with the act and the regulations and the provisions thereof. The Contractor shall, without limiting his full responsibility to adhere to the act in full :				
	<ul style="list-style-type: none"> - Supply and submit a Health and Safety Plan and see to compliance therewith. - Take reasonable steps to ensure that subcontractors comply. - Ensure that all contractors keep a Health and Safety file and the principal contractor will on completion of the project supply the client with a comprehensive file - See to the appointment of a safety officer. - Perform a risk assessment. - See to Health and Safety training where applicable 				
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105	<p>By the submission of a tender, any tenderer will, if awarded the contract to which this tender document relates, be deemed to be the mandatory as envisaged by Section 37 (2) of the Act. As a mandatory the successful tenderer will be deemed to be the "principal contractor" and an employer in his/her/their own right with duties as prescribed in the Act and accordingly will be deemed to have agreed to be solely responsible for ensuring that in connection with the service to which this tender document relates, all work will be performed and machinery and plant used in accordance with the Act. Should the Contractor, for whatever reason be unable to perform as required by the Act, the Contractor undertakes to inform the Employer accordingly.</p> <p>F:..... V:..... T:.....</p> <p><u>Utilization of a Community Liason Officer (CLO)</u></p> <p>The Contractor shall allow for and pay any and all costs necessary for the engagement of the services of a CLO for the full duration of this contract.</p> <p>In the interests of providing a sound service to both the community and the Contractor, a CLO may only manage one project at any given time.</p> <p>A CLO will be identified by the local community of the surrounding areas and be approved by the Councillors(s) of the Local Municipality, in order to assist the Contractor in the procurement of any local labour, etc. required for this project and the Contractor is to liase with the CLO and afford him any assistance needed in ensuring harmonious working relations with the local community.</p> <p>Key Responsibilities of the CLO are envisaged to include and not necessarily be limited to:</p> <ol style="list-style-type: none"> 1. Assisting in sourcing labour from local resources, as required by the Contractor. 2. Assisting in sourcing labour-only domestic subcontractors and the procurement of materials from local resources, as required by the Contractor. 3. Assisting the Contractor by identifying areas of potential conflict and/or threats to the project or to stakeholders in the Project and recommend appropriate action to the Contractor. 4. Establishing and ensuring that efficient and open communication channels between the Contractor and the workforce are maintained. 5. Assisting the Contractor and stakeholders in the Project in the resolution of any conflict which may arise 6. Establishing and ensuring that sufficient and open communication channels between the Contractor and the community are maintained. 7. Identifying and reporting to the Contractor regarding issues where communication between stakeholders is necessary, recommend courses of action and facilitate such communications 8. Assisting the Contractor and the work force in the establishment of grievance procedures and make recommendations to the Contractor regarding the grievances and solutions thereto. 9. Attending site meetings and project implementation meetings as required by the Contractor and prepare periodic reports as may be required by the Contractor from time to time. 10. Attending to such other duties which are consistent with the functions of a CLO, as may be required by the Contractor from time to time. <p>Tenderer's are to price against this item for any and all costs arising out of compliance with the foregoing and in the event of a Tenderer failing to price against this item or making inadequate financial provision against this item for compliance as aforesaid, then no claim for costs or additional costs incurred will be entertained by the Client.</p>	Item			
106	<p>F:..... V:..... T:.....</p> <p>Carried to Final Summary</p>	Item			

SECTION 2 - KWABULAWAYO PRIMARY SCHOOL**BILL NO 1****ALTERATIONS (PROVISIONAL)**

For Preambles refer to The Model Preambles 2008 Edition published by the Association of South African Quantity Surveyors shall be taken to be incorporated herein.

SUPPLEMENTARY PREAMBLES

Materials from the Demolitions, Alterations, etc.

Credit for the value of materials from the alterations, etc is to be allowed for in the rates.

Reference to "New work".

All new work, items, finishes, etc. referred to in this bill in replacing existing, to be installed to existing surfaces, etc. shall be deemed to be measured elsewhere unless specifically indicated to be included ("including").

Sundries

Rates shall be deemed to include :

Cutting toothings and bonding new brickwork to existing.

Preparation of finished top of brick walls, concrete floors, etc. to receive new brickwork.

Making good internal plaster finish to concrete ceilings where brick walls are removed.

Prepare and make good top of remaining portions of brick walls where walls are broken down, to receive new screed (measured elsewhere).

Making good internal plaster finish to walls where adjoining brick walls, slabs, stairs, etc. are removed.

Neat flush intersections of all new to existing finishes, where applicable.

Rates for the taking off of existing ceilings, shall be deemed to include for disconnecting, taking off, putting aside existing light fittings, prepare and refit later in the same position, where applicable.

Asbestos

Asbestos roof sheeting, gutters, etc. should be removed and disposed of by a competent and qualified contractor. The contractor must allow for such a contractor in the rates for removal of said material. The contractor must adhere to and comply with all Health and Safety regulations, the Environmental Conservation Act., the National Environmental Management Act., and all other applicable legislation with regard to the removal, handling and disposal of asbestos material.

CPAP WORK GROUP

Unless otherwise stated all items in this bill will be Work Group 102

REMOVAL OF EXISTING WORK

Breaking up and removing reinforced concrete including cutting off and removing reinforcement

1	125mm Thick surface bed	m2	384
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FLOORS AND FLOOR FINISHES

2	Scarify existing cement screed approximately 5mm deep, including preparing to receive new vinyl finish (measured elsewhere).	m2	436
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3	Take up and remove existing vinyl tile floor covering, including cleaning off all adhesive and preparing existing screed by levelling small areas, filling cracks and holes, smoothing rough patches, leaving dry and dust free, etc. to receive new vinyl floor covering and self levelling screed (both measured elsewhere).	m2	656
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4	Take up and remove existing screed approximately 35mm thick, including preparing and proper cleaning to receive new screed (measured elsewhere).	m2	98
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	<u>WALLS, ETC.</u>			
5	Hacking off and removing internal plaster from brickwork and preparing surfaces for new plaster	m2	693	
6	Hacking off and removing external plaster from brickwork and preparing surfaces for new plaster	m2	379	
7	Break down and remove existing one brick wall	m2	77	
	<u>DOORS, WINDOWS, ETC</u>			
	<u>Take out and remove existing doors to be replaced from steel frame (new measured elsewhere)</u>			
8	Timber door, size 813 x 2032mm high	No	6	
	<u>Break out and remove existing timber doors and steel frames from one brick walls to be replaced (new measured elsewhere)</u>			
9	Timber single panel door and steel frame, size 813 x 2032mm high.	No	9	
10	Take out and remove existing gates			
11	Steel security gate and frame, size not exceeding 900 x 2100mm high	No	16	
	<u>WINDOWS</u>			
	<u>Replace existing window glazing and putty.</u>			
12	Carefully break out remove existing broken glazing panes to steel, clean out and prepare (including removing rust and treating with an approved rust converter where necessary) window frames to receive new glazing.	m2	98	
	<u>Take out and remove existing windows to be replaced</u>			
13	Window, size 1000 x 1250mm high, with sills, lintels, etc. from one brick wall and prepare opening to receive new steel window 889 x 854mm high, (new window measured elsewhere), repair reveals,sills and lintels with brickwork in cement mortar as well plastered finish in patching to both sides and paint primer, to receive undercoat and final coats (measured elsewhere), including necessary cutting, temporary support, neat flush intersections of new to existing finishes, etc.	No	50	
14	Window, size 1000 x 1250mm high, with sills, lintels, etc. from one brick wall and prepare opening to receive new steel window 1143 x 921mm high, (new window measured elsewhere), repair reveals,sills and lintels with brickwork in cement mortar as well plastered finish in patching to both sides and paint primer, to receive undercoat and final coats (measured elsewhere), including necessary cutting, temporary support, neat flush intersections of new to existing finishes, etc.	No	28	
15	Window, size 1500 x 950mm high, with sills, lintels, etc. from one brick wall and prepare opening to receive new steel window 889 x 854mm high, (new window measured elsewhere), repair reveals,sills and lintels with brickwork in cement mortar as well plastered finish in patching to both sides and paint primer, to receive undercoat and final coats (measured elsewhere), including necessary cutting, temporary support, neat flush intersections of new to existing finishes, etc.	No	4	
	<u>CEILINGS, ETC</u>			
	<u>Take down and remove existing ceilings, etc. and prepare to receive new ceilings and cornices.</u>			
16	Gypsum or Fibre-cement plaster board ceilings and timber brandering form timber trusses, including cover strips, cornices, insulation, etc.	m2	656	
	<u>ROOFS, ETC</u>			
	<u>Carefully take off and remove from timber roof structure and prepare to receive new</u>			
17	IBR roof coverings and purlins	m2	999	
	<u>Take off and remove existing rainwater goods including fittings, etc., from timber roof structure, fascias, etc. and prepare to receive new.</u>			
18	PVC eaves gutters.	m	164	
	<u>Take off and remove existing rainwater goods including fittings, etc., from plastered brickwork or concrete, repair and prepare to receive new.</u>			

