

Item No		Quantity	Rate	Amount
	<u>SECTION 1</u>			
	<u>BILL No.1</u>			
	<u>PRELIMINARIES</u>			
	1. The Principal Building Agreement shall be the JBCC Series Edition 4.1, March 2005 as recommended by the Joint Building Contract Committee and as amended by this Tender Enquiry.			
	2. The Preliminaries shall be JBCC Series 2000, May 2005 for use with the Principal Building Agreement as recommended by the Joint Building Contracts Committee and as amended by this Tender Enquiry shall be deemed to be incorporated herein.			
	3. Tenderers are referred to the abovementioned documents for the full intent and meaning of each clause thereof. These clauses are hereinafter referred to by clause number and heading only.			
	4. Where standard clauses or alternatives are not entirely applicable to this contract, such modifications, corrections or additions as are necessary, are given as far as possible under each relevant clause heading. Additional Preliminary clauses are contained in Section C hereof.			
	5. No claim whatsoever shall be entertained in respect of errors or omissions in pricing due to brevity of descriptions of items which are fully described when read in conjunction with the relevant clauses of the said Principal Building Agreement, Preliminaries and Preambles.			
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6. The Tenderers shall allow opposite each of the clauses whatever costs and charges he may consider necessary for the carrying out, complying with and due observance of the provisions, conditions and requirements set out herein. Only priced items will be considered in respect of any adjustment of this Section. Any items left unpriced will be understood to be provided free of charge and no claim for any extras arising out of the Tenderer's omission to price any item will be entertained.

7. Where modifications or amendments as described are made, such modifications and/or amendments shall supercede any conflicting provisions in the relevant clauses of the Standard Preliminaries or the Principal Building Agreement and the Tenderer shall make due allowance for whatever costs and charges he may consider necessary for the carrying out and observance of the provisions of the clauses as modified and/or amended.

8. Where any item is not relevant to this specific contract, such item is marked N/A.

9. 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 by insertion of "F", "V", "T" as the case may be against the price in the "rate" column immediately preceding the "amount" 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 proportionate to time.

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SECTION A: PRINCIPAL BUILDING AGREEMENT

DEFINITIONS

Definitions and interpretation (Clause 1).

1 F: V: T:

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OBJECTIVE AND PREPARATION

Offer, acceptance and performance (Clause 2).

2 F: V: T:

Item

Documents (Clause 3).

Clause 3.1 is deleted and substituted with: 'This tender is for a Government Contract. No Payment Guarantee will be provided.'

Clause 3.3 is deleted and substituted with:

The principal agent shall complete the schedule and arrange for formal signing of the agreement once the priced bill of quantities/lump sum document, security, insurances and waiver of lien, where acceptable, have been provided and effected'.

3 F: V: T:

Item

Design responsibility (Clause 4).

4 F: V: T:

Item

Employer's agents (Clause 5).

5 F: V: T:

Item

Site representative (Clause 6).

6 F: V: T:

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Compliance with regulations (Clause 7).

7 F: V: T:

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	Works risk (Clause 8)			
8	F: V: T: Indemnities (Clause 9). Clause 9.1.1 is deleted and substituted with: Claims from other parties consequent upon death of bodily injury or illness of any person or physical loss or damage to any property, other than the works, arising out or due to the execution of the works or occupation of the site by the contractor or his sub contractors'.	Item		
9	F: V: T: Works insurances (Clause 10).	Item		
10	F: V: T: Liability insurances (Clause 11).	Item		
11	F: V: T: Effecting insurances (Clause 12).	Item		
12	F: V: T: State Provisions (Clause 13).	Item		
13	F: V: T: Security (Clause 14).	Item		
14	F: V: T: <u>EXECUTION</u> Preparation for and execution of the works (Clause 15).	Item		
15	F: V: T: Access to the works (Clause 16).	Item		
16	F: V: T:	Item		
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	Contract instructions (Clause 17).			
17	F: V: T: Setting out of the works (Clause 18). 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		
18	F: V: T: Assignment (Clause 19).	Item		
19	F: V: T: Nominated subcontractors (Clause 20).	Item		
20	F: V: T: Selected subcontractors (Clause 21).	Item		
21	F: V: T: Employer's Direct contractors (Clause 22).	Item		
22	F: V: T: Contractor's Domestic subcontractors (Clause 23).	Item		
23	F: V: T: <u>COMPLETION</u>	Item		
	Practical completion (Clause 24).			
24	F: V: T: Works completion (Clause 25).	Item		
25	F: V: T: Final completion (Clause 26).	Item		
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Latent defects liability period (Clause 27).

"27.3 Any water leakage into the building, whether in the roof, external wall or other element of the building susceptible to water leakage shall, unless proven to be a design defect, or as a result of obvious storm damage, be classified as a latent defect in terms of clause 1.0 Definitions and Interpretations".

"27.4 The Contractor shall attend to defects during the Defects Liability Period on a progressive basis, to the satisfaction of the Principal Agent and will not be permitted to wait until the end of the Defect Liability Period or until the amount of defects accumulates in order to attend to a comprehensive list of defects"

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PAYMENT

The inclusion of materials and goods stored off site in the amount authorised for payment in terms of clause 31.3 shall be at the sole discretion of the principal agent and such inclusion shall only be considered upon the provision, by the contractor, of an approved guarantee issued by a registered commercial bank and clause 31.6.5 is therefore not applicable.

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Where prices are submitted by the contractor or nominated/selected sub contractor 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.

Clause 31.9 is amended as follows:

Payment shall be subject to the Employer giving the Contractor a Tax Invoice for the amount due. The Employer undertakes to ensure compliance with the administrative requirements of Sections 20 (2) and 21 (4) of the Value Added Tax Act (Act 89 of 1991). The Contractor agrees to the adoption of the self invoicing procedures and undertakes not to issue any tax invoices, debit or credit notes in respect of any transaction included in the Tax Invoices issued by the Employer. The above clauses shall constitute a written agreement between the parties as required in terms of the Value Added Tax Act (Act 89 of 1991).'

30	F: V: T:	Item		
	Adjustment to the contract value (Clause 32).			
31	F: V: T:	Item		
	Recovery of expense and loss (Clause 33).			
32	F: V: T:	Item		
	Final account and final payment (Clause 34).			
33	F: V: T:	Item		
	Payment to other parties (Clause 35).			
34	F: V: T:	Item		

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CANCELLATION

Cancellation by Employer - Contractor's default (Clause 36).

35 F: V: T:

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Cancellation by Employer - Loss and damage (Clause 37).

36 F: V: T:

Item

Cancellation by Contractor - Employer's default (Clause 38).

37 F: V: T:

Item

Cancellation - Cessation of the works (Clause 39).

38 F: V: T:

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DISPUTE

Dispute Settlement (Clause 40)

39 F: V: T:

Item

SUBSTITUTE PROVISIONS

State Clauses (Clause 41)

40 F: V: T:

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CONTRACT VARIABLES

The Schedule: Pre-Tender information (Clause 42).

41 F: V: T:

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CONTRACTING AND OTHER PARTIES (Clause 42.1)

Employer: The Mvula Trust

Postal Address: Unit F1, The Park, Crescent Peace,
Empangeni 3880

Telephone: 035 772 2552

Facsimile: 035 772 2552

Physical address: Unit F1, The Park, Crescent Peace,
Empangeni 3880

Principal Agent: The Mvula Trust

Postal Address: Unit F1, The Park, Crescent Peace,
Empangeni 3880

Telephone: 035 772 2552

Facsimile: 035 772 2552

Physical address: Unit F1, The Park, Crescent Peace,
Empangeni 3880

CONTRACT DETAILS (Clause 42.2)

Clause 42.2.1

Works Description: Construction of new ablution
facilities.

Clause 42.2.2

Site Description: The site is the existing Tholisu
Secondary School.

Clause 42.2.3

Work or Installations by Others: NIL

Clause 42.2.4

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This Agreement is for a State Contract :- Yes Payment will be made for materials and goods:- Yes Dispute resolution :- Mediation (in terms of clause 40) followed by litigation. Arbitration rules as recommended by the Association of Arbitrators (SA) :- N/A Clause 42.2.5 Date on which possession of the site is intended to be given on :- 5 working days from the date of the letter of appointment to the Contractor. Clause 42.2.6 Period for the commencement of the works after the contractor takes possession of the site :- 2 Working days. Completion in Sections are required : NO Clause 42.2.7 Intended date of practical completion and the penalty per calendar day for the works as a whole :- To be advised. Penalty amount to be advised. Clause 42.2.8 Intended dates of practical completion and the penalties per calendar day for the works in sections : N/A Clause 42.2.9 The law applicable to this agreement shall be that of - South Africa.				
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INSURANCES (Clause 42.3)

Clause 42.3.1

Contract works insurance to be effected by Contractor
for the sum of: Contract Sum plus 20%

With a deductible of : to be determined by the
Contractor but not greater than the maximum of
R50,000.00 as stipulated by the Municipality.

