

Rate

Amount

BILL NO. 1

PRELIMINARIES

MEANING OF TERMS "TENDER / TENDERER"

Any reference to the words "Tender" or "Tenderer" herein and/or in any other documentation shall be construed to have the same meaning as the words "Bid" or "Bidder"

PRELIMINARIES

The JBCC Preliminaries Code 2103, May 2005 edition for use with the JBCC Principal Building Agreement Edition 4.1 Code 2101, March 2005 is taken to be incorporated herein. The tenderer is deemed to have referred to these documents for the full intent and meaning of each clause. These clauses are referred to by number and heading only. Where standard clauses or options are not applicable to the contract such modifications or corrections as are necessary are given under each relevant clause. Where an item is not relevant to this specific contract such item is marked "N/A" signifying "Not Applicable"

PRICING OF PRELIMINARIES

Should Option A, as set out in clause B10.3.1 hereinafter be used for the adjustment of preliminaries then each item priced is to be allocated to one or more of the three categories Fixed, Value Related or Time Related and the respective amounts entered in the spaces provided under each item

Items not priced in these Preliminaries shall be deemed to be included elsewhere in these Bills of Quantities

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SECTION A: JBCC PRINCIPAL BUILDING AGREEMENT

DEFINITIONS

1 A1.0 DEFINITIONS AND INTERPRETATION

Clause 1.0

Clause 1.1 Definition of "**Commencement Date**" is added:

"**COMMENCEMENT DATE**" means the date that is 5 working days after site hand over.

Clause 1.1 Definition of "**Construction Guarantee**" is amended by replacing it with the following:

"**CONSTRUCTION GUARANTEE**" means a guarantee at call obtained by the **contractor** from an institution approved by the **employer** in terms of the **employer's** construction guarantee form as selected in the **schedule**

Clause 1.1 Definition of "**Construction Period**" is amended by replacing it with the following:

"**CONSTRUCTION PERIOD**" means the period commencing on the **commencement date** and ending on the date of **practical completion**

Clause 1.1 Definition of "**Corrupt Practice**" is added:

"**CORRUPT PRACTICE**" means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution

Clause 1.1 Definition of "**Fraudulent Practice**" is added:

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"FRAUDULENT PRACTICE" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of any tenderer and includes collusive practice among tenderers (prior to or after the tender submission) designed to establish tender prices at artificial non-competitive levels and to deprive the tenderer of the benefits of free and open competition

Clause 1.1 Definition of **"Interest"** is amended by replacing it with the following:

"INTEREST" means the interest rates applicable on this contract, whether specifically indicated in the relevant clauses or not, will be in terms of the legislation of the Republic of South Africa, and in particular:

(a) in respect of interest owed by the employer, the interest rate as determined by the Minister of Justice and Constitutional Development from time to time, in terms of section 1(2) of the Prescribed Rate of Interest Act, 1975 (Act No. 55 of 1975), will apply;

and

(b) in respect of interest owed to the employer, the interest rate as determined by the Minister of Finance, from time to time, in terms of section 80(1)(b) of the Public Finance Management Act, 1999 (Act No. 1 of 1999), will apply

Clause 1.1 Definition of **"Principal Agent"** is amended by replacing it with the following:

"PRINCIPAL AGENT" means the person or entity appointed by the **employer** and named in the **schedule**. In the event of a **principal agent** not being appointed, then all the duties and obligations of a **principal agent** as detailed in the **agreement** shall be fulfilled by a representative of the **employer** as named in the **schedule**

Clause 1.1 Definition of **"Security"** is amended by replacing it with the following:

"SECURITY" means the form of security provided by the **employer** or **contractor**, as stated in the **schedule**, from which the **contractor** or **employer** may recover expense or loss

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Clause 1.6 is amended by replacing the words "prepaid registered post, telefax or e-mail" with "prepaid registered post or telefax"

Clause 1.6.4 is amended by replacing it with the following:

No clause

Fixed: _____ Value related: _____ Time related: _____

Item

OBJECTIVE AND PREPARATION

1 A2.0 OFFER, ACCEPTANCE AND PERFORMANCE

Clause 2.0

Fixed: _____ Value related: _____ Time related: _____

Item

2 A3.0 DOCUMENTS

Clause 3.0

Clause 3.2.1 is amended by replacing "14.1" with "14.0"

Clause 3.7 is amended by the addition of the following:

The **contractor** shall supply and keep a copy of the **JBCC** Series 2000 Principal Building Agreement and Preliminaries applicable to this contract on the **site**, to which the **employer, principal agent** and **agents** shall have access at all times

Clause 3.10 is amended by replacing the second reference to "**principal agent**" with the word "**employer**"

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1	<p>A4.0 DESIGN RESPONSIBILITY</p> <p>Clause 4.0</p> <p>Clause 4.3 is amended by replacing it with the following:</p> <p>No clause</p> <p>Fixed:_____ Value related:_____ Time related:_____</p>	Item	
2	<p>A5.0 EMPLOYER'S AGENTS</p> <p>Clause 5.0</p> <p>Clause 5.1.2 is amended to include clauses 32.6.3, 34.3 and 34.4 in terms of which the employer has retained its authority and has not given a mandate to the principal agent and in terms of which the employer shall sign all documents.</p> <p>Fixed:_____ Value related:_____ Time related:_____</p>	Item	
3	<p>A6.0 SITE REPRESENTATIVE</p> <p>Clause 6.0</p> <p>Fixed:_____ Value related:_____ Time related:_____</p>	Item	
4	<p>A7.0 COMPLIANCE WITH REGULATIONS</p> <p>Clause 7.0</p> <p>Fixed:_____ Value related:_____ Time related:_____</p>	Item	
5	<p>A8.0 WORKS RISK</p> <p>Clause 8.0</p> <p>Fixed:_____ Value related:_____ Time related:_____</p>	Item	
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1	<p>A9.0 INDEMNITIES</p> <p>Clause 9.0</p> <p>Fixed:_____ Value related:_____ Time related:_____</p>	Item	
2	<p>A10.0 WORKS INSURANCES</p> <p>Clause 10.0</p> <p>Clause 10.0 is amended by the addition of the following clauses:</p> <p>10.5 Damage to the Works</p> <p>(a) Without in any way limiting the contractor's obligations in terms of the contract, the contractor shall bear the full risk of damage to and/or destruction of the works by whatever cause during construction of the works and hereby indemnifies and holds harmless the employer against any such damage. The contractor shall take such precautions and security measures and other steps for the protection and security of the works as the contractor may deem necessary</p> <p>(b) The contractor shall at all times proceed immediately to remove or dispose of any debris arising from damage to or destruction of the works and to rebuild, restore, replace and/or repair the works</p> <p>(c) The employer shall carry the risk of damage to or destruction of the works and materials paid for by the employer that is the result of the excepted risks as set out in 10.6</p> <p>(d) Where the employer bears the risk in terms of this contract, the contractor shall, if requested to do so, reinstate any damage or destroyed portions of the works and the costs of such reinstatement shall be measured and valued in terms of 32.0 hereof</p>		
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10.6 Injury to Persons or loss of or damage to Properties

- (a) The **contractor** shall be liable for and hereby indemnifies the **employer** against any liability, loss, claim or proceeding whether arising in common law or by statute, consequent upon personal injuries to or the death of any person whomsoever arising out of or in the course of or caused by the execution of the **works** unless due to any act or negligence of any person for whose actions the **employer** is legally liable

- (b) The **contractor** shall be liable for and hereby indemnifies the **employer** against any liability, loss, claim or proceeding consequent upon loss of or damage to any moveable or immovable or personal property or property contiguous to the **site**, whether belonging to or under the control of the **employer** or any other body or person, arising out of or in the course of or by reason of the execution of the **works** unless due to any act or negligence of any person for whose actions the **employer** is legally liable

- (c) The **contractor** shall, upon receiving a **contract instruction** from the **principal agent**, cause the same to be made good in a perfect and workmanlike manner at his own cost and in default thereof the **employer** shall be entitled to cause it to be made good and to recover the cost thereof from the **contractor** or to deduct the same from amounts due to the **contractor**

- (d) The **contractor** shall be responsible for the protection and safety of such portions of the premises placed under his control by the **employer** for the purpose of executing the **works** until the issue of the **certificate of practical completion**

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- (e) Where the execution of the **works** involves the risk of removal of or interference with support to adjoining properties including land or structures or any structures to be altered or added to, the **contractor** shall obtain adequate insurance and will remain adequately insured or insured to the specific limit stated in the contract against the death of or injury to persons or damage to such property consequent on such removal or interference with the support until such portion of the **works** has been completed
- (f) The **contractor** shall at all times proceed immediately at his own cost to remove or dispose of any debris and to rebuild, restore, replace and/or repair such property and to execute the **works**

10.7 High risk insurance

In the event of the project being executed in a geological area classified as a "High Risk Area", that is an area which is subject to highly unstable subsurface conditions that might result in catastrophic ground movement evident by sinkhole or doline formation the following will apply:

10.7.1 Damage to the works

The **contractor** shall, from the **commencement date** of the **works** until the date of the **certificate of practical completion** bear the full risk of and hereby indemnifies and holds harmless the **employer** against any damage to and/or destruction of the **works** consequent upon a catastrophic ground movement as mentioned above. The **contractor** shall take such precautions and security measures and other steps for the protection of the **works** as he may deem necessary

When so instructed to do so by the **principal agent**, the **contractor** shall proceed immediately to remove and/or dispose of any debris arising from damage to or destruction of the **works** and to rebuild, restore, replace and/or repair the **works**, at the **contractor's** own costs

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10.7.2 Injury to persons or loss of or damage to property

The **contractor** shall be liable for and hereby indemnifies and holds harmless the **employer** against any liability, loss, claim or proceeding arising at any time during the period of the contract whether arising in common law or by statute, consequent upon personal injuries to or the death of any person whomsoever resulting from, arising out of, or caused by a catastrophic ground movement as mentioned above

The **contractor** shall be liable for and hereby indemnifies the **employer** against any and all liability, loss, claim or proceeding consequent upon loss of or damage to any moveable or immovable or personal property or property contiguous to the **site**, whether belonging to or under the control of the **employer** or any other body or person whomsoever arising out of or caused by a catastrophic ground movement, as mentioned above, which occurred during the period of the contract

10.7.3 It is the responsibility of the **contractor** to ensure that he has adequate insurance to cover his risk and liability as mentioned in 10.7.1 and 10.7.2. Without limiting the **contractor's** obligations in terms of the contract, the **contractor** shall, within twenty-one (21) **calendar days** of the **commencement date** but before commencement of the **works**, submit to the **employer** proof of such insurance policy, if requested to do so

10.7.4 The **employer** shall be entitled to recover any and all losses and/or damages of whatever nature suffered or incurred consequent upon the **contractor's** default of his obligations as set out in 10.7.1; 10.7.2 and 10.7.3. Such losses or damages may be recovered from the **contractor** or by deducting the same from any amounts still due under this contract or under any other contract presently or hereafter existing between the **employer** and the **contractor** and for this purpose all these contracts shall be considered one indivisible whole