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19	PVC downpipes. <u>Take down and remove existing fibre cement fascias and barge boards, including fittings, etc. from timber roof structure and prepare to receive new.</u>	m	54	
20	Fascias and barge boards <u>AIA Consultant</u>	m	228	
21	Provide the sum of R45,000.00 (Forty Five Thousand) for the appointment of an AIA consultant to monitor asbestos removal.	Item	1	
22	Profit and attendance	%IT		
	Carried Forward to Summary of Section No. 2			

BILL NO 2**FOUNDATIONS (PROVISIONAL)**

PREAMBLES For Preambles refer to The Model Preambles 2008 Edition published by the Association of South African Quantity Surveyors shall be taken to be incorporated herein.

SUPPLEMENTARY PREAMBLES

Nature of material to be excavated

The material to be excavated is assumed to be predominantly of a composition that will allow "soft excavation" as specified, but including a percentage of "intermediate excavation" and "hard rock excavation"

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

Dewatering of excavations

The Contractor shall allow for removing seepage and other water from subterranean sources from the excavations by pumping, baling or otherwise Accurate records of all such dewatering shall be kept to determine the total volume of water so removed and a clear distinction shall be made between water from subterranean sources and other water

Density Tests

The cost of all density tests in connection with filling, etc. shall be borne by the contractor and shall be allowed for in his rates.

Equal or Approved

Wherever a trade name for any product/item has been described in the bills of quantities / lump sum document, the tenderer's attention is drawn to the fact that any other product of equal quality may be used subject to the written approval of the principal agent being obtained prior to the closing date for submission of tenders.

Unless otherwise stated all items in this bill will be Work Group 104

EXCAVATION, ETC**Site clearance**

- 1 Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc.

m2 71

Soft excavation not exceeding 2m deep for

- 2 Reduced levels under floors

m3 5

- 3 Trenches

m3 91

Extra over trench and hole excavations in earth for excavation in

- 4 Soft rock

m3 1,94

- 5 Hard rock

m3 0,96

Risk of collapse of excavations

- 6 Sides of trench and hole excavations not exceeding 1,5m deep

m2 261

Keeping excavations free from water

- 7 Keeping excavations free from mud and all water other than from subterranean sources

Item 1

FILLING, ETC

Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 95% Mod AASHTO density in layers not exceeding 150mm in depth

- 8 Under floors, steps, pavings, etc.

m3 2

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9	Backfilling to trenches, holes, etc. <u>Approved gravel filling (G5) supplied and carted on by the contractor, compacted to 95% Mod AASHTO density</u>	m3	9		
10	Under floors, steps, pavings, etc. <u>Approved gravel filling (G7) supplied and carted on by the contractor, compacted to 98% Mod AASHTO density</u>	m3	3		
11	Under floors, steps, pavings, etc. <u>Dry, clean, and washed river sand filling</u>	m3	83		
12	25mm Thick under floors, etc. <u>Compaction of surfaces</u>	m2	17		
13	Compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 95% Mod AASHTO density <u>Extra over all excavations for carting away</u>	m2	182		
14	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor <u>PROTECTION AGAINST TERMITES</u> <u>Soil insecticide</u>	m3	33		
15	Under floors, etc including forming and poisoning shallow furrows against foundation walls, etc and filling in furrows and ramming <u>(CPAP WORK GROUP 110)</u> <u>UNREINFORCED CONCRETE</u> <u>Class 10MPa / 19mm concrete</u>	m2	182		
16	Blinding cast against excavated surfaces <u>REINFORCED CONCRETE</u> <u>Class 25MPa / 19mm concrete</u>	m3	1		
17	Strip footings <u>(CPAP WORK GROUP 114)</u> <u>REINFORCEMENT</u> <u>High tensile steel reinforcement to structural concrete work</u>	m3	24		
18	10mm Diameter bars <u>Fabric reinforcement</u>	t	1,97		
19	Type 193 fabric reinforcement in concrete surface beds, slabs, etc. <u>(CPAP WORK GROUP 118)</u> <u>BRICKWORK</u> <u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in class I mortar in foundations (Provisional)</u>	m2	26		
20	One brick walls	m2	122		
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	<u>Brickwork reinforcement</u>			
21	150mm Wide reinforcement built in horizontally	m	508	
	<u>FACE BRICKWORK</u>			
	<u>Face bricks at a purchase price of R8500.00/1000, bricks delivered to site pointed with recessed horizontal and vertical joints</u>			
21	Extra over brickwork for face brickwork in foundations	m2	88	
	<u>Roller course copings, sills, etc of face bricks at a purchase price of R8500.00/1000, delivered to site pointed with ruled flush joints on all exposed faces</u>			
23	Coping on top of one brick wall	m	103	
	Carried Forward to Summary of Section No. 2			

BILL NO 3**CONCRETE, FORMWORK AND REINFORCEMENT**

PREAMBLES For Preambles refer to The Model Preambles 2008 Edition published by the Association of South African Quantity Surveyors shall be taken to be incorporated herein.

CPAP WORK GROUP

Unless otherwise stated all items in this bill will be Work Group 110

REINFORCED CONCRETE

Class 20MPa / 19mm concrete

- 1 Surface beds, in panels on waterproofing

m3 40

CONCRETE SUNDRIES

Finishing top surfaces of concrete smooth with a steel trowel to class U2 finish (Provisional)

- 2 Surface beds, slabs, etc

m2 398

CONCRETE TESTING

- 3 Allow for all necessary concrete test cubes size 150 x 150 x 150mm cast from batches of concrete required for the entire contract as specified, made, stored, cured and tested in accordance with SABS Methods 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 Principal Agent.

Item 1

MOVEMENT JOINTS, ETC (PROVISIONAL)

Expansion joints with bitumen impregnated softboard between horizontal concrete and brick surfaces

- 4 12mm Joints not exceeding 300mm high

m 72

REINFORCEMENT (PROVISIONAL)

Fabric reinforcement

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

m2 398

Carried Forward to Summary of Section No. 2

BILL NO 4**MASONRY**

PREAMBLES For Preambles refer to The Model Preambles 2008 Edition published by the Association of South African Quantity Surveyors shall be taken to be incorporated herein.

SUPPLEMENTARY PREAMBLES**BRICKWORK**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

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

Sundries

Rates of walls, etc. shall be deemed to include for leaving or forming rectangular holes through walls, etc., as well as all rough square, raking and splay cutting and fair square cutting.

Brick reinforcement

Descriptions of brickwork shall be deemed to include for steel reinforcing fabric as specified every fourth course in superstructure and every course in foundations. Additional reinforcement in lintels, etc is measured separately.