Clause 42.3.2

Supplementary insurance is required : Yes

SASRIA insurance required to be effected by the
Contractor for the amount of: Contract Sum plus 20%
(with a deductible to be determined by the Insurance
company issueing the policy).

Clause 42.3.3

Public liability insurance to be effected by Contractor

For the amount of: R 10 million

With a deductible of: R 2,500.00

DOCUMENTS (Clause 42.4)

Clause 42.4.1

Waiver of the contractor's lien is required :- YES

Clause 42.4.2

Number of construction document copies to be supplied
to the Contractor free of charge :- 3

Clause 42.4.3

Bills of Quantities drawn up in accordance with :-

Standard System of Measuring Building Work - Seventh
Edition including all amendments

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Clause 42.4.4

Number of days for submission of priced documents : 5 working days from the Letter of Appointment.

Clause 42.4.5

JBCC Engineering General Conditions are to be included in the documents :- No

Clause 42.4.6

The contract value is to be adjusted using CPAP:- NO

SECTION B: PRELIMINARIES

DEFINITIONS AND INTERPRETATION (B1)

Definitions and Interpretation (B1)

42 F: V: T:

Item

DOCUMENTS (B2)

Checking of documents (B2.1)

Notwithstanding the issue of the tender drawings, it will remain the responsibility of the Tenderer to study all available drawings at the offices of the Principal Agent during normal working hours in order to acquaint himself with all the cost implications of the design, programming, phasing, etc.

43 F: V: T:

Item

Provisional Bills of Quantities (B2.2) N/A

Prime Cost Amounts, Budgetary Allowances, Provisional Amounts, etc., contained herein may be omitted or reduced at the Principal Agent's sole discretion and the Contractor shall not be entitled to claim for any loss by way of reduction or omission of any discount, or percentage relating to Prime Cost Amounts, Budgetary Allowances, Provisional Amounts, etc., or loss of profit related thereto.

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44	F: V: T: Availability of construction documentation (B2.3)	Item	
45	F: V: T: Interests of Agents (B2.4)	Item	
46	F: V: T: Priced documents (B2.5)	Item	
47	F: V: T: Tender submission (B2.6) Notwithstanding anything contained in this clause, Tenders shall be valid for a period of 90 (Ninety) calendar days from the closing date of tenders.	Item	
48	F: V: T: <u>THE SITE (B3)</u> Defined works area (B3.1) The area of the works to be occupied by the contractor, any restriction on the area and the limit of access or exit will be pointed out to the contractor by the principal agent on handing over of the site. Workmen employed on the site are to be restricted to the immediate area of the site and access thereto. The Tenderer shall make all necessary provision in all rates to take into account these requirements as no claims for extras arising from these matters will be subsequently entertained or admitted.	Item	
49	F: V: T: Geotechnical investigation (B3.2) A desktop geotechnical report is available upon request.	Item	
50	F: V: T:	Item	
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	Inspection of the Site (B3.3)			
51	F: V: T:	Item		
	Existing premises occupied (B3.4)			
52	F: V: T:	Item		
	Previous work - dimensional accuracy (B3.5)			
53	F: V: T:	Item		
	Previous work - defects (B3.6)			
54	F: V: T:	Item		
	Services - known (B3.7)			
55	F: V: T:	Item		
	Services - unknown (B3.8)			
56	F: V: T:	Item		
	Protection of trees (B3.9)			
57	F: V: T:	Item		
	Articles of value (B3.10)			
58	F: V: T:	Item		
	Inspection of adjoining properties (B3.11)			
59	F: V: T:	Item		
	<u>MANAGEMENT OF CONTRACT (B4)</u>			
	Management of the Works (B4.1)			
60	F: V: T:	Item		
	Programme for the Works (B4.2)			
61	F: V: T:	Item		
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	Progress meetings (B4.3)		
62	F: V: T:	Item	
	Technical meetings (B4.4)		
63	F: V: T:	Item	
	<u>SAMPLES AND SHOP DRAWINGS (B5)</u>		
	Samples of materials (B5.1)		
64	F: V: T:	Item	
	Workmanship samples (B5.2)		
65	F: V: T:	Item	
	Shop drawings (B5.3)		
66	F: V: T:	Item	
	<u>TEMPORARY WORKS AND PLANT (B6)</u>		
	Deposits and fees (B6.1)		
67	F: V: T:	Item	
	Enclosure of the works (B6.2)		
	The contractor shall erect, maintain and remove at completion, hoardings, safety screens, barriers, access gates, covered gangways and the like as necessary for the enclosure of the works and elements thereof all for the protection of the public and others.		
68	F: V: T:	Item	
	Advertising (B6.3)		
69	F: V: T:	Item	
	Plant, equipment, sheds and offices (B6.4)		
70	F: V: T:	Item	
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	Main notice board (B6.5) One notice board shall be provided by the Contractor		
71	F: V: T: Subcontractors notice board (B6.6) (N/A)	Item	
72	F: V: T:	Item	
	<u>TEMPORARY SERVICES (B7)</u>		
	Location (B7.1)		
73	F: V: T:	Item	
	Water (B7.2) The contractor shall provide water for the works in accordance with: Alternative A (i.e. to be provided for by the Contractor).		
74	F: V: T:	Item	
	Electricity (B7.3) The contractor shall provide electricity for the works in accordance with: Alternative A (i.e. to be provided for by the Contractor).		
75	F: V: T:	Item	
	Telecommunication equipment (B7.4) The contractor shall provide telephones on site for the works in accordance with: Alternative A (i.e. to be provided for by the Contractor).		
76	F: V: T:	Item	
	Ablution facilities (B7.5)		
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The contractor shall provide toilet facilities on site for the works in accordance with:

Alternative A (i.e. to be provided for by the Contractor).

77 F: V: T:

Item

PRIME COST AMOUNTS (B8)

Responsibility for prime cost amounts (B8.1)

78 F: V: T:

Item

ATTENDANCE ON N/S SUBCONTRACTORS (B9)

General Attendance (B9.1)

79 F: V: T:

Item

Special Attendance (B9.2)

80 F: V: T:

Item

Commissioning - fuel, water and power (B9.3)

81 F: V: T:

Item

FINANCIAL ASPECTS (B10)

Statutory taxes, duties and levies (B10.1)

Provision is made in the Final Summary of these Bills of Quantities for the inclusion of Value Added Tax (VAT).

82 F: V: T:

Item

Payment of Preliminaries (B10.2)

83 F: V: T:

Item

Adjustment of Preliminaries (B10.3)

84 F: V: T:

Item

Payment certificate cash flow (B10.4)

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85	F: V: T: Contractor information supply (B10.5)	Item		
86	F: V: T: <u>GENERAL (B11)</u> Protection of the Works (B11.1)	Item		
87	F: V: T: Protection/isolation of existing/sectionally occupied works (B11.2)	Item		
88	F: V: T: Site security (B11.3)	Item		
89	F: V: T: Notice before covering work (B11.4)	Item		
90	F: V: T: Disturbance (B11.5)	Item		
91	F: V: T: Works cleaning and clearing (B11.6)	Item		
92	F: V: T: Vermin (B11.7)	Item		
93	F: V: T: Overhand work (B11.8)	Item		
94	F: V: T:	Item		
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SECTION C: SPECIFIC PRELIMINARIES

Section C: Specific Preliminaries:

C1. Proprietary branded products

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

95 F: V: T:

Item

C2. Trade Names, etc.

All materials, fittings, finishings, etc., specified hereinafter under a trade name, catalogue number or reference, must be exactly as described. The Architect's approval in writing must be obtained for the use of any alternative to the specification before the submission of tenders otherwise the specified materials, fittings, finishings, etc., will be assumed to have been allowed for in the tender.

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

96 F: V: T:

Item

C3. Contractors responsibility

The Employer, the Principal Agent and the other professional consultants shall not be responsible for any act or omission on the part of the Contractor which may result in any patent or latent defects, in materials or workmanship, breach or neglect of any local regulations. The Contractor shall at all times be responsible for any such neglect, deviation or wrong act, whether the same is discovered before or after the final certificate, or any other Certificate, has been approved.