Fixed: _____ Value related: _____ Time related: _____

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1	<p>A11.0 LIABILITY INSURANCES</p> <p>Clause 11.0</p> <p>Fixed: _____ Value related: _____ Time related: _____</p>	Item		
2	<p>A12.0 EFFECTING INSURANCES</p> <p>Clause 12.0</p> <p>Fixed: _____ Value related: _____ Time related: _____</p>	Item		
3	<p>A13.0 No clause</p>	N/A		
4	<p>A14.0 SECURITY</p> <p>Clause 14.0</p> <p>Clauses 14.1 - 14.8 are amended by replacing them with the following:</p> <p>14.1 The security to be submitted by the contractor to the employer will be as a payment reduction of up to ten per cent (10%) of the value certified in the payment certificate (excluding VAT)</p> <p>14.1.1 The payment reduction of the value certified in a payment certificate shall be <i>mutatis mutandi</i> in terms of 31.8(A)</p> <p>14.1.2 The employer shall be entitled to recover expense and loss from the payment reduction in terms of 33.0 provided that the employer complies with the provisions of 33.4 in which event the employer's entitlement shall take precedence over his obligations to refund the payment reduction security or portions thereof to the contractor</p> <p>14.2 Where security as a payment reduction of ten per cent (10%) of the value certified in the payment certificate (excluding VAT) has been selected:</p> <p>14.2.1 The payment reduction of the value certified in a payment certificate shall be <i>mutatis mutandi</i> in terms of 31.8(B)</p>			
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14.2.2 The **employer** shall be entitled to recover expense and loss from the payment reduction in terms of 33.0 provided that the **employer** complies with the provisions of 33.4 in which event the **employer's** entitlement shall take precedence over his obligations to refund the payment reduction **security** or portions thereof to the **contractor**

14.9 Should the **contractor** fail to furnish the **security** in terms of 14.2, the **employer**, in his sole discretion and without notification to the **contractor**, is entitled to change the **contractor's** selected form of **security** to that of a ten per cent (10%) payment reduction of the value certified in the **payment certificate** (excluding VAT), whereafter 14.7 shall be applicable

Fixed: _____ Value related: _____ Time related: _____

Item

EXECUTION

1 A15.0 PREPARATION FOR AND EXECUTION OF THE WORKS

Clause 15.0

Clause 15.1.1 is amended by replacing it with:

No clause

Clause 15.1.2 is amended by replacing it with:

The **security** selected in terms of 14.0

Clause 15.1 is amended by the addition of the following clause:

15.1.4 An acceptable health and safety plan, required in terms of the Occupational Health and Safety Act, 1993 (Act 85 of 1993), within fourteen (14) **calendar days of commencement date**

Clause 15.2.1 is amended by replacing it with the following clause:

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Fixed: _____ Value related: _____ Time
related: _____

1 A16.0 ACCESS TO THE WORKS

Fixed: _____ Value related: _____ Time
related: _____

2 **A17.0 CONTRACT INSTRUCTIONS**

Clause 17.1.11 is amended by deleting the words "and the appointment of **nominated** and **selected subcontractors**"

3 A18.0 SETTING OUT OF THE WORKS

Fixed: _____ Value related: _____
Time related: _____

4 | A19.0 ASSIGNMENT

Fixed: _____ Value related: _____ Time related: _____

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1	<p>A20.0 NOMINATED SUBCONTRACTORS</p> <p>Clause 20.0</p> <p>Clause 20.1.3 is amended by replacing it with the following:</p> <p>No clause</p> <p>Note: See item B9.1 hereinafter for adjustment of attendance on nominated subcontractors executing work allowed for under provisional sums</p> <p>Fixed: _____ Value related: _____ Time related: _____</p>	Item		
2	<p>A21.0 SELECTED SUBCONTRACTORS</p> <p>Clause 21.0</p> <p>Clause 21 is amended by replacing it with:</p> <p>No clause</p> <p>Fixed: _____ Value related: _____ Time related: _____</p>	Item		
3	<p>A22.0 EMPLOYER'S DIRECT CONTRACTORS</p> <p>Clause 22.0</p> <p>Fixed: _____ Value related: _____ Time related: _____</p>	Item		
4	<p>A23.0 CONTRACTOR'S DOMESTIC SUBCONTRACTORS</p> <p>Clause 23.0</p> <p>Fixed: _____ Value related: _____ Time related: _____</p> <p><u>COMPLETION</u></p>	Item		
5	<p>A24.0 PRACTICAL COMPLETION</p> <p>Clause 24.0</p> <p>Fixed: _____ Value related: _____ Time related: _____</p>	Item		
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1	A25.0 WORKS COMPLETION Clause 25.0 Fixed: _____ Value related: _____ Time related: _____	Item		
2	A26.0 FINAL COMPLETION Clause 26.0 Fixed: _____ Value related: _____ Time related: _____	Item		
3	A27.0 LATENT DEFECTS LIABILITY PERIOD Clause 27.0 Fixed: _____ Value related: _____ Time related: _____	Item		
4	A28.0 SECTIONAL COMPLETION Clause 28.0 Fixed: _____ Value related: _____ Time related: _____	Item		
5	A29.0 REVISION OF DATE FOR PRACTICAL COMPLETION Clause 29.0 Clause 29.2.5 is amended by replacing it with: No clause Fixed: _____ Value related: _____ Time related: _____	Item		
6	A30.0 PENALTY FOR NON-COMPLETION Clause 30.0 Fixed: _____ Value related: _____ Time related: _____	Item		
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PAYMENT

1 **A31.0 INTERIM PAYMENT TO THE CONTRACTOR**

Clause 31.0

Clause 31.5.2 is amended by replacing "14.7.1" with "14.0 and 31.8"

Clause 31.8 is amended by replacing it with the following two alternative clauses:

Alternative A

31.8(A) Where a **security** is selected in terms of 14.1; the value of the **works** in terms of 31.4.1 and **materials and goods** in terms of 31.4.2 shall be certified in full. The value certified shall be subject to the following percentage adjustments:

31.8(A).1 Ninety-five percent (95%) of such value in interim **payment certificates** issued up to the date of **practical completion**

31.8(A).2 Ninety-seven and half percent (97.5%) of such value in interim **payment certificates** issued on the date of **practical completion** and up to but excluding the date of **final completion**

31.8(A).3 Ninety-nine percent (99%) of such value in interim **payment certificates** issued on the date of **final completion** and up to but excluding the final **payment certificate** in terms of 34.6

31.8(A).4 One hundred percent (100%) of such value in the final **payment certificate** in terms of 34.6 except where the amount certified is in favour of the **employer**. In such an event the payment reduction shall remain at the adjustment level applicable to the final **payment certificate**

Clause 31.12 is amended by deleting the following:

Payment shall be subject to the **employer** giving the **contractor** a tax invoice for the amount due

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1	<p>A32.0 ADJUSTMENT TO THE CONTRACT VALUE</p> <p>Clause 32.0</p> <p>Clauses 32.5.1, 32.5.4 and 32.5.7 are amended by the addition of the following at the end of the sentence:</p> <p>"due to no fault of the contractor"</p> <p>Add the following clauses: 33.2.9 to 33.2.13:</p> <p>33.2.9 the contractor's failure or neglect to commence with the works on the dates prescribed in the contract</p> <p>33.2.10 the contractor's failure or neglect to proceed with the works in terms of the contract</p> <p>33.2.11 the contractor's failure or neglect for any reason to complete the works in accordance with the contract</p> <p>33.2.12 the contractor's refusal or neglect to comply strictly with any of the conditions of contract or any contract instructions and/or orders in writing given in terms of the contract</p> <p>33.2.13 the contractor's estate being sequestrated; liquidated or surrendered in terms of the insolvency laws in force within the Republic of South Africa.</p> <p>Fixed: _____ Value related: _____ Time related: _____</p>			
2	<p>A33.0 RECOVERY OF EXPENSE AND LOSS</p> <p>Clause 33.0</p> <p>Fixed: _____ Value related: _____ Time related: _____</p>	Item		
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1	<p>A34.0 FINAL ACCOUNT AND FINAL PAYMENT</p> <p>Clause 34.0</p> <p>Clause 34.1 is amended by removing "#" next to 34.1</p> <p>Clause 34.2 is amended by inserting "#" next to 34.2</p> <p>Clause 34.13 is amended by replacing "seven (7) calendar days" with "twenty-one (21) calendar days" and deleting the words "subject to the employer giving the contractor a tax invoice for the amount due"</p> <p>Fixed: _____ Value related: _____ Time related: _____</p>	Item	
2	<p>A35.0 PAYMENT TO OTHER PARTIES</p> <p>Clause 35.0</p> <p>Fixed: _____ Value related: _____ Time related: _____</p> <p><u>CANCELLATION</u></p>	Item	
3	<p>A36.0 CANCELLATION BY EMPLOYER - CONTRACTOR'S DEFAULT</p> <p>Clause 36.0</p> <p>Clause 36.1 is amended by the addition of the following clauses:</p> <p>36.1.3 refuses or neglects to comply strictly with any of the conditions of contract</p> <p>36.1.4 estate being sequestrated, liquidated or surrendered in terms of the insolvency laws in force within the Republic of South Africa</p> <p>36.1.5 in the judgement of the employer, has engaged in corrupt or fraudulent practices in competing for or in executing the contract</p> <p>Clause 36.3 is amended by removing the reference to "No clause" and replacing the words "principal agent" with "employer"</p> <p>Clause 36.0 is amended by the addition of the following clause:</p>		
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	<p>36.3 Remove reference to “No clause”, and replace “principal agent” with “employer”</p> <p>36.7 Notwithstanding any clause to the contrary, on cancellation of this agreement either by the employer or the contractor; or for any reason whatsoever, the contractor shall on written instruction, discontinue with the works on a date stated and withdraw himself from the site. The contractor shall not be entitled to refuse to withdraw from the works on the grounds of any lien or right of retention or on the grounds of any other right whatsoever</p> <p>Fixed: _____ Value related: _____ Time related: _____</p>			
1	<p>A37.0 CANCELLATION BY EMPLOYER - LOSS AND DAMAGE</p> <p>Clause 37.0</p> <p>Clause 37.3.5 is amended by replacing "ninety (90)" with "one hundred and twenty (120)"</p> <p>Clause 37.0 is amended by the addition of the following clause:</p> <p>37.3.5 Replace “ninety (90)” with “one hundred and twenty (120) and 38.5.4</p> <p>Fixed: _____ Value related: _____ Time related: _____</p>	Item		
2	<p>A38.0 CANCELLATION BY CONTRACTOR - EMPLOYER'S DEFAULT</p> <p>Clause 38.0</p> <p>Clause 38.5.4 is amended by replacing "ninety (90)" with "one hundred and twenty (120)"</p> <p>Clause 38.0 is amended by the addition of the following clause:</p>	Item		
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38.7 Notwithstanding any clause to the contrary, on cancellation of this **agreement** either by the **employer** or the **contractor**; or for any reason whatsoever, the **contractor** shall on written instruction, discontinue with the **works** on a date stated and withdraw himself from the **site**. The **contractor** shall not be entitled to refuse to withdraw from the **works** on the grounds of any lien or right of retention or on the grounds of any other right whatsoever