Face bricks

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

Pointing

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

BLOCKWORKConcrete 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

Blockwork shall comply with SABS 0145 "Concrete Masonry Construction"

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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	<u>Equal or Approved</u>			
	Wherever a trade name for any product/item has been described in the bills of quantities / lump sum document, the tenderer's attention is drawn to the fact that any other product of equal quality may be used subject to the written approval of the principal agent being obtained prior to the closing date for submission of tenders.			
	<u>CPAP WORK GROUP</u>			
	Unless otherwise stated all items in this bill will be Work Group 118			

	<u>BRICKWORK</u>			
	<u>Brickwork of NFP bricks in cement mortar</u>			
1	Half brick walls	m2	5	
2	Half brick walls in beamfilling	m2	2	
3	One brick walls	m2	82	
	<u>BRICKWORK SUNDRIES</u>			
	<u>Prestressed fabricated lintels</u>			
4	110 x 75mm Lintels in lengths not exceeding 3m (Provisional)	m	8	
	<u>Brickwork reinforcement (Provisional)</u>			
5	75mm Wide reinforcement built in horizontally	m	10	
6	150mm Wide reinforcement built in horizontally	m	145	
	<u>Galvanised hoop iron cramps, ties, etc</u>			
7	32 x 1,6mm Roof tie 1500 mm long with one end fixed to timber and other end built into brickwork (Provisional)	No	9	
	<u>FACE BRICKWORK</u>			
	<u>Face bricks at a purchase price of R8500.00/1000, bricks delivered to site with pointed recessed horizontal and vertical joints</u>			
8	Extra over brickwork for internal face brickwork	m2	6	
9	Extra over brickwork for external face brickwork	m2	139	
10	Extra over brickwork for face brickwork in beamfilling	m2	2	
11	Extra over brickwork for brick-on-edge header course lintel pointed on face and 110mm soffit	m	6	
	<u>Brick-on-edge header course copings, sills, etc of face brickwork at a purchase price of R8500.00/1000, delivered to site pointed with ruled flush joints on all exposed faces</u>			
12	200mm Wide sill set sloping and slightly projecting	m	5	
	<u>Roller course copings, sills, etc of face bricks at a purchase price of R8500.00/1000, delivered to site pointed with ruled flush joints on all exposed faces</u>			
13	Coping on top of one brick wall	m	25	
	Carried Forward to Summary of Section No. 2			

BILL NO 5**WATERPROOFING**

PREAMBLES For Preambles refer to The Model Preambles 2008 Edition published by the Association of South African Quantity Surveyors shall be taken to be incorporated herein.

SUPPLEMENTARY PREAMBLES**Equal or Approved**

Wherever a trade name for any product/item has been described in the bills of quantities / lump sum document, the tenderer's attention is drawn to the fact that any other product of equal quality may be used subject to the written approval of the principal agent being obtained prior to the closing date for submission of tenders.

CPAP WORK GROUP

Unless otherwise stated all items in this bill will be Work Group 120

WATERPROOFING**DAMP-PROOFING OF WALLS AND FLOORS****One layer of 375 micron embossed damp proof course**

1

In walls

m2

8

One layer of 250 micron, USB Green waterproof sheeting sealed at laps with pressure sensitive tape

2

Under surface beds

m2

182

JOINT SEALANTS, ETC**Thioflex 600 polysulphide sealing compound, including bond breaker, backing cord, primer, etc. and raking out of joint filler as necessary**

3

12mm x 12mm Deep vertical expansion joints (Provisional)

m

72

Secomastic non-hardening waterproof compound in pointing all round frames at junctions with brickwork or concrete and leave perfectly watertight

4

Steel door or window frames

m

24

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BILL NO 6**ROOF COVERINGS, ETC**

PREAMBLES For Preambles refer to The Model Preambles 2008 Edition published by the Association of South African Quantity Surveyors shall be taken to be incorporated herein.

SUPPLEMENTARY PREAMBLESFixing

Fixing shall be done according to SABS 1200HB

General

Descriptions of counter, cover, etc. flashings shall be deemed to include for raking out joints of brickwork and pointing in 1:4 cement mortar unless otherwise stated

Equal or Approved

Wherever a trade name for any product/item has been described in the bills of quantities / lump sum document, the tenderer's attention is drawn to the fact that any other product of equal quality may be used subject to the written approval of the principal agent being obtained prior to the closing date for submission of tenders.

CPAP WORK GROUP

Unless otherwise stated all items in this bill will be Work Group 124

PROFILED METAL SHEETING AND ACCESSORIES

0,58mm Thick "Brownbuilt Concealed Fix Klip-Lok 700" heavy industrial Z200 spelter ISQ550 galvanised steel roof sheeting with coloured " Chromadek" finish to one side and Pebble Grey backing coat to the other side, fixed to timber purlins at 2500mm centres with appropriate clips and fixed with self drilling wafer head screws

1	Roof covering with pitch not exceeding 25° degrees	m2	1024
2	Ridge capping 460mm girth	m	99
<u>Sundries</u>			
3	Moulded narrow or broad rib polyethylene filler blocks to profiled metal sheeting (Provisional)	m	198

ROOF AND WALL INSULATION

4mm Alububble aluminium foil double sided insulation

4	Insulation laid taut over trusses or rafters (at approximately 1200mm c/c) and fixed concurrent with roof covering, including pvc coated straining wires at 500mm centres	m2	970
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BILL NO 7**CARPENTRY AND JOINERY**

PREAMBLES For Preambles refer to The Model Preambles 2008 Edition published by the Association of South African Quantity Surveyors shall be taken to be incorporated herein.

SUPPLEMENTARY PREAMBLES**Fixing**

All nailing of timber roof trusses, purlins, etc shall be done with galvanised nails. In coastal areas, copper, aluminium or stainless steel nails shall be used

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

Where items are described as "bolted" the bolts have been measured elsewhere

Equal or Approved

Wherever a trade name for any product/item has been described in the bills of quantities / lump sum document, the tenderer's attention is drawn to the fact that any other product of equal quality may be used subject to the written approval of the principal agent being obtained prior to the closing date for submission of tenders.

CPAP WORK GROUP

Unless otherwise stated all items in this bill will be Work Group 126

ROOFS, ETC.**PREFABRICATED ROOF TRUSSES, ETC.****Plate nailed timber roof truss construction**

The dimensions in the descriptions of the trusses are nominal and actual measurements are to be obtained from the Principal Agent and/or from the site before design or fabrication commences

The following is applicable in respect of the loading of roof trusses :

Max. trusses spacing : 1150mm centres
Eaves overhang : 600mm
Roof covering : 0.58mm Kliplock metal roof sheeting
Purlins : 50 x 75mm at approx. 1200mm centres
General pitch : 17.5 degrees

Sawn softwood (Provisional)

1	Double pitched full truss, bottom cord 2960mm long x 700mm high overall with 600mm eaves overhang projection on both sides	No	4
2	Double pitched full truss, bottom cord 8500mm long x 1300mm high overall with 600mm eaves overhang projection on both sides	No	7
<u>Sawn softwood (Provisional)</u>			
3	38 x 114mm Wall plates	m	8
4	38 x 114mm Longitudinal bracing	m	16
5	38 x 114mm Cross bracing	m	21
6	38 x 114mm Rafters in lengths exceeding 3,9m and not exceeding 6,6m	m	17
7	50 x 76mm Purlins	m	873
<u>Wrought softwood</u>			
8	50 x 76mm Purlins	m	484
9	50 x 76mm Trimmers	m	73