97 F: V: T:

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	C4. Overtime Should overtime be required to be worked for any reason whatsoever, the costs of such overtime are to be borne by the contractor unless the principal agent has specifically authorised in writing, prior to the execution thereof, that costs for such overtime are to be borne by the employer.			
98	F: V: T:	Item		
	C5. As built drawings The position of construction breaks and the extent of individual concrete pours are to be recorded by the contractor on the structural engineer's drawings and are to be submitted to the principal agent and the structural engineer for their records. Three full sets of as-built drawings shall be submitted to the Principal Agent no later than fourteen days after practical completion.			
99	F: V: T:	Item		
	C6. Construction Instructions Contract instructions issued on site are to be recorded in triplicate in a site instruction book which is to be maintained on site by the Contractor. The Contractor shall supply and have available at the site of the works at all times, the following site books: a) Construction Instruction Book: Receiving and recording instructions in a suitable A4 size triplicate book kept on site. Instructions issued shall be recorded by the Architect or other Employer's Agents to whom the Architect has delegated authority to in the book. Only instructions issued in such book shall be recognised. b) Daily Record Book:			
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	The Contractor shall record in triplicate in a suitable A4 size triplicate book kept at the site, a daily record of work done, all site visits by the Principal Agent and other professional personnel and all events affecting the Works, such as progress, issue of plans, breakdown of machinery, etc. The labour, plant and material on site shall be recorded as well as work performed. Entries must be made by the Contractor and must be signed and forwarded to the Principal Agent for his counter-signature on a daily basis. Copies of these records shall be for the Architect, Quantity Surveyor and Contractor.			
100	F: V: T: C7. Labour record At the end of each week the contractor shall provide the principal agent with a written record, in schedule form, reflecting the number and description of tradesmen and labourers employed by him and all subcontractors on the works each day.	Item		
101	F: V: T: C8. Plant record 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, currently used on the works.	Item		
102	F: V: T: C9. Encroachment During the course of the building operations, the Contractor shall be held entirely responsible for any encroachment onto any adjoining properties, buildings, etc., or servitudes and the cost of any remedial measures as required by the Principal Agent shall be borne by the Contractor.	Item		
103	F: V: T: C10. Method Statement	Item		
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	The Tenderer shall produce, when required to do so by the Principal Agent, a Method Statement outlining the methods of construction and labour and plant resources that he proposes to use in the execution of the Works. Any approval given or observation made by the Principal Agent shall not relieve the Contractor of his sole responsibility to adopt the methods of construction and to provide the labour and plant resources necessary for the due and proper timeous execution of the Works.			
104	F: V: T: C11. Unauthorised Persons/Workmen on Premises The Contractor shall at all times strictly exclude all unauthorised persons from the Works and the site and shall set up notice boards to that effect. No workmen or labourers (except security guards) are to be allowed under any circumstances to sleep or deposit any kit on the premises. The Contractor must provide any necessary independent shelter or shed required for any labour or watchmen on site, to the approval of the Employer.	Item		
105	F: V: T: C12. Mode of Procedure Notwithstanding anything to the contrary contained herein the Principal Agent at all times reserves the right to direct the order in which the various parts of the Contract are to be executed. The Contractor shall give priority to any individual section or portion of the Works that, in the opinion of the Principal Agent, requires to be expedited. Should it appear, in the Principal Agent's opinion, that work in any area is not being executed in accordance with the requirements of the Contract Programme, the Contractor shall provide additional manpower and resources and shall work additional overtime and do everything else required to bring the work back to programme to the satisfaction of the Principal Agent and to the Contractor's cost.	Item		
106	F: V: T:	Item		
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	C13. Location of Temporary Buildings and Temporary Services The Contractor shall provide all necessary temporary works, including temporary roads, tracks, crossings, hardstanding and services, hoardings, dust screens, tunnelling, etc., required for his own and sub-contractors use during the construction and maintenance period. There is no guarantee given or implied that Site conditions will be such that the Contractor will be able to erect such temporary works, roads, hardhats, offices, stores and temporary accommodation within the site boundaries and it shall be the Contractor's responsibility to adopt whatever measures he deems necessary in this regard and to obtain all necessary permission and pay all costs in connection therewith.			
107	F: V: T:	Item		
	C14. Removal and Making Good of Temporary Works, etc, on Completion The Contractor shall remove (except where specifically stated otherwise) all temporary works, roads, services and the like used for this contract and shall make good to the entire satisfaction of the Principal Agent any damage resulting therefrom.			
108	F: V: T:	Item		
	C15. Occupational Health and Safety Act The Contractor shall for the duration of this contract be deemed to be the mandatory of the Council for the purposes of the Occupational Health and Safety Act, Act 85 of 1993, and he shall prior to taking occupation of the site satisfy the Council by means of written representations that he has fully complied with the relevant requirements of the said Act. Acceptance by the Council of the Contractors written representations in terms of the above shall constitute an agreement in writing to the arrangements and procedures between the parties to ensure compliance by the Contractor with the provisions of the Act referred to therein, for the purposes of Section 37(2) of the said Act.			
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<u>BILL No. 1</u>			
<u>EARTHWORKS (PROVISIONAL)</u>			
<u>Quantity Split:</u>			
Note that the total quantity per each item is split into the various buildings and appears below each description as follows:			
A1 - DWG 04 - Staff Ablutions (2M2F1D)			
A2 - DWG 10 - Male Ablution (8B)			
A3 - DWG 17 - Female Ablutions (8G)			
<u>MODEL PREAMBLES</u>			
The tenderer is referred to the "Model Preambles for Trades 2008" for supplementary and comprehensive expansion of descriptions, appropriate provision for which shall be deemed to have been included in all relevant rates			
<u>SUPPLEMENTARY PREAMBLES</u>			
<u>Proprietary products in descriptions:</u>			
Proprietary products shall be used as specified. Substitute products of similar quality and specification may only be used with prior approval by the Principal Agent.			
<u>Nature of material to be excavated:</u>			
The material to be excavated is assumed to be predominantly of a composition that will allow excavation in "earth" as specified, but including a percentage of excavation in "soft rock" and "hard 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.			
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Earthworks (Provisional)			

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 testing on filling:

Rates for filling, etc. shall include for all density and soil type testing to prove that the specified compaction is achieved. When additional testing is done on instruction of the Principal Agent and these tests are successful, they will be paid for additionally.

Imported fill:

"Filling and bedding to trenches etc. to be in compliance with SABS 1200 DB and LB respectively"

EXCAVATION OTHER THAN BULK

Excavation in earth not exceeding 2m deep:

1	Trenches.	m3	9
	A1 : 3 A2 : 3 A3 : 3		
2	Reduced levels under floors.	m3	19
	A1 : 6 A2 : 6 A3 : 7		

Extra over trench and hole excavations in earth for excavation in:

3	Soft rock.	m3	5
	A1 : 1 A2 : 1 A3 : 3		
4	Hard rock.	m3	2
	A1 : 1 A2 : 1 A3 : 1		

Extra over all excavations for carting away:

5	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor.	m3	121
	A1 : 43 A2 : 33 A3 : 45		

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Section 2
Bill No. 1
Earthworks (Provisional)

<u>Extra over excavations for embankments:</u>							
6	Cutting back steep excavations to create a gradual sloping embankment including levelling and compaction. A1 : 13 A2 : 13 A3 : 16	m3	42				
<u>Risk of collapse of excavations:</u>							
7	Sides of trench and hole excavations not exceeding 1,5m deep. A1 : 60 A2 : 51 A3 : 76	m2	187				
8	Ditto, but from ground level to exceeding 1,5m and not exceeding 3,0m deep. A1 : 20 A2 : 17 A3 : 26	m2	63				
<u>Keeping excavations free of water:</u>							
9	Keeping excavations free from mud and all water including subterranean sources.		Item				
<u>EARTH FILLING, ETC.</u>							
<u>Earth filling in layers of 300mm obtained from the excavations and/or prescribed stock piles on site compacted to 100% MOD AASHTO density:</u>							
10	Backfilling to trenches, holes, etc. A1 : 27 A2 : 25 A3 : 53	m3	105				
<u>Earth filling (G5 material) supplied by the contractor compacted to 98% Mod AASHTO density:</u>							
11	Under floors, steps, pavings, beams, etc. A1 : 16 A2 : 12 A3 : 22	m3	50				
<u>Coarse river sand filling supplied by the contractor:</u>							
12	Under floors etc. (Provisional). A1 : 3 A2 : 2 A3 : 3	m3	8				
<u>Compaction of surfaces:</u>							
13	Compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density. A1 : 54 A2 : 46 A3 : 65	m2	165				
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Section 2 Bill No. 1 Earthworks (Provisional)							

Prescribed density tests on filling:

14	Allow for compaction tests by an approved laboratory to determine density of filling material.	No	18
	A1 : 6 A2 : 5 A3 : 7		

SOIL POISONING

Approved brand of anti-termite soil poison applied by a Registered Pest Control company and guaranteed against termite infestation for ten years:

15	Under floors, etc., including forming and poisoning shallow furrows against foundation walls, etc., filling in furrows and ramming.	m2	144
	A1 : 54 A2 : 29 A3 : 61		
16	To bottoms and sides of trenches, holes, etc.	m2	72
	A1 : 25 A2 : 22 A3 : 25		