Fixed: _____ Value related: _____ Time related: _____

Item

1 A39.0 CANCELLATION - CESSATION OF THE WORKS

Clause 39.0

Clause 39.3.5 is amended by the addition of the following at the end of the sentence:

"within one hundred and twenty (120) **working days** of completion of such a report"

Fixed: _____ Value related: _____ Time related: _____

Item

DISPUTE

2 A40.0 DISPUTE SETTLEMENT

Clause 40.0

Clause 40.2.2 is amended by replacing "one (1) year" with "three (3) years"

Clause 40.6 is amended by removing the reference to:

No clause

Clause 40.7.1 is amended by replacing "(10)" with "(15)" and by the addition of the following:

Whether or not mediation resolves the dispute, the parties shall bear their own costs concerning the mediation and equally share the costs of the **mediator** and related costs

Fixed: _____ Value related: _____ Time related: _____

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SUBSTITUTE PROVISIONS

1 **A41.0 STATE CLAUSES**

Clause 41.0

Fixed: _____ Value related: _____ Time
related: _____

Item

CONTRACT VARIABLES

2 **A42.0 THE SCHEDULE (C1.2)**

Clause 42.0

Tenderers are referred to the C1.2 CONDITIONS OF
CONTRACT AND CONTRACT VARIABLES for
variables pertaining to this contract

Fixed: _____ Value related: _____ Time
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SECTION B: JBCC PRELIMINARIES

B1.0 DEFINITIONS AND INTERPRETATION

1 B1.1 Definitions and interpretation

See also clause A1.0 of Section A for additional and/or amended definitions which shall apply equally to this Section

Fixed: _____ Value related: _____ Time related: _____

Item

B2.0 DOCUMENTS

2 B2.1 Checking of documents

Fixed: _____ Value related: _____ Time related: _____

Item

3 B2.2 Provisional bills of quantities

Fixed: _____ Value related: _____ Time related: _____

Item

4 B2.3 Availability of construction documentation

Fixed: _____ Value related: _____ Time related: _____

Item

5 B2.4 Interests of agents

Fixed: _____ Value related: _____ Time related: _____

Item

6 B2.5 Priced documents

Fixed: _____ Value related: _____ Time related: _____

Item

7 B2.6 Tender submission

Clause 2.6 is amended by replacing "JBCC Form of Tender" with "Form of Offer and Acceptance DPW-07(EC)"

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B3.0 THE SITE

1 **B3.1** *Defined works area*

Fixed: _____ Value related: _____ Time related: _____

Item

2 | **B3.2 Geotechnical investigation**

Fixed: _____ Value related: _____ Time related: _____

Item

3 | **B3.3** *Inspection of the site*

Fixed: _____ Value related: _____ Time related: _____

Item

4 **B3.4 Existing premises occupied**

Fixed: _____ Value related: _____ Time related: _____

Item

5 **B3.5 Previous work - dimensional accuracy**

Fixed: _____ Value related: _____ Time related: _____

Item

6 **B3.6 Previous work - defects**

Fixed: _____ Value related: _____ Time
related: _____

Item

7 | **B3.7 Services - known**

Fixed: _____ Value related: _____ Time related: _____

Item

8	B3.8	Services - unknown
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Fixed: _____ Value related: _____ Time
related: _____

Item

9 **B3.9 Protection of trees**

Fixed: _____ Value related: _____ Time
related: _____

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PRELIMINARIES AND GENERAL

1	B3.10 Articles of value Fixed: _____ Value related: _____ Time related: _____	Item		
2	B3.11 Inspection of adjoining properties Fixed: _____ Value related: _____ Time related: _____	Item		
	<u>B4.0 MANAGEMENT OF CONTRACT</u>			
3	B4.1 Management of the works Fixed: _____ Value related: _____ Time related: R _____	Item		
4	B4.2 Programme for the works Fixed: _____ Value related: _____ Time related: _____	Item		
5	B4.3 Progress meetings Fixed: _____ Value related: _____ Time related: _____	Item		
6	B4.4 Technical meetings Fixed: _____ Value related: _____ Time related: _____	Item		
7	B4.5 Labour and plant records Fixed: _____ Value related: _____ Time related: _____	Item		
	<u>B5.0 SAMPLES, SHOP DRAWINGS AND MANUFACTURERS' INSTRUCTIONS</u>			
8	B5.1 Samples of materials Fixed: _____ Value related: _____ Time related: _____	Item		
9	B5.2 Workmanship samples Fixed: _____ Value related: _____ Time related: _____	Item		
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1	B5.3 Shop drawings Fixed: _____ Value related: _____ Time related: _____	Item	
2	B5.4 Compliance with manufacturers' instructions Fixed: _____ Value related: _____ Time related: _____	Item	
<u>B6.0 TEMPORARY WORKS AND PLANT</u>			
3	B6.1 Deposits and fees Fixed: _____ Value related: _____ Time related: _____	Item	
4	B6.2 Enclosure of the works Fixed: _____ Value related: _____ Time related: _____	Item	
5	B6.3 Advertising Fixed: _____ Value related: _____ Time related: _____	Item	
6	B6.4 Plant, equipment, sheds and offices Fixed: _____ Value related: _____ Time related: _____	Item	
7	B6.5 Main notice board Fixed: _____ Value related: _____ Time related: _____	Item	
8	B6.6 Subcontractors' notice board Fixed: _____ Value related: _____ Time related: _____	Item	
<u>B7.0 TEMPORARY SERVICES</u>			
9	B7.1 Location Fixed: _____ Value related: _____ Time related: _____	Item	
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1	B7.2 Water	
	Fixed: _____ Value related: _____ Time related: _____	Item
2	B7.3 Electricity	
	Fixed: _____ Value related: _____ Time related: _____	Item
3	B7.4 Telecommunication facilities	
	Fixed: _____ Value related: _____ Time related: _____	Item
4	B7.5 Ablution facilities	
	Fixed: _____ Value related: _____ Time related: _____	Item
	<u>B8.0 PRIME COST AMOUNTS</u>	
5	B8.1 Responsibility for prime cost amounts	
	Fixed: _____ Value related: _____ Time related: _____	Item
	<u>B9.0 ATTENDANCE ON N/S SUBCONTRACTORS</u>	
6	B9.1 General attendance	
	Fixed: _____ Value related: _____ Time related: _____	Item
7	B9.2 Special attendance	
	Fixed: _____ Value related: _____ Time related: _____	Item
8	B9.3 Commissioning - fuel, water and electricity	
	Fixed: _____ Value related: _____ Time related: _____	Item
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B10.0 FINANCIAL ASPECTS

1 ***B10.1 Statutory taxes, duties and levies***

Fixed: _____ Value related: _____ Time
related: _____

Item

2 ***B10.2 Payment for preliminaries***

Fixed: _____ Value related: _____ Time
related: _____

Item

3 ***B10.3 Adjustment of preliminaries***

Clauses B10.3.1 and B10.3.2 are amended by replacing
"within fifteen (15) **working days** of taking possession
of the **site**" with "when submitting his priced **bills of
quantities / lump sum document**"

Fixed: _____ Value related: _____ Time
related: _____

Item

4 ***B10.4 Payment certificate cash flow***

Fixed: _____ Value related: _____ Time
related: _____

Item

B11.0 GENERAL

5 ***B11.1 Protection of the works***

Fixed: _____ Value related: _____ Time
related: _____

Item

6 ***B11.2 Protection / isolation of existing / sectionally
occupied works***

Fixed: _____ Value related: _____ Time
related: _____

Item

7 ***B11.3 Security of the works***

Fixed: _____ Value related: _____ Time
related: _____

Item

8 ***B11.4 Notice before covering work***

Fixed: _____ Value related: _____ Time
related: _____

Item

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PRELIMINARIES AND GENERAL

Section No. 1
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PRELIMINARIES AND GENERAL

This **schedule** contains all variables referred to in this document and is divided into pre-tender and post-tender categories. The pre-tender category must be completed in full and included in the tender documents. Both the pre-tender and post-tender categories form part of these **Preliminaries**

Spaces requiring information must be filled in, shown as "not applicable" or deleted and not left blank. Where choices are offered, the non-applicable items are to be deleted. Where insufficient space is provided the information should be annexed hereto and cross-referenced to the applicable clause of the **schedule**. Key cross reference clauses are italicised in [] brackets

12.1 PRE-TENDER INFORMATION

12.1.1 **Provisional bills of quantities**
[2.2] The quantities are provisional

YES

12.1.2 **Availability of construction documentation**
[2.3] *Construction documentation is complete*

YES

12.1.3 **Interests of agents**
[2.4] Details:

12.1.4 **Defined works area**
[3.1] Details:

12.1.5 **Geotechnical investigation**
[3.2] Details:

12.1.6 **Existing premises occupied**
[3.4] Specific requirements:

12.1.7 **Previous work - dimensional accuracy**
[3.5] Details:

12.1.8 **Previous work - defects**
[3.6] Details:

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12.1.9 **Services - known**

[3.7] Details:

12.1.10 **Protection of trees**

[3.9] Specific requirements:

12.1.11 **Inspection of adjoining properties**

[3.11] Specific requirements:

12.1.12 **Enclosure of the works**

[6.2] Specific requirements:

12.1.13 **Offices**

[6.4.3] Specific requirements:

The **contractor** shall provide, maintain and remove on completion of the works an office for the exclusive use of the **principal agent**, minimum size 4 x 3 x 3m high internally, suitably insulated and ventilated, provided with electric lighting and fitted with boarded floor, desk, chair, drawing stool, drawing board and lock-up drawers for drawings. The office shall be kept clean and fit for use at all times

12.1.14 **Main notice board**

[6.5] Specific requirements:

The **contractor** shall provide, erect where directed, maintain and remove on completion of the **works** a notice board size 3 x 3m as type Drawing GEN 063, constructed of suitable boarding with flat smooth surface and with edging bead 19mm thick round outer edges and projecting 12mm from face of boarding and rounded on front edge. 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. The board is to be painted ivory white and the bead and 12mm wide dividing lines dark green. All wording shall be inscribed in dark green as per the coat of arms for SA. All wording shall be inscribed in dark green painted sans serif lettering

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PRELIMINARIES AND GENERAL

12.1.15 Subcontractors' notice board [6.6] A notice board is required	NO			
Specific requirements:				
12.1.16 Water [7.2] Option A (by contractor)	NO			
Option B (by employer - free of charge)	NO			
Option C (by employer - metered)	YES			
12.1.17 Electricity [7.3] Option A (by contractor)	NO			
Option B (by employer - free of charge)	NO			
Option C (by employer - metered)	YES			
12.1.18 Telecommunications [7.4] Telephone				
YES				
Facsimile	YES			
E-mail	YES			
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12.1.19 Ablution facilities [7.5] Option A (by contractor)	YES			
Option B (by employer)				
NO				
	12.1.20 Protection of existing/sectionally occupied works [11.2] Protection is required			
NO				
	12.1.21 Special attendance [9.2] Subcontractor (1) details:			
Subcontractor (2) details:				
Subcontractor (3) details:				
Subcontractor (4) details:				
12.1.22 Protection of the works [11.1] Specific requirements:				
12.1.23 Disturbance [11.5] Specific requirements: The contractor shall keep the site, structures, etc well watered during operations to prevent dust and shall provide and erect and remove on completion of the works all necessary temporary dust screens all to the satisfaction of the principal agent				
12.1.24 Environmental disturbance [11.6] Specific requirements:				
12.2 POST-TENDER INFORMATION				
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12.2.1 Payment of preliminaries [10.2] Option A (prorated)	NO			
Option B (calculated)	YES			
12.2.2 Adjustment of preliminaries [10.3] Option A (three categories)	NO			
Option B (detailed breakdown)	YES			
12.2.3 Additional agreed preliminaries items Details:				
Carried to Collection			R	
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SECTION C: SPECIFIC PRELIMINARIES