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	<u>Sundries</u>			
10	Wrought faces on sawn timbers	m2	197	
11	Two coats creosote on sawn timbers	m2	299	
12	Teco two way hurricane clips	No	1674	
	<u>EAVES, VERGES, ETC</u>			
	<u>Nutec fibre-cement, with plain finish</u>			
13	15 x 225mm Fascias, including galvanised steel H-profile jointing strips	m	197	
14	80 x 200mm Angle section barge boards, including galvanised steel H-profile jointing strips	m	73	
	<u>SKIRTINGS</u>			
	<u>Wrought meranti</u>			
15	19 x 75mm Skirting, including 19mm quadrant bead plugged	m	428	
	<u>FRAMED DOORS, ETC</u>			
	<u>Wrought meranti framed doors</u>			
16	40mm Framed, ledged and braced batten door, size 813 x 2032mm high of 40 x 100mm top rail and stiles, 20 x 225mm bottom rail and 20 x 150mm middle ledge and braces, filled in with tongued and grooved V-jointed vertical boarding one side, let into and including rebates all round	No	13	
	<u>FLUSH DOORS</u>			
	<u>Solid flush doors with hardboard covering on both sides hung to timber frames</u>			
17	32mm Door 813 x 2032mm high, with 300mm undercut	No	4	
	<u>FITTINGS</u>			
	<u>STORE ROOM & KITCHEN SHELVES</u>			
	<u>Wrought Laminated SA Pine</u>			
18	22mm Shelves 350mm wide	m	24	
19	22mm Shelves, 450mm wide	m	8	
	Carried Forward to Summary of Section No. 2			

BILL NO 8**CEILINGS, PARTITIONS AND ACCESS FLOORING**

PREAMBLES For Preambles refer to The Model Preambles 2008 Edition published by the Association of South African Quantity Surveyors shall be taken to be incorporated herein.

SUPPLEMENTARY PREAMBLESProprietary items or materials

Proprietary items or materials where specified are to be of the brand specified - or other approved - by the Head: Works

Descriptions:

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

CPAP WORK GROUP

Unless otherwise stated all items in this bill will be Work Group 129

NAILED UP CEILINGSWrought Meranti cornice

- 1 13 x 67mm Skirting nailed

m 867

'Everite Nu-cornice'

- 2 75mm High polystyrene coved cornice, fixed to wall and ceiling

m 13

6mm "Everite Nutec" fibre cement board with H-type pressed steel jointing strips

- 3 Ceilings, including 38 x 38mm sawn softwood branderling at 600mm centres and at all perimeter edges

m2 8

0.58mm "Brownbuilt Supa-Clad" Z275 spelter galvanised IBR sheet steel with Colomet finish to one side and half coat Colomet Grey other side fixed to timber purlins.

- 4 Ceilings on and including 50 x 75mm sawn softwood branderling at 400mm centres in one direction

m2 654

- 5 Extra over ceiling for opening 680 x 680mm trap door complete with trimmers, cross branders, IBR sheeting, steel frame, hinges, etc., as detailed on Architect's Drawing No. NC19/03/251 at the back of these bills of quantities.

No 13

Resin bonded glass fibre or rock mineral wool insulation (Provisional)

- 6 50mm Insulation closely fitted and laid on top of branderling between roof timbers etc

m2 662

Carried Forward to Summary of Section No. 2

BILL NO 9**FLOOR COVERINGS**

PREAMBLES For Preambles refer to The Model Preambles 2008 Edition published by the Association of South African Quantity Surveyors shall be taken to be incorporated herein.

SUPPLEMENTARY PREAMBLES

Proprietary items or materials

Proprietary items or materials where specified are to be of the brand specified - or other approved - by the Head: Works

Cleaning

Rates for floor covering shall include for stripping and proper cleaning on completion

Unless otherwise stated all items in this bill will be Work Group 130

FLOOR COVERINGS

300 x 300 x 2.5mm "Floorworx Supa Flex" vinyl floor tiles

1	On floors	m2	609
2	On floors in patterns	m2	54

POLISH, SEALERS, ETC

3	Prepare and strip vinyl flooring with an approved vinyl wax stripper and apply three coats heavy duty commercial vinyl floor sealant, mechanically buffed up to high gloss finish	m2	663
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BILL NO 10**IRONMONGERY**

PREAMBLES For Preambles refer to The Model Preambles 2008 Edition published by the Association of South African Quantity Surveyors shall be taken to be incorporated herein.

SUPPLEMENTARY PREAMBLES**Fixing**

Unless otherwise stated all ironmongery is to be fixed to wood

Where ironmongery are described as "fixed to metal" rates shall be deemed to include for preparation of pressed steel, mild steel, aluminium, etc. frames, doors, etc. for complete preparation, including mortising, drilling, etc.

Descriptions of wall mounted and floor standing ironmongery items shall be deemed to include for fixing in position and all fixing accessories

Descriptions of proprietary items shall be deemed to include fixing in position and all fixing accessories as specified by the manufacturer

Equal or Approved

Wherever a trade name for any product/item has been described in the bills of quantities / lump sum document, the tenderer's attention is drawn to the fact that any other product of equal quality may be used subject to the written approval of the principal agent being obtained prior to the closing date for submission of tenders.

CPAP WORK GROUP

Unless otherwise stated all items in this bill will be Work Group 132

CATCHES, CABIN HOOKS, ETC**"Assa Abloy"**

- | | | | |
|---|---|----|----|
| 1 | AL8721AS, hat and coat hook | No | 2 |
| 2 | 200mm CH cabin hook and eye including 70 x 70 x 20mm chamfered hardwood block twice oiled, plugged and screwed to brickwork or concrete | No | 12 |

LOCKS & HANDLES**"Assa Abloy"**

- | | | | |
|---|--|----|----|
| 3 | 50mm Brass padlock | No | 12 |
| 4 | AL6C45-05AS/L-22315-76SS/2 x 18sc "Ceder" Cylinder lock set with striking plate fixed to metal | No | 17 |

LETTERS, NAMEPLATES, ETC

35mm High x 3mm thick clear perspex plates with 16mm high "elvetica" engraved letters or numerals, twice drilled for and screwed to timber

- | | | | |
|---|---|----|----|
| 5 | Plates with exceeding five and not exceeding ten letters or numerals | No | 16 |
| 6 | Plates with exceeding ten and not exceeding fifteen letters or numerals | No | 2 |

60mm High x 3mm thick clear perspex plates with 16mm high "elvetica" engraved letters or numerals, twice drilled for and screwed to timber

- | | | | |
|---|---|----|---|
| 7 | Plates with exceeding ten and not exceeding fifteen letters or numerals | No | 1 |
|---|---|----|---|

SUNDRIES**"Assa Abloy"**

- | | | | |
|---|--|----|----|
| 8 | 87001SS Floor mounted door stop, plugged | No | 17 |
|---|--|----|----|

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<u>PINNING BOARDS, WRITING BOARDS, PROJECTION SCREENS, ETC</u>			
<u>"Vitrex System 1000"</u>			
9	Chalkboard, size 2400 x 1140mm high, with 2400mm milled aluminium chalk rail, plugged and screwed to brickwork or concrete	No	22
<u>"Parrot"</u>			
10	"Parrot" pinning board, size 1200 x 900mm high (Code BD0241), plugged and screwed to brickwork	No	25
<u>SAFE'S</u>			
<u>"Mutual Austen" or equal approved</u>			
11	WL3 Security wall safe size, 295 x 250 x 450mm high, fixed to concrete	No	1
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BILL NO 11**METALWORK**

PREAMBLES For Preambles refer to The Model Preambles 2008 Edition published by the Association of South African Quantity Surveyors shall be taken to be incorporated herein.

SUPPLEMENTARY PREAMBLES**Descriptions**

Descriptions of bolts shall be deemed to include nuts and washers

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

Metalwork described as "holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described

Setting up and building in of windows, frames, etc.

Description of all windows, frames, combination doors, louvre units, etc. shall be deemed to include for setting up, building in or fixing to brickwork, blockwork, concrete, etc., unless otherwise stated.