DAY WORK

TLB:

17	Clearing excavated material and/or prescribed stock piles on site.	Hrs	12.00
	A1 : 4.00 A2 : 4.00 A3 : 4.00		

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 Earthworks (Provisional)

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Bill No. 1

Earthworks (Provisional)

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Section 2

Bill No. 1

Earthworks (Provisional)

Item No	Quantity	Rate	Amount
<u>SECTION 2</u>			
<u>BILL No. 2</u>			
<u>CONCRETE, FORMWORK AND REINFORCEMENT</u>			
<u>Quantity Split:</u>			
Note that the total quantity per each item is split into the various buildings and appears below each description as follows:			
A1 - DWG 04 - Staff Ablutions (2M2F1D)			
A2 - DWG 10 - Male Ablution (8B)			
A3 - DWG 17 - Female Ablutions (8G)			
<u>MODEL PREAMBLES</u>			
The tenderer is referred to the "Model Preambles for Trades 2008" for supplementary and comprehensive expansion of descriptions, appropriate provision for which shall be deemed to have been included in all relevant rates			
<u>SUPPLEMENTARY PREAMBLES</u>			
<u>Proprietary products in descriptions:</u>			
Proprietary products shall be used as specified. Substitute products of similar quality and specification may only be used with prior approval by the Principal Agent.			
<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).			
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Section 2			
Bill No. 2			
Concrete, Formwork and Reinforcement			

Formwork:

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

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

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

15MPa/20mm concrete:

1	Surface blinding under base slabs and ground beams (Provisional).	m3	3
	A1 : 1 A2 : 1 A3 : 1		

30MPa/20mm concrete:

2	Ground Beams.	m3	9
	A1 : 3 A2 : 3 A3 : 3		

REINFORCED CONCRETE

30MPa/20mm concrete:

3	Surface beds on waterproofing.	m3	5
	A1 : 2 A2 : 2 A3 : 1		

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Section 2
Bill No. 2
Concrete, Formwork and Reinforcement

4	Suspended Slabs. A1 : 3 A2 : 2 A3 : 4	m3	9
5	Ground base slabs. A1 : 5 A2 : 3 A3 : 5	m3	13
6	Aprons, including edge thickening, Cast in Panels on waterproofing. A1 : 3 A2 : 3 A3 : 3	m3	8
7	Ramps. A1 : 2 A2 : 0 A3 : 0	m3	2
<u>TEST BLOCKS</u>			
<u>Test blocks:</u>			
8	Making and testing set of three 150x150x150mm concrete strength test cubes (Provisional).	No	6
<u>FINISHING TOP SURFACE OF CONCRETE</u>			
<u>Finishing top surfaces of concrete smooth with a wood float:</u>			
9	Surface beds. A1 : 79 A2 : 64 A3 : 83	m2	226
<u>Rough Formwork to Sides:</u>			
10	Edges, risers, ends and reveals not exceeding 300mm high or wide. A1 : 40 A2 : 33 A3 : 49	m	122
<u>Permanent Formwork:</u>			
11	Soffit of slab over pit. A1 : 19 A2 : 17 A3 : 30	m2	66
<u>Extra on permanent formwork for boxing or blocking in or boxing out to form:</u>			
12	450mm Diameter opening through 200mm thick slab. A1 : 4 A2 : 4 A3 : 8	No	16

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Bill No. 2
Concrete, Formwork and Reinforcement

MOVEMENT JOINTS ETC

Expansion joints with bitumen impregnated softboard between vertical concrete or brick surfaces:

13	12mm Joints not exceeding 300mm high (Provisional).	m	135	
	A1 : 44 A2 : 43 A3 : 48			

REINFORCEMENT (PROVISIONAL)

14	High tensile steel reinforcement bars to structural concrete work.	t	1.41	
	A1 : 0.47 A2 : 0.40 A3 : 0.54			

Fabric reinforcement:

15	REF. 617 fabric reinforcement in concrete slabs.	m2	140	
	A1 : 46 A2 : 33 A3 : 61			

16	REF. 395 fabric reinforcement in concrete surface beds.	m2	103	
	A1 : 33 A2 : 36 A3 : 34			

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 Concrete, Formwork and Reinforcement

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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.

Pointing

All pointing of exposed joints to be concave

Samples

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

BRICKWORK IN FOUNDATIONS
(PROVISIONAL)

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

1	Half brick walls. A1 : 11 A2 : 10 A3 : 37	m2	58
2	One brick walls. A1 : 53 A2 : 35 A3 : 45	m2	133

BRICKWORK IN SUPERSTRUCTURE

Brickwork of NFP bricks (14 MPa nominal compressive strength) in Class II mortar:

3	Half brick walls. A1 : 8 A2 : 11 A3 : 26	m2	45
4	One brick walls. A1 : 89 A2 : 76 A3 : 83	m2	248

BRICKWORK AND BLOCKWORK SUNDRIES

Galvanized brickwork reinforcement

5	115mm Wide reinforcement built in horizontally A1 : 25 A2 : 38 A3 : 88	m	151
6	230mm Wide reinforcement built in horizontally. A1 : 374 A2 : 312 A3 : 344	m	1 030

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7	Ditto, but in foundations (Provisional). A1 : 726 A2 : 484 A3 : 699	m	1 909
	<u>Cramps, ties, etc:</u>		
8	30 x 2mm Galvanized roof tie 1500mm long with one end fixed to timber and other built into brickwork or concrete. A1 : 17 A2 : 16 A3 : 20	No	53
	<u>Air bricks etc:</u>		
9	229 x 152mm terracotta clay vermin proof air brick A1 : 4 A2 : 4 A3 : 4	No	12
	<u>Sundries etc:</u>		
10	Leave/ Form rectangular opening through half brick wall, size 1200 x 510mm. A1 : 2 A2 : 2 A3 : 7	No	11
11	Leave/ Form rectangular opening through one brick wall, size 1200 x 510mm. A1 : 2 A2 : 1 A3 : 0	No	3
	<u>Bagging and sealing the outer face of the inner skin of walls with 1:3 cement and sand mixture and seal with two coats "Brixal" bitumen emulsion waterproofing coating:</u>		
12	To walls. A1 : 89 A2 : 76 A3 : 83	m2	248
	<u>Precast Concrete Lintols, Sills, Copings, etc</u>		
13	110 x 75mm Sills in lengths not exceeding 3m. A1 : 9 A2 : 6 A3 : 9	m	24
14	110 x 85mm Lintels in lengths not exceeding 3m. A1 : 2 A2 : 2 A3 : 8	m	12
15	220 x 85mm Lintels in lengths not exceeding 3m. A1 : 6 A2 : 3 A3 : 0	m	9

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Section 2
 Bill No. 3
 Masonry

FACE BRICK

"Rustgold FBS" clay face brick or equal approved, size 222 x 106 x 73mm, bedded and jointed in Class II mortar and pointed with recessed vertical and recessed horizontal joints, suitable for exposure zones 1-2:

16	Extra over brickwork for face brickwork externally. A1 : 62 A2 : 63 A3 : 75	m2	200		
17	Extra over for face brick in foundations (Provisional). A1 : 7 A2 : 6 A3 : 7	m2	20		
18	Half brick wall in beam filling pointed one side including cutting and fitting around roof timbers and bedding roofing solid on top in cement mortar. A1 : 13 A2 : 12 A3 : 15	m2	40		
19	One brickwall pointed on both sides. A1 : 8 A2 : 7 A3 : 7	m2	22		
20	Fair raking cutting. A1 : 9 A2 : 9 A3 : 9	m	27		
<u>Brick-on-edge header course copings, sills, etc, of "Rustgold FBS" or equal approved face bricks pointed with recessed joints on all exposed faces, 220mm wide sill set sloping and slightly projecting:</u>					
21	230mm Brick on edge sill bedded sloping and jointed in cement mortar and pointed on top, edge and projecting soffit including cutting and fitting between reveals and splay cutting brickwork under. A1 : 9 A2 : 6 A3 : 9	m	24		
22	220mm Wide lintel pointed on face and 110mm soffit. A1 : 9 A2 : 7 A3 : 10	m	26		

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	<u>BILL No. 4</u>			
	<u>WATERPROOFING</u>			
	<u>Quantity Split:</u>			
	Note that the total quantity per each item is split into the various buildings and appears below each description as follows:			
	A1 - DWG 04 - Staff Ablutions (2M2F1D)			
	A2 - DWG 10 - Male Ablution (8B)			
	A3 - DWG 17 - Female Ablutions (8G)			
	<u>MODEL PREAMBLES</u>			
	The tenderer is referred to the "Model Preambles for Trades 2008" for supplementary and comprehensive expansion of descriptions, appropriate provision for which shall be deemed to have been included in all relevant rates			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Proprietary products in descriptions:</u>			
	Proprietary products shall be used as specified. Substitute products of similar quality and specification may only be used with prior approval by the Principal Agent.			
	<u>DAMPPROOFING OF WALLS AND FLOORS</u>			
	<u>One layer of 350 micron 'USB GREEN' waterproof sheeting sealed at laps with 'Gunplas Pressure Sensitive Tape':</u>			
1	Under surface beds. A1 : 48 A2 : 47 A3 : 56	m2	151	
	<u>One layer of 350 micron embossed dampcourse waterproof sheeting below walls, sills, etc:</u>			
2	Below walls, sills, etc. A1 : 8 A2 : 7 A3 : 7	m2	22	
	Carried to Collection			
	Section 2			
	Bill No. 4			
	Waterproofing			

JOINT SEALANTS ETC

Clear Neutral silicone sealant:

- 3 In joint sealing and pointing all round external window and door frames.