Section C contains specific preliminary items which apply to this contract except where N/A (Not Applicable) appears against an item

1 C1.0 CONTRACT DRAWINGS

The drawings issued with the tender documents do not comprise the complete set but serve as a guide only for tendering purposes and for indicating the scope of the work to enable the tenderer to acquaint himself with the nature and extent of the **works** and the manner in which they are to be executed

Should any part of the drawings not be clearly understood by the tenderer he shall, before submitting his tender, obtain clarification in writing from the **principal agent**

Fixed: _____ Value related: _____
Time related: _____

Item

2 C2.0 GENERAL PREAMBLES

The document "Specification of Materials and Methods to be used - PW371 - A Edition 2.1 - Construction Works: Specifications, General Specification" as published by the Department of Public Works (Edition 2.1 July 2014)." is obtainable on the Department's website (<http://www.publicworks.gov.za/> under "Consultants Guidelines"), and shall be read in conjunction with the **bills of quantities / lump sum document** and be referred to for the full descriptions of work to be done and materials to be used

Fixed: _____ Value related: _____
Time related: _____

Item

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1	<p>C3.0 TRADE NAMES</p> <p>Wherever a trade name for any product 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</p> <p>If prior written approval for an alternative product is not obtained, the product described shall be deemed to have been tendered for</p> <p>Fixed: _____ Value related: _____ Time related: _____</p>			
2	<p>C4.0 HIV/AIDS AWARENESS</p> <p>It is required of the contractor to thoroughly study the HIV/AIDS Specification (PW 1544) of the Department that must be read together with and is deemed to be incorporated under this Section of the bills of quantities / lump sum document. Provision for pricing of HIV/AIDS awareness is made under items C10.1 to C10.5 hereafter and it is explicitly pointed out that all requirements of the aforementioned specification are deemed to be priced hereunder, as the said items represent the only method of measurement and no additional items or extras to the contract in this regard shall be entertained</p> <p>The contractor must take note that compliance with the HIV/AIDS Specification is compulsory. In the event of partial or total non-compliance, the principal agent, notwithstanding the provisions of clause A 31.0 of Section A or any other clause to the contrary, reserves the right to delay issuing any progress payment certificate until the contractor provides satisfactory proof of compliance. The contractor shall not be entitled to any compensation of whatsoever nature, including interest, due to such delay of payment</p> <p>C4.1 AWARENESS CHAMPION</p> <p>Selection, appointment, briefing and making available of an Awareness Champion including provision of all relevant services, all in accordance with the HIV/AIDS Specification</p> <p>Fixed: _____ Value related: _____ Time related: _____</p>			
	Carried to Collection		R	
	<p>Section No. 1 Bill No. 1 PRELIMINARIES AND GENERAL</p>			

C4.2 AWARENESS WORKSHOPS

Selection and appointment of a competent Service Provider approved by the **principal agent**, provision of a Service Provider Workshop Plan and a suitable venue, conducting of awareness workshops by means of traditional and/or modern multi-media techniques, including follow-up courses, making available all tuition material and performing assessment procedures, all in accordance with the HIV/AIDS Specification

Fixed: _____ Value related: _____

Time related: _____

Item

C4.3 POSTERS, BOOKLETS, VIDEOS, ETC.

Provision, displaying, maintaining and replacing when necessary of four plastic laminated posters, booklets and educational videos, etc. for the duration of the **construction period**, all in accordance with the HIV/AIDS Specification

Fixed: _____ Value related: _____

Time related: _____

Item

C4.4 ACCESS TO CONDOMS

Provision and maintenance of condom dispensers fixed in position, including male and female condoms, replenishing male and female condoms on a daily basis as required for the duration of the **construction period**, all in accordance with the HIV/AIDS Specification

Fixed: _____ Value related: _____

Time related: _____

Item

C4.5 MONITORING

Monitoring HIV/AIDS awareness of workers, providing the **principal agent** with access to information including making available all reports, thoroughly completed and reflecting the correct information, for the duration of the **construction period** and close out, all in accordance with the HIV/AIDS Specification

Fixed: _____ Value related: _____

Time related: _____

Item

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Bill No. 1

PRELIMINARIES AND GENERAL

HERTZOG PRIMARY SCHOOL
THE MVULA TRUST FLUSH MAINTENANCE PROGRAMME

Section No. 1

Bill No. 1

PRELIMINARIES AND GENERAL

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HERTZOG PRIMARY SCHOOL
THE MVULA TRUST FLUSH MAINTENANCE PROGRAMME

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Bill No	SECTION SUMMARY - SECTION NO.1 - PRELIMINARIES	Page No	Amount
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2	HEALTH AND SAFETY	40	
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Item No		Quantity	Rate	Amount
	<u>SECTION NO.1 - NEW ABLUTION BLOCK</u>			
	<u>BILL No. 1</u>			
	<u>EARTHWORKS (PROVISIONAL)</u>			
	<u>Note:</u>			
	For Preambles see "PW 371 - A Edition 2.1 - Construction Works: Specifications, General Specification" as published by the Department of Public Works (Edition 2.1 July 2014).			
	<u>EXCAVATIONS, FILLING, ETC.</u>			
	<u>EXCAVATIONS FOR FOUNDATIONS, ETC. (Labour intensive)</u>			
	<u>Excavate in earth not exceeding 2m deep including trimming sides, levelling and ramming bottoms and deposit in spoil heaps for later re-use or cart away</u>			
1	Reduced levels under solid floors inside existing buildings.	m3	12	
2	Surface trenches.	m3	88	
	<u>Excavations in earth of more difficult character</u>			
3	Extra over excavations in earth for excavation in soft rock.	m3	9	
4	Extra over excavations in earth for excavation in hard rock.	m3	4	
	<u>Carting away of excavated material</u>			
5	Load surplus or unsuitable material from spoil heaps and cart away to a dumping site to be located by the Contractor.	m3	37	
	<u>Risk of collapse of excavations</u>			
6	Allow for risk of collapse to sides of excavations not exceeding 1.5m deep including all necessary timber shoring, etc.	m2	253	
	Carried to Collection			
	Section No. 2			
	Bill No. 1			
	EARTHWORKS			

<u>Keeping excavations free of water</u>					
1	Allow for keeping the excavations free from water.		Item		
<u>Filling</u>					
2	Earth filling from the excavations and/or stockpiles in backfilling to trenches, column bases, etc., compacted to 93% Mod AASHTO dry density.	m3	51		
<u>Foundation courses</u>					
3	Imported G7 filling, selected and supplied by the Contractor, including depositing in layers not exceeding 150mm thick and compacting to 98% modified AASHTO dry density under solid floors.	m3	12		
4	Imported G5 filling, selected and supplied by the Contractor, including depositing in layers not exceeding 150mm thick and compacting to 98% modified AASHTO dry density under solid floors.	m3	12		
5	50mm Thick layer of approved river sand supplied by the Contractor spread and levelled under floors, etc.	m3	4		
<u>Compaction of surfaces</u>					
6	Scarify in-situ material to a depth of 150mm and compact to 93% Mod AASHTO density.	m2	78		
<u>Weedkillers, insecticides, etc.</u>					
<u>Soil insecticide in accordance with SANS 5859</u>					
7	Under floors, etc. including forming and poisoning shallow furrows against all foundation walls, filling in furrows and ramming.	m2	78		
8	To bottoms and sides of trenches.	m2	323		
<u>Tests</u>					
9	Allow for Mod AASHTO density tests on filling.	No	9		
Carried to Collection					
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EARTHWORKS					

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<u>Movement joints</u>					
<u>To horizontal surfaces</u>					
1	10mm Thick closed cell polyethylene joint forming material with hinged blocking piece, not exceeding 300mm wide, between concrete and concrete or brickwork surfaces.	m	117		
<u>REINFORCEMENT (PROVISIONAL)</u>					
<u>Mild steel rod reinforcement to structural concrete work</u>					
2	10mm Diameter bars.	t	0.010		
<u>High tensile rod reinforcement to structural concrete work</u>					
3	10mm Diameter bars.	t	0.100		
4	12mm Diameter bars.	t	0.100		
5	16mm Diameter bars.	t	0.100		
<u>High tensile welded steel mesh reinforcement :</u>					
6	Ref: 617 cast into concrete surfaces.	m2	78		
7	Ref: 888 cast into concrete strip footings.	m2	71		
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CONCRETE, FORMWORK AND REINFORCEMENT					

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**HERTZOG PRIMARY SCHOOL
THE MVULA TRUST FLUSH MAINTENANCE PROGRAMME**

Item No		Quantity	Rate	Amount
	<u>BILL No. 3</u>			
	<u>MASONRY</u>			
	<u>Note:</u>			
	For Preambles see "PW 371 - A Edition 2.1 - Construction Works: Specifications, General Specification" as published by the Department of Public Works (Edition 2.1 July 2014).			
	<u>FOUNDATION BRICKWORK (PROVISIONAL)</u>			
	<u>Walls and linings in loadbearing brickwork (14MPa) in stock bricks in 5:1 cement mortar :</u>			
1	One brick wall.	m2	152	
	<u>Reinforcement to brickwork</u>			
2	Galvanised brick reinforcement 230mm wide built horizontally into brickwork.	m	445	
	<u>FACE BRICKWORK</u>			
	<u>"Rustgold FBS / Qunu Travertine " or other equal approved FBX quality face bricks including jointing and square recess pointing 6 x 10mm joints</u>			
3	Extra over ordinary brickwork for facing and pointing in stretcher bond.	m2	30	
	<u>MASONRY</u>			
	<u>SUPERSTRUCTURE BRICKWORK</u>			
	<u>Walls and linings in loadbearing brickwork (14MPa) in stock bricks in 5:1 cement mortar :</u>			
4	Half brick wall.	m2	59	
5	One brick wall.	m2	363	
	<u>Beamfilling</u>			
6	Half brick wall in beamfilling.	m2	22	
	Carried to Collection			
	Section No. 2			
	Bill No. 3			
	MASONRY			