Jointing

Rates for steelwork shall be deemed to include for labour to all intersections

Equal or Approved

Wherever a trade name for any product/item has been described in the bills of quantities / Lump sum document, the tenderer's attention is drawn to the fact that any other product of equal quality may be used subject to the written approval of the principal agent being obtained prior to the closing date for submission of tenders.

CPAP WORK GROUP

Unless otherwise stated all items in this bill will be Work Group 136

WELDED HOT DIPPED GALVANISED SCREENS, GATES, ETC**Welded screens, gates and frames**

1	Square hollow section framing of 50 x 50 x 3mm stiles and top rail, for single gate size 843 x 2170mm high, including mitred intersection and four 25 x 3 x 200mm long flat section lugs, etc. as per detail on drawing NC19/03-(2+4)B-002	No	12
2	Square hollow section framing of 50 x 50 x 3mm stiles and top rail, for double gate, size 1515 x 2150mm high, including mitred intersection and four 25 x 3 x 200mm long flat section lugs, etc. as per detail DT 31, 32, 33 & 33B on drawing NC19/03 - R+R/231 at the back of the bill of quantities	No	2
3	Single gate 877 x 2170mm high of 60 x 30 x 3mm hollow section frame, two 30 x 6mm flat section intermediate rails and filled in with 12mm diameter vertical bars at maximum 95mm centres, with three 25mm diameter x 80mm long pin hinges with 35 x 35 x 8mm flat bar brackets, etc., as per detail on drawing NC19/03 - (2+4)B-002	No	12
4	Double gate, 1515 x 2150mm high overall formed of two leaves each of 60 x 40 x 2mm rectangular tubing section frame, two 40 x 6mm flat section intermediate rails and filled in with 19mm diameter vertical bars at maximum 95mm centres, including hinges, 200mm drop bolt with catch, lock box, union double cylinder deadlock, etc. as per detail D31, 32, 33 & 33B on drawing NC19/03 - R+R/231 at the back of the bill of quantities	No	2
<u>HOT DIPPED GALVANIZED PRESSED STEEL DOOR FRAMES</u>			
<u>1.2mm Double rebated frames suitable for one brick walls</u>			
5	Frame for door, size 813 x 2032mm high	No	17

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HOT DIPPED GALVANIZED STEEL WINDOWS, DOORS, ETC				
<u>Residential type windows, with standard chrome plated fittings to suit opening sashes, fitted with 20 x 5mm thick flat section burglar bars to opening and fixed sections, bent 75mm away from glass surfaces at fixed sections</u>				
6	Window type ND2F, size 1022 X 1245mm high.	No	3	
7	Window type C4H, size 1511 x 949mm high.	No	3	
8	Window type ND4F, size 1511 X 1245mm high.	No	1	
<u>Standard galvanised steel bottom hung school type windows, including all approved standard brass fittings complete with window fitted with 8mm diameter burglar bars to opening sections</u>				
9	Window type SS32, size 978 x 987mm high.	No	34	
10	Window type SS33, size 978 x 1445mm high.	No	44	
11	Window type SS42, size 1303 x 987mm high.	No	1	
Carried Forward to Summary of Section No. 2				

BILL NO 12**PLASTERING (PROVISIONAL)**

PREAMBLES For Preambles refer to The Model Preambles 2008 Edition published by the Association of South African Quantity Surveyors shall be taken to be incorporated herein.

SUPPLEMENTARY PREAMBLESGranolithic

Granolithic finish to floors shall be composed of one part cement, half part clean pit sand screened through 2,4mm mesh sieve and two parts granite or other approved hard stone chippings, mechanically or steel trowel finished to a smooth polished surface and cured for at least seven days after laying. No dry cement powder or grout shall be added to the surface.

Equal or Approved

Wherever a trade name for any product/item has been described in the bills of quantities / lump sum document, the tenderer's attention is drawn to the fact that any other product of equal quality may be used subject to the written approval of the principal agent being obtained prior to the closing date for submission of tenders.

CPAP WORK GROUP

Unless otherwise stated all items in this bill will be Work Group 142

SCREEDSScreeds on concrete

- 1 30mm Thick on floors and landings

m2 663

Prepare new screeded surface and apply 'TAL Screed master ' or similar approved self-levelling screed, all in accordance with the manufacturer's instructions;

- 2 3mm Thick on floors and landings

m2 663

INTERNAL PLASTERCement plaster on brickwork

- 3 On walls

m2 74

- 4 On narrow widths

m2 2

EXTERNAL PLASTERCement plaster on brickwork

- 5 On walls

m2 198

Carried Forward to Summary of Section No. 2

BILL NO 13**PLUMBING AND DRAINAGE (PROVISIONAL)**

PREAMBLES For Preambles refer to The Model Preambles 2008 Edition published by the Association of South African Quantity Surveyors shall be taken to be incorporated herein.

SUPPLEMENTARY PREAMBLESWire gratings

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

Equal or Approved

Wherever a trade name for any product/item has been described in the bills of quantities / lump sum document, the tenderer's attention is drawn to the fact that any other product of equal quality may be used subject to the written approval of the principal agent being obtained prior to the closing date for submission of tenders.

CPAP WORK GROUP

Unless otherwise stated all items in this bill will be Work Group 148

RAINWATER DISPOSAL

Seamless mild steel Ogee gutters with backed enamel finish fixed to suppliers specification. with 100 x 75mm fluted mild steel downpipes with baked enamel finish fixed as per suppliers detail. Bracket min. 450mm centres

1	155 x 100mm deep "Ogee" eaves gutters with beaded front edge in continuous lengths	m	8
2	Extra over eaves gutter for stopped end	No	4
3	Extra over eaves gutter for outlet for 75 x 100mm pipe including wire grating	No	2
4	75 x 100mm Rainwater pipes in continuous lengths	m	4
5	Extra over rainwater pipe for eaves offset 635mm projection	No	2
6	Extra over rainwater pipe for shoe	No	2
<u>Seamless aluminium Ogee gutters with backed "COLOMET" finish fixed to suppliers specification. with 80mm square downpipes with baked enamel finish fixed as per suppliers detail. Bracket min. 450mm centres</u>			
7	100 x 100mm "Ogee" roof gutters	m	189
8	Extra over eaves gutter for stopped end	No	12
9	Extra over eaves gutter for outlet for 80 x 80mm pipe including wire grating	No	20
10	80 x 80mm Rainwater pipes in continuous lengths	m	55
11	Extra over rainwater pipe for eaves offset 635mm projection	No	9
12	Extra over rainwater pipe for shoe	No	20

Carried Forward to Summary of Section No. 2

BILL NO 14**INTERNAL ELECTRICAL INSTALLATION**

PREAMBLES For Preambles refer to The Model Preambles 2008 Edition published by the Association of South African Quantity Surveyors shall be taken to be incorporated herein.

REFERENCES

References to "item" in this Bill will refer to the annexed "Electrical Installation - Project Specification - Annexure B", that will be applicable, as prescribed, whether being directly referred to or not.

SUPPLEMENTARY PREAMBLES

All work must be carried out under full time supervision of a Master Installation Electrician and the statutory Certificate of Compliance, as per clause 8.8 of SABS 0142-1, shall be issued after completion to the Department. Full particulars as requested under clauses 8.8.1 and 8.8.2 must be indicated on the Certificate of Compliance. The special Section 5- "Responsibility" of clause 8.8.1 must be completed in full and dually signed off by the responsible persons and the information required under 8.8.2 "Additional Certificate of Compliance for a Medical Location" must be completed in full

Guarantee

Guarantee the efficient and safe working of all the installations in this Bill for 12 months after hand over of the completed building to the Department

Electrical cables

The PVC insulated 600/1000V grade cables shall be manufactured in accordance with SABS 1507 and shall be handled and installed in accordance with SABS 0198- "The Selection, Handling and Installation of Electric Power Cables of Rating not Exceeding 33kV"

Chasing

Chasing and making good have not been measured separately and shall be deemed to be included in the descriptions of conduits

Outlet conduit boxes

Outlet boxes shall be of the flush type, chased or built into walls unless otherwise stated.