A1 : 32 A2 : 28 A3 : 40

m 100

Two-part grey polysulphide sealing compound including backing cord, bond breaker, primer, etc

- 4 10 x 12mm In movement joints in floors or walls including raking out expansion joint filler as necessary (Provisional).

A1 : 25 A2 : 24 A3 : 28

m 77

WATERPROOFING SLURRY

"Dura - Slurry" or equally approved cementitious flexible waterproofing slurry including saturation membrane with 75mm side and 100mm end laps applied in accordance with manufacturer's specifications.

- 5 On vertical surfaces of plastered brickwork.

A1 : 53 A2 : 43 A3 : 63

m2 159

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 Waterproofing

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Waterproofing

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Waterproofing

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Roof Coverings Etc.

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Quality Assurance

The manufacturer shall be assessed and certified as complying with ISO 9001: 2008 Quality Management System

Guarantee

AZ150 ZincAl or equal approved sheeting shall be laid in strict accordance with manufacturer's specifications by an approved contractor. The employer shall be provided with a ten year written guarantee on materials and a five year written guarantee on workmanship and water-tightness after final inspection of the roofs, by the manufacturer.

Safety

The contractor shall exercise special care when handling long length sheeting, particularly in windy conditions. Should work be interrupted for any reason, all loose sheeting and incomplete sections must be adequately secured against possible movement by wind and gravity

Handling and Storage

The contractor shall ensure that all materials used on site for cladding, etc are transported, handled and stored in accordance with the manufacturer's recommendations. Material damaged shall be rejected and replaced with undamaged material at the contractor's expense. Repair of damaged material will not generally be permitted. Rates are to include for preventing damage and protecting sheets through all stages of construction

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 Bill No. 5
 Roof Coverings Etc.

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Inspection Prior to Installation or Erection

Before commencing with installation, the contractor shall verify that the following items have been checked and accepted:

- a. The entire structure or the portion thereof to be sheeted has been correctly aligned, levelled and grouted
- b. Purlins and sheeting rails are at the correct spacing and are within the specified tolerances
- c. The corners of the roof are square and the wall framework is perpendicular or as specified
- d. No protrusions such as bolt heads, splice plates, cleats, etc. appear on the face of the framework
- e. All members to which roofing and cladding are to be fixed in aesthetically sensitive areas are true and square
- f. Paint and any other materials that may be incompatible with the sheeting, have been painted over or so dealt with that direct contact with the sheeting is avoided
- g. The contact faces between the purlins or the girts and the cladding are in the same plane. Should the alignment be inadequate, the contractor shall request instructions from the engineer before proceeding with the fixing of the cladding

Protrusion through Sheeted Surfaces

Protrusions such as pipes, ducts and the like, shall be adequately flashed where they pass through the sheeting surface. Where ribs have to be cut away to permit penetration, additional framing is to be installed as required to support the sheeting. Depending on the position of the penetration through the roof, special attention shall be given to back flashing the sheeting to the ridge or point of water entry. In all cases, all cutting and flashings shall be so arranged that adequate provision is made for the drainage of all troughs and corrugation

Cleaning of Roofs, etc

All debris, etc arising from the fixing of the cladding shall be removed from the sheetin as the fixing progresses. In addition, off-cuts of insulation, surplus fasteners and sealants, mandrels from pop rivets, off-cuts of flashings and sheeting, surplus flashing, food packaging, cartons, bottles, cans, etc shall not be left on the roof or in the gutters. Care shall be taken to ensure that no such material enters, blocks or partially impedes the flow of water into the outlets, downpipes, etc

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Roof Coverings Etc.

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ROOF COVERING

PROFILED METAL SHEETING AND ACCESSORIES

0,58mm thick corrugated ISOQ230, Z275 spelter galvanised steel roof sheeting with chromadek finish to one side and protective primer coating on reverse side, colour to be dove grey, fixed to timber purlins (elsewhere measured), all in accordance with manufacturer's recommendations and specifications:

1	Roof sheeting laid to a mono-pitch. A1 : 38 A2 : 37 A3 : 46	m2	121		
2	Ridge capping with 225mm lapping secured onto the roof. A1 : 10 A2 : 9 A3 : 11	m	30		
3	Standard narrow and broad flute closers. A1 : 19 A2 : 18 A3 : 23	m	60		

ROOF AND WALL INSULATION

"Sisalation Grade FR430" or equal approved heavy industrial insulation

4	Insulation laid taut over roof trusses (at approximately 1 100mm centres) and fixed concurrent with SA Pine purlins at 900mm centres, etc including galvanised steel straining wires A1 : 38 A2 : 37 A3 : 46	m2	121		
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Roof Coverings Etc.

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Bill No. 5

Roof Coverings Etc.

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	<u>SECTION 2</u>			
	<u>BILL No. 6</u>			
	<u>CARPENTRY & JOINERY</u>			
	<u>Quantity Split:</u>			
	Note that the total quantity per each item is split into the various buildings and appears below each description as follows:			
	A1 - DWG 04 - Staff Ablutions (2M2F1D)			
	A2 - DWG 10 - Male Ablution (8B)			
	A3 - DWG 17 - Female Ablutions (8G)			
	<u>MODEL PREAMBLES</u>			
	The tenderer is referred to the "Model Preambles for Trades 2008" for supplementary and comprehensive expansion of descriptions, appropriate provision for which shall be deemed to have been included in all relevant rates			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>FIXING</u>			
	All nailing of timber roof rafters, purlins, etc shall be done with galvanised nails. In coastal areas, copper, aluminium or stainless steel nails shall be used.			
	<u>CARPENTRY</u>			
	<u>Sawn softwood:</u>			
1	38 x 152mm Wall plate. A1 : 18 A2 : 17 A3 : 22	m	57	
2	50 x 76mm Purlins. A1 : 95 A2 : 90 A3 : 114	m	299	
3	50 x 76mm Bracing. A1 : 29 A2 : 29 A3 : 36	m	94	
4	38 x 152mm Rafters. A1 : 37 A2 : 33 A3 : 42	m	112	
	Carried to Collection			
	Section 2			
	Bill No. 6			
	Carpentry and Joinery			
			R	

Sundries:

- | | | | | |
|---|--|----|-----|--|
| 5 | TRI FIX or equal approved hurricane clip fixed using 10 x 32mm galvanised clout nails (Provisional). | No | 135 | |
| | A1 : 45 A2 : 40 A3 : 50 | | | |

EAVES, VERGES, ETC

"Everite Nutec" or equal approved fibre cement

- | | | | | |
|---|---|---|----|--|
| 6 | 12 x 225mm Fascia board drilled and brass screwed to rafter feet including galvanised steel H-profile jointing strips, etc. | m | 60 | |
| | A1 : 19 A2 : 18 A3 : 23 | | | |
| 7 | 85 x 275 x 6mm Barge board drilled and brass screwed to purlin ends including galvanised steel H-profile jointing strips, screws, holes, etc. | m | 24 | |
| | A1 : 8 A2 : 8 A3 : 8 | | | |

DOORS ETC

SANS Approved meranti:

- | | | | | |
|----|--|----|----|--|
| 8 | 44mm Framed, ledged, and battened single door with flush ply panel internally size 813 x 2032mm high comprising 44 x 110mm top rail and stiles, 44 x 220mm bottom rail, 44 x 150mm lock rail and 22 x 70mm vertical "v" jointed boards (D1). | No | 4 | |
| | A1 : 2 A2 : 1 A3 : 1 | | | |
| 9 | 44mm Framed, ledged, and battened single door with flush ply panel internally size 950 x 2032mm high comprising 44 x 110mm top rail and stiles, 44 x 220mm bottom rail, 44 x 150mm lock rail and 22 x 70mm vertical "v" jointed boards (D2). | No | 1 | |
| | A1 : 1 A2 : 0 A3 : 0 | | | |
| 10 | 44mm Framed, ledged, and battened purpose made single door with flush ply panel internally size 813 x 1832mm high comprising 44 x 110mm stiles, 44 x 220mm bottom rail, 44 x 150mm lock rail and 22 x 70mm vertical "v" jointed boards (D4). | No | 15 | |
| | A1 : 3 A2 : 4 A3 : 8 | | | |