Section No. 2
Bill No. 3
MASONRY

<u>EXTERNAL FACE BRICKWORK</u>					
	<u>Test:</u>				
1	Contractor is to construct L-Shape one brick facebrick wall faced on both sides including pointing, size 1000 x 1000 x 1000mm high to be approved by the principal agent before brickwork proceeds.		Item		
	<u>"Rustgold FBS / Qunu Travertine " or other equal approved FBX quality face bricks including jointing and square recess pointing 6 x 10mm joints</u>				
2	Extra over ordinary brickwork for facing and pointing in stretcher bond.	m2	22		
	<u>Face brick copings, lintols, cills, etc.</u>				
3	Extra over brickwork for 220mm brick-on-edge cill including pointing to face and top.	m	24		
4	Extra over brickwork for brick-on-edge header course coping including pointing to both faces and top.	m	27		
	<u>Walls faced both sides</u>				
	<u>"Rustgold FBS / Qunu Travertine " or other equal approved FBX quality face bricks including jointing and square recess pointing 6 x 10mm joints</u>				
5	Extra over ordinary half brick wall for facing and pointing on both sides in stretcher bond.	m2	59		
6	Extra over ordinary one brick wall for facing and pointing on both sides in stretcher bond.	m2	363		
	<u>Fair cutting to face brickwork</u>				
7	Fair cutting to raking facebrick.	m	36		
	<u>MISCELLANEOUS</u>				
	<u>Air bricks etc:</u>				
8	230 x 160 x 35mm Terracotta vermin proof air brick.	No	48		
Carried to Collection				R	
Section No. 2					
Bill No. 3					
MASONRY					

	<u>Hoop iron ties, cramps, etc.</u>			
1	1.6 x 30mm Galvanized hoop iron roof tie 1500mm long with one end wrapped around and spiked to timber the other end built a minimum of six courses deep into brickwork as the work proceeds.	No	104	
	Section No. 2 Bill No. 3 MASONRY		Carried to Collection	R

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JOINERY

Doors, windows, sashes, etc.

Wrot hardwood :

1	44mm Thick framed, ledged, braced and battened door size 813 x 1375mm high, comprising 44 x 144mm stiles and top rail, 22 x 150mm middle rail, 22 x 230mm bottom rail and 2 No. 22 x 75mm diagonal braces and filled flush on one side between framing with 22mm thick tongued, grooved and V-jointed both sides vertical boarding in narrow matched widths and fitted with and including 44 x 70mm splayed and rebated weatherboard, countersunk brass screwed on at maximum 200mm centres.	No	3
2	44mm Thick framed, ledged, braced and battened door size 813 x 1832mm high, comprising 44 x 144mm stiles and top rail, 22 x 150mm middle rail, 22 x 230mm bottom rail and 2 No. 22 x 75mm diagonal braces and filled flush on one side between framing with 22mm thick tongued, grooved and V-jointed both sides vertical boarding in narrow matched widths and fitted with and including 44 x 70mm splayed and rebated weatherboard, countersunk brass screwed on at maximum 200mm centres.	No	11
3	44mm Thick framed, ledged, braced and battened door size 813 x 2032mm high, comprising 44 x 144mm stiles and top rail, 22 x 150mm middle rail, 22 x 230mm bottom rail and 2 No. 22 x 75mm diagonal braces and filled flush on one side between framing with 22mm thick tongued, grooved and V-jointed both sides vertical boarding in narrow matched widths and fitted with and including 44 x 70mm splayed and rebated weatherboard, countersunk brass screwed on at maximum 200mm centres.	No	5
4	44mm Thick framed, ledged, braced and battened door size 950 x 2032mm high, comprising 44 x 144mm stiles and top rail, 22 x 150mm middle rail, 22 x 230mm bottom rail and 2 No. 22 x 75mm diagonal braces and filled flush on one side between framing with 22mm thick tongued, grooved and V-jointed both sides vertical boarding in narrow matched widths and fitted with and including 44 x 70mm splayed and rebated weatherboard, countersunk brass screwed on at maximum 200mm centres.	No	2

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Section No. 2
Bill No. 6
CARPENTRY AND JOINERY

**HERTZOG PRIMARY SCHOOL
THE MVULA TRUST FLUSH MAINTENANCE PROGRAMME**

<u>Frames, rails, skirtings, etc.</u>					
<u>Meranti timber door frames</u>					
<u>Note :</u>					
All units are to constructed using 70 x 108mm hardwood timber with 19 x 19mm quadrant bead to external face					
1	70 x 108mm Rebated meranti jab linings fixed to walls.	m	8		
2	Framed frame, to suit single door size 813 x 1832mm high overall.	No	11		
3	Framed frame, to suit single door size 813 x 2032mm high overall.	No	5		
4	Framed frame, to suit single door size 950 x 2032mm high overall.	No	2		
<u>Sundries</u>					
5	19mm Hardwood quadrant moulding planted on.	m	8		
6	10 x 140mm Door frame anchor countersunk and pelleted in timber frame, at approximately 600mm centres, including forming mortice in brickwork or concrete.	No	210		
<u>Plastic, fibre cement, etc.</u>					
<u>Pressed fibre-cement:</u>					
7	12 x 225mm Fascia board drilled and brass screwed to rafter feet including galvanised steel H-profile jointing strips, etc.	m	67		
8	85 x 275mm Barge board drilled and brass screwed to timber rafter including galvanised steel H-profile jointing strips, etc.	m	36		
Carried to Collection					
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Bill No. 6					
CARPENTRY AND JOINERY					

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HERTZOG PRIMARY SCHOOL
THE MVULA TRUST FLUSH MAINTENANCE PROGRAMME

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[illegible]

OTHER METALS

Aluminium windows, doors, etc.

All aluminium work is to be manufactured in accordance with AAMSA specifications by a registered Member of the Association

All units are to be pre-glazed in accordance with the requirements of the National Building Regulations, unless otherwise specifically noted

All units are to be supplied with a protective plastic covering, which is to be removed only once all adjacent plastering and painting is complete

All laminated safety glass panes are to bear the safety glass indicator mark, failing which they will be rejected and the Contractor will have to replace same at his own cost.

NATURAL ANODISED ALUMINIUM

Natural anodised pre-glazed aluminium windows complete with ironmongery and including setting up, building in, filling back of frame with cement mortar, sealing around same with silicone sealant, etc.

1	Top hung opening out window, size overall 600 x 600mm high, glazed with and including 6.38mm clear laminated safety glass.(W1)	No	38	
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Section No. 2
Bill No. 8
METALWORK

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HERTZOG PRIMARY SCHOOL
THE MVULA TRUST FLUSH MAINTENANCE PROGRAMME

Item No		Quantity	Rate	Amount
	<u>BILL No. 10</u>			
	<u>PLUMBING AND DRAINAGE (PROVISIONAL)</u>			
	<u>Note:</u>			
	For Preambles see "PW 371 - A Edition 2.1 - Construction Works: Specifications, General Specification" as published by the Department of Public Works (Edition 2.1 July 2014).			
	<u>GUTTERS, ETC</u>			
	<u>Roof gutters, rainwater pipes, etc.</u>			
	<u>Powder coated seamless aluminium rainwater gutters, downpipes and accessories</u>			
1	85 x 125mm Gutter fixed to fascia at maximum 600mm centres with and including proprietary fixings.	m	34	
2	Extra over gutter for forming discharge outlet to suit 75 x 100mm downpipe.	No	8	
3	Extra over gutter for stopped end.	No	8	
4	75 x 100mm Rainwater downpipe fixed to wall with and including proprietary holderbats.	m	36	
5	Extra over rainwater downpipe for bend.	No	12	
	<u>PIPEWORK, ETC.</u>			
	<u>Pipes, pipe fittings, etc.</u>			
	<u>WATER SUPPLIES</u>			
	<u>Class 10 polycop pipes with straight compression fittings</u>			
6	15mm Pipe and fixing to walls, floors, in roofs, in concrete, etc. including any necessary proprietary holderbats, fixings, etc.	m	40	
7	22mm Ditto.	m	40	
8	15mm Pipe chased into brickwork.	m	140	
	Carried to Collection			R
	Section No. 2			
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	PLUMBING AND DRAINAGE			

HERTZOG PRIMARY SCHOOL
THE MVULA TRUST FLUSH MAINTENANCE PROGRAMME

1	22mm Ditto.	m	87		
	<u>Extra over copper pipes for brass compression fittings</u>				
2	15mm Fittings.	No	121		
3	22mm Fittings.	No	91		
	<u>Connections</u>				
	<u>Connection of new to existing pipes</u>				
4	Connection of 32mm diameter HDPE to 22mm diameter polycop pipes including all necessary reducers, saddles, etc.	No	4		
	<u>Testing :</u>				
5	Allow for testing the preceding water supply installation in accordance with the National Building Regulations.			Item	
	<u>SOIL DRAINAGE</u>				
	<u>uPVC Pipes with solvent welded straight joints :</u>				
6	50mm Pipes.	m	125		
7	110mm Pipes.	m	19		
	<u>uPVC Pipes with solvent welded straight joints with bedding and filling in accordance with SABS 1200 :</u>				
8	110mm Pipe and excavation not exceeding 1000mm deep.	m	43		
9	110mm Pipe and excavation exceeding 1000mm not exceeding 2000mm deep.	m	46		
	<u>Extra over uPVC pipes for solvent welded fittings :</u>				
10	50mm Plain bend.	No	46		
11	110mm Plain bend.	No	10		
12	50mm Access bend.	No	17		
13	110mm Access bend.	No	19		
	Carried to Collection				
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	PLUMBING AND DRAINAGE				

**HERTZOG PRIMARY SCHOOL
THE MVULA TRUST FLUSH MAINTENANCE PROGRAMME**

<u>Gulleys, grease traps, etc.</u>					
1	100mm Diameter uPVC gulley trap with universal gulley head set flush in with finished pavement level including encasing in 15MPa concrete 100mm thick all round.	No	4		
2	430 x 430 x 175mm Precast concrete gulley top, bedded over gulley in cement mortar.	No	4		
	<u>Testing :</u>				
3	Allow for testing the preceding sanitary plumbing installation in accordance with the National Building Regulations.			Item	
<u>SANITARY FITTINGS, TANKS, GEYSERS, ETC.</u>					
<u>Sanitary fittings, etc.</u>					
<u>White glazed vitreous china ware :</u>					
4	"Vaal 7050" or equally approved washhand basin, size 510 x 405mm, with two tapholes, one taphole stopper, integrated overflow and chainstay hole, mounted to wall on and including two proprietary semi-concealed cast iron wall brackets with 10mm bolts.	No	13		
5	"Vaal VAA-439016WH" or equally approved orchid back inlet 90 degree wall hung open rim pan including "Vaal 8082Z0" or equally approved floor bracket fixed as per manufactures specifications.	No	13		
6	"Vaal 751300" Junior low level washdown suite with 104 degree outlet pan and matching 6 litre front single flush cistern complete with lid, fitments and flushpipe bedded to floor in 1:4 cement mortar mixture.	No	3		
7	"Vaal 704001" or equally approved wall hung flat back urinal, size overall 610 x 3850mm, complete with chromium plated back inlet spreader and 38mm chromium plated domical grating hung on and including two proprietary hanger brackets .	No	1		
Carried to Collection					
Section No. 2					
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PLUMBING AND DRAINAGE					

THE MVULA TRUST FLUSH MAINTENANCE PROGRAMME

Grade 304 stainless steel ware :

1	"Franke TU101-1830R" or equally approved 0.9mm stainless steel flat back wall mounted urinal with tiling key to sides and rear walls, vermin proof bitumastic material to back including 40mm waste outlet, concealed sparge pipe, 22 mm inlet with chrome plated conex fitting, ect.
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No

2

Sanitary fitting sundries

2	Satin chrome thief proof toilet roll holder, TR2, plugged to wall.
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No

16

3 Heavy-duty double-flap hinged toilet seat and cover.

No

16

Grade 304 stainless steel ware :

4	Grab rail 1200mm long with two flanges "SR 1" plugged to wall with and including stainless steel screws.
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No

2

5 Dog leg grab rail with three flanges "DL3" plugged to wall with and including stainless steel screws.

No

2

Taps, valves, etc.