Equal or Approved

Wherever a trade name for any product/item has been described in the bills of quantities / lump sum document, the tenderer's attention is drawn to the fact that any other product of equal quality may be used subject to the written approval of the principal agent being obtained prior to the closing date for submission of tenders.

(CPAP WORK GROUP 162)**LOW TENSION DISTRIBUTION****CABLES**

600/1000 V PVC/PVC/SWA/PVC copper cable laid in trenches (trenching and backfilling measured elsewhere)

1	6 mm ² 3-Core	m	85
2	10 mm ² 3-Core	m	95

CABLE TERMINATIONS

Termination for 600/1000 V PVC/PVC/SWA/PVC copper cables

3	6 mm ² 3-Core	No	6
4	10 mm ² 3-Core	No	4

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<u>SLEEVES</u>			
<u>Unplasticised polyvinyl chloride (UPVC) sleeve piping including short lengths and jointing, laid in trench (trench backfilling measured elsewhere)</u>			
5	50mm Diameter pipes	m	27
<u>Extra on UPVC piping for:</u>			
6	50mm Diameter long radius bend	No	9
<u>(CPAP WORK GROUP 104)</u>			
<u>EXCAVATIONS, ETC.</u>			
<u>Excavate in soft material and set excavated material aside for re-use as filling for:</u>			
7	Cable or sleeve trenches not exceeding 1m deep	m3	80
8	Extra over trench excavations for cables or sleeves for intermediate excavation	m3	4
9	Selected sifted sand, in backfilling in trenches	m3	6
10	Selected and approved material from the excavations, in backfilling in trenches and compacted to 93% Mod.AASHTO density	m3	74
11	Surplus material from the excavations spread and levelled over the site and lightly compacted	m3	6
<u>Sundries</u>			
12	Cable warning tape placed 150mm above cables in excavations	m	160
13	Standard pre-cast concrete (class B) Cable Route Markers, extreme size 250 x 250mm at base, with sides battered to 160 x 160mm top surface, left smooth on all exposed surfaces with slightly rounded salient angles, with not exceeding ten 40mm high embossed letters, etc., including all necessary formwork, excavations, backfilling, etc.	No	7
14	Allow for testing of the complete system and the issue of a SABS prescribed certificate, including cable testing with a Megger type instrument of not less than 500 volt	Item	1
<u>(CPAP WORK GROUP 160)</u>			
<u>DISTRIBUTION BOARDS</u>			
<u>Supply and install distribution boards</u>			
15	Supply and install flush mounted distribution boards complete with doors, frames, sub frames, chassis, fixtures, fittings, terminations, bus-bars and wiring with spare space as per specification. Material and labour excluding the items listed here-under	No	3
<u>Supply and install circuit breakers to existing distribution boards</u>			
16	10 A (2,5kA) Single pole mccb's	No	12
17	20 A (2,5kA) Single pole mccb's	No	7
18	60 A (2,5kA) Double pole mccb's	No	3
<u>Supply and install earth leakage units</u>			
19	40 Ampere Double pole Single Phase 2,5 kA 30 mA	No	3
<u>Supply and install lightning arrestors</u>			
20	10 kA S/P 220 Volt lightning arrestors	No	6
<u>LIGHTING AND SMALL POWER</u>			
<u>CONDUITS</u>			
<u>Rigid PVC conduits</u>			
21	20mm Diameter	m	798
22	25mm Diameter	m	24
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	<u>PVC conduit boxes and fittings</u>			
23	60mm Diameter round box for 20mm diameter conduit	No	78	
	<u>Wall boxes as specified placed in position for casting into concrete, building or chased into brickwork including locknuts and bushes</u>			
24	100 x 50 x 50mm Deep box	No	15	
25	100 x 100 x 50mm Deep box	No	34	
26	100 X 100 Blank Cover Plate	No	19	
	<u>CONDUCTORS</u>			
	<u>PVC insulated stranded copper conductor drawn into wireways</u>			
27	2.5mm ²	m	3260	
28	4mm ²	m	707	
	<u>Galvanised draw wire drawn into wireways</u>			
29	1,6mm Diameter	m	130	
	<u>LIGHT SWITCHES, SWITCHED SOCKET OUTLETS, ETC.</u>			
	<u>Switches, etc complete with cover plates fixed in flush boxes</u>			
30	16 Ampere 250 V grade single lever one way	No	15	
31	16 Ampere round 3-pin 250 V grade switched socket outlet	No	19	
32	Bulkhead 100 Watt (Empty for photo Cell)	No	3	
33	16 Ampere photo cell in an empty luminaire as specified	No	3	
	<u>LUMINAIRES AND EQUIPMENT</u>			
	<u>Luminaires or equipment complete with lamps, connections, etc mounted in position</u>			
34	Type A: "Swanlite" SLS-LED/AE-BHD/UL15W/4K bulkhead luminaire complete with LED lamps	No	50	
35	Type B: "Swanlite" ILM/AA/PLK/2PL18 round bulkhead luminaire, IP65 with opal lens, black retaining ring complete with lamps	No	28	
	<u>EARTHING SYSTEM</u>			
36	Earthing of wash hand basins and all cold water piping, by means of standard copper tape earth strapping at regular intervals of 6m and connecting same to the electrical earth system at the distribution board	No	6	
	<u>SUNDRIES</u>			
	<u>Testing and commissioning</u>			
37	Allow for testing, balancing and commissioning the complete electrical installation and the issue of a SABS prescribed "Certificate of Compliance"	Item	1	
	Carried Forward to Summary of Section No. 2			

BILL NO 15

GLAZING

PREAMBLES For Preambles refer to The Model Preambles 2008 Edition published by the Association of South African Quantity Surveyors shall be taken to be incorporated herein.

CPAP WORK GROUP

Unless otherwise stated all items in this bill will be Work Group 150

GLAZING TO STEEL WITH PUTTY

6.38mm Clear laminated glass

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

m2

107

Carried Forward to Summary of Section No. 2

BILL NO 16**PAINTWORK**

PREAMBLES For Preambles refer to The Model Preambles 2008 Edition published by the Association of South African Quantity Surveyors shall be taken to be incorporated herein.

SUPPLEMENTARY PREAMBLESPaint specifications

All painting shall be done in accordance with "Plascon" specifications unless otherwise described.

Colours

A colour scheme comprising different colours and the blending of colours as approved by the Principal Agent shall be used for the paintwork, therefore please note that there will be no adjustment of rates for any colour what so ever specified.

Equal or Approved

Wherever a trade name for any product/item has been described in the bills of quantities / lump sum document, the tenderer's attention is drawn to the fact that any other product of equal quality may be used subject to the written approval of the principal agent being obtained prior to the closing date for submission of tenders.