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Section 2
 Bill No. 6
 Carpentry and Joinery

FRAMED FRAMES, ETC

Meranti Frames bolted to wall with expanding masonry bolts - four per style:

11	70 x 108mm rebated meranti frame . A1 : 29 A2 : 24 A3 : 44	m	97
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 Carpentry and Joinery

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Carpentry and Joinery

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Carpentry and Joinery

Item No		Quantity	Rate	Amount
	<u>SECTION 2</u> <u>BILL No. 7</u> <u>IRONMONGERY</u> <u>Quantity Split:</u> Note that the total quantity per each item is split into the various buildings and appears below each description as follows: A1 - DWG 04 - Staff Ablutions (2M2F1D) A2 - DWG 10 - Male Ablution (8B) A3 - DWG 17 - Female Ablutions (8G) <u>MODEL PREAMBLES</u> The tenderer is referred to the "Model Preambles for Trades 2008" for supplementary and comprehensive expansion of descriptions, appropriate provision for which shall be deemed to have been included in all relevant rates <u>SUPPLEMENTARY PREAMBLES</u> <u>Keys/Locks</u> Each lock is to be distinctly numbered with consecutive numbers and each key is to be stamped with the corresponding number to the lock that it controls. All locks are to have two keys <u>Trade Names</u> Where trade names are specified other ironmongery approved by the Principal Agent may be used <u>Fixing</u> Fixing of ironmongery is deemed to be fixed to timber unless otherwise described <u>HINGES:</u>			
1	75 x 100mm Brass Medium duty ball bearing HMP butt hinges. A1 : 6.0 A2 : 5.0 A3 : 9.0	Pairs	20.0	
	Carried to Collection			R
	Section 2 Bill No. 7 Ironmongery			

LOCKS

- | | | | |
|---|---|----|----|
| 2 | "UNION 2277-78SS" or equal approved three lever sash mortice lockset.
A1 : 3 A2 : 1 A3 : 1 | No | 5 |
| 3 | "E1511 EREBUS" H/D Adjustable Roller Catch - SC or equal approved.
A1 : 3 A2 : 4 A3 : 8 | No | 15 |

HANDLES

- | | | | |
|---|---|------|------|
| 4 | "UNION CZ682-24SC" or equal approved handles.
A1 : 6.0 A2 : 5.0 A3 : 9.0 | Sets | 20.0 |
| 5 | "Dorma DPH301B" or equal approved Stainless Steel Straight Tubular Pull handle flange fixing.
A1 : 6 A2 : 5 A3 : 9 | No | 20 |
| 6 | "Dorma DPH301C-BT" or equal approved Stainless Steel Straight Pull handle D 152x19mm.
A1 : 6 A2 : 5 A3 : 9 | No | 20 |

Sundries:

- | | | | |
|---|---|----|----|
| 7 | 38mm Diameter black rubber door stop plugged and screwed to wall.
A1 : 6 A2 : 5 A3 : 9 | No | 20 |
|---|---|----|----|

SIGN PLATES:

All sign plates are to be with engraved blue perspex all in accordance with the standard sign plates for Schools.

- | | | | |
|---|--|----|---|
| 8 | Sign plate plugged and screwed to walls with chromium plated dome headed screws.
A1 : 3 A2 : 1 A3 : 1 | No | 5 |
|---|--|----|---|

SUNDRIES

Halcast or equal similar approved"

- | | | | |
|---|--|----|----|
| 9 | Thiefproof toilet roll holder plugged.
A1 : 4 A2 : 4 A3 : 8 | No | 16 |
|---|--|----|----|

Carried to Collection

R

Section 2
 Bill No. 7
 Ironmongery

Grade 304 stainless steel ware:

10	32mm outside diameter x 1,6mm thick tubular wall mounted side stainless steel grab rail 1,06m girth with two 45 degree and two 90 degree formed bends and each end fitted with 80mm diameter x 5mm thick flange welded on and four times countersunk holed for and plugged and screwed to wall with stainless steel crews. A1 : 1 A2 : 0 A3 : 0	No	1
11	32mm outside diameter x 1,6mm thick tubular wall mounted around cistern back stainless steel grab rail 1,23m girth with two 90 degree formed bends and each end fitted with 80mm diameter x 5mm thick flange welded on and four times countersunk holed for and plugged and screwed to wall with stainless steel crews. A1 : 1 A2 : 0 A3 : 0	No	1

Carried to Collection

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Section 2
 Bill No. 7
 Ironmongery

Section 2

Bill No. 7

Ironmongery

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Section 2
Bill No. 7
Ironmongery

Item No		Quantity	Rate	Amount
	<u>SECTION 2</u>			
	<u>BILL No. 8</u>			
	<u>METALWORK</u>			
	<u>Quantity Split:</u>			
	Note that the total quantity per each item is split into the various buildings and appears below each description as follows:			
	A1 - DWG 04 - Staff Ablutions (2M2F1D)			
	A2 - DWG 10 - Male Ablution (8B)			
	A3 - DWG 17 - Female Ablutions (8G)			
	<u>MODEL PREAMBLES</u>			
	The tenderer is referred to the "Model Preambles for Trades 2008" for supplementary and comprehensive expansion of descriptions, appropriate provision for which shall be deemed to have been included in all relevant rates			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	The Contractor is to check and verify on site that the item specified in the BoQ matches existing prior to placing orders. Additional costs will not be borne by the client for items that do not match existing and are not approved by the Principal Agent			
	<u>ALUMINIUM WINDOWS</u>			
	All aluminium windows are to be manufactured by manufacturers who are members of AAAMSA. All aluminium systems to be approved by AAAMSA.			
	All aluminium work is to be protected by covering with plastic sheeting fixed with low tack adhesive prior to leaving the factory. Plastic sheeting is to remain in place during construction.			
	All glazing shall be in accordance with SABS 0400 - 1990, SABS 1263 - 1. All safety glazing materials (individual panes) shall be permanently marked. Such marking shall be visible after glazing process. If it is not marked, it is not safety glass.			
	Carried to Collection		R	
	Section 2			
	Bill No. 8			
	Metalwork			

<u>Natural anodised aluminium windows glazed with 6.38mm safety laminated glass and plugged to brickwork:</u>					
1	Window Size 600 x 600mm high complete, including ironmongery etc, all as per Window Type W01. A1 : 11 A2 : 10 A3 : 15	No	36		
<u>HOT DIP GALVANIZED STEEL GATES</u> <u>Note: The contractor is to check on site measurements before placing of order.</u> <u>Security Gate consisting of 25 x 25 x 2mm galvanised mild steel frame with 12mm galvanised mild steel square bars infill placed at 109mm centres, hung with one pair of galvanised mild steel hinges including locks, handles, ironmongery complete and fixed to brickwork:</u>					
2	Security Gate size 900 x 2050mm high (G1). A1 : 3 A2 : 1 A3 : 1	No	5		
<u>MANHOLE COVERS</u>					
3	670 x 530mm Type 9D Medium Duty Polymer concrete cover and frame to SABS Specification. A1 : 5 A2 : 4 A3 : 8	No	17		
Carried to Collection					
Section 2 Bill No. 8 Metalwork				R	

Section 2

Bill No. 8

Metalwork

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Section 2

Bill No. 8

Metalwork

Item No		Quantity	Rate	Amount
	<u>SECTION 2</u>			
	<u>BILL No. 9</u>			
	<u>PLASTERING</u>			
	<u>Quantity Split:</u>			
	Note that the total quantity per each item is split into the various buildings and appears below each description as follows:			
	A1 - DWG 04 - Staff Ablutions (2M2F1D)			
	A2 - DWG 10 - Male Ablution (8B)			
	A3 - DWG 17 - Female Ablutions (8G)			
	<u>MODEL PREAMBLES</u>			
	The tenderer is referred to the "Model Preambles for Trades 2008" for supplementary and comprehensive expansion of descriptions, appropriate provision for which shall be deemed to have been included in all relevant rates			
	<u>SCREEDS</u>			
	<u>1:3 Cement and sand screeds steel trowelled on concrete:</u>			
1	30mm Thick on floors. A1 : 31 A2 : 29 A3 : 37	m2	97	
	<u>GRANOLITHIC</u>			
	<u>Untinted granolithic on concrete:</u>			
2	30mm Thick on floors. A1 : 31 A2 : 29 A3 : 37	m2	97	
	<u>INTERNAL PLASTER</u>			
	<u>Cement plaster on substructure brickwork (pit walls):</u>			
3	On walls. A1 : 84 A2 : 59 A3 : 115	m2	258	
	Carried to Collection			
	Section 2			
	Bill No. 9			
	Plastering			
			R	