Solid cast brass taps, valves, etc.

6	15mm Brass ball-o-stop.
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No

14

7	15mm Chromium plated brass metered bib tap with non-hold open feature and flow control.
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No

11

8	22mm Brass non-return valve.
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No

21

9 "Kombifix UP172" or other equal approved 455mm x 770 x 80mm concealed wall hung cistern with mounting frame, water inlet connector set and water outlet connector set, cover box, adapter sockets, and fixing accessories .ect. (Actuator elsewhere)

No

13

10	"Delta 21" or other equal approved stainless steel front dual flush actuator plate fixed to cistern (elsewhere) with two actuator rod, frame and fixing bolts, ect.
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No

13

Carried to Collection

R

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PLUMBING AND DRAINAGE

**HERTZOG PRIMARY SCHOOL
THE MVULA TRUST FLUSH MAINTENANCE PROGRAMME**

Waste unions, traps, etc.

Outlets, traps, etc :

1	38mm Chromium plated brass slotted sink waste outlet with plug, chain and chain stay.	No	13
2	38mm Butyl rubber flexible deepseal sink P-trap.	No	13
3	40mm Chromium plated brass basin bottle trap.	No	1

Carried to Collection

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PLUMBING AND DRAINAGE

[illegible]

	<u>Hot dipped galvanised steel gates</u>				
1	Security fence double gate, size 3000mm wide x 1800mm high, formed of 80 x 40 x 4mm wall thickness rectangular section framing all round with mitred and welded angles and diagonal cross brace, the gate covered with mesh security fencing secured with "Howgring" clips applied with "Howgring" pliers at 300mm centres to and including six rows of straining wires and yellow/orange barrier shade cloth.	No	1		
	<u>SITE CLEARANCE</u>				
	<u>Site clearance</u>				
2	Clear the areas to be developed of all rubbish, debris, vegetation, shrubs, bush and small trees not exceeding 200mm girth and remove from site.	m2	379		
3	Strip topsoil, average 200mm thick, including depositing in stockpiles on site for later re-use.	m3	57		
	<u>BULK EXCAVATION, FILLING, ETC</u>				
	<u>Classification of material to be excavated</u>				
	Detailed geotechnical data sheets for the area of the works have been included at the back of these Bills of Quantities for the Contractor's information.				
	<u>OPEN FACE EXCAVATIONS</u>				
4	Open face excavation in earth in cutting and setting aside in spoil heaps for re-use or carting away.	m3	137		
	<u>Carting away of excavated material</u>				
5	Load surplus or unsuitable material from spoil heaps and cart away to a dumping site to be located by the Contractor.	m3	69		
	<u>Filling</u>				
6	Earth filling from the excavations and/or stockpiles deposited in layers not exceeding 150mm thick, watered and consolidated to 95% modified AASHTO density over site.	m3	69		
	Carried to Collection			R	
	Section No. 2				
	Bill No. 12				
	EXTERNAL WORKS				

**HERTZOG PRIMARY SCHOOL
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1	G5 Material, selected and supplied by the contractor, deposited in layers not exceeding 150mm thick, watered and consolidated to 95% modified AASHTO density over site.	m3	69		
	<u>Compaction of surfaces</u>				
2	Rip prepared platform level and recompact to 93% Mod. A.A.S.H.T.O. density.	m2	274		
	<u>Tests</u>				
3	Allow for Mod AASHTO density tests on filling.	No	69		
	<u>THE FOLLOWING IN WALKWAYS</u>				
	<u>EARTHWORKS</u>				
	<u>Excavate in earth not exceeding 2m deep including trimming sides, levelling and ramming bottoms and deposit in spoil heaps for later re-use or cart away</u>				
4	Reduced levels between buildings, retaining walls, etc.	m3	16		
	<u>Carting away of excavated material</u>				
5	Extra over all excavations for loading surplus or unsuitable material from spoil heaps and cart away to a dumping site to be located by the Contractor.	m3	16		
	<u>BASECOURSES</u>				
6	G7 Base course material, selected and supplied by the Contractor, deposited in layers not exceeding 150mm thick, watered and consolidated to 98% modified AASHTO density under pavings.	m3	16		
	<u>Sundries</u>				
7	Rip reduced platform level and recompact to 93% Mod. A.A.S.H.T.O. density.	m2	105		
	<u>Prescribed Testing</u>				
8	Provide and have filling compaction check tested by a Consulting Engineer's Laboratory and deliver the results to the Architect within 24 hours of the tests being completed.	No	3		
	Carried to Collection			R	
	Section No. 2				
	Bill No. 12				
	EXTERNAL WORKS				

<u>Weedkillers, insecticides, etc.</u>					
<u>Soil insecticide in accordance with SANS 5859</u>					
1	Under paving, etc.	m2	105		
<u>PRECAST CONCRETE PAVERS</u>					
<u>Grey interlocking precast concrete pavers type S-A laid in herringbone pattern with header course perimeter margin</u>					
2	50mm Thick laid on and including 25mm sand bed treated with weed killer and cement/sand mixture swept into joints on completion.	m2	105		
<u>Sundries</u>					
3	Circular cutting on 50mm thick non bevelled concrete pavers.	m	9		
<u>Channelling, kerbing, edging, etc.</u>					
<u>Precast concrete kerbing</u>					
4	Precast semi-mountable concrete Fig 8B edge kerb size 300 x 175mm high cast in lengths not exceeding 1m and with expansion joints at not exceeding 10m centres finished smooth off the mould on all exposed surfaces bedded on and including minimum 50mm thick mass concrete 15 MPa base and backing including all necessary excavation, formwork, expansion joints, etc.	m	78		
5	Ditto, but circular on plan to not exceeding 4m radius.	m	9		
<u>THE FOLLOWING IN DISABLE RAMPS (ALL TRADES)</u>					
<u>EXCAVATIONS FOR FOUNDATIONS, ETC. (Labour intensive)</u>					
<u>Excavate in earth not exceeding 2m deep including trimming sides, levelling and ramming bottoms and deposit in spoil heaps for later re-use or cart away</u>					
6	Surface trenches.	m3	12		
7	Reduced levels between buildings, retaining walls, etc.	m3	2		
Carried to Collection				R	
Section No. 2					
Bill No. 12					
EXTERNAL WORKS					

<u>Carting away of excavated material</u>					
1	Load surplus or unsuitable material from spoil heaps and cart away to a dumping site to be located by the Contractor.	m3	6		
<u>Risk of collapse of excavations</u>					
2	Allow for risk of collapse to sides of excavations not exceeding 1.5m deep including all necessary timber shoring, etc.	m2	32		
<u>Keeping excavations free of water</u>					
3	Allow for keeping the excavations free from water.		Item		
<u>Filling</u>					
4	Earth filling from the excavations and/or stockpiles in backfilling to trenches, column bases, etc., compacted to 93% Mod AASHTO dry density.	m3	5		
<u>BASECOURSES</u>					
5	G7 Base course material, selected and supplied by the Contractor, deposited in layers not exceeding 150mm thick, watered and consolidated to 98% modified AASHTO density under pavings.	m3	3		
6	G5 Base course material, selected and supplied by the Contractor, deposited in layers not exceeding 150mm thick, watered and consolidated to 95% modified AASHTO density under pavings.	m3	3		
<u>Sundries</u>					
7	Rip reduced platform level and recompact to 93% Mod. A.A.S.H.T.O. density.	m2	22		
<u>Tests</u>					
8	Allow for Mod AASHTO density tests on filling.	No	2.00		
Carried to Collection				R	
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EXTERNAL WORKS					

<u>CONCRETE (Labour intensive)</u>					
<u>Reinforced concrete 25MPa (19mm stone) in:</u>					
1	Strip foundations cast against excavated surfaces.	m3	4		
2	Ramps, landings, ect.	m3	2		
<u>Surface treatment</u>					
3	Float surface of concrete to a wood float finish.	m2	22		
<u>Test blocks and testing</u>					
4	Allow for preparing and curing a set of three test cubes, each size 150mm x 150mm x 150mm and pay all transport and testing costs undertaken by an approved independent laboratory. (Provisional)	No	2		
<u>Movement joints</u>					
<u>To horizontal surfaces</u>					
5	10mm Thick closed cell polyethylene joint forming material with hinged blocking piece, not exceeding 300mm wide, between concrete and concrete or brickwork surfaces.	m	40		
6	Remove hinged blocking piece and fill 10 x 10mm top surface cavity with "Sikaflex Pro2HP" or other equal approved two part polyurethane sealer.	m	40		
<u>REINFORCEMENT (PROVISIONAL)</u>					
<u>Bar reinforcement</u>					
<u>Mild steel rod reinforcement to structural concrete work</u>					
7	10mm Diameter bars.	t	0.048		
<u>High tensile rod reinforcement to structural concrete work</u>					
8	10mm Diameter bars.	t	0.142		
9	12mm Diameter bars.	t	0.142		
10	16mm Diameter bars.	t	0.147		
Carried to Collection				R	
Section No. 2					
Bill No. 12					
EXTERNAL WORKS					

High tensile welded steel mesh reinforcement :

1 Ref: 395 cast into concrete surfaces.

m2

22

FOUNDATION BRICKWORK (PROVISIONAL)

Walls and linings in stock bricks in 5:1 cement mortar :

2	One brick wall.
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m2

11

Reinforcement to brickwork

3	Galvanised brick reinforcement 230mm wide built horizontally into brickwork.
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m

31

FACE BRICKWORK

"Rustgold FBS/Qunu Travertine " or other equal
approved FBX quality face bricks including jointing and
square recess pointing 6 x 10mm joints

4	Extra over ordinary brickwork for facing and pointing in stretcher bond.
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m2

4

SUPERSTRUCTURE BRICKWORK

Mass brickwork and piers in loadbearing brickwork (14MPa) in stock bricks in 5:1 cement mortar :

5	One brick wall.
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m2

6

Reinforcement to brickwork

6	Galvanised brick reinforcement 230mm wide built horizontally into brickwork.
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m

19

EXTERNAL FACE BRICKWORK

"Rustgold FBS/Qunu Travertine " or other equal
approved FBX quality face bricks including jointing and
square recess pointing 6 x 10mm joints

7	Extra over ordinary brickwork for facing and pointing in stretcher bond.
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m2