CPAP WORK GROUP

Unless otherwise stated all items in this bill will be Work Group 152

PAINTWORK ETC TO NEW WORK**ON FLOATED PLASTER, BAGGED, ETC. SURFACES**

One coat "Plascon Merit Plaster Primer (UC56)" thinned 20% with "Spick & Span Mineral Turpentine (A2H)" and two coats "Plascon Wall and All" paint

1	On internal walls	m2	74
2	On external walls	m2	198

ON WOOD

One coat "Spick & Span Oil Based Wood Primer (UC2)" and two coats "Plascon Velvaglo Polyurethane Velvet Enamel (VLO)" paint

3	On doors	m2	53
4	On doors	m2	3
5	On skirtings, rails, etc not exceeding 300mm girth	m	872

PAINTWORK ETC TO EXISTING PREVIOUSLY PAINTED WORK**ON FLOATED PLASTER, BAGGED, ETC. SURFACES**

Lightly sand down, prepare and apply one coat "Plascon Merit Plaster Primer (UC56)" thinned 20% with "Spick & Span Mineral Turpentine (A2H)" and two coats "Plascon Wall and All" paint

6	On internal walls	m2	742
7	On external walls	m2	791

Strip off all flaked or defective paint, make good all surface cracks sand down to smooth surface and apply one coat "Plascon Merit Plaster Primer (UC56)" thinned 20% with "Spick & Span Mineral Turpentine (A2H)" and two coats "Plascon Wall and All" paint:

8	On internal walls in poor condition	m2	197
9	On external walls in poor conditons	m2	79

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	<u>ON METAL</u>			
	<u>Sand down to bare metal surface and apply one coat "Namelcote Zinc Chromate Metal Primer (UC53), one coat "Merit Universal Undercoat (UC1) and two coats "Super Universal Enamel" paint</u>			
10	On window frames	m2	108	
	Carried Forward to Summary of Section No. 2			

SECTION SUMMARY NO.2 - BUILDING WORKS

- 1 Alterations
- 2 Foundations (Provisional)
- 3 Concrete, Formwork & Reinforcement
- 4 Masonry
- 5 Waterproofing
- 6 Roof Coverings
- 7 Carpentry & Joinery (Provisional)
- 8 Ceilings
- 9 Floor Coverings
- 10 Ironmongery
- 11 Metalwork
- 12 Plastering
- 13 Plumbing & Drainage (Provisional)
- 14 Internal Electrical Instalation (Provisional)
- 15 Glazing
- 16 Paintwork

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SECTION 3 - KWABULAWAYO PRIMARY SCHOOL

BILL NO 1

GENERAL SITEWORKS

Preambles and Descriptions

Tenderers are referred to other Sections and Bills for preambles and full descriptions of materials and items not fully described in this Bill AND WHICH SHALL APPLY EQUALLY TO WORK IN THIS Bill, unless otherwise described

General

All earthworks, filling, paving, roads, etc. must be in accordance with the applicable clauses of SABS 1200, supplemented by the applicable standard preambles and in the case of discrepancies the latter will take preference. All measuring and descriptions is still done in accordance with the latest issue and amendments of the "Standard System of Measuring Building Work"

Excavations

Prices of excavations are to include for putting aside excavated material to be used as filling where applicable, keeping suitable filling material clean and depositing and handling it in such a way to prevent mixing with the unsuitable material as far as possible. Depositing excavated material in stock piles on site for use as filling or to be carted away is only measured where the stock piles are prescribed

Filling

Before any material is used for filling, complete test results must be submitted to the Engineer for his approval and prices are to include therefore. The provision of suitable filling material, to be supplied by the contractor and the location of depositing grounds, etc. are the sole responsibility of the Contractor and prices are to include for all transportation. Imported filling to be material with a PI not greater than 12 and compacted to a CBR not less than 30.

Walkways, aprons, etc.

Rates for walkways, aprons, etc. shall be deemed to include for form work to sides & forming slightly rounded salient angles.

ALTERATIONS, DEMOLITIONS, ETC

Demolishing and removing of existing structures, including necessary excavations, filling, compaction, roughly levelling ground surface, etc.

1	Water tank stand, 2500 x 2500mm on plan and 500mm high comprising concrete surface bed and plastered brick walls, complete with foundations, windows, doors, etc.	No	1
2	Water tank stand, 2500 x 2500mm on plan and 900mm high comprising concrete surface bed and plastered brick walls, complete with foundations, windows, doors, etc.	No	1
3	Single storey building with mono-pitched roof, 9050 x 3150mm on plan and 3m high at eaves comprising concrete surface bed, plastered brick external walls and corrugated sheet metal roof covering on timber trusses, complete with foundations, windows, doors, etc.	No	1

SITE CLEARANCE, ETC

Site clearance

4	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc.	m2	589
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WALKWAYS, APRONS, STEPS, ETC

Excavation in soft material not exceeding 2m deep

5	To reduce levels under walkway, aprons, etc.	m3	89
6	Under floors, steps, pavings, etc.	m3	36

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	<u>Compaction of surfaces</u>				
7	Compaction of ground surface under aprons, 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	447		
	<u>Concrete class 25/19</u>				
8	Walkways, aprons, steps, etc.	m3	64		
	<u>Finishing top surfaces of concrete smooth with a wood float to class U2 finish</u>				
9	Walkways, aprons, etc. to falls	m2	447		
	<u>Fabric reinforcement</u>				
10	Type 245 fabric reinforcement in concrete surface beds, slabs, etc.	m2	447		
	<u>PAVING</u>				
	<u>Excavation in earth not exceeding 2m deep</u>				
11	To reduce levels under paving, etc.	m3	43		
	<u>Compaction of surfaces</u>				
12	Compaction of ground surface under platforms, etc., including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 96% Mod AASHTO density	m2	142		
	<u>Approved gravel filling (G5), supplied and carted on by the contractor, compacted in layers not exceeding 150mm thick to 98% Mod AASHTO density</u>				
13	Sub-grade under paving, roads, etc.	m3	21		
	<u>Approved gravel filling (G6), supplied and carted on by the contractor, stabilized with 3% lime and compacted in layers not exceeding 150mm thick to 95% Mod AASHTO density</u>				
14	Sub-grade under paving, roads, etc.	m3	21		
	<u>60mm Thick standard grey interlocking cement pavers on and including 25mm thick compacted sand bed with fine jointing sand swept and vibrated into joints, approved weed killer applied at prescribed rates, etc., including inspection and re-sanding at the end of the retention period if necessary and neat flush intersection with adjoining paving, etc.</u>				
15	Parking, walkways, etc.	m2	142		
	<u>Precast concrete kerbing, finished smooth on exposed surfaces including bedding, jointing and pointing</u>				
16	Kerb (SABS 927 fig. 11), size 75 x 150mm high, bedded in 325 x 50mm thick unreinforced concrete (10MPa/19mm), with 150 x 100mm high unreinforced concrete (10MPa/19mm), continuous triangular haunching to the front and 100 x 75mm high at back, including excavation, backfilling, etc., circular on plan	m	74		
	<u>SECURITY FENCING, GATES, ETC.</u>				
	<u>Prices</u>				
	Prices for fencing are to include for all holes, bolts, binding wire, tarred ends, straining eye bolts, etc.				
	<u>Wire and wire mesh fencing</u>				
	All wire and wire mesh fencing shall be erected in accordance with the CKS 451				
	<u>Metal posts and stays</u>				
	Metal posts and stays shall comply with CKS 451				
	<u>Gates</u>				
	Intersections to gate frames to be welded and neatly mitred				
	<u>(CPAP WORK GROUP 102)</u>				
	<u>Take down and removal of existing fencing</u>				
17	Carefully take down existing weld mesh security fencing 2400mm high overall, complete with all posts, footings, compaction, roughly leveling ground surfaces, etc. and set aside for re-use (LI)	m	534		
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18	Break out and remove single gate 813 x 1800mm high, including 50 x 50 x 3mm hollow section frame, bolted to brickwork to be replaced with new (elsewhere measured) (LI)	No	1		
	<u>(CPAP WORK GROUP 136)</u>				
	<u>"Cochrane ClearVu Invisible Wall" security fencing, gates, etc.</u>				
19	High density anti-climbing and anti-cut pressed mesh panel fencing 1,80m high, formed of 3,5mm diameter horizontal and vertical high tensile galvanised wires with aperture size 76,2mm x 12,7mm and reinforced with 4 x 50mm deep V-formation horizontal recessed bands bolted with vandal resistant bolts and clamping plates to 85 - 45mm taper locking post 2,40m high, including locking recess mechanism at 2,40m centres with sealed end caps, base anchors, excavations, concrete bases, etc. complete as per manufacturers specification	m	534		
20	100mm High marine fusion bond coated 'shark tooth' type spike fitted to top of fence	m	534		
21	3000mm High 85 - 45mm strengthened taper locking posts, including vandal resistant bolts, clamping plates and locking recess mechanism with sealed end caps and 30 x 3mm x 250mm long angle section base anchors	No	223		
22	3000mm High square posts, including vandal resistant bolts, clamping plates and locking recess mechanism with sealed end caps and 30 x 3mm x 250mm long angle section base anchors	No	6		
23	3840 x 2030mm High sliding gate, formed of 50 x 50 x 2,5mm thick hollow section frame with one 50 x 50 x 2,5mm hollow section vertical rail, two 50 x 50 x 2,5mm hollow section diagonal rails and filled in with 2000 x 40 x 1,6mm intermediate palisade pales with trident shaped heads at 160mm c/c, including two 75 x 75 x 3mm hollow section posts with and including gate guide and stop, sliding gate rail, fixed into concrete with 10mm diameter Y-anchors at 1000mm c/c, guide rollers and gate stop, heavy duty steel castors, etc. as depicted in drawing NC 19/03 - R+R/231 at the back of the bill of quantities	No	1		
	<u>Concrete class 15/19</u>				
24	200 x 300mm Deep ground beam, projecting 75mm above ground level, finished smooth on all exposed faces and rounded on salient angles, including necessary excavation, backfilling, ramming and formwork.	m	534		
25	400 x 400 x 600mm Deep base to corner, gate and intermediate posts, including necessary excavation, backfilling and ramming	No	229		
	<u>GRASS</u>				
	<u>Garden soil filling supplied by the contractor</u>				
26	Spread over site average 150mm thick and grade to an even surface ready for grass planting (grass planting elsewhere)	m2	96		
	<u>Ground preparation</u>				
27	Cultivation and preparation of areas to be planted	m2	96		
	<u>Topsoil, compost, lime and fertilizer</u>				
28	2:3:2 Commercial fertilizer	kg	30		
	<u>Grassing</u>				
29	"Pennisetum Clandestinum (Kikuyu)" sods, size 1000 x 500 x 25mm thick planted to levelled areas.	m2	96		
	<u>Maintenance</u>				
30	Maintenance of the grassed and planted areas for three months.	Item	1		
	<u>PROVISIONAL SUMS</u>				
	<u>Mobile Classroom</u>				
31	Provide the sum of R45,000.00 (Forty Five Thousand) for Removing Mobile Classroom from site.	Item	1		
32	Profit and attendance	%IT	10%		
	Carried Forward to Summary of Section No. 3				