4	<u>Cement plaster on superstructure brickwork:</u> On walls. A1 : 132 A2 : 111 A3 : 143	m2	386	
	Carried to Collection		R	
	Section 2 Bill No. 9 Plastering			

Section 2

Bill No. 9

Plastering

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Section 2

Bill No. 9

Plastering

Item No		Quantity	Rate	Amount
	<u>SECTION 2</u>			
	<u>BILL No. 10</u>			
	<u>PLUMBING AND DRAINAGE</u>			
	<u>(PROVISIONAL)</u>			
	<u>Quantity Split:</u>			
	Note that the total quantity per each item is split into the various buildings and appears below each description as follows:			
	A1 - DWG 04 - Staff Ablutions (2M2F1D)			
	A2 - DWG 10 - Male Ablution (8B)			
	A3 - DWG 17 - Female Ablutions (8G)			
	<u>MODEL PREAMBLES</u>			
	The tenderer is referred to the "Model Preambles for Trades 2008" for supplementary and comprehensive expansion of descriptions, appropriate provision for which shall be deemed to have been included in all relevant rates			
	<u>RAINWATER DISPOSAL:</u>			
	<u>PVC Gutters and Downpipes:</u>			
1	125 mm half round PVC Gutters including gutter brackets at 1m centres. A1 : 19 A2 : 18 A3 : 23	m	60	
2	Extra over eaves gutter for stopped end. A1 : 4 A2 : 4 A3 : 4	No	12	
3	Extra over eaves gutter for outlet for 75mm PVC downpipe. A1 : 4 A2 : 4 A3 : 4	No	12	
4	75mm rainwater PVC fluted downpipes to 5000L rainwater tanks (elsewhere measured). A1 : 12 A2 : 12 A3 : 12	m	36	
5	Extra over rainwater downpipe for bends. A1 : 4 A2 : 4 A3 : 4	No	12	
	Carried to Collection			
	Section 2			
	Bill No. 10			
	Plumbing and Drainage (Provisional)			
			R	

TAPS, VALVES, ETC

Solid Cast brass taps, valves, etc:

6	"Cobra KM2-200" or other approved 15mm chrome plated metered bib tap with non-hold open feature and flow controller.	No	12
	A1 : 4 A2 : 2 A3 : 6		
7	15mm Ball-o-stop valve.	No	12
	A1 : 4 A2 : 2 A3 : 6		
8	22mm Non Return valve.	No	12
	A1 : 4 A2 : 2 A3 : 6		

WASTE UNIONS ETC

Outlets, traps, etc:

9	50mm Chromium plated PVC urinal bottle trap.	No	5
	A1 : 1 A2 : 4 A3 : 0		
10	38mm Chromium plated brass slotted basin waste outlet with plug, chain stay.	No	14
	A1 : 6 A2 : 2 A3 : 6		
11	38mm PVC Mini P-trap.	No	12
	A1 : 4 A2 : 2 A3 : 6		

SANITARY FITTINGS

Atlas Plastics or similar approved

12	"Atlas Plastic 507AP" Granite bowl urinal fitted with "496AP" waterless urinal waste fitting hung on wall and including proprietary brackets.	No	5
	A1 : 1 A2 : 4 A3 : 0		
13	"Atlas Plastic 237 AP"VIP 450 Pit pedestal complete with integral flap four times plugged to floor with and including 6 x 75mm masonry anchors.	No	15
	A1 : 3 A2 : 4 A3 : 8		
14	"Atlas Plastic 222 AP"VIP 200 Pit pedestal complete with integral flap four times plugged to floor with and including 6 x 75mm masonry anchors.	No	1
	A1 : 1 A2 : 0 A3 : 0		

Carried to Collection

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Section 2
 Bill No. 10
 Plumbing and Drainage (Provisional)

15	"Atlas Plastic Christy 382AP"Basin, size 570 x 400 x 245mm, provided complete with two tapholes and built in soap holder, hung on wall and including proprietary wall brackets. A1 : 4 A2 : 2 A3 : 6	No	12		
<u>SANITARY PLUMBING</u>					
<u>PVC waste or vent pipes and fittings:</u>					
16	50mm Waste pipe. A1 : 9 A2 : 2 A3 : 6	m	17		
17	110mm Vent pipe. A1 : 15 A2 : 12 A3 : 24	m	51		
<u>Extra for:</u>					
18	50mm Bend. A1 : 9 A2 : 8 A3 : 16	No	33		
19	50mm Access bend. A1 : 3 A2 : 3 A3 : 3	No	9		
20	50mm Rubber S trap with side outlet. A1 : 4 A2 : 2 A3 : 6	No	12		
21	Black PVC whirlybird vent capping over the 110mm vent pipe. A1 : 5 A2 : 4 A3 : 8	No	17		
<u>WATER SUPPLIES</u>					
<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					
Section 2 Bill No. 10 Plumbing and Drainage (Provisional)				R	

Fixing of pipes

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

Copper pipes chased in walls:

Where pipes have been chased in walls, the price for making good of plaster and paint etc shall be deemed to be included in the discription of pipe chased in walls.

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.

Class 2 copper pipes:

22	15mm Pipe chased into brick walls. A1 : 1 A2 : 2 A3 : 4	m	7
23	22mm Ditto. A1 : 2 A2 : 2 A3 : 2	m	6

Extra over class 2 copper pipes for capillary fittings:

24	15mm Fittings. A1 : 2 A2 : 2 A3 : 6	No	10
25	22mm Fittings. A1 : 2 A2 : 2 A3 : 6	No	10

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 Bill No. 10
 Plumbing and Drainage (Provisional)

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Plumbing and Drainage (Provisional)

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Bill No. 10

Plumbing and Drainage (Provisional)

ON WOOD

Stop, sand down and prepare wood surfaces and apply one coat wood primer, one undercoat and two coats eggshell enamel paint as per Plascon or equal approved:

2	On doors	m2	54	
	A1 : 13 A2 : 14 A3 : 27			

Prepare and apply two coats carbolenium on:

3	On exposed timbers.	m2	24	
	A1 : 7 A2 : 8 A3 : 9			

ON FIBRE-CEMENT

Prepare and apply two coats pure acrylic roof paint on:

4	On fascias and barge boards.	m2	18	
	A1 : 5 A2 : 6 A3 : 7			

ON PVC VENT PIPE

Prepare and apply two coats black PVA paint:

5	Vent Pipes	m2	4	
	A1 : 1 A2 : 1 A3 : 2			

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Section 2
 Bill No. 11
 Paintwork

Section 2

Bill No. 11

Paintwork

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Section 2

SECTION SUMMARY - BUILDING WORKS

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Concrete, Formwork and Reinforcement

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Masonry

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Waterproofing

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Roof Coverings Etc.

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Carpentry and Joinery

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Ironmongery

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Metalwork

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Plastering

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Plumbing and Drainage (Provisional)

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Paintwork

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Section 2

Item No		Quantity	Rate	Amount
<u>SECTION 3</u>				
<u>BILL No. 1</u>				
<u>DEMOLITIONS</u>				
<u>Demolish & remove existing</u>				
1	Single storey ablution building comprising block work under corrugated roof sheeting including filling in pits (desludging measured elsewhere)	No	3	
<u>SUNDRIES</u>				
<u>Ablution Items</u>				
2	Clean out pit latrine by desludging including removal of all debris and waste including solid waste and make good on completion including disposing of all debris and waste at an authorised municipal waste disposal facility. Contractor to price per seat	No	6	
Carried Forward to Summary of Section No. 3				R
Section 3 Bill No. 1 Demolitions				

Item No		Quantity	Rate	Amount
	<u>SECTION 3</u>			
	<u>BILL No. 2 :</u>			
	<u>WALKWAYS, RAMPS, STEPS, ETC</u>			
	<u>MODEL PREAMBLES</u>			
	The tenderer is referred to the "Model Preambles for Trades 2008" for supplementary and comprehensive expansion of descriptions, appropriate provision for which shall be deemed to have been included in all relevant rates			
	<u>EARTHWORKS</u>			
	<u>Excavation not exceeding 2m deep</u>			
1	Reducing levels and depositing excavated material in prescribed stock piles on site.	m3	11	
	<u>CARTING AWAY.</u>			
	<u>Extra over all excavations for loading, carting and dumping surplus excavated material (no allowance made for increase in bulk):</u>			
2	Off site to a dumping site to be found by the Contractor.	m3	11	
	<u>EARTH FILLING, ETC</u>			
	<u>Filling with approved clean, hard, dry decomposed dolerite filling supplied and carted onto site by the Contractor, compacted to a density of at least 95% Mod. AASHTO maximum density:</u>			
3	150mm layer of G5 material compacted to 95% MOD AASHTO under Concrete surface bed.	m3	11	
	<u>Coarse river sand filling compacted to 95% Mod. AASHTO maximum density:</u>			
4	Under floors, etc.	m3	4	
	Carried to Collection			R
	Section 3			
	Bill No. 2			
	Walkways, Ramps, Steps, etc			