13

Carried to Collection

R

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EXTERNAL WORKS

	<u>Face brick copings, lintols, cills, etc.</u>				
1	Extra over brickwork for 230mm wide brick-on-edge header course coping including pointing to both faces and top.	m	21		
	<u>SHEET WATERPROOFING</u>				
	<u>350 Micron orange polyethylene sheeting :</u>				
2	Laid under solid floor.	m2	24		
	<u>THE FOLLOWING IN APRONS</u>				
	<u>EXCAVATIONS FOR FOUNDATIONS, ETC. (Labour intensive)</u>				
	<u>Excavate in earth not exceeding 2m deep including trimming sides, levelling and ramming bottoms and deposit in spoil heaps for later re-use or cart away</u>				
3	Reduced levels between buildings, retaining walls, etc.	m3	8		
	<u>Carting away of excavated material</u>				
4	Load surplus or unsuitable material from spoil heaps and cart away to a dumping site to be located by the Contractor.	m3	8		
	<u>BASECOURSES</u>				
5	G7 Base course material, selected and supplied by the Contractor, deposited in layers not exceeding 150mm thick, watered and consolidated to 98% modified AASHTO density under pavings.	m3	7		
6	G5 Base course material, selected and supplied by the Contractor, deposited in layers not exceeding 150mm thick, watered and consolidated to 95% modified AASHTO density under pavings.	m3	7		
	<u>Sundries</u>				
7	Rip reduced platform level and recompact to 93% Mod. A.A.S.H.T.O. density.	m2	45		
	<u>Tests</u>				
8	Allow for Mod AASHTO density tests on filling.	No	8.00		
	Carried to Collection			R	
	Section No. 2				
	Bill No. 12				
	EXTERNAL WORKS				

Reinforced concrete 25MPa (19mm stone) in:

1	Edge thickening.	m3	1
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2	Surface beds cast in panels including temporary formwork.	m3	5
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Testing

3	Allow for preparing and curing a set of three test cubes, each size 150mm x 150mm x 150mm and pay all transport and testing costs undertaken by an approved independent laboratory. (Provisional)	Sets	4
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Surface treatment

4	Float surface of concrete to a wood float finish.	m2	45
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Edges, risers, ends and reveals

5	Edge, riser, etc exceeding 300mm high.	m	45
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Movement joints

To horizontal surfaces

6	Form toggle joint in concrete surface not exceeding 300mm thick including applying one coat of whitewash or bitumen to one face.	m	40
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7	10mm Thick closed cell polyethylene joint forming material with hinged blocking piece, not exceeding 300mm wide, between concrete and concrete or brickwork surfaces.	m	50
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8	Remove hinged blocking piece and fill 10 x 10mm top surface cavity with "Sikaflex Pro2HP" or other equal approved two part polyurethane sealer.	m	50
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REINFORCEMENT (PROVISIONAL)

High tensile welded steel mesh reinforcement :

9	Ref: 395 cast into concrete surfaces.	m2	45
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SHEET WATERPROOFING

Carried to Collection

R

Section No. 2
Bill No. 12
EXTERNAL WORKS

1	<u>350 Micron orange polyethylene sheeting :</u> Laid under solid floor.	m2	50		
<p style="text-align: center;">Carried to Collection</p>				R	
Section No. 2 Bill No. 12 EXTERNAL WORKS					

<u>THE FOLLOWING IN SECURITY FENCING</u>				
<u>SECURITY FENCING</u>				
The Contractor is to allow in his rates for any site clearance, preparation of ground, etc. in order to carry out the work successfully.				
<u>"Clearvu" or equally approved fencing products to be executed in strict accordance with the Manufacturer's instructions</u>				
<u>Fencing</u>				
1	High security galvanised, marine fusion bond coated, mesh fencing panel, size 2300 x 1800mm high fixed to posts (elsewhere).	No	1	
2	High security galvanised, marine fusion bond coated, mesh fencing panel, size 3350 x 1800mm high fixed to posts (elsewhere).	No	11	
<u>Posts</u>				
3	Intermediate locking taper post, marine fusion bond coated, 2400mm long, with UV stabilised polymer cap including embedding in 400 x 400 x 600mm (25Mpa) concrete base including all necessary excavations, backfilling, etc.	No	11	
4	End or corner square post, marine fusion bond coated, 2400mm long, with UV stabilised polymer cap including embedding in 400 x 400 x 600mm (25Mpa) concrete base including all necessary excavations, backfilling, etc.	No	4	
5	Square gate post, marine fusion bond coated, 2400mm long, with UV stabilised polymer cap and gate mooring bracket including embedding in 400 x 400 x 600mm (25Mpa) concrete base including all necessary excavations, backfilling, etc.	No	2	
<u>Gates</u>				
6	Single gate, size 1000 x 1800mm high overall formed of square section perimeter framing, rails, etc. and the gate covered with high security galvanised, marine fusion bond coated, mesh including locking mechanism, hinges, drop bolts, etc. as per manufacturer's specifications.	No	1	
Carried to Collection				R
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EXTERNAL WORKS				

HERTZOG PRIMARY SCHOOL
THE MVULA TRUST FLUSH MAINTENANCE PROGRAMME

Accessories		
1	100mm High, marine fusion bond coated, steel shark spikes in 1500mm lengths pre-drilled and bolted to top of fencing panels (elsewhere).	m 40
2	"Union 3122" or other approved 51mm brass padlock with stainless steel shackle.	No 1
Sundries		
3	Extra over excavations in earth (concrete bases) for excavation in soft rock.	m3 0.1
4	Extra over excavations in earth (concrete bases) for excavation in hard rock.	m3 0.1
Carried to Collection		
Section No. 2		
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EXTERNAL WORKS		

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HERTZOG PRIMARY SCHOOL
THE MVULA TRUST FLUSH MAINTENANCE PROGRAMME

Item No		Quantity	Rate	Amount
	<u>BILL No. 13</u>			
	<u>EXTERNAL PLUMBING & DRAINAGE</u>			
	<u>Note:</u>			
	For Preambles see "PW 371 - A Edition 2.1 - Construction Works: Specifications, General Specification" as published by the Department of Public Works (Edition 2.1 July 2014).			
	<u>THE FOLLOWING IN WATER SUPPLY</u>			
	<u>ALTERATIONS TO EXISTING</u>			
1	Locate, cut into and temporarily stop off 40mm diameter water pipe for insertion of stop end (elsewhere).	No	1	
2	Locate, cut into and temporarily stop off 54mm diameter water pipe for insertion of Tee Junction (elsewhere).	No	1	
3	Locate, cut into and temporarily stop off 63mm diameter water pipe for insertion of Tee Junction (elsewhere).	No	1	
	<u>PIPEWORK, ETC.</u>			
	<u>Pipes, pipe fittings, etc.</u>			
	<u>Class 12 uPVC water supply pipe with bedding and filling in accordance with SABS 1200</u>			
4	32mm Pipe and laying in ground not exceeding 1000mm deep.	m	101	
5	40mm Pipe and laying in ground not exceeding 1000mm deep.	m	101	
	<u>Extra over uPVC pipes for the following fittings</u>			
6	32mm bend.	No	20	
7	40mm bend.	No	13	
8	32mm Tee junction.	No	10	
9	40mm Tee junction.	No	7	
	Carried to Collection			R
	Section No. 2			
	Bill No. 13			
	EXTERNAL PLUMBING AND DRAINAGE			

Section No. 2
Bill No. 13
EXTERNAL PLUMBING AND DRAINAGE

**HERTZOG PRIMARY SCHOOL
THE MVULA TRUST FLUSH MAINTENANCE PROGRAMME**

<u>NEW WORKS</u>					
<u>Class 34 Rigid uPVC socketed soil piping with bedding and filling in accordance with SABS 1200</u>					
1	110mm Pipe and excavation not exceeding 1000mm deep.	m	76		
2	110mm Pipe and excavation exceeding 1000mm not exceeding 2000mm deep.	m	50		
<u>Extra over uPVC pipes for fittings</u>					
3	110mm 90 Degree bend.	No	25		
4	110mm Junction.	No	14		
<u>Rodding eyes, etc.</u>					
5	PVC Rodding eye and frame and joint to top of 110mm uPVC pipe.	No	3		
<u>Sundries</u>					
6	300 x 300 x 75mm Precast concrete inspection eye marker slab set in position including excavations, carting away, ect.	No	6		
<u>MANHOLES, ETC.</u>					
7	Excavate for and build manhole size 1440 x 1440 x not exceeding 1000mm deep internally, formed of 150mm thick reinforced concrete (25MPa) bottom projecting 150mm all round with welded mesh Ref. 245 both top and bottom, one brick sides, 150mm high precast reinforced concrete (25MPa) cover slab and lid with welded mesh Ref. 245 both top and bottom laid loose on top of brickwork, finished on all exposed surfaces in 3.1 cement plaster and bottom graded to outlets in 3.1 cement mortar.	No	3		
Carried to Collection					
Section No. 2					
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EXTERNAL PLUMBING AND DRAINAGE					

1	Excavate for and build manhole size 1440 x 1440 x exceeding 1000mm not exceeding 2000mm deep internally, formed of 150mm thick reinforced concrete (25MPa) bottom projecting 150mm all round with welded mesh Ref. 245 both top and bottom, one brick sides, 150mm high precast reinforced concrete (25MPa) cover slab and lid with welded mesh Ref. 245 both top and bottom laid loose on top of brickwork, finished on all exposed surfaces in 3.1 cement plaster and bottom graded to outlets in 3.1 cement mortar.	No	1		
	<u>Cast iron covers and frames</u>				
2	Type 2A cast iron manhole cover and frame size 620mm diameter bedded on top of concrete slab in cement mortar.	No	4		
	<u>Testing</u>				
3	Allow for testing the soil drainage and sewer plumbing installation in accordance with the National Building Regulations.		Item		
	<u>THE FOLLOWING IN STORMWATER DRAINAGE</u>				
	<u>Surface water channels</u>				
4	Reinforced concrete 25MPa V-shaped open surface water channel size 700mm wide x 80mm thick extreme and finished smooth on all exposed surfaces in untinted granolithic with angles rounded, laid to falls in lengths not exceeding 2000mm on a well rammed earth bottom, jointed in 3.1 cement mortar including shallow excavation, one layer 395 reinforced mesh, requisite formwork, ramming and depositing and levelling spoil on site where directed.	m	152		
	<u>Extra over surface water channels for :</u>				
5	Extra over for angles, intersections, ends, dressing into sides of catchpits, etc	No	24		
6	Extra over for widening concrete to form spreader 2000mm wide extreme for a length of 700mm and bedding hard burnt brick diffusers cast in concrete spaced at 200mm centre spacings to falls including brushing concrete between bricks.	No	5		
Carried to Collection					R
Section No. 2					
Bill No. 13					
EXTERNAL PLUMBING AND DRAINAGE					

THE FOLLOWING IN RAINWATER TANKS AND TANKSTANDS (ALL TRADES)

Rainwater harvesting (Labour intensive)

Excavate in earth not exceeding 2m deep including trimming sides, levelling and ramming bottoms and deposit in spoil heaps for later re-use or cart away

1	Reduced levels under solid floors.	m3	1
2	Surface trenches.	m3	19

Excavations in earth of more difficult character

3	Extra over excavations in earth for excavation in soft rock.	m3	2
4	Extra over excavations in earth for excavation in hard rock.	m3	1

Carting away of excavated material

5	Load surplus or unsuitable material from spoil heaps and cart away to a dumping site to be located by the Contractor.	m3	11
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Risk of collapse of excavations

6	Allow for risk of collapse to sides of excavations not exceeding 1.5m deep including all necessary timber shoring, etc.	m2	54
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Keeping excavations free of water

7	Allow for keeping the excavations free from water.		Item
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Filling, layerworks, etc.