EXTERNAL PLUMBING AND DRAINAGEPreambles and Descriptions

Tenderers are referred to other Sections for preambles and full descriptions of materials and items not fully described in this section AND WHICH SHALL APPLY EQUALLY TO WORK IN THIS SECTION, unless otherwise described

THE FOLLOWING IN RAINWATER STORAGESoft excavation in rainwater pit not exceeding 2m deep for

1	Trenches	m3	53
	<u>Risk of collapse of excavations</u>		
2	Sides of trench and hole excavations not exceeding 1,5m deep	m2	75
	<u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 95% Mod AASHTO density in layers not exceeding 150mm in depth</u>		
3	Under floors, steps, pavings, etc.	m3	41
	<u>Approved gravel filling G6 supplied and carted on by the contractor, compacted in layers not exceeding 150mm thick, to 93% MOD AASHTO density</u>		
4	Under floors, steps, paving, etc.	m3	8
	<u>Compaction of surfaces</u>		
5	Compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	57
	<u>Class 25MPa / 19mm concrete</u>		
6	Strip footings	m3	22
7	Surface beds, in panels on waterproofing	m3	6
	<u>Finishing top surfaces of concrete smooth with a wood float</u>		
8	Surface beds, slabs, etc.	m2	57
	<u>Fabric reinforcement</u>		
9	Type 395 fabric reinforcement in cavities of retaining walls	m2	57
	<u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in class I mortar in foundations (Provisional)</u>		
10	One brick walls	m2	117
	<u>Face bricks at a purchase price of R8500,00/1000, bricks delivered to site with pointed recessed horizontal and vertical joints</u>		
11	Extra over brickwork for external face brickwork	m2	83
	<u>Roller course copings, sills, etc of face brickwork at a purchase price of R8500,00/1000, bricks delivered to site, pointed with ruled flush joints on all exposed faces</u>		
12	Coping on top of one brick wall	m	138
	<u>Polyethelene Rainwater Tank</u>		
13	2500 Litre Water tank with 40mm diameter inlet at top and 40mm overflow outlet and 40mm outlet at base of tank, including access hatch on top fitted with vermin-proof vent.	No	14
	<u>Galvanised steel pipes</u>		
14	20mm Pipes	m	42
	<u>Extra over galvanised steel pipes for steel fittings</u>		
15	20mm Fittings	No	56

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	Brought forward from previous page			
	<u>Taps, valves, etc</u>			
16	20mm Brass bibcock with hose union	No	14	
	<u>STORM WATER DISPOSAL</u>			
	<u>Mass concrete class 25/19, storm water channels, laid to even falls in sections not exceeding 2m long, finished smooth to all visible faces, slightly rounded on salient angles, Ref. 193 mesh reinforcement, including all necessary shallow excavations, form work, filling and ramming</u>			
17	Open V-shaped stormwater channel, 900mm wide x 130mm thick overall, with top surface worked down to form 50mm deep channel, cast in panels not exceeding 2m long	m	234	
18	Extra for angles, intersections, ends, etc.	No	28	
	<u>Channel outlets</u>			
19	Bell mouthed concrete storm water outlet, concrete class 20/19, size 850mm wide internally at inlet, bell mouthed to 1960mm at outlet and 1356mm long formed with 200mm thick base, provided with 200 x 200mm inverted edges to both raking 1500mm long sides, 200 x 200mm toe to 2700mm outlet and seventeen approved bricks cast into top surface of base in brick-on-edge position, all concrete finished smooth on all exposed surfaces, including necessary excavation, filling, ramming and formwork (LI)	No	8	
	<u>WATER SUPPLY</u>			
	<u>High density polypropylene class 4 pressure water pipes with compression fittings</u>			
20	25mm Pipes laid in and including trenches	m	45	
	<u>Extra over piping for plasson screwed type fittings</u>			
21	25mm Fittings	No	30	
	<u>Taps, valves, etc</u>			
22	25mm Brass fullway gate valve	No	3	
	<u>Sundries</u>			
23	"Maverick Trading Beltoby" Type 3B polygon valve box, set on and including 160mm uPVC pipe 500mm long, including 25MPa concrete collar 850 x 850 x 100mm thick finished smooth with wood float on exposed surfaces.	No	3	
24	15MPa Unreinforced concrete anchor blocks, extreme size 300 x 300 x 100mm thick	No	3	
	Carried Forward to Summary of Section No. 3			

SECTION NO.3 SUMMARY - EXTERNAL WORKS

- 1 Site Works
- 2 External Plumbing & Drainage

Carried to Final Summary

	<u>FINAL SUMMARY:</u>				
	1 PRELIMINARIES				
	2 BUILDING WORKS				
	3 EXTERNAL WORKS (PROVISIONAL)				
	Sub-Total				
	ADD: 5% of Contract Value as a contingency for the unforeseen to be used at the discretion of the employer's agent and deducted in whole or in part if not required.		5%		
	Sub Total				
	ADD: 15% (Fifteen percent) of Sub-Total for Value Added Tax		15%		
	Carried to Form of Tender				