<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 95% Mod AASHTO density.	m2	72		
<u>Prescribed density tests on filling:</u>					
6	In-situ dry density test.	No	8		
<u>Approved brand of anti-termite soil poison applied by a Registered Pest Control Company and guaranteed against termite infestation for ten years:</u>					
7	Treat filling under concrete floor with 'Chlordane Heptachlor Aldrin' or equal approved.	m2	72		
<u>CONCRETE, FORMWORK & REINFORCEMENT</u>					
<u>Reinforced 25 Mpa/19mm Concrete:</u>					
8	Walkways.	m3	7		
<u>Finishing top surfaces of concrete smooth with a wood float:</u>					
9	Surface beds, slabs, etc to falls and currents.	m2	72		
<u>FORMWORK</u>					
<u>Smooth Formwork (Degree of Accuracy II)</u>					
10	Edges, risers, ends and reveals not exceeding 300mm high.	m	120		
<u>CONCRETE TESTS</u>					
<u>Test blocks:</u>					
11	Making and testing set of three 150x150x150mm concrete strength test cubes (Provisional).	No	1		
Carried to Collection				R	
Section 3 Bill No. 2 Walkways, Ramps, Steps, etc					

MOVEMENT JOINTS ETC

Expansion joints with bitumen impregnated softboard between vertical concrete or brick surfaces:

12	10mm Joints not exceeding 300mm high (Provisional).	m	15		
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Approved polysulphide sealing compound including backing cord, bond breaker, primer etc.:

13	10 x 10mm In vertical expansion joints between concrete and brick surfaces, including raking out expansion joint filler as necessary (Provisional).	m	24		
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REINFORCEMENT

Fabric reinforcement:

14	Type 395 fabric reinforcement in concrete surface beds, slabs, etc.	m2	72		
----	---	----	----	--	--

WATERPROOFING

15	350 Micron USB orange polyethylene dampproof membrane in accordance with SABS 952 Type C laid on sand bed (elsewhere measured).	m2	72		
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Section 3
 Bill No. 2
 Walkways, Ramps, Steps, etc

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Walkways, Ramps, Steps, etc

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Bill No. 2

Walkways, Ramps, Steps, etc

Item No		Quantity	Rate	Amount
	<u>SECTION No. 3</u>			
	<u>BILL No. 3 :</u>			
	<u>STORMWATER DRAINAGE</u>			
	<u>STORMWATER CHANNELS</u>			
	<u>Cast in-situ Ref 395 mesh reinforced concrete (25MPa) open stormwater channels having V-shaped waterway formed in top, finished smooth on all exposed surfaces in 3:1 cement plaster trowelled smooth and with angles rounded, cast in suitable lengths not exceeding 1.8m, including all formwork, moulds, shallow excavation, filling and ramming, laying to falls, bedding and pointing in 3:1 cement mortar. Concrete apron to be tinted, colour to be specified by the Engineer.</u>			
1	700 x 150mm V' channel 75mm deep in centre laid in position in ground in 1800mm sections including all excavations, ramming, trimming, formwork, reinforcement, expansion joints, floating etc.	m	20	
2	Extra for 700mm angle	No	4	
3	Extra for forming 200mm thick 700mm wide spreader with 200mm high edges fanning out to 1 960mm width at furthest end with hard burnt bricks pitching cast in ass diffusers including working off concrete to a smooth finish and draining onto natural ground with 150 - 200mm diameter loose stones.	No	4	
	<u>Sundries:</u>			
4	Create earth berm for stormwater control with in situ material 1,5m wide at base x 500mm high	m	40	
5	Construct shaped earth V-drain 2m wide with grass runners	m	40	
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	Bill No. 3			
	Stormwater Drainage			

Item No		Quantity	Rate	Amount
	<u>SECTION No. 3</u>			
	<u>BILL No. 4</u>			
	<u>RAINWATER TANKS AND STANDS</u>			
	<u>MODEL PREAMBLES</u>			
	The tenderer is referred to the "Model Preambles for Trades 2008" for supplementary and comprehensive expansion of descriptions, appropriate provision for which shall be deemed to have been included in all relevant rates			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Density testing on filling:</u>			
	Rates for filling, etc. shall include for all density and soil type testing to prove that the specified compaction is achieved. When additional testing is done on instruction of the Principal Agent and these tests are successful, they will be paid for additionally.			
	<u>EARTHWORKS</u>			
	<u>EXCAVATION, FILLING, ETC OTHER THAN BULK</u>			
	<u>Excavation in earth not exceeding 2m deep:</u>			
1	Trenches.	m3	8	
	<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	4	
	<u>Risk of collapse of excavations:</u>			
3	Sides of trench and hole excavations not exceeding 1,5m deep.	m2	24	
	Carried to Collection			R
	Section 3			
	Bill No. 4			
	Rainwater Tanks and Stands			

<u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 93% MOD AASHTO density:</u>			
4	Backfilling to trenches, holes, etc.	m3	4
<u>Earth filling (G5 material) supplied by the contractor compacted to 98% Mod AASHTO density:</u>			
5	Under footings.	m3	4
<u>Compaction of surfaces</u>			
6	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	16
<u>CONCRETE, FORMWORK AND REINFORCEMENT</u>			
<u>UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u>			
<u>25 Mpa/19mm Concrete</u>			
7	Strip footings.	m3	4
<u>REINFORCED CONCRETE</u>			
<u>25 MPa/19mm Concrete:</u>			
8	Tank concrete slab.	m3	2
<u>FINISHING TOP SURFACE OF CONCRETE</u>			
<u>Finishing top surfaces of concrete smooth with a steel trowel including adding additional cement while concrete is still green to attain a smooth, hard surface:</u>			
9	Surface beds, slabs, etc.	m2	16
Carried to Collection			R
Section 3 Bill No. 4 Rainwater Tanks and Stands			

<u>ROUGH FORMWORK (DEGREE OF ACCURACY III)</u>		
<u>Rough Formwork to Sides:</u>		
10	Edges, risers, ends and reveals not exceeding 300mm high.	m 32
<u>REINFORCEMENT</u>		
<u>Allens Meshco Square Mesh Fabric reinforcement:</u>		
11	Type 395 fabric reinforcement in concrete slabs.	m2 16
<u>MASONRY</u>		
<u>BRICKWORK IN FOUNDATIONS (PROVISIONAL)</u>		
<u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:</u>		
12	One brick walls.	m2 4
<u>BRICKWORK IN SUPERSTRUCTURE</u>		
<u>Brickwork of NFP bricks (14 MPa nominal compressive strength) in Class II mortar:</u>		
13	One brick walls.	m2 16
Carried to Collection		
Section 3 Bill No. 4 Rainwater Tanks and Stands		

BRICKWORK AND BLOCKWORK SUNDRIES

Brickwork reinforcement:

14	230mm Wide reinforcement built in horizontally.	m	104		
15	Ditto, but in foundations (Provisional).	m	52		

FACE BRICK

"Rustgold FBS" clay face brick or equal approved, size 222 x 106 x 73mm, bedded and jointed in Class II mortar and pointed with recessed vertical and recessed horizontal joints, suitable for exposure zones 1-2:

16	Extra over brickwork for face brickwork externally.	m2	16		
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PLUMBING AND DRAINAGE

TANKS ETC

Plastic water tanks etc:

17	5000 Litre light duty cylindrical tank complete with lid, 15mm brass bibtap with handle suitable for locking and 4 No. galvanised stay wires 2.5m each long connected to tank, with and including 4 No. eye bolts cast into concrete.	No	4		
18	Hole top of tank for 100mm pipe.	No	4		

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Section 3
 Bill No. 4
 Rainwater Tanks and Stands

Section 3

Bill No. 4

Rainwater Tanks and Stands

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Bill No. 4

Rainwater Tanks and Stands

Section 3

SECTION SUMMARY - EXTERNAL WORKS (PROVISIONAL)

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Walkways, Ramps, Steps, etc

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Stormwater Drainage

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Rainwater Tanks and Stands

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3	EXTERNAL WORKS (PROVISIONAL)	84	
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Add Value Added Tax at the rate of 15%		R	
Carried to Form of Offer and Acceptance		R	