8	Earth filling from the excavations and/or stockpiles in backfilling to trenches, column bases, etc., compacted to 95% Mod AASHTO dry density.	m3	9
9	Imported G7 filling, selected and supplied by the Contractor, including depositing in layers not exceeding 150mm thick and compacting to 95% modified AASHTO dry density to trenches, bases, etc.	m3	8

Carried to Collection

R

Section No. 2
Bill No. 13
EXTERNAL PLUMBING AND DRAINAGE

**HERTZOG PRIMARY SCHOOL
THE MVULA TRUST FLUSH MAINTENANCE PROGRAMME**

	<u>Compaction of surfaces</u>				
1	Scarify in-situ material to a depth of 150mm and compact to 95% Mod AASHTO density.	m2	14		
	<u>Tests</u>				
2	Allow for Mod AASHTO density tests on filling.	No	5.00		
	<u>Reinforced concrete 25MPa in:</u>				
3	Strip foundations cast against excavated surfaces.	m3	6		
4	Surface beds cast in panels including temporary formwork.	m3	2		
	<u>Sundries</u>				
5	Float surface of concrete to a wood float finish.	m2	18		
	<u>Rough formwork (use and waste) to concrete to:</u>				
6	Edge, riser, etc not exceeding 300mm high.	m	38		
	<u>High tensile welded steel mesh reinforcement :</u>				
7	Ref: 395 cast into concrete surfaces.	m2	17		
8	Ref: 395 cast into concrete strip footings.	m2	25		
	<u>Brickwork in stock bricks in 5:1 cement mortar :</u>				
9	One brick wall.	m2	18		
10	One brick wall in foundations. (Provisional)	m2	19		
	<u>Brickwork sundries :</u>				
11	Galvanised brick reinforcement 150mm wide built horizontally into brickwork.	m	108		
	<u>"Rustgold FBS / Qunu Travertine " or other equal approved FBX quality face bricks including jointing and square recess pointing 6 x 10mm joints</u>				
12	Extra over ordinary brickwork for facing and pointing in stretcher bond.	m2	18		
	Carried to Collection			R	
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THE MVULA TRUST FLUSH MAINTENANCE PROGRAMME

1	Extra over ordinary brickwork for facing and pointing in stretcher bond in foundations. (Provisional)	m2	6		
	<u>Face brick copings, lintols, cills, etc.</u>				
2	Extra over brickwork for brick-on-edge header course coping including pointing to both faces and top.	m	30		
	<u>Movement joints</u>				
3	10mm Thick bitumen impregnated softboard built vertically between concrete and concrete or brickwork surfaces.	m2	12		
4	Rake out 10mm wide softboard for a depth of 10mm and seal with an approved 2 part polysulphide sealant.	m	22		
	<u>Ties, cramps, etc.</u>				
5	38 x 1,6mm Galvanised hoop iron strap around tank, both ends fitted with once holed 30 x 30 x 3mm thick galvanised flat plate and bolted together with and including M8 bolt and nut.	No	5		
6	38 x 1,6mm Galvanised hoop iron tie down, 1200mm long, one end wrapped around tank strap and twice bolted, the other end folded over and bolted to top of concrete with and including 8 x 60mm masonry anchor.	No	20		
	<u>250 Micron "Gunplas USB" green polyethylene sheeting</u> :				
7	Laid flat under solid floor and over walls.	m2	18		
	<u>Rainwater tanks:</u>				
8	5000 Litre polyethylene rotomoulded vertical water storage tank provided complete with lid and overflow outlet , fitted with suitable adaptor and setting in position on concrete tankstand (elsewhere measured). (The tanks are to be filled with water for the Practical Completion inspection)	No	5		
9	Hole through top of tank lid for 100mm diameter pipe.	No	5		
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**THE FOLLOWING IN GROUND STORAGE
TANKS (ALL TRADES)**

EXCAVATIONS, FILLING, ETC.

Excavate in earth not exceeding 2m deep including trimming sides, levelling and ramming bottoms and deposit in spoil heaps for later re-use or cart away

1	Reduced levels under solid floors.	m3	11
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Excavations in earth of more difficult character

2	Extra over excavations in earth for excavation in soft rock.	m3	1
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Carting away of excavated material

3	Load surplus or unsuitable material from spoil heaps and cart away to a dumping site to be located by the Contractor.	m3	12
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Risk of collapse of excavations

4	Allow for risk of collapse to sides of excavations not exceeding 1.5m deep including all necessary timber shoring, etc.	m2	10
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Keeping excavations free of water

5	Allow for keeping the excavations free from water.		Item
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Foundation courses

6	Imported G7 filling, selected and supplied by the Contractor, including depositing in layers not exceeding 150mm thick and compacting to 95% modified AASHTO dry density under solid floors.	m3	4
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7	Imported G5 filling, selected and supplied by the Contractor, including depositing in layers not exceeding 150mm thick and compacting to 98% modified AASHTO dry density under solid floors.	m3	4
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Compaction of surfaces

8	Scarify in-situ material to a depth of 150mm and compact to 93% Mod AASHTO density.	m2	27
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Tests		
1	Allow for Mod AASHTO density tests on filling.	No 2.00
<u>CONCRETE (Labour intensive)</u>		
<u>Reinforced concrete 30MPa (19mm stone) in:</u>		
2	Rafter slabs cast against excavated surfaces.	m3 8
<u>Testing</u>		
3	Allow for preparing and curing a set of three test cubes, each size 150mm x 150mm x 150mm and pay all transport and testing costs undertaken by an approved independent laboratory. (Provisional)	Sets 2
<u>Surface treatment</u>		
4	Float surface of concrete to a wood float finish.	m2 27
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FORMWORK

Edges, risers, ends and reveals

1	Edge, riser, etc exceeding 300mm high.	m2	11
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Projections, grooves, etc.

2	Labour and material in forming 25 x 25mm chamfer to exposed top edge of concrete.	m	24
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REINFORCEMENT (PROVISIONAL)

High tensile welded steel mesh reinforcement :

3	Ref: 395 cast into concrete surfaces.	m2	27
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PLUMBING AND DRAINAGE

ALTERATIONS TO EXISTING

4	Locate, cut into and temporarily stop off 63mm diameter water pipe for insertion of reducing fitting (elsewhere).	No	2
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Pipes, pipe fittings, etc.

Class 12 uPVC water supply pipe with bedding and filling in accordance with SABS 1200

5	40mm Pipe.	m	90
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6	50mm Pipe.	m	12
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7	40mm Pipe and laying in ground not exceeding 1000mm deep.	m	10
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Extra over uPVC pipes for the following fittings

8	40mm Bend.	No	27
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9	50mm Bend.	No	5
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10	40mm Tee junction.	No	2
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11	63 x 40mm Straight reducer	No	2
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Taps, valves, etc.

1	40mm float valve kit fitted inside of tank.
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No

3

2	40mm In-line strainer.
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No

2

3	40mm Brass gate valve.
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No

3

4	40mm Brass non return valve.
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No

1

5 40mm Flanged resilient seal gate valve with cap top.

No

2

6	40mm Flanged pressure reducing valve.
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No

1

Switch

7	Float switch fitted inside of tank.
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No

2

Connections

Connection of new to existing pipes

8	Connection of 40mm diameter HDPE to 40mm diameter galvanised pipes including all necessary reducers, saddles, etc.
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No

2

9	Connection of 40mm diameter HDPE to 0.75kw water pump including all necessary reducers, saddles, etc.
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No

2

10	Connection of 63mm diameter HDPE to 40mm diameter galvanised pipes including all necessary reducers, saddles, etc.
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No

1

Rainwater tanks:

11	20 000 Litre polyethylene rotomoulded vertical water storage tank provided complete with lid and overflow outlet, fitted with suitable adaptor and setting in position on concrete tankstand (elsewhere measured). (The tanks are to be filled with water for the Practical Completion inspection)
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No

3

12	Hole through side of tank for 40mm diameter pipe including adaptor.
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No

6

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<u>Ties, cramps, etc.</u>				
1	38 x 1,6mm Galvanised hoop iron strap around tank, both ends fitted with once holed 30 x 30 x 3mm thick galvanised flat plate and bolted together with and including M10 bolt and nut.	No	3	
2	38 x 1,6mm Galvanised hoop iron tie down, 2500mm long, one end wrapped around tank strap and twice bolted, the other end folded over and bolted to top of concrete with and including 8 x 60mm masonry anchor.	No	12	
<u>Water supply valve or meter chambers</u>				
3	Excavate for and build valve chamber size 565 x 665 x 550mm deep overall formed of precast concrete valve chamber units 1, 2, 3 and 4 with valve box lid-V and 19mm thick layer of 19mm stone in bottom including filling in and ramming.	No	2	
<u>Pump and Pumphouse</u>				
4	Allow the Budgetary Allowance of R 15 000,00 (Fifteen Thousand Rand) for the installation of a 0.75kw water pump including housing, etc.		Item	15,000.00
<u>ELECTRICAL CONNECTION</u>				
<u>Elevated Tank Electrical Works</u>				
5	Allow the Budgetary Allowance of R 30 000,00 (Thirty Thousand Rand) for the electrical supply to the water pumps, float switches, ect.		Item	30,000.00
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3	MASONRY	52	
4	WATERPROOFING	53	
5	ROOF COVERING	54	
6	CARPENTRY AND JOINERY	58	
7	IRONMONGERY	61	
8	METALWORK	64	
9	PLASTERING	65	
10	PLUMBING AND DRAINAGE	71	
11	PAINTWORK	72	
12	EXTERNAL WORKS	85	
13	EXTERNAL PLUMBING AND DRAINAGE	98	
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1	SECTION NO.1 - PRELIMINARIES	41	
2	SECTION NO.2- NEW ABLUTION BLOCKS	99	
3	SECTION NO.3 - PROVISIONAL SUMS, BUDGETARY ALLOWANCES,ECT	100	
	Sub-Total		R
	<u>CONTINGENCY PROVISIONS</u>		
	Allow the Budgetary Provision of R 100 000.00 (One Hundred Thousand Rand) for construction contingencies of a general nature and for the finalisation of design detailing. This sum, or any portion thereof, shall be expended at the sole discretion of the Principal Agent. Any residual balance remaining subsequent to such expenditure shall be deducted in its entirety from the Contract Sum.	Item	100,000.00
	Sub - Total		R
	Add Value - Added Tax at the rate applicable as at Tender closing date.		R
	Sub - Total		R